

## REPORT TO LEGISLATURE

NR 600 and 815, Wis. Adm. Code  
Control of underground injection wells

Board Order No. DG-22-01  
Clearinghouse Rule No. 01-104

### Statement of Need

Federal regulations promulgated under Part C of the Safe Drinking Water Act of 1974 require that an underground injection control (UIC) program be developed in each state. The purpose of a UIC program is to protect underground sources of drinking water from contamination that may result from the use of injection wells. A state may establish its own UIC program; however, any state-managed program must be administered in a manner that is at least as stringent as the federal requirements for a UIC program.

Proposed revisions to ch. NR 600 allow the Department to approve the reinjection of hazardous wastes at clean-up sites and are comparable to what is currently allowed by federal law.

Proposed ch. NR 815 has been developed in response to new federal rules for Class V injection wells that went into effect on April 5, 2000. The new regulations expanded the definition of an injection well, prohibited the construction or use of a large-capacity cesspool, and prohibited the disposal of waste fluids from the repair or maintenance of motorized vehicles via an injection well.

The proposed ch. NR 815 utilizes definitions that are consistent with those used in the federal regulations and establishes an injection well classification scheme similar to that used in those states where U.S. EPA implements the UIC program. The proposed chapter provides references to existing requirements already found in other parts of the Wisconsin Administrative Code that apply to the use of injection wells in Wisconsin. The proposed chapter also adopts prohibitions and injection well reporting requirements that are consistent with those imposed under federal law.

### Modifications as a Result of Public Hearing

Section NR 815.03(1) has been amended to remove authorization by statutes from the definition of "approval".

Section NR 815.08(2)(b) has been amended to remove the words "concrete grout".

### Appearances at the Public Hearing and Their Position

October 17, 2001 – Madison

In support:

Gary Edelstein, DNR Bureau of Remediation & Redevelopment, P.O. Box 7921, Madison, WI 53707

In opposition:

Caryl Terrell, Sierra Club – John Muir Chapter, 222 S. Hamilton St., #1, Madison, WI 53703

As interest may appear:

Lawrie Kobza, Municipal Environmental Group, Boardman Law Firm, 1 S. Pinckney Street,  
Madison, WI 53703  
James P. Clark, 5675 Mary Lake Road West, Waunakee, WI 53597

October 18, 2001 – Oshkosh – there were no appearances

October 24, 2001 – Eau Claire

In support – none  
In opposition – none

As interest may appear:

LeRoy G. Jansky, Wis. Dept. of Commerce, 13 E. Spruce Street, Chippewa Falls, WI 54729

Response to Legislative Council Rules Clearinghouse Report

Comment 1. – Section 281.17(8), Stats., provides the DNR with discretionary authority to establish a program that is at least as stringent as the federal program. Federal UIC regulations and s. 283.55(2)(c), Stats., also contain confidentiality provisions. The draft rule has been amended to reflect this.

Comment 2. – Several different terms are listed and have the same meaning; however, these terms are used independently in other existing administrative rules so one term cannot be used consistently.

Comment 5. – The items identified were either amended as suggested or clarified by the insertion of a note into the appropriate section of the rule text. Several of the suggested changes to definitions were not made in order to retain consistency with the usage of those terms in existing sections of the Wisconsin Administrative Code or to be consistent with the definitions contained in federal regulations.

Final Regulatory Flexibility Analysis

The Department does not expect any negative impact on small businesses as a result of this action. It is believed that this action will save money for responsible parties, including small businesses, which conduct remediation of soil and groundwater.

Lots of additional  
power to DNR

Latest Draft. 2/12/22

**ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD  
RENUMBERING, AMENDING AND CREATING RULES**

The Wisconsin Natural Resources Board proposes an order to renumber NR 600.04(2) to (4); to amend NR 600.03(127), (244) and (263) and 600.04(1); and to create NR 600.03(218m), 600.04(2) and ch. NR 815 pertaining to the control of injection wells.

**DG-22-01**

Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 280.11(1), 281.11, 281.12(1), 281.17(8), 283.001(2), 291.07(1) and (2), 292.31(3), 293.13(1) and (2), 295.35 (2) and (3) and 227.11(2)(a), Stats.

Statutes interpreted: ss. 281.17(8) and 283.001(2), Stats.

Federal regulations promulgated under the authority of Part C of the Safe Drinking Water Act (SDWA) of 1974 [Public Law 93-523, 42 U.S.C. 300h *et seq.*] require that an Underground Injection Control (UIC) program be established for each state. Should a state decline to develop its own UIC program, the United States Environmental Protection Agency (EPA) is instructed to directly implement the federal UIC program requirements enumerated in 40 CFR Parts 144 and 146. Any administrative rules enacted as part of a state-administered UIC program must contain provisions that are at least as stringent as the provisions that would be enforced through an EPA-implemented UIC program. A state may also adopt more stringent regulations should it choose to do so.

This action clarifies existing Department of Natural Resources (DNR) policies regarding the underground placement of fluids and other substances by means of injection wells. The rules being promulgated use terms and definitions and identify regulatory requirements that are consistent with those currently found in the Code of Federal Regulations (CFR). Prohibited activities are specified. Requirements for allowed activities are referenced.

Chapter NR 600 is being amended to allow the reinjection of groundwater containing a hazardous waste at clean-up sites when such injection is conducted as part of a Department-approved remedial activity.

In creating Chapter NR 815, the Department is primarily identifying and restating various injection-related requirements that have been previously adopted by the DNR or other designated state agencies and which are currently enforced through regulatory programs administered by these agencies. The creation of this chapter will make it easier for a person that seeks to use an injection well to determine whether a proposed activity is prohibited or requires the approval of a regulatory authority. Creation of Chapter NR 815 will also enable the DNR to continue to demonstrate that a comprehensive, state-directed UIC program has been established for the State of Wisconsin.

SECTION 1. NR 600.03(127) is amended to read:

NR 600.03(127) "Land treatment" means the application of waste onto the soil surface or into the soil surface through incorporation. This term does not include the placement of waste in a landfill cell. This term does not include the underground injection of waste through a subsurface fluid distribution system or a well.

SECTION 2. NR 600.03(218m) is created to read:

NR 600.03(218m) "Subsurface fluid distribution system" means an assemblage of perforated pipes or drain tiles, or any similar conveyance, intended to place or distribute a fluid underground.

SECTION 3. NR 600.03(244) and (263) are amended to read:

**NR 600.03(244)** "Underground injection" or "well injection" means the subsurface emplacement of fluids through a bored, drilled or driven well, or through a dug well, where the depth of the dug well is greater than the largest surface dimension placement of a fluid or any substance underground through a well.

Note: See also the definition of "injection" in this section.

**(263)** "Well" means a bored, drilled or driven shaft, or a dug hole where the depth of the dug hole is greater than the largest surface dimension, and which is terminated above, within or below an aquifer any of the following:

- (a) A bored, drilled or driven shaft.
- (b) A dug hole whose depth is greater than its largest surface dimension.
- (c) An improved sinkhole.
- (d) A subsurface fluid distribution system.

SECTION 4. Section NR 600.04(1) is amended to read:

**NR 600.04(1)** Underground Except as provided in sub. (2), underground injection of any hazardous waste through a well is prohibited.

Note: Section NR 812.05 prohibits the use of any well for the disposal of solid wastes, sewage, surface water or wastewater, except for certain listed activities, including remediation.

SECTION 5. NR 600.04(2) to (4) are renumbered NR 600.04(3) to (5).

SECTION 6. NR 600.04(2) is created to read:

**NR 600.04(2)** Underground injection of contaminated groundwater, that meets the definition of a hazardous waste or contains a hazardous waste, may be allowed as part of a remedial action necessary for the cleanup of soil or groundwater contamination, and is not subject to the requirements of chs. NR 630, 660, 675, 680 and 685, provided all of the following requirements are met:

- (a) The person who proposes to perform the injection obtains written approval from the department.
- (b) The criteria in s. NR 140.28(5) are met.
- (c) The contaminated groundwater is treated before it is injected.
- (d) The groundwater is injected into the same formation from which it was withdrawn.

Note: Injection for remediation purposes requires a written approval from the department in order to meet the requirements of ss. NR 140.28(5), 812.05 and 815.06(4). Injection as allowed under this section requires that a written exemption be granted under s. NR 140.28(5).

SECTION 7. Chapter NR 815 is created to read:

## **CHAPTER NR 815 INJECTION WELLS**

**SUBCHAPTER I  
GENERAL**

**NR 815.01 Purpose.** The purpose of this chapter is to establish uniform minimum standards and methods in conformity with s. 281.18(8), Stats., for the following:

- (1) Construction or use of a well for the purpose of placing a fluid underground. *\* Substance removed*
- (2) Protection of underground sources of drinking water, aquifers and groundwater from contamination that may occur as a result of the use of an injection well.

**NR 815.02 Applicability.** The provisions of this chapter apply to new and existing injection wells as follows:

(1) **SPECIFIC INCLUSIONS.** Injection wells that are governed by this chapter include, but are not limited to:

- (a) Any injection well on a drilling platform that is located within the jurisdictional boundaries of the state.
- (b) Except as provided in sub. (2), any well that is constructed or used to place a fluid underground.
- (c) Any well used by a generator of hazardous waste, or by the owner or operator of a hazardous waste management facility, to dispose of a fluid containing hazardous waste. This includes the disposal of hazardous waste into a waste disposal system that would otherwise be a septic system or cesspool regardless of the capacity of the waste disposal system.
- (d) Any septic system, cesspool or other well that is used by a multiple-family dwelling, multiple dwellings, community system or regional system to place a fluid underground.

(2) **SPECIFIC EXCLUSIONS.** The following are not governed by this chapter:

(a) Any injection well on a drilling platform or other site that is located in its entirety beyond the jurisdictional boundaries of the state.

(b) Any private onsite wastewater treatment system approved according to the provisions of ch. Comm 83 that is used to dispose of sanitary waste from an individual single-family dwelling.

(c) Any well that is not used to place a fluid underground.

**NR 815.03 Definitions.** In this chapter:

(1) "Approval" means any of the following: authorization by administrative rule, written letter of authorization or issuance of a permit.

(2) "Aquifer" means a geological layer consisting of unconsolidated material, usually sand or gravel or both, or bedrock lying below the ground surface that is entirely or partially saturated with water and permeable enough to allow water to be extracted, as from a well.

(3) "Backfill" means a substance containing, but not limited to, any of the following: sand, gravel, cement, mill tailings, mill refuse, fly ash or other solids used as part of the mining process or for the purpose of closing a mine shaft or reclaiming an area subjected to mining activities.

(4) "Bedrock" means any naturally formed consolidated or coherent material of the earth's crust, composed of one or more minerals, rock fragments or organic material that underlies any soil or other unconsolidated surficial material or is exposed at the surface. Bedrock includes, but is not limited to limestone, dolomite, sandstone, shale

*single family  
exempted  
from rule*

*what about  
condos, trailer*

*(\* Pt. of injection a factor.) Parks?*

and igneous and metamorphic crystalline rock, including granite, rhyolite, quartzite, gabbro, basalt, gneiss, schist, diorite and greenstone.

(5) "Borehole" means a circular hole that is deeper than it is wide, constructed in earth material for the purpose of either installing a well or obtaining geologic or groundwater related data.

Note: The department recognizes a borehole to be a type of a drillhole.

(6) "By-product solids" means waste materials from the animal product or food processing industry including, but not limited to remains of butchered animals, paunch manure and vegetable waste materials such as leaves, cuttings, peelings and actively fermenting sweet corn silage.

(7) "Cesspool" means a drywell that solely receives untreated sanitary waste and which sometimes has an open bottom or perforated sides or both.

Note: As used in this chapter, the term includes those excavations that are defined as cesspools in s. Comm 81.01(53).

(8) "Closure" means ceasing the discharge of a fluid to a well.

(9) "Conversion" means a change in the operation of an injection well that results in a change in the existing classification of the injection well or results in a change in the injection well's type designation within a specific class of injection wells.

(10) "Department" means the department of natural resources.

(11) "Discharge" has the meaning given in s. 292.01(3), Stats.

Note: "Discharge" in s. 292.01(3), Stats., means, but is not limited to, any of the following: spilling, leaking, pumping, pouring, placing, emitting, emptying or dumping.

(12) "Domestic wastewater" means the wastewater normally discharged from plumbing facilities in private dwellings or commercial domestic establishments and includes, but is not limited to sanitary, bath, laundry, dishwashing, garbage disposal and cleaning wastes.

Note: A commercial domestic establishment is a business providing lodging facilities such as, but not limited to, a motel, hotel, boarding house or assisted-living center.

(13) "Drillhole" means an excavation, opening or driven point well deeper than it is wide that extends more than 10 feet below the ground surface.

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

(15) "Dwelling" means a structure, or that part of a structure, which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.

(16) "Endangerment" means the movement of a fluid containing any substance into an underground source of drinking water, if the presence of the substance may cause a violation of a primary drinking water maximum contaminant level established in 40 CFR part 142 or otherwise adversely affect the health of persons.

Note: Exceedance of an enforcement standard established in ch. NR 140 is comparable to endangerment as defined above if the exceedance of the enforcement standard occurs at the point of injection.

(17) "Existing injection well" means any injection well constructed or in use prior to the effective date of this rule ... [revisor insert date].

*First  
Measure  
Issue*

(18) "Fluid" means any material that flows or moves whether a semisolid, liquid, sludge, gas or any other form or state.

(19) "Formation" means a body of consolidated or unconsolidated geologic materials characterized by a degree of lithologic homogeneity that is prevailing, but not necessarily, tabular and may be mapped on the earth's surface or traced in the subsurface.

(20) "Generator" means the person responsible for an act or process that produces hazardous waste.

(21) "Groundwater" has the meaning given in s. 160.01(4), Stats.

Note: "Groundwater" in s. 160.01(4), Stats., means any of the waters of the state, as defined in s. 281.01(18), Stats., occurring in a saturated subsurface geological formation of rock or soil.

(22) "Hazardous waste" has the meaning given in s. 291.01(7), Stats.

Note: "Hazardous waste" in s. 291.01(7), Stats., means any solid waste identified by the department as hazardous waste under s. 291.05(1), (2) or (4), Stats.

(23) "Hazardous waste facility" has the meaning given in s. 291.01(8), Stats.

Note: "Hazardous waste facility" in s. 291.01(8), Stats., means a site or structure for the treatment, storage or disposal of hazardous waste and includes all of the contiguous property under common ownership or control surrounding the site or structure.

(24) "Improved sinkhole" means a naturally occurring karst depression or opening, or any other natural crevice found in volcanic terrain or other geologic settings, that has been modified by a person for the purpose of dispersing or otherwise discharging fluids into the subsurface.

(25) "Injection well" means a well that is used to place a fluid underground.

(26) "Injection zone" means a geological formation, a portion of a formation or a group of formations that is intersected by a well and that receives or may receive a fluid from an injection well.

(27) "Land disposal system" means a facility for disposing of liquid wastes consisting of any of the following:

- (a) An absorption or seepage pond system.
- (b) A ridge and furrow system.
- (c) A spray irrigation system.
- (d) A subsurface soil absorption system or mound system.
- (e) An overland flow system.
- (f) Any other land area receiving liquid waste discharges.

(28) "Land treatment" means the discharge of a fluid by means of a system that utilizes the physical, chemical and biological abilities of the soil to decompose any pollutant contained in the fluid. Land treatment systems include:

- (a) Absorption or seepage pond systems.
- (b) Ridge and furrow systems.
- (c) Spray irrigation systems.

- (d) Overland flow systems.
- (e) Subsurface absorption field systems.
- (f) Landspreading systems for liquid wastes or organic by-product solids.
- (g) Sludge spreading systems.
- (h) Any other land area receiving liquid wastes, by-product solids or sludge discharges.

(29) "Large-capacity cesspool" means any cesspool that is designed to receive untreated sanitary waste from 20 or more people per day.

(30) "Liquid waste" means process wastewater and waste liquid products including, but not limited to silage leachate, whey, whey permeate, whey filtrate, contact cooling water, cooling or boiler water containing water treatment additives, and wash water generated in industrial, commercial and agricultural operations that result in a point source discharge to a land treatment system.

Note: As used in this chapter, "liquid waste" does not include the following: alcohol fuel production wastes from systems defined as private alcohol fuel production systems under s. 289.44(1)(c), Stats., that are operated in accordance with s. 283.61(2), Stats., animal waste regulated under ch. NR 243 or liquid manure applied in accordance with sound agricultural practices, domestic sewage from systems defined as private sewage systems in s. 145.01(12), Stats., effluent from publicly owned or privately owned wastewater treatment works regulated under ch. NR 206, or mining wastes backfilled or otherwise disposed of in a prospecting excavation or a mine in accordance with a prospecting permit or a mining permit issued under ch. NR 131 or 132, except runoff, leachate, decantate or other wastewater collected for disposal on land outside of the permitted prospecting or mining site.

(31) "Municipal wastewater" means effluent from a publicly owned wastewater treatment works or a privately owned domestic wastewater treatment works.

(32) "New injection well" means a well that is constructed or first used for underground injection on or after the effective date of this rule ... [revisor insert date].

(33) "Operator" means the person responsible for the supervision, management or operation of any facility or activity subject to regulation through the underground injection control program.

(34) "Owner" means the person holding title to the property upon which an injection well is located.

(35) "Permit" means an authorization, license or equivalent control document issued by the state through a regulatory agency that has been delegated responsibility for managing any activity that would be subject to regulation as an injection well through the federal underground injection control program.

Note: A permit may be issued as an individual, group, area or emergency permit; however, a permit does not include authorization by rule or any draft permit that has not yet been the subject of final action by the regulatory agency.

(36) "Person" has the meaning given in s. 990.01(26), Stats.

Note: "Person" in s. 990.01(26), Stats., is to be construed according to common and approved usage and by definition includes all partnerships, associations and bodies politic or corporate.

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

(38) "Point of injection" means the last accessible point, as determined by the department or other designated regulatory agency, where a sample of a substance may be collected prior to placement of the substance underground through an injection well.

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Note: The point of injection for a subsurface fluid distribution system may be a septic tank or distribution box located prior to the drainfield. The point of injection for a drywell or well may be at or just prior to the wellbore itself.

**(39) "Pollutant" has the meaning given in s. 283.01(13), Stats.**

Note: "Pollutant" in s. 283.01(13), Stats., means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

**(40) "Private onsite wastewater treatment system" has the meaning given for private sewage system in s. 145.01(12), Stats.**

Note: "Private sewage system" in s. 145.01(12), Stats., means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the department of commerce including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private sewage system may be owned by the property owner or by a special purpose district.

**(41) "Privately owned domestic wastewater treatment work" means facilities which treat domestic wastewater, permitted under ch. 283, Stats., and owned and operated by non-municipal entities or enterprises such as, but not limited to, mobile home parks, restaurants, hotels, motels and country clubs.**

**(42) "Project" means a group of wells under the control of a single person and managed as a single facility or activity.**

**(43) "Publicly owned treatment work" has the meaning specified under s. NR 211.03(11).**

Note: Section NR 211.03(11) defines "publicly owned treatment work" as a treatment works which is owned by a municipality and any sewers that convey wastewater to such a treatment works. This definition includes any devices or systems used by a municipality in the storage, treatment, recycling and reclamation of municipal sewage or liquid industrial wastes. The term also means the municipality or local unit of government which has jurisdiction over the indirect discharges to, and the discharges from, such a treatment works.

**(44) "Radioactive waste" means any waste that contains radioactive material in concentrations that exceed those listed in 10 CFR part 20, appendix B, table II, column 2.**

**(45) "RCRA" means the solid waste disposal act as amended by the resource conservation and recovery act of 1976, Pub. L. 94-580, as amended by Pub. L. 95-609, Pub. L. 96-510, 42 U.S.C. 6901 *et seq.***

**(46) "Regulatory agency" has the meaning given in s. 160.01(7), Stats.**

Note: "Regulatory agency" in s. 160.01(7), Stats., means the Department of Agriculture, Trade and Consumer Protection, the Department of Commerce, the Department of Transportation, the Department of Natural Resources and other state agencies which regulate activities, facilities or practices which are related to substances which have been detected in or have a reasonable probability of entering the groundwater resources of the state.

**(47) "Safe drinking water act" or "SDWA" means the safe drinking water act, Pub. L. 93-523, as amended; 42 U.S.C. 300f *et seq.***

**(48) "Sanitary waste" means sewage containing wastes primarily from humans and housekeeping activities, such wastes include those collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for domestic food preparation, domestic clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses and utensils are cleaned.**

Note: Sanitary waste may be generated at residential, commercial, industrial or recreational facilities provided that the waste is not mixed with the waste from an industrial process. Sanitary waste may also include clearwater, filter backwash or effluent from water treatment devices or similar discharges from other household appliances as approved by the Department of Commerce.

**(49) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements that leads to compliance with a specified statute or administrative rule.**

(50) "Septic system" means a sewage treatment and disposal system consisting of a septic tank and a soil absorption field that is used to disperse or otherwise discharge sanitary waste underground.

Note: A septic system may also be a private onsite wastewater treatment system or a private sewage system as defined in s. 145.01(12), Stats.

(51) "Sewage" means the water-carried wastes created in and to be conducted away from residences, industrial establishments and public buildings as defined in s. 101.01(12), Stats., with any surface water or groundwater as may be present in the water-carried wastes.

(52) "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.

(53) "Sludge" means the accumulated solids generated during the biological, physical or chemical treatment of potable water or wastewater.

(54) "State" means the state of Wisconsin.

(55) "State director" means the chief administrative officer of the state regulatory agency operating an approved underground injection control program, a delegated representative of the chief administrative officer, or both.

Note: If responsibility for administering portions of the underground injection control program is divided among 2 or more state regulatory agencies, state director means the chief administrative officer, or a delegated representative of the chief administrative officer, of the state regulatory agency authorized to perform the procedure or function to which reference is made.

(56) "Stratum" means a single stratigraphic bed or layer, regardless of thickness, that consists throughout its thickness of approximately the same kind of geologic material.

(57) "Substance" has the meaning given in s. 160.01(8), Stats.

Note: "Substance" in s. 160.01(8), Stats., means any solid, liquid, semisolid, dissolved solid or gaseous material, naturally occurring or man-made chemical, parameter for measurement of water quality or biological organism which, in its original form, or as a metabolite or a degradation or waste product, may decrease the quality of groundwater.

(58) "Subsurface fluid distribution system" means an assemblage of perforated pipes or drain tiles, or any similar conveyance, intended to disperse or otherwise discharge a fluid underground.

(59) "UIC program" or "underground injection control program" means the federal underground injection control program authorized by part C of the safe drinking water act or an approved state underground injection control program.

(60) "Underground injection" means well injection.

(61) "Underground source of drinking water" means any aquifer or groundwater, or portion of any aquifer or groundwater, located within the jurisdictional boundaries of the state.

(62) "Wastewater" means all sewage.

(63) "Well" means any of the following:

(a) A bored, drilled or driven shaft.

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

(c) An improved sinkhole.

- (d) A subsurface fluid distribution system.

Note: For the purposes of this chapter, a nonperforated underground piping system such as a sanitary sewer, storm sewer, conductor, telecommunications conduit, petroleum or natural gas pipeline or other similar conveyance is not considered to be a well.

- (64) "Well injection" means the placement of a fluid underground through a well.

## SUBCHAPTER II INJECTION WELL CLASSES AND UNDERGROUND SOURCES OF DRINKING WATER

**NR 815.04 Classification of injection wells.** Injection wells are classified as follows:

- (1) **CLASS I INJECTION WELL.** A class I well is any of the following:

- (a) A well used for underground injection of a fluid classified as a hazardous waste or a fluid containing any substance classified as a hazardous waste below the lowermost formation containing an underground source of drinking water.

- (b) A well used for underground injection of a fluid containing an industrial or municipal waste below the lowermost formation containing an underground source of drinking water.

- (c) A well used for underground injection of a fluid containing a radioactive waste below the lowermost formation containing an underground source of drinking water.

- (2) **CLASS II INJECTION WELL.** A class II well is any of the following:

- (a) A well used for underground injection of a fluid that was brought to the surface in connection with activities that are related to the conventional production of oil or natural gas, or the underground storage of natural gas, that may be commingled with wastewater that is produced during production operations, except for any wastewater that is classified as a hazardous waste at the time of injection.

- (b) A well used for enhanced recovery of oil or natural gas.

- (c) A well used for storage of hydrocarbons that are liquid at standard temperature and pressure.

- (3) **CLASS III INJECTION WELL.** A class III well is a well used for solution mining of minerals including, but is not limited to:

- (a) A well used to mine sulfur by the Frasch process.

- (b) A well used for in-situ production of uranium or other metals from ore bodies that have not been conventionally mined.

Note: A well used for solution mining of conventional mines, such as stopes leaching, is classified as a class V injection well.

- (c) A well used for solution mining of salts or potash.

- (4) **CLASS IV INJECTION WELL.** A class IV well is any of the following:

- (a) A well used for underground injection of a hazardous waste or radioactive waste or a fluid containing a hazardous waste or radioactive waste into a formation that contains an underground source of drinking water.

- (b) A well used for underground injection of hazardous waste or radioactive waste or a fluid containing a hazardous waste or radioactive waste above a formation which contains an underground source of drinking water.

(5) CLASS V INJECTION WELL. Any well used for underground injection that is not classifiable as a class I, II, III or IV injection well.

**NR 815.05 Underground source of drinking water.** (1) Any aquifer or groundwater, or portion of any aquifer or groundwater, located within the jurisdictional boundaries of the state is an underground source of drinking water.

(2) No regulatory agency may exempt any aquifer or groundwater, or portion of an aquifer or groundwater, located within the jurisdictional boundaries of the state from designation as an underground source of drinking water.

### **SUBCHAPTER III REGULATED ACTIVITIES**

**NR 815.06 Prohibitions.** The following activities are prohibited:

(1) Construction of a class I injection well or use of a well as a class I injection well.

Note: Use of a well to place a hazardous waste underground is prohibited as specified in s. NR 600.04. Use of a well to place municipal or domestic wastewater underground is prohibited as specified in s. NR 206.07(2)(d). Use of a well to place a pollutant underground is prohibited as specified in s. NR 214.04(3).

(2) Construction of a class II injection well or use of a well as a class II injection well.

(3) Construction of a class III injection well or use of a well as a class III injection well.

(4) Construction of a class IV injection well or use of a well as a class IV injection well, unless the well is to be used to reinject treated contaminated groundwater back into the formation from which the groundwater was drawn and is approved by the department as part of a remedial action necessary for the cleanup of soil or groundwater contamination as specified in s. NR 600.04(2).

Note: Injection for remediation purposes requires a written approval from the department in order to meet the requirements of ss. NR 140.28(5) and 812.05. Injection requires a written exemption be granted under s. NR 140.28(5). Injection of groundwater that meets the definition of hazardous waste or contains a hazardous waste for remediation purposes requires a written approval under s. NR 600.04(2).

(5) Construction of a class V injection well or use of a well as a class V injection well without the approval of the department, or other designated regulatory agency as specified in subch. IV, unless the construction or use of the class V injection well is specifically allowed by administrative rule.

Note: Use of any unauthorized injection well is prohibited under federal law, as specified in 40 CFR 144.11.

(6) Operation, maintenance, conversion, plugging, closure or any other alteration of an injection well in a manner that results in an exceedance of the groundwater standards in ch. NR 140 or results in the endangerment of an underground source of drinking water.

Note: Endangerment of an underground source of drinking water is prohibited under federal law, as specified in 40 CFR 144.12.

(7) Construction or use of a large-capacity cesspool.

Note: Use of a large-capacity cesspool is prohibited under federal law, as specified in 40 CFR 144.85. Use of any cesspool is prohibited as specified in ch. Comm 83.

(8) Construction or use of a new injection well to disperse or otherwise discharge a fluid containing a waste from motorized vehicle repair or maintenance activities underground.

Note: Construction or use of an injection well to dispose of fluids containing wastes from motorized vehicle repair or maintenance activities was prohibited as of April 5, 2000, as specified in 40 CFR 144.85. Any subsurface fluid distribution system constructed prior to this date which continues to be used to dispose of wastes from motorized vehicle repair or maintenance activities must comply with the land treatment

provisions of s. NR 214.16 or it is prohibited. The discharge of waste fluids from motorized vehicle repair or maintenance activities to any other well is prohibited.

(9) Construction or use of an improved sinkhole to place drainage water, wastewater or any other fluid containing a pollutant or substance underground.

**NR 815.07 Approval of injection wells.** (1) A regulatory agency may not approve the construction or use of a class I, II or III injection well.

(2) Subject to the limitation contained in sub. (4), the department may only approve the construction or use of a class IV injection well, if the well is to be used to reinject treated contaminated groundwater back into the formation from which the groundwater was withdrawn and is approved by the department as part of a remedial action necessary for the cleanup of soil or groundwater contamination.

(3) Subject to the limitation contained in sub. (4), a regulatory agency may approve a class V injection well as specified in subch. IV.

*Pr. of measure*  
(4) A regulatory agency may not approve the construction or use of any injection well that would violate the provisions of ch. 160, Stats., result in the endangerment of an underground source of drinking water or otherwise fail to comply with the other applicable requirements of this chapter.

Note: Section 160.19(4), Stats., prohibits a state regulatory agency from promulgating a rule defining design and management practice criteria that permits a preventive action limit to be attained or exceeded in groundwater except as allowed under s. 160.19(2), Stats. A state regulatory agency may not promulgate a rule defining design and management practice criteria that permits an enforcement standard to be attained or exceeded at the point of standards application.

Note: An exceedance of a maximum contaminant level established for a substance in drinking water at the point of injection is considered to endanger an underground source of drinking water and is comparable to the exceedance of an enforcement standard established in ch. NR 140.

(5) Failure to comply with any condition of an injection well approval voids the approval.

**NR 815.08 Reporting of injection wells.** (1) Except as specified in sub. (2), by no later than 30 days after becoming the owner or operator, the owner or operator of an injection well shall provide the following inventory information to the department:

- (a) Injection well facility name and location.
- (b) Name and address of the injection well owner or operator.
- (c) Type of ownership such as, but not limited to, private, federal, state, local government or tribal.
- (d) Well class and type of injection well.

Note: Federal regulations designate subsets, or "types", of injection wells within the 5 injection well classes. "Type," as it is used in this section, refers to those subsets identified in the federal Underground Injection Control program regulations.

(e) Number and operating status of injection wells on a property or in a project.

(2) The following activities are exempt from the reporting requirements of this section:

(a) Use of department approved products for drilling, rehabilitation or abandonment of any water supply well, groundwater monitoring well, or any other department approved borehole or drillhole.

(b) Use of bentonite grout, cement grout, cement, concrete or other similar department approved materials containing additives, for the purposes of soil or excavation site stabilization, tunnel support, underpinning or foundation strengthening, groundwater control or diversion or for limiting structural settlement.

*Retains old laws relating to buildings*

(c) Construction of a structure such as, but not limited to, a building foundation, support footing, elevator shaft, lift station, utility conduit, cathodic protection device, sump, equipment vault, sanitary sewer, storm sewer or mine shaft.

(d) Horticultural or agricultural practices, other than those activities that involve the use of an injection well for the disposal of drainage water or other fluids containing a pollutant underground.

(3) Information required under sub. (1) shall be reported in a format acceptable to the department. The owner or operator of an existing injection well shall submit the required information to the department's bureau of drinking water and groundwater within one year of the effective date of this chapter ... [revisor inserts date]. The owner or operator of a new injection well shall submit the required information to the department's bureau of drinking water and groundwater prior to operation of the injection well.

Note: Form 3300-253, Inventory of Injection Wells, is available for use in submitting the information required in this section. Copies of Form 3300-253 may be obtained by contacting the Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater, Post Office Box 7921, Madison, Wisconsin, 53707-7921.

(4) The department may also require the owner or operator of an injection well to submit additional information including, but not limited to:

- (a) Location of a well or project by township, range, section and quarter-section.
- (b) Location of a well by coordinates of latitude and longitude to the standard of accuracy established by the department for geographic information system records.
- (c) Date of construction of a well or project.
- (d) Total depth of a well.
- (e) Identification of the geologic formation into which a well is injecting.
- (f) A narrative that describes the construction features of the well.
- (g) A schematic drawing that describes the construction features of the well.
- (h) A map or plan drawing that shows the location of a well in relation to other structures or adjacent property boundaries.
- (i) A description of the nature or quality of the fluid being injected.
- (j) The average and maximum injection pressure at the wellhead.
- (k) The average and maximum rate of injection.
- (L) The date of the last well inspection or any maintenance activities.

(5) If the owner or operator of an injection well fails to submit any of the information that is required or requested under subs. (1) and (4) and the well has not been approved by the department or other regulatory agency as specified in subch. IV, the department may order the owner or operator of the unauthorized well to cease injection until the time that the required or requested information is received by the department and an approval for the well is obtained from the regulatory agency having jurisdiction.

*MAJOR*  
**NR 815.09 Operation of injection wells.** No injection well may be operated in a manner that fails to comply with ch. 160, Stats., or results in endangerment of an underground source of drinking water.

*"ENDANGERMENT"*  
Note: Section 160.19(4), Stats., specifies that if a state regulatory agency promulgates a rule that is designed to maintain compliance with a preventive action limit and if a preventive action limit is attained or exceeded at a point of standards application, the agency shall review

its rule and, if necessary, revise the rule to maintain compliance with the preventive action limit. If an enforcement standard is attained or exceeded at a point of standards application, the agency shall review its rule and, if necessary, revise the rule to ensure that the enforcement standard is not attained or exceeded at a point of standards application or other locations in the future.

Note: An exceedance of a maximum contaminant level established for a substance in drinking water at the point of injection is considered to be endangerment of an underground source of drinking water and is comparable to the exceedance of an enforcement standard established in ch. NR 140.

**NR 815.10 Closure of injection wells.** (1) All large-capacity cesspools shall be closed by no later than April 5, 2005 in a manner that is approved by the regulatory agency having jurisdiction.

(2) All existing wells that have been used for the disposal of a fluid containing a waste from motorized vehicle repair or maintenance activities shall be converted or closed by no later than January 1, 2005 in a manner that is approved by the department.

Note: With the approval of the United States environmental protection agency, the department may extend the deadline for conversion or closure of a well that has been used to dispose of a fluid containing a waste from motorized vehicle repair or maintenance activities to January 1, 2006.

#### **SUBCHAPTER IV ADDITIONAL REQUIREMENTS BY WELL CLASS**

**NR 815.11 Class V well injection.** Class V well injection is subject to the following:

*Still in rule why?*

(1) Construction or use of a well, other than a subsurface fluid distribution system, for underground injection of any waste, surface water, subsurface water or substance underground is prohibited except as specified in ss. NR 811.11(7) and 812.05.

Note: Section NR 811.11(7) prohibits the use of any well, drillhole or water system for the underground placement of any substance unless it is a department approved activity necessary for the construction, rehabilitation or routine operation of a well or water system. This section applies only to wells and water systems governed under ch. NR 811.

Note: Section NR 812.05 applies to wells, drillholes and water systems other than those subject to s. NR 811.11(7). Section NR 812.05(2) prohibits the use of any well, drillhole or water system for the placement of any waste, surface or subsurface water or any substance underground unless any of the following apply: (a) the placement is a department-approved activity necessary for any of the following: construction, rehabilitation or operation of a well, drillhole or water system, construction of an approved cathodic protection drillhole, remediation of contaminated soil, groundwater or an aquifer, or the study of groundwater conditions, (b) placement of grouting, sealing or well abandonment materials, and (c) placement of approved materials for purposes such as, but not limited to, soil or excavation site stabilization, foundation construction or strengthening, or groundwater diversion. Section NR 812.05(5) contains a list of activities that are not prohibited by this section.

(2) Construction or use of a subsurface fluid distribution system that is defined as a private sewage system in s. 145.01(12), Stats., and used for the dispersal of domestic or municipal wastewater is subject to the provisions of ch. Comm 83. Except as exempted in s. NR 200.03(3), any person discharging domestic or municipal wastewater to a disposal system defined as a private sewage system is also required to apply for a discharge permit issued by the department as specified in s. NR 200.03(1).

Note: Private sewage system, as defined in s. 145.01(12), Stats., means a sewage treatment system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the Department of Commerce including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private sewage system may be owned by the property owner or by a special purpose district.

Note: Section NR 200.03(3)(d) exempts certain smaller capacity domestic wastewater disposal systems from the permit requirement contained in s. NR 200.03(1). Methods for calculating the design capacity of a domestic wastewater disposal system that is eligible for an exemption from the permit requirement are specified in s. NR 200.03(4).

(3) Discharge of liquid wastewaters from a publicly owned treatment works or privately owned domestic wastewater treatment works to a subsurface fluid distribution system or other land disposal system is subject to the provisions of ch. NR 206 as specified in s. NR 206.02.

(4) Construction or use of a subsurface fluid distribution system for land treatment of industrial liquid wastes, by-product solids or sludges is subject to the provisions of ch. NR 214.

(5) Construction or use of a well to dispose of storm water runoff directly into groundwater is prohibited. Construction or use of a subsurface fluid distribution system for dispersal of storm water runoff into unsaturated material overlying the uppermost underground source of drinking water shall be done in a manner that complies with the groundwater standards in ch. NR 140, complies with the requirements of ch. Comm 82 and does not result in the endangerment of an underground source of drinking water.

Note: Use of a subsurface fluid distribution system for disposal of storm water runoff may also require a permit as specified in ch. NR 216.

(6) Construction or use of a well to place backfill into an underground mine shall be done in accordance with the provisions of ch. NR 132 and shall comply with the requirements of s. NR 132.07(4)(e).

### **SUBCHAPTER V ENFORCEMENT**

**NR 815.12** **Visitorial powers of the department.** (1) Any duly authorized officer, employee or representative of the department shall have the right to enter upon or through any premises in which a well governed by this chapter is located or in which any records required by this chapter are kept. Any duly authorized officer, employee or representative of the department may at reasonable times have access to and copy any records, inspect any equipment or method required by this chapter and collect samples of any fluid or substance being placed into a well for the purpose of obtaining information related to the administration of the requirements of this chapter.

(2) No person may refuse entry or access to any authorized representative of the department who presents department credentials and requests entry under this section, ~~nor shall any person obstruct, hamper or interfere with any entry or inspection.~~

**NR 815.13** **Records.** (1) As specified in s. 281.97, Stats., the owner or operator of an injection shall keep records required by the department well and the department supplied with certified copies and other information as the department may require.

(2) Except as provided under sub. (4), any record, report or other information submitted to or obtained by the department in the administration of this chapter shall be a public record.

(3) The department shall make available and provide facilities for the public to inspect and copy any public record maintained by the department in the administration of the requirements of this chapter.

(4) As specified in s. 283.55(2), Stats., records or other information, except effluent data, provided to the department may be treated as confidential upon a showing to the department's secretary that said records or information is entitled to protection as a trade secret as defined in s. 134.90(1)(c), Stats.

(5) Records, reports and other information for which the department has granted confidential status may be:

(a) Used by the department in compiling or publishing analyses or summaries relating to the general condition of the environment if the analyses or summaries do not identify a specific person or responsible party and the analyses or summaries do not reveal records or other information granted confidential status.

(b) Released by the department to the U.S. environmental protection agency or its authorized representative, if the U.S. environmental protection agency or its authorized representative agrees to protect the confidentiality of the records, reports or other information.

(c) Released for general distribution if the party who provided the information to the department expressly agrees to the release of the information.

*How is beyond what is allowed now?*

*Def. in statutes?  
This puts burden on private property owner who on Dept  
Reason to Believe?  
Available cause?*



(d) Released on a limited basis if the department is directed to take action by a judge or administrative law judge under an order that protects the confidentiality of the record, report or other information.

**NR 815.14 Penalties.** The owner or operator of any injection well that is found in violation of a provision of this chapter is subject to the penalties specified in s. 281.98, Stats.

Note: Any person who violates ch. 281, Stats., or any rule promulgated or any plan approval, license or special order issued under this chapter shall forfeit not less than \$10 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense. While an order is suspended, stayed or enjoined, this penalty does not accrue.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on January 23, 2002.

The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
Darrell Bazzell, Secretary

(SEAL)

Old Draft  
\* (Pre 2/12/02)

## Clearinghouse Rule 01-104

### ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD RENUMBERING, AMENDING AND CREATING RULES

The Wisconsin Natural Resources Board proposes an order to renumber NR 600.04(2) to (4); to amend NR 600.03(127), (244) and (263) and 600.04(1); and to create NR 600.03(128m), 600.04(2) and ch. NR 815 pertaining to the control of underground injection wells.

#### DG-22-01

##### Analysis Prepared by the Department of Natural Resources

Statutory authority: ss. 280.11(1), 281.11, 281.12(1), 281.17(8), 283.001(2), 291.07(1) and (2), 292.31(3), 293.13(1) and (2), 295.35 (2) and (3) and 227.11(2)(a), Stats.

Statutes interpreted: ss. 281.17(8) and 283.001(2), Stats.

This action clarifies existing Department of Natural Resources (DNR) policies regarding the underground placement of substances by means of injection wells. The chapter being created uses terms and definitions and restates regulatory requirements that are consistent with those currently found in the Code of Federal Regulations (CFR). Prohibited activities are identified. Requirements for allowed activities are specified.

Federal regulations promulgated under the authority of Part C of the Safe Drinking Water Act (SDWA) of 1974 [Public Law 93-523, 42 U.S.C. 300h *et seq.*] require that an Underground Injection Control (UIC) program be established for each state. Should a state decline to develop its own UIC program, the United States Environmental Protection Agency (EPA) is instructed to directly implement the federal UIC program requirements enumerated in 40 CFR Parts 144 and 146. Any administrative rules enacted as part of a state-administered UIC program must contain provisions that are at least as stringent as the provisions that would be enforced through an EPA-implemented UIC program. A state may also adopt more stringent regulations should it choose to do so.

The primary purpose of this chapter is to restate the various injection-related requirements that have been previously adopted by the DNR and which are currently enforced through various programs within the Department. The creation of Chapter NR 815 will make it easier for any party that seeks to use an injection well to determine whether a proposed activity is prohibited or requires approval of a state regulatory authority. Creation of this chapter will also assist the DNR in demonstrating to EPA that a comprehensive, state-directed UIC program has been established for the State of Wisconsin.

Chapter NR 600 is being amended to allow for reinjection of groundwater containing a hazardous waste at clean-up sites when the injection is conducted as part of a Department-approved remedial activity.

SECTION 1. NR 600.03(127) is amended to read:

**NR 600.03(127)** "Land treatment" means the application of waste onto the soil surface or into the soil surface through incorporation. This term does not include the placement of waste in a landfill cell. This term does not include the underground injection of waste through a subsurface fluid distribution system or a well.

SECTION 2. NR 600.03(128m) is created to read:

**NR 600.03(128m)** "Subsurface fluid distribution system" means an assemblage of perforated pipes or drain tiles, or any similar conveyance, intended to place or distribute a fluid underground.

SECTION 3. NR 600.03(244) and (263) are amended to read:

**NR 600.03(244)** "Underground injection" or "well injection" means the subsurface emplacement of fluids through a bored, drilled or driven well, or through a dug well, where the depth of the dug well is greater than the largest surface dimension placement of a fluid or any substance underground through a well.

COMMERCE CONCERN

Note: See also the definition of "injection" in this section.

**(263)** "Well" means a bored, drilled or driven shaft, or a dug hole where the depth of the dug hole is greater than the largest surface dimension, and which is terminated above, within or below an aquifer any of the following:

- (a) A bored, drilled or driven shaft.
- (b) A dug hole whose depth is greater than its largest surface dimension.
- (c) An improved sinkhole.
- (d) A subsurface fluid distribution system.

SECTION 4. Section NR 600.04(1) is amended to read:

**NR 600.04(1)** Underground Except as provided in sub. (2), underground injection of any hazardous waste through a well is prohibited.

Note: Section NR 812.05 prohibits the use of any well for the disposal of solid wastes, sewage, surface water or wastewater, except for certain listed activities, including remediation.

SECTION 5. NR 600.04(2) to (4) is renumbered NR 600.04(3) to (5).

SECTION 6. NR 600.04(2) is created to read:

**NR 600.04(2)** Underground injection of contaminated groundwater, that meets the definition of a hazardous waste or contains a hazardous waste, may be allowed as part of a remedial action necessary for the cleanup of soil or groundwater contamination, and is not subject to the requirements of chs. NR 630, 660, 675, 680 and 685, provided all of the following:

- (a) The person who proposes to perform the injection obtains written approval from the department.
- (b) The criteria in s. NR 140.28(5) are met.
- (c) The contaminated groundwater is treated before it is injected.
- (d) The groundwater is injected into the same formation from which it was withdrawn.

Note: Injection for remediation purposes requires a written approval from the department in order to meet the requirements of ss. NR 140.28(5), NR 812.05 and NR 815.06(4). Injection as allowed under this section requires that a written exemption be granted under s. NR 140.28(5).

SECTION 7. Chapter NR 815 is created to read:

**CHAPTER NR 815  
UNDERGROUND INJECTION WELLS**

**SUBCHAPTER I  
GENERAL**

**NR 815.01 Purpose.** The purpose of this chapter is to establish uniform minimum standards and methods in conformity with ch. 281, Stats., for the following:

- (1) Construction or use of a well for the purpose of placing a fluid or substance underground.
- (2) Protection of underground sources of drinking water, aquifers and groundwater from contamination that may occur as a result of the use of an injection well.

**NR 815.02 Applicability.** The provisions of this chapter apply to new and existing injection wells as follows:

- (1) **SPECIFIC INCLUSIONS.** Injection wells that are governed by this chapter include, but are not limited to:
  - (a) Any injection well on a drilling platform that is located within the jurisdictional boundaries of the state of Wisconsin.
  - (b) Except as provided in sub. (2), any well that is constructed or used to place a fluid or substance underground.
  - (c) Any well used by a generator of hazardous waste, or by the owner or operator of a hazardous waste management facility, to dispose of a fluid containing hazardous waste. This includes the disposal of hazardous waste into a waste disposal system that would otherwise be a septic system or cesspool regardless of the capacity of the waste disposal system.
  - (d) Any septic system, cesspool or other injection well used by a multiple-family dwelling, multiple dwellings, or a community or regional system for the disposal of fluids.

(2) **SPECIFIC EXCLUSIONS.** The following are not governed by this chapter:

- (a) Any injection well on a drilling platform or other site that is located in its entirety beyond the jurisdictional boundaries of the state of Wisconsin.
- (b) Any private onsite wastewater treatment system that is used solely to dispose of sanitary waste from an individual single-family dwelling.
- (c) Any dug hole that is not used to place a fluid or substance underground.
- (d) Any bored, drilled or driven shaft that is not used to place a fluid or substance underground.

**NR 815.03 Definitions.** In this chapter:

- (1) "Approval" means any of the following: authorization by statute or administrative rule, written letter of authorization or issuance of a permit.

(2) "Aquifer" means a geological layer consisting of unconsolidated material, usually sand or gravel or both, or bedrock lying below the ground surface that is all or partially saturated with water and permeable enough to allow water to be extracted, as from a well.

(3) "Backfill" means a fluid containing, but not limited to, any of the following: sand, gravel, cement, mill tailings, mill refuse, fly ash or other solids used as part of the mining process or for the purpose of closing a mine shaft or reclaiming an area subjected to mining activities.

(4) "Bedrock" means any naturally formed consolidated or coherent material of the earth's crust, composed of one or more minerals, rock fragments or organic material that underlies any soil or other unconsolidated surficial material or is exposed at the surface. Bedrock includes, but is not limited to limestone, dolomite, sandstone, shale and igneous and metamorphic crystalline rock, including granite, rhyolite, quartzite, gabbro, basalt, gneiss, schist, diorite and greenstone.

(5) "Borehole" means a circular hole deeper than it is wide, constructed in earth material for the purpose of either installing a well or obtaining geologic or groundwater related data. Boreholes are also referred to as drillholes.

(6) "By-product solids" means waste materials from the animal product or food processing industry including, but not limited to remains of butchered animals, paunch manure and vegetable waste materials such as leaves, cuttings, peelings and actively fermenting sweet corn silage.

(7) "Cesspool" means a drywell that solely receives untreated sanitary waste and which sometimes has an open bottom or perforated sides or both.

Note: As used in this chapter, the term includes those excavations that are defined as cesspools in s. Comm 83.02(6).

(8) "Closure" means ceasing the discharge of a fluid or substance to a well.

(9) "Conversion" means a change in the operation of an injection well that results in a change in the designated class or type of the injection well.

(10) "Department" means the department of natural resources.

(11) "Discharge" has the meaning given in s. 292.01(3), Stats.

Note: "Discharge" in s. 292.01(3), Stats., means, but is not limited to, any of the following: spilling, leaking, pumping, pouring, placing, emitting, emptying or dumping.

(12) "Domestic wastewater" means the wastewater normally discharged from plumbing facilities in private dwellings or commercial domestic establishments and includes, but is not limited to sanitary, bath, laundry, dishwashing, garbage disposal and cleaning wastes.

(13) "Drillhole" means an excavation, opening or driven point well deeper than it is wide that extends more than 10 feet below the ground surface.

(a) "Heat exchange drillhole" means a drillhole used for closed loop heat exchange purposes.

(b) "Lower drillhole" means that part of a drillhole below the vertical zone of contamination or below the well casing.

(c) "Upper enlarged drillhole" means a drillhole larger in diameter than the well casing pipe.

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

(15) "Dwelling" means a structure, or that part of a structure, which is used or intended to be used as a home, residence or sleeping place by one person or by 2 or more persons maintaining a common household, to the exclusion of all others.

(16) "Endangerment" means the movement of a fluid containing any substance into an underground source of drinking water, if the presence of the substance may cause a violation of a primary drinking water maximum contaminant level established in 40 CFR part 142 or otherwise adversely affect the health of persons.

Note: Exceedance of an enforcement standard established in ch. NR 140 is comparable to endangerment as defined above.

(17) "Existing injection well" means any injection well in use on the effective date of this rule ... [revisor insert date] other than a new injection well.

(18) "Fluid" means any material or substance that flows or moves whether a semisolid, liquid, sludge, gas or any other form or state.

(19) "Formation" means a body of consolidated or unconsolidated geologic materials characterized by a degree of lithologic homogeneity that is prevailing, but not necessarily, tabular and may be mapped on the earth's surface or traced in the subsurface.

(20) "Generator" means the party responsible for an act or process that produces hazardous waste.

(21) "Groundwater" has the meaning given in s. 160.01(4), Stats.

Note: "Groundwater" in s. 160.01(4), Stats., means any of the waters of the state, as defined in s. 281.01(18), Stats., occurring in a saturated subsurface geological formation of rock or soil.

(22) "Hazardous waste" has the meaning given in s. 291.01(7), Stats.

Note: "Hazardous waste" in s. 291.01(7), Stats., means any solid waste identified by the department as hazardous waste under s. 291.05(1), (2) or (4), Stats.

(23) "Hazardous waste facility" has the meaning given in s. 291.01(8), Stats.

Note: "Hazardous waste facility" in s. 291.01(8), Stats., means a site or structure for the treatment, storage or disposal of hazardous waste and includes all of the contiguous property under common ownership or control surrounding the site or structure.

(24) "Improved sinkhole" means a naturally occurring karst depression or opening, or any other natural crevice found in volcanic terrain or other geologic settings, that has been modified by a party for the purpose of directing or placing fluids into the subsurface.

(25) "Injection well" means a well that is used to place a fluid or substance underground.

(26) "Injection zone" means a geological formation, a portion of a formation or a group of formations that is intersected by a well and that receives or may receive a fluid from an injection well.

(27) "Land disposal" means placement of hazardous waste in or on the land and includes, but is not limited to placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine, cave or a concrete vault or bunker that is intended for disposal purposes.

(28) "Land treatment" means the discharge of a fluid by means of a system that utilizes the physical, chemical and biological abilities of the soil to decompose any pollutant contained in the fluid.

(29) "Large-capacity cesspool" means any cesspool that is designed to receive untreated sanitary waste from 20 or more people per day.

**(30) "Liquid waste"** means process wastewater and waste liquid products including, but not limited to silage leachate, whey, whey permeate, whey filtrate, contact cooling water, cooling or boiler water containing water treatment additives, and wash water generated in industrial, commercial and agricultural operations that result in a point source discharge to a land treatment system.

Note: As used in this chapter, "liquid waste" does not include the following: alcohol fuel production wastes from systems defined as private alcohol fuel production systems under s. 289.44(1)(c), Stats., that are operated in accordance with s. 283.61(2), Stats., animal waste regulated under ch. NR 243 or liquid manure applied in accordance with sound agricultural practices, domestic sewage from systems defined as private sewage systems in s. 145.01(12), Stats., effluent from publicly owned or privately owned wastewater treatment works regulated under ch. NR 206, or mining wastes backfilled or otherwise disposed of in a prospecting excavation or a mine in accordance with a prospecting permit or a mining permit issued under ch. NR 131 or 132, except runoff, leachate, decantate or other wastewater collected for disposal on land outside of the permitted prospecting or mining site.

**(31) "Municipal wastewater"** means effluent from a publicly owned wastewater treatment works or a privately owned domestic wastewater treatment works.

**(32) "New injection well"** means a well that is first constructed or used for underground injection after the effective date of this rule ... [revisor insert date].

**(33) "Operator"** means the party responsible for the supervision, management or operation of any facility or activity subject to regulation through the underground injection control program.

**(34) "Owner"** means the party holding title to the property upon which an injection well is located.

**(35) "Party"** means a person, association, partnership, corporation, municipal, county, state, federal or tribal agency, or any employee thereof.

**(36) "Permit"** means an authorization, license or equivalent control document issued by the state of Wisconsin through a regulatory agency that has been delegated responsibility for managing any activity that would be subject to regulation as an injection well through the federal underground injection control program.

Note: A permit may be issued as an individual, group, area or emergency permit; however, a permit does not include authorization by rule or any draft permit that has not yet been the subject of final action by the regulatory agency.

**(37) "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.

**(38) "Point of injection"** means the last accessible point, as determined by the department, where a sample of a fluid or substance may be collected prior to the release of the fluid or substance into the subsurface environment through an injection well.

Note: The point of injection for a subsurface fluid distribution system may be a septic tank or distribution box located prior to the drainfield. The point of injection for a drywell or well may be at or just prior to the wellbore itself.

**(39) "Pollutant"** has the meaning given in s. 283.01(13), Stats.

Note: "Pollutant" in s. 283.01(13), Stats., means any dredged spoil, solid waste, incinerator residue, sewage, garbage, refuse, oil, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water.

**(40) "Private onsite wastewater treatment system"** has the meaning given for private sewage system in s. 145.01(12), Stats.

Note: "Private sewage system" in s. 145.01(12), Stats., means a sewage treatment and disposal system serving a single structure with a septic tank and soil absorption field located on the same parcel as the structure. This term also means an alternative sewage system approved by the department of commerce including a substitute for the septic tank or soil absorption field, a holding tank, a system serving more than one structure or a system located on a different parcel than the structure. A private sewage system may be owned by the property owner or by a special purpose district.

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

(42) "Radioactive waste" means any waste that contains radioactive material in concentrations that exceed those listed in 10 CFR part 20, appendix B, table II, column 2.

(43) "RCRA" means the solid waste disposal act as amended by the resource conservation and recovery act of 1976, Pub. L. 94-580, as amended by Pub. L. 95-609, Pub. L. 96-510, 42 U.S.C. 6901 *et seq.*

(44) "Regulatory agency" has the meaning given in s. 160.01(7), Stats.

Note: "Regulatory agency" in s. 160.01(7), Stats., means the department of agriculture, trade and consumer protection, the department of commerce, the department of transportation, the department of natural resources and other state agencies which regulate activities, facilities or practices which are related to substances which have been detected in or have a reasonable probability of entering the groundwater resources of the state.

(45) "Safe drinking water act" or "SDWA" means the safe drinking water act, Pub. L. 93-523, as amended; 42 U.S.C. 300f *et seq.*

(46) "Sanitary waste" means sewage containing wastes primarily from humans and housekeeping activities, such wastes include those collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for domestic food preparation, domestic clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses and utensils are cleaned.

Note: Sanitary waste may be generated at residential, commercial, industrial or recreational facilities provided that the waste is not mixed with the waste from an industrial process.

(47) "Schedule of compliance" means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements, that leads to compliance with a specified statute or administrative rule.

(48) "Septic system" means a sewage treatment and disposal system consisting of a septic tank and a soil absorption field that is used to place sanitary waste underground.

(49) "Sewage" means the water-carried wastes created in and to be conducted away from residences, industrial establishments and public buildings as defined in s. 101.01(12), Stats., with any surface water or groundwater as may be present.

(50) "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.

(51) "Sludge" means the accumulated solids generated during the biological, physical or chemical treatment of potable water or wastewater.

(52) "State" means the state of Wisconsin.

(53) "State director" means the chief administrative officer of the state regulatory agency operating an approved underground injection control program, a delegated representative of the chief administrative officer, or both.

Note: If responsibility for administering portions of the underground injection control program is divided among 2 or more state regulatory agencies, state director means the chief administrative officer, or a delegated representative of the chief administrative officer, of the state regulatory agency authorized to perform the procedure or function to which reference is made.

(54) "Strata" means the plural of stratum.



(55) "Stratum" means a single stratigraphic bed or layer, regardless of thickness, that consists throughout its thickness of approximately the same kind of geologic material.

(56) "Substance" has the meaning given in s. 160.01(8), Stats.

Note: "Substance" in s. 160.01(8), Stats., means any solid, liquid, semisolid, dissolved solid or gaseous material, naturally occurring or man-made chemical, parameter for measurement of water quality or biological organism which, in its original form, or as a metabolite or a degradation or waste product, may decrease the quality of groundwater.

(57) "Subsurface fluid distribution system" means an assemblage of perforated pipes or drain tiles, or any similar conveyance, intended to place or distribute a fluid underground.

(58) "UIC program" or "underground injection control program" means the federal underground injection control program authorized by part C of the safe drinking water act or an approved state underground injection control program.

(59) "Underground injection" means well injection.

(60) "Underground source of drinking water" means any aquifer or groundwater, or portion of any aquifer or groundwater, located within the jurisdictional boundaries of the state of Wisconsin.

(61) "Wastewater" means all sewage.

(62) "Well" means any of the following:

(a) A bored, drilled or driven shaft.

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

(c) An improved sinkhole.

(d) A subsurface fluid distribution system.

(63) "Well injection" means the placement of a fluid or any substance underground through a well.

## SUBCHAPTER II INJECTION WELL CLASSES AND UNDERGROUND SOURCES OF DRINKING WATER

**NR 815.04 Classification of injection wells.** Injection wells are classified as follows:

**(1) CLASS I INJECTION WELL.** A class I well is any of the following:

(a) A well used by a generator of hazardous waste or the owner or operator of a hazardous waste facility to inject a fluid classified as a hazardous waste or a fluid containing a hazardous waste below the lowermost formation containing an underground source of drinking water.

(b) A well used to inject a fluid containing an industrial or municipal waste below the lowermost formation containing an underground source of drinking water.

(c) A well used to inject a fluid containing a radioactive waste below the lowermost formation containing an underground source of drinking water.

**(2) CLASS II INJECTION WELL.** A class II well is any of the following:

(a) A well used to inject a fluid that was brought to the surface in connection with activities that are related to the conventional production of oil or natural gas, or the underground storage of natural gas, that may be commingled with wastewater that is produced during production operations, except for any wastewater that is classified as a hazardous waste at the time of injection

(b) A well used for enhanced recovery of oil or natural gas.

(c) A well used for storage of hydrocarbons that are liquid at standard temperature and pressure.

(3) CLASS III INJECTION WELL. A class III well is a well used for solution mining of minerals including, but is not limited to:

(a) A well used to mine sulfur by the Frasch process.

(b) A well used for in-situ production of uranium or other metals from ore bodies that have not been conventionally mined.

Note: A well used for solution mining of conventional mines, such as stopes leaching, is classified as a class V injection well.

(c) A well used for solution mining of salts or potash.

(4) CLASS IV INJECTION WELL. A class IV well is any of the following:

(a) A well used by a generator of a hazardous waste or radioactive waste, the owner or operator of a hazardous waste facility, or the owner or operator of a radioactive waste disposal site to dispose of a hazardous waste or radioactive waste into a formation that contains an underground source of drinking water.

(b) A well used by a generator of a hazardous waste or radioactive waste, the owner or operator of a hazardous waste facility, or the owner or operator of a radioactive waste disposal site to dispose of hazardous waste or radioactive waste above a formation which contains an underground source of drinking water.

(5) CLASS V INJECTION WELL. Any well that is used to place a fluid or substance underground that is not classifiable as a class I, II, III or IV injection well.

**NR 815.05 Underground source of drinking water.** (1) Any aquifer or groundwater, or portion of any aquifer or groundwater, located within the jurisdictional boundaries of the state of Wisconsin is an underground source of drinking water.

(2) No aquifer or groundwater, or portion of an aquifer or groundwater, located within the jurisdictional boundaries of the state of Wisconsin may be exempted from designation as an underground source of drinking water.

### SUBCHAPTER III REGULATED ACTIVITIES

**NR 815.06 Prohibitions.** The following activities are prohibited:

(1) Construction or use of a well as a class I injection well.

Note: Use of a well to place a hazardous waste underground is prohibited as specified in s. NR 600.04. Use of a well to place municipal or domestic wastewater underground is prohibited as specified in s. NR 206.07(2)(d). Use of a well to place a pollutant underground is prohibited as specified in s. NR 214.04(3).

(2) Construction or use of a well as a class II injection well.

(3) Construction or use of a well as a class III injection well.

(4) Construction or use of a well as a class IV injection well, unless the well is to be used to reinject treated contaminated groundwater back into the formation from which the groundwater was drawn and is approved by the department as part of a remedial action necessary for the cleanup of soil or groundwater contamination.

Note: Injection for remediation purposes requires a written approval from the department in order to meet the requirements of ss. NR 140.28(5) and NR 812.05. Such injection requires a written exemption be granted under s. NR 140.28(5). Injection of groundwater that meets the definition of hazardous waste or contains a hazardous waste for remediation purposes requires a written approval under s. NR 600.04(2).

(5) Construction or use of a well as a class V well without the approval of the department, or other designated regulatory agency as specified in subch. IV, unless the construction or use of the injection well is allowed by statute or specifically authorized by administrative rule.

Note: Use of any unauthorized injection well is prohibited under federal law, as specified in 40 CFR 144.11.

(6) Operation, maintenance, conversion, plugging, closure or any other alteration of an injection well in a manner that results in an exceedance of the groundwater standards in ch. NR 140 or endangers an underground source of drinking water.

Note: Endangerment of an underground source of drinking water is prohibited under federal law, as specified in 40 CFR 144.12.

(7) Construction or use of a large-capacity cesspool.

Note: Use of a large-capacity cesspool is prohibited under federal law, as specified in 40 CFR 144.85. Use of any cesspool is prohibited as specified in ch. Comm 83.

(8) Construction or use of a new injection well to place a fluid containing a waste from motorized vehicle repair or maintenance activities underground.

Note: Construction or use of an injection well to dispose of fluids containing wastes from motorized vehicle repair or maintenance activities was prohibited as of April 5, 2000, as specified in 40 CFR 144.85. Any subsurface fluid distribution system constructed prior to this date which continues to be used to dispose of wastes from motorized vehicle repair or maintenance activities must comply with the land treatment provisions of s. NR 214.16 or it is prohibited. Discharge of waste fluids from motorized vehicle repair or maintenance activities to any other well is prohibited.

(9) Construction or use of an improved sinkhole to place surface or subsurface drainage water, wastewater or any other fluid containing a pollutant or substance underground.

**NR 815.07 Approval of injection wells.** (1) A regulatory agency may not approve the construction or use of a class I, II, or III injection well.

(2) Subject to the limitation contained in sub. (4), the department may only approve the construction or use of a class IV well, if the well is to be used to reinject treated contaminated groundwater back into the formation from which the groundwater was withdrawn and is approved by the department as part of a remedial action necessary for the cleanup of soil or groundwater contamination.

(3) Subject to the limitation contained in sub. (4), a regulatory agency may approve a class V well as specified in subch. IV.

(4) A regulatory agency may not approve the construction or use of any injection well that endangers an underground source of drinking water, does not comply with ch. 160, Stats. or does not comply with the requirements of this chapter.

Note: An exceedance of a maximum contaminant level established for a substance in drinking water is considered to endanger an underground source of drinking water and is comparable to the exceedance of an enforcement standard established in ch. NR 140.

Note: Section 160.19(4), Stats., prohibits a state regulatory agency from promulgating a rule defining design and management practice criteria that permits a preventive action limit to be attained or exceeded in groundwater except as allowed under s. 160.19(2), Stats. A state regulatory agency may not promulgate a rule defining design and management practice criteria that permits an enforcement standard to be attained or exceeded at the point of standards application.

(5) Failure to comply with any condition of an injection well approval voids the approval.

**NR 815.08 Reporting of injection wells.** (1) Except as specified in sub. (2), the owner or operator of an injection well shall provide the following inventory information to the department:

- (a) Injection well facility name and location.
- (b) Name and address of the injection well operator or operator.
- (c) Type of ownership.
- (d) Class and type of injection well.
- (e) Number and operating status of injection wells on a property or in a project.

(2) The following activities are exempt from the reporting requirements of this section:

- (a) Use of department approved products for drilling, rehabilitation or abandonment of any water supply well, groundwater monitoring well, or any other department approved borehole or drillhole.
- (b) Use of bentonite grout, cement grout, concrete grout, cement or concrete, or other similar department approved materials containing additives, for the purposes of soil or excavation site stabilization, tunnel support, underpinning or foundation strengthening, groundwater control or diversion or for limiting structural settlement.
- (c) Construction of a structure such as, but not limited to, a building foundation, support footing, elevator shaft, lift station, utility conduit, sump, equipment vault or mine shaft.
- (d) Horticultural or agricultural practices, other than those activities that involve the use of an injection well for the disposal of drainage water or other fluids containing a pollutant underground.
- (e) Underground placement of solid objects such as, but not limited to, pilings, posts, coffins or department approved cathodic protection devices.

(3) Information required under sub. (1) shall be submitted on department form 3300-253, or in an alternative format acceptable to the department, to the department's bureau of drinking water and groundwater within one year of the effective date of this chapter ... [revisor inserts date].

(4) The department may also require the owner or operator of an injection well to submit additional information including, but not limited to:

- (a) Location of a well or project by township, range, section and quarter-section.
- (b) Location of a well by coordinates of latitude and longitude to the nearest second.
- (c) Date of construction of a well or project.
- (d) Total depth of a well.

- (e) Identification of the geologic formation into which a well is injecting.
- (f) A narrative that describes the construction features of the well.
- (g) A schematic drawing that describes the construction features of the well.
- (h) A map or plan drawing that shows the location of a well in relation to other structures or adjacent property boundaries.
- (i) A description of the nature or quality of the fluid being injected.
- (j) The average and maximum injection pressure at the wellhead.
- (k) The average and maximum rate of injection.
- (L) The date of the last well inspection or any maintenance activities.

(5) If the owner or operator of an injection well fails to submit any of the information that is required or requested under subs. (1) and (4) and the well has not been approved by the department, or other regulatory agency as specified in subch. IV, the department may order the owner or operator of the unauthorized well to cease injection until the time that the required or requested information is received by the department and an approval for the well is obtained from the regulatory agency having jurisdiction.

**NR 815.09 Operation of injection wells.** No injection well may be operated in a manner that fails to comply with ch. 160, Stats., or endangers an underground source of drinking water.

Note: Section 160.19(4), Stats., specifies that if a state regulatory agency promulgates a rule that is designed to maintain compliance with a preventive action limit and if a preventive action limit is attained or exceeded at a point of standards application, the agency shall review its rule and, if necessary, revise the rule to maintain compliance with the preventive action limit. If an enforcement standard is attained or exceeded at a point of standards application, the agency shall review its rule and, if necessary, revise the rule to ensure that the enforcement standard is not attained or exceeded at a point of standards application or other locations in the future.

**NR 815.10 Closure of injection wells.** (1) All large-capacity cesspools shall be closed by no later than April 5, 2005 in a manner that is approved by the regulatory agency having jurisdiction.

(2) All existing wells that have been used for the disposal of a fluid containing a waste from motorized vehicle repair or maintenance activities shall be converted or closed by no later than January 1, 2005 in a manner that is approved by the department.

Note: With the approval of the United States environmental protection agency, the department may extend the deadline for conversion or closure of a well that has been used to dispose of a fluid containing a waste from motorized vehicle repair or maintenance activities to January 1, 2006.

#### SUBCHAPTER IV ADDITIONAL REQUIREMENTS BY WELL CLASS

**NR 815.11 Class V well injection.** Class V well injection is subject to the following:

(1) Construction or use of a well, other than a subsurface fluid distribution system, to place any waste, surface water, subsurface water or substance underground is prohibited except as specified in ss. NR 811.11(7) and 812.05.

Note: Section NR 811.11(7) prohibits the use of any well, drillhole or water system for the underground placement of any substance unless it is a department approved activity necessary for the construction, rehabilitation or routine operation of a well or water system. This section applies only to wells and water systems governed under ch. NR 811.

Note: Section NR 812.05 applies to wells, drillholes and water systems other than those subject to s. NR 811.11(7). Section NR 812.05(2) prohibits the use of any well, drillhole or water system for the placement of any waste, surface or subsurface

water or any substance underground unless any of the following apply: (a) the placement is a department-approved activity necessary for any of the following: construction, rehabilitation or operation of a well, drillhole or water system, construction of an approved cathodic protection drillhole, remediation of contaminated soil, groundwater or an aquifer, or the study of groundwater conditions, (b) placement of grouting, sealing or well abandonment materials, and (c) placement of approved materials for the purposes such as, but not limited to, soil or excavation site stabilization, foundation strengthening, or groundwater diversion. Section NR 812.05(5) contains a list of activities that are not prohibited by this section.

(2) Construction or use of a subsurface fluid distribution system that has a design capacity of 12,000 gallons per day or less and is defined as a private sewage system in s. 145.01(12), Stats., for disposal of domestic sewage is subject to the provisions of ch. Comm 83.

(3) Construction or use of a subsurface fluid distribution system that has a design capacity greater than 12,000 gallons per day for disposal of domestic or municipal wastewater is subject to the provisions of ch. NR 206.

(4) Construction or use of a subsurface fluid distribution system for land treatment of industrial liquid wastes, by-product solids or sludges is subject to the provisions of ch. NR 214.

(5) Construction or use of a well to dispose of storm water runoff directly into groundwater is prohibited. Construction or use of a subsurface fluid distribution system for disposal of storm water runoff above an aquifer shall be done in a manner that complies with the groundwater standards in ch. NR 140, complies with the requirements of ch. Comm 82 and does not endanger an underground source of drinking water.

Note: Use of a subsurface fluid distribution system for disposal of storm water runoff may also require a permit as specified in ch. NR 216.

(6) Construction or use of a well to place backfill into an underground mine shall be done in accordance with the provisions of ch. NR 132 and shall comply with the requirements of s. NR 132.07(4)(e).

#### **SUBCHAPTER V ENFORCEMENT**

**NR 815.12 Visitorial powers of the department.** (1) Any duly authorized officer, employee or representative of the department shall have the right to enter upon or through any premises in which a well governed by this chapter is located or in which any records required by this chapter are kept. Any duly authorized officer, employee or representative of the department may at reasonable times have access to and copy any records, inspect any equipment or method required by this chapter and collect samples of any fluid or substance being placed into a well for the purpose of obtaining information related to the administration of the requirements of this chapter.

(2) No party shall refuse entry or access to any authorized representative of the department who presents department credentials and requests entry under this section, nor shall any party obstruct, hamper or interfere with any such entry or inspection.

**NR 815.13 Records.** (1) As specified in s. 281.97, Stats., records required by the department shall be kept by the owner and operator of an injection well and the department supplied with certified copies and other information as the department may require.

(2) Except as provided under sub. (4), any record, report or other information submitted to or obtained by the department in the administration of this chapter shall be a public record.

(3) The department shall make available and provide facilities for the public to inspect and copy any public record maintained by the department in the administration of the requirements of this chapter.

(4) If confidential status is sought for any record, report or other information furnished to or obtained by the department under this chapter, the standards and procedures in s. NR 2.19 shall apply.

(5) Records, reports and other information for which the department has granted confidential status may be:

(a) Used by the department in compiling or publishing analyses or summaries relating to the general condition of the environment if the analyses or summaries do not identify a specific person or responsible party and the analyses or summaries do not reveal records or other information granted confidential status.

(b) Released by the department to the U.S. environmental protection agency or its authorized representative, if the U.S. environmental protection agency or its authorized representative agrees to protect the confidentiality of the records, reports or other information.

(c) Released for general distribution if the party who provided the information to the department expressly agrees to the release of the information.

(d) Released on a limited basis if the department is directed to take action by a judge or administrative law judge under an order that protects the confidentiality of the record, report or other information.

**NR 815.14 Penalties.** The owner or operator of any injection well that is found in violation of a provision of this chapter is subject to the penalties specified in s. 281.98, Stats.

Note: Any person who violates ch. 281, Stats., or any rule promulgated or any plan approval, license or special order issued under this chapter shall forfeit not less than \$10 nor more than \$5,000 for each violation. Each day of continued violation is a separate offense. While an order is suspended, stayed or enjoined, this penalty does not accrue.

The foregoing rule was approved and adopted by the State of Wisconsin Natural Resources Board on \_\_\_\_\_.

The rule shall take effect on the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

Dated at Madison, Wisconsin \_\_\_\_\_.

STATE OF WISCONSIN  
DEPARTMENT OF NATURAL RESOURCES

By \_\_\_\_\_  
Darrell Bazzell, Secretary

(SEAL)

**Notes for the Chair  
Assembly Environment Committee Hearing  
February 19, 2002**

**Clearinghouse Rule 01-104**, relating to the control of underground injection wells

**Concerns of the Rule**

This is not a turf war between Commerce and DNR, rather a concern of how the Rule, if promulgated, would affect the regulatory system

Scope of the Regulation

- The Rule as written appears to go beyond what the EPA currently regulates.
- For example, the regulation of "substances".
- As I understand it, the EPA only regulates "fluids", not substances. However, the word substance appears several times in the Rule:
  - In the analysis on Page 1, paragraph 2
  - Section 600.03(244) on the top of Page 2
  - Section 815.03 (16) Page 4, Endangerment definition
  - Section 815.03 (38) Page 6, Point of Injection definition
  - Section 815.03 (57) Page 8, Substance definition
  - Section 815.06 (9) top of Page 11
  - Section 815.11 (1) Page 13
  - Section 815.12 (1) Page 14, Visitorial powers
- If the EPA only regulates fluids, why is the DNR expanding their scope to include substances?
- There have been some changes to this rule to remove "substances" from the language, but "substances" still appears in numerous instances. Why?



## Point of Injection Concern

The Rule effectively moves the measuring standard from the property line back the point of injection. I reference Section 815.03(38). Is that correct?

Concern of the affect the measuring standard will have on private sewage systems and storm water systems.

Rules would have a major (adverse) affect on construction projects.

Major concern with 815.09 (Endangerment)

## Concerns of Enforcement

Do the Visitorial Powers of the Department go too far?

Reference 815.12(2); aren't administrative warrants the way to go?

Seems to push the privacy envelope quite a bit. This committee made sure during the isolated wetlands debate that this type of language would not appear in that bill.

Yet, on a separate issue within the DNR, the department wants to roll over the property owner by way of merely showing some credentials.

**Assembly Committee on the Environment**  
**February 19, 2002**  
**Clearinghouse Rule 01-104**  
**Underground Injection Control**

The proposed NR 600 and NR 815 rules affect the construction and regulation of buildings in Wisconsin regulated by the Department of Commerce through the various building codes. We have had the opportunity to discuss our concerns about the proposed NR 600 and NR 815 rules with the staff of the DNR. While a number of modifications were made to the rules as a result of the discussions, two important issues remain.

1. The first issue involves the proposed point of standards application for subsurface fluid distribution systems that are classified as injection into wells under this rule.<sup>1</sup> This proposed rule establishes the point of standards application for injection wells as the point of fluid injection. The "point of injection" is defined as "the last accessible point .... where a sample of a substance may be collected prior to placement of the substance underground through an injection well."<sup>2</sup> Under the proposed rules the fluid must meet the ground water standards prior to injection into the ground.<sup>3</sup>

This provision would outlaw devices that use the soil for treatment purposes because the defined point of standards application for this rule is the point of injection, not after treatment in the soil. The most common of the affected systems are private onsite wastewater treatment systems (POWTS) and storm water treatment systems. While the proposed rule exempts POWTS systems for single family residences<sup>4</sup>, it includes systems serving more than one dwelling. The current point of standards application for these systems is the lot line or point of use (well)<sup>5</sup>, not the point of injection. There are no POWTS systems in Wisconsin regulated by this rule, other than a holding tank, that would satisfy the standards at the point of injection. Both the current Commerce Comm 83 and DNR proposed NR 151 rules require injection of fluids into the ground in a manner that will permit the soil to treat the fluids to meet groundwater standards.

A second issue with respect to fluids is that some building materials such as concrete used in footings and posts are "fluid" when placed into the ground. The proposed rule should exempt such uses from prohibitions of the rule.

2. The definition of well injection is expanded to include the injection of "substances"<sup>6</sup> in addition to the EPA regulation of the injection of "fluids".<sup>7</sup> The effect is to include

<sup>1</sup> NR 815.03(25)&(63)(d)

<sup>2</sup> NR 815.03(38), see note

<sup>3</sup> NR 815(16) see note, NR 815.06(6) see note, NR 815.07(4) see second note

<sup>4</sup> NR 815.02(2)(b)

<sup>5</sup> S. 160.21(2)(a)2. Wis. Stats.

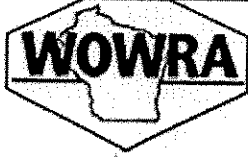
<sup>6</sup> NR 815.11(1), see list of building construction related injection wells listed in NR 815.08(2)

excavations and related materials that comprise basements, underground garages, utilities, elevator shafts, sumps, footings, piles, posts and the like as well injections. The brick, concrete, metal, wood and plastic construction materials are apparently the "substances" being injected into the "wells" under these rules. The rule permits the use of these materials if the DNR or other state agency regulates the application. The problem is that there are building site construction activities that are not regulated by this division such as erection of fencing, temporary shoring, landscape structures and secondary structures such as detached garages and outbuildings. Under the proposed rule, applications that are not specifically regulated by the DNR or another state agency would be prohibited. The full extent of the prohibited activities is unclear.

The department recommends that the proposed rule reference to "substances" be deleted, soil treatment systems be permitted and placement of fluid construction materials such as concrete be excluded from the rule.

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<sup>7</sup> EPA defines *Injection well* as a "well" into which "fluids" are being injected. 40 CFR 146.3 Definitions



## Wisconsin Onsite Wastewater Recycling Association

### MEMORANDUM

**TO: Members, Assembly Committee on the Environment**

**FROM: Brian McQuestion, President & Steve Crosby, Past President  
Wisconsin Onsite Waste Recycling Association**

**DATE: February 19, 2002**

**RE: Opposition to CR 01-104**

We are writing on behalf of the Wisconsin Onsite Waste Recycling Association (WOWRA) in regards to our opposition to clearinghouse rule 01-104 relating to injection wells.

WOWRA is a statewide organization representing over 300 soil testers, installers, manufacturers and suppliers of private onsite wastewater treatment systems.

We object to multiple family dwelling Private Onsite Wastewater Treatment Systems (POWTS) being covered by this rule. In the same rule the Department exempts single family POWTS. In regard to the site evaluation, sizing of the treatment components and distribution cells sizing criteria are the same in both systems. The only difference is that in multi family home the components are larger than in a singly family home. In sizing of both systems, the number of bedrooms and the soil characteristics dictate the size of the treatment components and the size of the distribution cells. Because the system will be larger in the multiple family dwelling, the final effluent quality will be identical to the single family home.

This rule doesn't appear to give any consideration to the soils ability to treat effluent. This rule is looking at point of injection rather than point of discharge.

The overall approach of this rule appears to be outlawing everything and then allowing certain activities by exception. We believe the opposite approach should be taken.

The rule's granting of DNR power to trespass is far too broad. We oppose giving the department the ability to "...enter upon or through any premises in which a well governed by this chapter is located" without limitation. There needs to be a reasonable standard of suspicion to enter the property and a reasonable amount of notice for that entry.

Given these concerns and the need to make wholesale changes to the rule language we ask the Committee to send the rule back to the department in its entirety. We would be interested in any subsequent meeting with the department on this issue.

Thank you for your consideration of this issue.



# Wisconsin Builders Association

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Mark Janowski  
Green Bay

Mark Eirheim  
La Crosse

Keith Weller  
Wausau

2002-2005  
Judy Carpenter  
La Crosse

Mike Marthaler  
Eau Claire

Frank Madden  
Mequon

Kevin Pitts  
Green Bay

Executive  
Vice-President  
Bill Wendle

Deputy Executive  
Vice-President  
Jerry Deschane

## Memorandum

**TO:** The Assembly Environment Committee

**FROM:** Jerry Deschane, Deputy Executive Vice-President

**DATE:** February 19, 2002

**RE:** CR 1-104 Underground injection

The Wisconsin Builders Association objects to three provisions in this rule, and we respectfully request that this Committee ask for changes in the following areas:

- Expansion of groundwater standards beyond current requirements
- Expansion of the definition of injection beyond federal requirements
- Granting DNR unlawful power to trespass.

These three defects grant the DNR the power to regulate building foundations, ban shared septic systems, and to enter a person's home at any time and for any purpose.

### Expansion of groundwater standards

The draft requires liquids injected into the ground to meet drinking water standards "at the point of injection." The groundwater law, by contrast, requires the standards be met at the "point of standards application," which is a well, or a property line. This expansion eliminates any septic system (serving a commercial building or more than one residential structure) that utilizes soil filtration for treatment. Since soil filtration has been an essential, proven system of waste treatment for centuries, it seems to be an inappropriate expansion.

### Expansion of the definition of "injection"

The draft covers far more than wells. A well, according to this rule, is any hole that is deeper than it is wide. The department further expands this definition to include the injection of any "substance" in addition to any "liquid." A substance therefore includes the foundation for a multistory building, which is frequently deeper than wide. There are plenty of regulations governing the placement of basements in the ground; we don't need another.

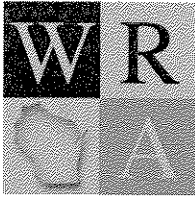
### Granting DNR power to trespass

WBA adamantly opposes giving government agents the power "...to enter upon or through any premises in which a well governed by this chapter is located" without any limitation whatsoever. It is reasonable for a permitting agency to have access to records and/or well equipment at reasonable times; it is also reasonable for a permitting agency to take enforcement action, provided there is a stated degree of suspicion that a serious threat to the public is present or imminent. This rule has no such limitation.

Given these concerns, and the level of redrafting that will be required to accommodate them, we ask this committee to send the rule in its entirety back to the department. We offer the suggestion that the department hold meaningful meetings with stakeholders to work these issues out.



Thank you for considering our viewpoint.



WISCONSIN REALTORS® ASSOCIATION  
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Joan Seramur, CRB, CRS, GRI, President  
E-mail: [williams@newnorth.net](mailto:williams@newnorth.net)

William Malkasian, CAE, Executive Vice President  
E-mail: [wem@wra.org](mailto:wem@wra.org)

**To:** Members of the Assembly Environment Committee  
**From:** Tom Larson  
**Date:** February 19, 2002  
**Re:** CR 1-104 -- Underground Injection Rule

The Wisconsin REALTORS® Association opposes CR 1-104 in its current form, and respectfully requests this Committee to delay the passage of this rule until the following concerns are addressed:

- Expansion of groundwater standards beyond current requirements
- Overly broad definitions
- Granting DNR unlimited enforcement authority

Expansion of groundwater standards

The proposed rule requires liquids injected into the ground to meet drinking water standards “at the point of injection” (i.e., as soon as they come in contact with the soil. However, Wisconsin’s Groundwater Law requires the standards be met at the “point of standards application,” which is generally after the liquid has been treated by the soil. While this may seem like an insignificant difference on its face, this expansion would effectively eliminate all septic systems (serving a commercial building or more than one residential structure) that utilize soil filtration for treatment (a large percentage of the current septic systems in this state use soil filtration).

Overly broad definitions

The presence of extremely broad definitions of key terminology makes the enforcement authority and impact of this rule uncertain. For example, the rule defines a “well” as any hole that is deeper than it is wide. A liberal interpretation of this definition could possibly lead to the enforcement of activities not anticipated by the regulated public or members of the legislature.

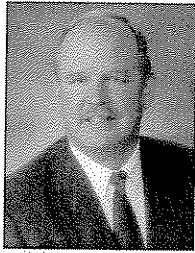
Provides DNR with unlimited enforcement authority

Under the proposed rule, the DNR would have the authority “to enter upon or through any premises in which a well governed by this chapter is located” without any evidence that a violation has occurred. Unlike most other government enforcement actions, the DNR would be able to enter onto someone’s property without probable cause or reasonable suspicion merely because the landowner has a well on his/her property. While adequate protection of our environment necessitates that reasonable enforcement authority be given to the proper authorities, the proposed rule would seemingly eliminate the Constitutional protections of being free from unreasonable searches and seizures. To achieve the necessary balance between civil liberties and environmental protection, one needs to look no further than the enforcement mechanisms created just recently for nonfederal wetlands.

More discussions need to take place with the DNR, affected interest groups, members of the legislature, and other regulatory bodies to make sure the scope of the rule is understood by all.



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**DALE W. SCHULTZ**  
Wisconsin State Senator



February 26, 2002

Senator Jim Baumgart, Chairman  
Senate Environmental Resources Committee  
Room 306 South, State Capitol  
Madison, WI 53707

Dear Senator Baumgart,

I respectfully request that you consider holding a hearing on Clearinghouse Rule 01-104, Relating to the control of "underground injection wells".

The issue of injecting treated water into deep aquifers, which contain the pristine water resources of our state is not an issue to be treated lightly. It is imperative that the citizens and legislators who are proposing modifications to these rules be aware of all of the issues that this technology raises.

This technology is being used in other places in the country and I believe we need to understand completely any problems or adverse situations which have occurred or potentially might occur here in Wisconsin if widespread use of this technology is to take place.

With kindest regards

  
State Senator Dale Schultz  
17<sup>th</sup> Senate District



# Vote Record

## Assembly - Committee on Environment

Date: 2/26/02

Bill Number: CR 01-104

Moved by: JOHN

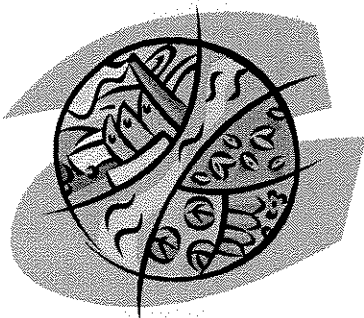
Seconded by: VRAKAS

Motion: MODIFICATIONS REQUEST RELATING TO VISITORIAL POWERS LANGUAGE  
RELATING TO "SUBSTANCES" MEASUREMENT STANDARDS FOR POINT  
OF INJECTION

<u>Committee Member</u>	<u>Aye</u>	<u>No</u>	<u>Absent</u>	<u>Not Voting</u>
Rep. Neal Kedzie, Chair	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. DuWayne Johnsrud	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Scott Gunderson	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Alvin Ott	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Michael Powers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Daniel Vrakas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Mark Pocan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Peter Bock	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. Mark Miller	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rep. John Lehman	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Totals:	<u>10</u>	<u>0</u>		

Motion Carried

Motion Failed



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**ASSEMBLY  
COMMITTEE  
ON ENVIRONMENT**  
**State Representative Neal Kedzie, Chair**

February 26, 2002

Darrell Bazzell, Secretary  
Wisconsin Department of Natural Resources  
101 S. Webster, Fifth Floor  
Madison, WI 53703

Dear Secretary Bazzell,

The Assembly Environment Committee has voted (Ayes, 10; Noes, 0) pursuant to s. 227.19 (4) (b) 2., Stats., to request that the Department of Natural Resources agree to modify Clearinghouse Rule 01-104, relating to the control of underground injection wells. The rule was recently submitted to the Legislature by the Department and was referred to the Assembly Environment Committee and the Senate Environmental Resources Committee.

The Assembly Committee held a public hearing on the Rule on February 19, 2002 and had concerns regarding the visitorial powers described in NR 815.12, the expansion of Class V well injection to include the injection of "substances", and the establishment of the point of standards application for injection wells as the point of fluid injection.

Pursuant to this request, the Committee may request additional modifications upon further review if additional issues arise. Please inform me, in writing, by March 11, 2002 as to whether or not the Department agrees to this request.

Thank you for consideration of this recommendation.

Sincerely,

A handwritten signature in cursive script that reads "Neal J. Kedzie".

**Neal Kedzie**  
State Representative  
Chair, Assembly Environment Committee

NJK: dj

Cc: Assembly Environment Committee members

2/12/02 mtg w/ Mike Corry

- Holes deeper than they are wide. ie Commerce Bldg.

- Went

- Injection of any substance. (was any fluid before)  
ie.

Revised draft:

Pt. of casy measure

Reporting requirements climate but then  
not in temporary

NR 812 - post holes permitted

- What about underground sprinkling systems?
- What about concrete "liquid" when injected to cap wells?

Pt. of measure

MIKE CURRY: CR 01404 2/12/02

1. EXPANDED DEFINITION OF INJECTION WELL

... HOLES IN THE GROUND THAT ARE DEEPER THAN WIDE  
... INCLUDE INJECTIONS OF ANY SUBSTANCE

2. RULE IS CHANGING THE MEASURING POINT TO THE POINT OF INJECTION

... DRAIN FIELD ELIMINATED AS A TREATMENT MEDIUM; POINT OF  
... INJECTION IS THE STANDARDS POINT UNDER THE RULE

... IF AN INJECTION WELL IS NOT REGULATED BY AN AGENCY, THEN IT IS PROHIBITED.

... THE WORDS "SUBSTANCE" SHOULD BE REMOVED IN ITS ENTIRETY FROM THE RULE

815.03 (16) (38) DEFINITIONS (ENDANGERMENT): POINT OF MEASURE ISSUE

815.07 (4): POINT OF INJECTION INTO THE SOIL

815.09 (MAJOR CONCERN) ENDANGERMENT

FIRST PART OF SUBCHAPTER V

VISITORIAL POWERS IS MUCH STRONGER THAN CURRENT ~~LAW~~ RULES

"INDIVIDUAL MAY NOT INTERFERE"

COMMERCE USES INSPECTION WARRANTS

CONSTITUTIONAL ISSUE HERE

115.02 (2)(b)

SEPTIC SYSTEMS SERVING SINGLE FAMILIES ARE EXEMPT FROM THE RULE

BUT WOULD STILL TIE UP MULTI-FAMILY SYSTEMS (MOBILE HOME PARKS)

SCOPE OF THE REGULATION

DOES EPA REQUIRE THE REGULATION OF SUBSTANCES

- EPA ONLY REGS. FLUIDS

HOW FAR DO EPA RULES GO?

WHY ARE WE GETTING INTO SUBSTANCES?

MENTION OF "SUBSTANCE" IN RULE

POINT OF INJECTION QUESTION

MEASURING AT THE POINT OF INJECTION

- PRIVATE SEWAGE SYSTEMS AFFECT
- STORM WATER SYSTEMS

RULES WOULD HAVE MAJOR AFFECT ON CONSTRUCTION PROJECT

NOT A TURF WAR, JUST A CONCERN OF IMPLEMENTATION

~~BOB BEMM OFF ALABAMA~~  
SECTION

~~OUT VIA OFFICE~~  
~~REALLY~~

~~STEVE WOLO~~  
~~"ANTI-TERRORISM" BILLS~~  
~~687-755-8338~~



P. O. Box 7970  
Madison, Wisconsin 53707  
(608) 266-1018  
TDD #: (608) 264-8777  
<http://www.commerce.state.wi.us>  
<http://www.wisconsin.gov>  
Scott McCallum, Governor  
Philip Edw. Albert, Acting Secretary

October 31, 2000

Richard Roth  
Department of Natural Resources  
P.O. Box 7921  
Madison, Wisconsin 53707

Dear Mr. Roth:

Thank you for the opportunity to comment on the proposed rules covering injection wells in your document labeled DG-22-01. The rules involve changes to NR 600 and the proposed creation of NR 815. The rules are intended to implement the Environmental Protection Agency's Underground Injection Control Regulations.

As drafted, the proposed rules contain provisions that appear to extend Department of Natural Resources (DNR) rules beyond that required by EPA to a broad range of construction activities regulated by the Department of Commerce. The expansion of authority is caused by inclusion of "substances" placed underground as part of the definition of an injection well. For example, the EPA definition of "well injection" is "the subsurface emplacement of fluids through a well." The corresponding DNR definition is "... the placement of a fluid or any substance underground through a well."

The expansion of the rule to include substances can affect the regulation of building systems such as basements, underground piping for onsite potable water systems, onsite wastewater and storm water systems, underground garages, buried electrical cables, pilings, posts, sumps, swimming pool pipe systems, elevator shafts and other below ground construction related facilities.

Two provisions require your early attention. First, NR 815.06(5) prohibits any injection well not otherwise specifically approved by DNR or some other regulating agency. Because the definition of injection well has been greatly expanded to include "substances", the rule might outlaw many construction activities. For instance, fence posts are apparently classed as an injection wells under this rule (see exemption from reporting requirements in NR 815.08(2)(e)). This agency has no regulations expressly permitting/regulating fence posts. If no other regulatory agency does, would fence posts be outlawed? Second, NR 815.11(1) also appears to prohibit a broad class of injection wells placing non-liquid substances under ground. It appears that the fence post, even if permitted in NR 815.06(5) would be prohibited here. Is that your intent?

These rules were developed without consultation with Commerce and may directly affect our activities. I request that Commerce and the DNR consult on these rules before they proceed for review by either the DNR Board or the legislature.

Sincerely,

Michael F. Corry  
Administrator



## Wisconsin Onsite Wastewater Recycling Association

### MEMORANDUM

**TO:** Members, Senate Committee on the Environmental Resources

**FROM:** Brian McQuestion, President  
Wisconsin Onsite Wastewater Recycling Association

**DATE:** Thursday, March 28, 2002

**RE:** Opposition to CR 01-104

We are writing on behalf of the Wisconsin Onsite Wastewater Recycling Association (WOWRA) in regards to our opposition to clearinghouse rule 01-104 relating to injection wells.

WOWRA is a statewide organization representing over 300 soil testers, installers, manufacturers and suppliers of private onsite wastewater treatment systems.

We object to multiple family dwelling Private Onsite Wastewater Treatment Systems (POWTS) being covered by this rule. In the same rule the Department exempts single family POWTS. In regard to the site evaluation, sizing of the treatment components and distribution cells sizing criteria are the same in both systems. The only difference is that in multi family home the components are larger than in a singly family home. In sizing of both systems, the number of bedrooms and the soil characteristics dictate the size of the treatment components and the size of the distribution cells. Because the system will be larger in the multiple family dwelling, the final effluent quality will be identical to the single family home.

This rule doesn't appear to give any consideration to the soils ability to treat effluent. This rule is looking at point of injection rather than point of discharge.

The overall approach of this rule appears to be outlawing everything and then allowing certain activities by exception. We believe the opposite approach should be taken.

The rule's granting of DNR power to trespass is far too broad. We oppose giving the department the ability to "...enter upon or through any premises in which a well governed by this chapter is located" without limitation. There needs to be a reasonable standard of suspicion to enter the property and a reasonable amount of notice for that entry.

Given these concerns and the need to make wholesale changes to the rule language we ask the Committee to send the rule back to the department in its entirety.

We have received written correspondence from the department since the Assembly Hearing on this rule. The changes being indicated by the department would probably satisfy our concerns surrounding the point of standards application as it relates to all septic systems and result in our organization reconsidering our opposition to the rule.

Thank you for your consideration of this issue.



**Testimony of the Department of Natural Resources  
on CR Number 01-104  
Relating to Underground Injection Control**

**Presented by  
Jill D. Jonas**

**Senate Environment Resources Committee  
March 28, 2002**

Federal regulations promulgated under the authority of Part C of the Safe Drinking Water Act of 1974 require that an Underground Injection Control (UIC) program be established in each state. The State of Wisconsin has had primary enforcement authority (primacy) for the state's UIC program since 1983. As a result of recent changes to federal UIC regulations, the State of Wisconsin must now update its primacy agreement with EPA or risk losing primacy for this drinking water protection program. This rule proposal is part of the department's effort to retain state enforcement authority for the UIC program.

Proposed Chapter NR 815 attempts to identify all of the various existing state regulatory requirements for activities that are subject to the federal injection well regulations and provide a framework for demonstrating to EPA how the State of Wisconsin maintains a UIC program that is at least as stringent as the federal UIC program.

Recently the department appeared before the Assembly Committee on the Environment and was made aware of several areas of concern with the proposed rules. The department will be meeting with Department of Commerce representatives to discuss suggested modifications affecting activities regulated by the Department of Commerce and is in the process of modifying NR 815 to the extent possible while fulfilling primacy requirements.

The three areas of concern that were raised at the Assembly hearing were:

1. The broad visitorial powers provided to the department.
2. The potential inclusion of substances and common construction practices used by the building industry under the rule as injection wells.
3. The point of standards application for subsurface fluid distribution systems.

Attached are draft revisions to NR 815. In the revisions:

1. The visitorial powers are limited to reasonable times for activities and records directly related to regulation of underground injection wells;
2. It is noted that common construction practices are not regulated as injection wells; and
3. It is clarified that injection wells including subsurface fluid distribution systems must comply with ch. 160 of the Statutes. References to point of standards application have been modified for Class V wells to require compliance at point of standards application points defined in ch. 160. The rule does define a point of injection to be consistent with federal UIC requirements.

Contacts: Bureau of Drinking Water and Groundwater

Rich Roth  
UIC Program Coordinator  
608-266-2438

Lee Boushon, Chief  
Drinking Water Systems Section  
608-266-0857

## Proposed Modifications to Clearinghouse Rule CR 01-104:

### I. Visitorial Powers of the DNR.

**NR 815.12 Visitorial powers of the department.** (1) Any duly authorized officer, employee or representative of the department shall have the right to enter upon or through any premises in which a well governed by this chapter is located or in which any records required by this chapter are kept. Any duly authorized officer, employee or representative of the department may at reasonable times have access to and copy any records, inspect any equipment or method required by this chapter and collect samples of any fluid or substance being placed into a well for the purpose of obtaining information related to the administration of the requirements of this chapter.

The revised section will read as follows:

**NR 815.12 Visitorial powers of the department.** (1) For the purpose of obtaining or verifying information related to the administration of the requirements of this chapter, any duly authorized officer, employee or representative of the department shall at reasonable times and upon showing appropriate credentials have the right to enter upon or through any premises in which a well governed by this chapter is located or in which records required to be maintained by this chapter are kept in order to conduct an inspection of any equipment or method required by this chapter, examine or copy records pertaining to activities regulated under this chapter or to collect samples of any fluid being placed into a well.

### II. Prohibited or regulated activities.

The following note will be added to s. NR 815.06 (5) to clarify that common building practices involving the excavation and placement of building materials that comprise basements, underground garages, utilities, elevator shafts, sumps, footings, piles, posts or other similar construction activities are not prohibited by the proposed rules:

Note: As specified in s. NR 812.05 (5), practices such as, but not limited to, the excavation and placement of building materials that comprise basements, underground garages, utilities, elevator shafts, sumps, footings, piles, posts or other similar features are not to be considered activities that are prohibited by this chapter.

### III. Point of standards application.

The note in s. NR 815.03(16) will be replaced with:

Note: Endangerment, as it applies to Class V injection wells that are not prohibited under subchapter 3, is any exceedance of an enforcement standard established under ch. 160, Stats., when measured at a point of standards application as defined in s. 160.01(5), Stats.

Section NR 815.06(6) will be rewritten. The section currently reads:

**NR 815.06(6)** Operation, maintenance, conversion, plugging, closure or any other alteration of an injection well in a manner that results in an exceedance of the groundwater standards in ch. NR 140 or results in the endangerment of an underground source of drinking water.

The revised section will read as follows:

**NR 815.06(6)** Operation, maintenance, conversion, plugging, closure or any other alteration of an injection well in a manner that results in a violation of the provisions of ch. 160, Stats., or otherwise results in the endangerment of an underground source of drinking water.

The second note in s. NR 815.07(4) will be replaced with the following:

Note: Endangerment, as it applies to Class V injection wells that are not prohibited under subchapter 3, is any exceedance of an enforcement standard established under ch. 160, Stats., when measured at a point of standards application as defined in s. 160.01(5), Stats.

The second note in s. NR 815.09 will be replaced with the following:

Note: Endangerment, as it applies to Class V injection wells that are not prohibited under subchapter 3, is any exceedance of an enforcement standard established under ch. 160, Stats., when measured at a point of standards application as defined in s. 160.01(5), Stats.

system. In addition to restoring system pressure, the supplier of water shall perform the following as necessary:

(a) Notify the appropriate district office of the department as soon as possible, but no later than one working day, as to the extent of the problem, cause and corrective actions taken.

(b) Start emergency disinfection of the water supply if the system is not already continuously disinfected. At a minimum, the free chlorine residual shall be 0.2 mg/l at the entry point to the distribution system and detectable throughout the distribution system or the total combined chlorine residual shall be 1.0 mg/l at the entry point and detectable throughout the distribution system. Higher disinfectant residuals may be required by the department if deemed necessary to assure a safe water supply. Water mains and storage facilities in the area that lost pressure shall be flushed to remove contaminated water and to quickly establish an adequate disinfectant residual. Emergency disinfection shall be maintained until approval is obtained from the department to cease.

(c) Collect distribution system water samples for bacteriological analyses from the pressure loss area as soon as adequate pressure is returned to the system. The number of samples collected shall increase as the extent of problem areas increases, but in no case may less than 2 samples be collected. The department shall be contacted to determine the number of samples and sampling locations. The supplier shall comply with s. NR 809.31 when system sampling indicates the presence of coliform organisms.

(d) Issue an immediate boil water notice to all affected water consumers unless it is determined by the department that an acute threat to public health does not exist. The boil water notice shall be maintained until approval is obtained from the department to cease.

(e) Notify the public in the area affected as prescribed in s. NR 809.81 (1) (a) 3, unless the department determines that no health hazard has existed.

(f) Take all corrective actions necessary to prevent additional significant pressure losses.

**(5) MAINTENANCE.** Each supplier of water shall perform routine maintenance to ensure proper operation of the water system. A schedule shall be established for flushing dead-end mains or mains in other areas to remove sediment or water of poor quality. A number of hydrants and valves shall be exercised each year depending on system size so that all are routinely exercised. Record keeping shall be established to insure routine scheduling and performance of valve and hydrant exercising and maintenance. Water storage facilities shall be emptied and inspected at least once every 5 years and maintenance provided as necessary. Interior and exterior paint coatings for steel elevated water storage tanks or treatment structures shall be inspected by a person trained to evaluate the integrity of the paint system at least once every 5 years and repainted as necessary to maintain structural integrity. The supplier of water may perform the inspection if experienced in paint inspection. Upon completion of the water storage facility inspection, a report shall be submitted to the department documenting the condition of the storage facility.

*Note:* The department recommends that each valve and hydrant be operated at least once every 2 years.

*History:* Cr. Register, April, 1992, No. 436, eff. 5-1-92; corrections in (4) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1994, No. 464; am. (5), Register, December, 2000, No. 540, eff. 1-1-01.

**NR 811.09 Cross-connections and interconnections.** Installation or replacement of cross-connections is prohibited. Plumbing back-siphonage, cross-connection and potability control regulations are provided in s. Comm 82.41; water system interconnections are prohibited except as provided in sub. (2). In addition the following requirements shall be met:

(1) **CROSS-CONNECTION CONTROL PROGRAM.** The supplier of water for every municipal water system shall develop and implement a comprehensive control program for the elimination of all existing cross-connections and prevention of all future cross-

connections. A record of the cross-connection control program shall be kept current and available for annual review by the department. The control program shall include but not be limited to:

(a) A complete description of the program and the administration procedures, including designation of the inspection or enforcement agency or agencies;

(b) Local authority for implementation of the program, such as ordinance or rule;

(c) A time schedule for inspection and reinspection of consumer premises for cross-connections including appropriate record keeping. Unless otherwise authorized by the department, each supplier of water shall inspect every service a minimum of once every 10 years. It is recommended that industrial and commercial services be inspected once every 2 years.

(d) A description of the methods and devices which will be used to protect the water supply by reference to or inclusion of ch. Comm 82;

(e) Provisions for denial or discontinuance of water service, after reasonable notice, to any premises where an unprotected cross-connection exists.

(f) Submission to the department of a copy of an ordinance establishing a cross-connection control program.

**(2) INTERCONNECTIONS WITH OTHER ACCEPTABLE WATER SOURCES.** Interconnections between the public water supply system and another source of water are prohibited unless permitted by the department in individual cases. Approval of the department shall be obtained prior to the interconnection.

*History:* Cr. Register, April, 1992, No. 436, eff. 5-1-92; correction in (intro.) and (1) (d) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1998, No. 516.

**NR 811.10 Private well abandonment ordinance.** Suppliers of water for municipal water systems shall require the abandonment of all unused, unsafe or noncomplying private wells located on premises served by their system. Abandonment is required to prevent the well from acting as a vertical channel for groundwater contamination or as a source of unsafe water from illegal cross-connections with the public water system. Implementation shall be by local ordinance or water utility rule. The ordinance or rule shall include but not be limited to:

(1) A requirement that all private water supply well or pump installations which are not used currently, or are found to be in noncompliance with ch. NR 812, or wells which test unsafe, shall be abandoned in accordance with ch. NR 812 by an established date which may not extend beyond one year from date of connection to the public system.

(2) Provisions for a permit of no more than 5 years that will allow retention of private water supply systems which are found to be safe and in compliance with ch. NR 812 with the limitation that the owner shall demonstrate a need for continued current use. The permit shall require, but not be limited to, requiring that bacteriological sampling, consisting of obtaining a minimum of one safe sample, be taken prior to issuing or reissuing the permit to establish that the water is safe for human consumption.

(b) Prohibition of cross-connections between any private well and pump installations and the municipal water system.

(3) Qualifications of the inspectors determining compliance with ch. NR 812.

(4) Submission of a copy of the private well abandonment ordinance or rule to the department.

*History:* Cr. Register, April, 1992, No. 436, eff. 5-1-92; corrections in (1) and (2) (intro.) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1994, No. 464; renum. (2) (intro.), (a) and (3) to be (2) (intro.) and (4) and am. (2) (intro.) and cr. (3), Register, December, 2000, No. 540, eff. 1-1-01.

**NR 811.11 Other requirements.** (1) **AUTHORIZATION FOR OPERATION OF NEW COMMUNITY WATER SYSTEMS OR IMPROVEMENTS TO EXISTING SYSTEMS.** Before a new community water system or improvements to a community water system can be placed into service, written authorization of the department shall be obtained.

(a) To obtain authorization for operation of a new water system, the owner shall meet the following requirements:

1. An inspection of the facilities shall be made by a representative of the department to determine if construction is in accordance with the approved plans and specifications. Deficiencies shall be corrected prior to startup.

2. The department shall be informed in writing of the name of the certified waterworks operator who will be in charge of any municipal water system.

3. The owner of a municipal water system shall have adopted cross-connection and well abandonment ordinances or rules.

(b) To obtain authorization for startup of improvements to existing community water systems that are reviewable projects as specified in s. NR 108.02 (13), an inspection of the facilities and correction of deficiencies may be necessary prior to startup as required in par. (a). Water mains are excluded from the inspection requirement unless required in the department plans and specifications approval letter.

(2) **MAPS.** Each supplier of water shall keep a current map of the system which shows the size and location of all facilities and appurtenances, such as water mains, valves, hydrants, wells or sources, pumping stations, treatment plants and storage facilities. Contour lines or ground elevations at street intersections shall be shown as well as the overflow elevations of the system storage units. Any pressure zones shall be delineated. Two current copies of this map shall be kept on file with the department at all times. One copy shall be provided to the department's central office and one copy shall be provided to the appropriate department district or area office.

(3) **CERTIFIED OPERATOR.** All suppliers of water for municipal water systems shall comply with the certified operator requirements in s. NR 108.06 (2) and ch. NR 114.

(4) **METERS.** Each supplier of water except those other-than-municipal water systems having source capacity less than 70 gallons per minute shall provide a water meter at each source to accurately measure the daily quantity of water pumped or delivered. Water metering shall be provided for all community water systems utilizing chemical addition.

(5) **LICENSED PUMP INSTALLER.** Any person, firm, corporation or partnership performing well pump installing work as designated in s. 280.01 (5), Stats., shall perform the work in accordance with chs. NR 108, 811 and 812 and shall be a licensed pump installer in accordance with the requirements of ch. NR 146. Pump installing work at municipal water systems is not required to be performed by a licensed pump installer when performed by a department certified waterworks operator who is a full-time employee of the municipal water system.

(6) **PROJECTS REQUIRING DEPARTMENT APPROVAL BUT NOT REQUIRING SUBMITTAL BY A PROFESSIONAL ENGINEER.** The requirements for plans and specifications submittal for reviewable projects are in ch. NR 108. The water supply owner or the owner's representative may submit reviewable projects to the department for approval without the seal of a professional engineer registered in Wisconsin for most operation and maintenance work and for all nonsubdivision, other-than-municipal water systems as provided in s. NR 108.04 (2) (c) 2. Plans shall be submitted by a registered well driller or pump installer where applicable. Examples of projects not requiring a professional engineer's seal are pump replacement with similar equipment not affecting pumping capacity, test well construction when to be pumped at a rate of 70 gallons per minute or more for a minimum duration of 72 hours, unless the well is to be converted to a municipal or subdivision well, well reconstruction work, pumphouse pump discharge piping and valving replacement, well rehabilitation work as described in s. NR 811.16, changing chemical type when the chemical feed equipment has been previously approved by the department, and

painting or coating elevated water storage tank and reservoir interiors.

(7) **UNDERGROUND PLACEMENT OF SUBSTANCES.** The use of any well, drillhole or water system for the underground placement of any substance shall be prohibited unless it is a department approved activity necessary for the construction, rehabilitation or routine operation of the well or water system.

(8) **EMERGENCY OPERATIONS.** Each community water system shall develop a plan to prepare for, respond to, mitigate and recover from all types of emergency situations, including hazards such as floods, tornadoes and other natural disasters.

(a) Municipal systems shall have an emergency operation plan including, at a minimum:

1. A list of local and state emergency contacts.
2. A system for establishing emergency communications.
3. Any mutual aid agreements the utility has with other communities for sharing personnel, equipment and other resources during an emergency.
4. Standard procedures for emergency water production.

(b) Other-than-municipal systems shall have an emergency operation plan including at a minimum:

1. A list of plumbers, electricians or other contractors that would be available to respond in emergency situations.
2. Procedures for obtaining a back-up water source.

History: Cr. Register, April, 1992, No. 436, eff. 5-1-92; correction in (5) made under s. 13.93 (2m) (b) 7., Stats., Register, August, 1994, No. 464; correction in (5) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1998, No. 516; cr. (8), Register, December, 2000, No. 540, eff. 1-1-01.

## Subchapter II — Submission of Plans

**NR 811.12 General requirements.** (1) Plans and specifications for all reviewable projects shall be submitted in accordance with ch. NR 108. Plans shall comply with or incorporate the general design and operating requirements in that chapter. Worksheets shall be included with all submittals for reviewable projects for which applicable worksheets are provided by the department.

(2) In addition to the requirements of sub. (1), plans and specifications for all reviewable projects not requiring submittal by a professional engineer shall be submitted in accordance with s. NR 811.11 (6).

History: Cr. Register, April, 1992, No. 436, eff. 5-1-92.

**NR 811.13 Specific requirements for waterworks, plans, specifications and engineering report.** (1) **PLANS.**

(a) **General.** The detailed construction plans shall contain appropriate plan and profile views, elevations, sections and supplemental views which together with the specifications provide all necessary information for construction of the improvements. The elevations shall be based on sea level datum or local datum when a conversion to sea level datum is provided. Manufacturer's drawings are not acceptable as construction plans and will not be approved. Other state and local codes, including those of the department of industry, labor and human relations, the public service commission and the department of health and social services, shall be consulted for other requirements where applicable.

(b) **Wells.** 1. A general plan shall be submitted which shows the location of the proposed well and its relation to proposed or existing water supply facilities. It shall show all features of sanitary significance which could have an effect on water quality. A separate well site plan shall be submitted which shows the property lines, contours or an appropriate number of spot elevations so that drainage can be determined, surficial features, structures and any other relevant data. A detailed well cross section shall be submitted which shows the size and depths of drill holes and casings, depth of grout and geological formations to be penetrated.

2. A copy of a well site investigation report shall be submitted as required in sub. (3) prior to or along with the plans submitted

## Chapter NR 812

## WELL CONSTRUCTION AND PUMP INSTALLATION

**Subchapter I — General**

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NR 812.40	Above ground pumphouses.
NR 812.41	Disinfection, flushing and sampling.

**Subchapter IV — Standards for Existing Installations**

NR 812.42	Criteria for evaluation.
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**Subchapter V — Variances**

NR 812.43	Variances.
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Note: Chapter NR 112 as it existed on September 30, 1975 was repealed and a new Chapter NR 112 was created effective October 1, 1975. Chapter NR 112 as it existed on January 31, 1991 was repealed and a new Chapter NR 112 was created effective February 1, 1991; Chapter NR 112 was renumbered Chapter NR 812 under s. 13.93 (2m) (b) 1., Stats., Register, September, 1994, No. 465.

**Subchapter I — General**

**NR 812.01 Purpose.** (1) The purpose of this chapter is to establish uniform minimum standards and methods in conformity with chs. 280 and 281, Stats., for:

- Obtaining or extracting groundwater for any purpose; and
- Protecting groundwater and aquifers from contamination through adequate construction and reconstruction of water systems.

(2) This chapter shall govern the location, construction or reconstruction and maintenance of water systems, the abandonment of wells and drillholes and the installation and maintenance of pumping and treatment equipment.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; am. (1) (a), Register, September, 1994, No. 465, eff. 10-1-94; correction in (1) (intro.) made under s. 13.93 (2m) (b) 7., Stats., Register, December, 1998, No. 516.

**NR 812.02 Applicability.** (1) For the purposes of construction and installation, the provisions of this chapter apply to all new and existing water systems and drillholes with the following exceptions:

- Wells governed under ch. NR 141, unless they are high capacity wells, in which case ch. NR 812 also applies.
- Community water systems governed under ch. NR 811, and
- Nonpotable surface water systems.

Note: Certain diversions of surface water for nonpotable uses require a permit under ch. 30, Stats.

(2) For the purposes of abandonment, the provisions of this chapter apply to all drillholes and wells including, but not limited to, mining exploration drillholes not regulated by ch. NR 132, wells and drillholes not regulated by s. NR 141.25 and elevator shaft drillholes.

(3) For the purposes of the prohibition of the underground placement of any substance as defined in s. 160.01 (8), Stats., the provisions of this chapter apply to all wells and drillholes.

Note: Private water systems and noncommunity water systems, located in counties delegated authority to administer this chapter under ch. NR 145, are subject to county permit requirements.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; am. (1) (a) and (2), cr. (3), Register, September, 1994, No. 465, eff. 10-1-94; correction in (1) (a) and (b) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1994, No. 465.

**NR 812.03 Cooperation with the department.**

(1) Well drillers, pump installers and well constructors shall, when requested by the department, give notice to the department at least on the department work day prior to the day upon which any well construction or reconstruction or any part thereof, any well abandonment or the installation of any pumping equipment, will commence or be completed.

(2) Well drillers and well constructors shall contact the Diggers Hotline not less than 3 business days prior to constructing or reconstructing a well on a property that is not within the service area of a municipally owned water system, so that Diggers Hotline may determine if the property where a well is proposed to be constructed or reconstructed is on the department's geographic information system registry of closed remediation sites and may notify the department if it is on the registry.

(3) Well drillers and well constructors shall contact the department to determine if any special construction is required if the well driller or well constructor proposes to construct or reconstruct a well on a property that is located within the service area of a municipally owned water system.

(4) Well drillers and well constructors shall, when requested by the department, contact the department to determine if any special construction is required if the well driller or well constructor is engaged to construct a new well or reconstruct an existing well because the existing well is known to contain contaminants in excess of the drinking water standards in ch. NR 809.

Note: The Department of Natural Resource's GIS Registry of Closed Remediation Sites can be found at <http://www.dnr.state.wi.us/org/aw/fr> on the DNR's internet site.



Information that appears on the GIS Registry of Closed Remediation Sites can also be accessed by calling the nearest regional DNR office.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; correction in (2) made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1994, No. 465; CR 00-111: am., Register October 2001 No. 550, eff. 11-1-01.

**NR 812.04 Contracts for noncomplying installations.** (1) Well drillers, pump installers and well constructors shall ensure that the construction and reconstruction of wells or the installation of pumping equipment adheres to all the applicable provisions of this chapter or to approved comparable construction or installation requirements. Well drillers, pump installers and well constructors may not enter into any agreement, written or oral, for construction, reconstruction or installation which does not require compliance with the applicable provisions of this chapter or with approved comparable construction or installation requirements.

(2) When there is any construction, reconstruction or equipment installation on a noncomplying feature, the feature shall be upgraded and brought into compliance with the specifications in this chapter for new construction. The well driller or pump installer shall inform the water system owner or user of the water system of other noncomplying features, that are apparent and known, in writing on a department form. A copy of the form shall be filed with the department by the well driller, pump installer or by the water system owner or user within 10 days after the initial evaluation of the water system has been completed if the required repairs are not made.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; am. (2), Register, September, 1994, No. 465, eff. 10-1-94.

**NR 812.05 Disposal of pollutants; injection prohibition.** (1) For the purposes of this section:

(a) "Drillhole" includes any excavation or opening that is deeper than it is wide, even if it extends less than 10 feet below the ground surface.

(b) "Well" includes any excavation that is deeper than it is wide regardless of the excavation's depth or purpose.

(2) The use of any well, drillhole or water system for the placement of any waste, surface or subsurface water or any substance, as defined in s. 160.01 (8), Stats., underground is prohibited unless any of the following apply:

(a) The placement is a department-approved activity necessary for any of the following:

1. The construction, rehabilitation or operation of a well, drillhole or water system.
2. The construction of a cathodic protection drillhole approved under s. NR 812.09.
3. The remediation of contaminated soil, groundwater or an aquifer.

4. The study of groundwater conditions under sub. (4).

(b) The placement consists of grouting, sealing or abandonment materials as specified in s. NR 812.20 or 812.26; grouting or abandonment materials as specified in s. NR 811.16 or 811.17; sealing or abandonment materials specified in s. NR 141.13 or 141.25; or other similar materials containing additives approved under sub. (3).

(c) The placement consists of bentonite grout, cement or concrete, or other similar materials containing additives approved under sub. (3), for the purposes of soil or excavation site stabilization, tunnel support, underpinning or foundation strengthening, groundwater control or diversion or for limiting structural settlement.

(3) The department may approve alternative materials or additives that are to be used in conjunction with the activities noted under sub. (2). Approval shall be based on, but not limited to, such factors as the potential toxicity of an alternative material or additive, the effectiveness of an alternative material or additive for its specified use, the amount or quantity of material to be used,

and the potential for use of an alternative material to result in groundwater contamination or otherwise harm human health or the environment.

(4) Only department approved groundwater tracers may be used for hydrogeologic studies. Approval shall be based on, but not limited to, such factors as the potential toxicity of a tracer, the effectiveness of a tracer for its use as specified in an application for approval, and the potential for use of a tracer to result in groundwater contamination or otherwise harm human health or the environment. A list of previously approved groundwater tracers is available from the department upon request.

(5) The following activities are not prohibited by this section:

(a) Circulation of water or a food-grade heat exchange fluid through a closed-loop heat pump system in a drillhole.

(b) Construction of a structure such as, but not limited to, a building foundation, support footing, elevator shaft, lift station, utility conduit, sump, mine shaft or equipment vault.

(c) Except for the disposal of a waste material, the placement of a solid object such as, but not limited to, a cathodic protection device, coffin, piling, pole or post.

(d) Horticultural or agricultural practices, other than those activities that involve the use of a well or drillhole for the placement of a waste material or drainage water underground.

(e) Injection activities conducted in conjunction with a metallic mineral mining operation approved under ch. NR 132.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; am. Register, September, 1994, No. 465, eff. 10-1-94; am. Register, May, 2000, No. 533, eff. 6-1-00.

**NR 812.06 Drinking water standards.** Private or non-community water systems producing water containing contaminant levels in excess of the primary drinking water standards contained in ch. NR 809, the enforcement standards contained in ch. NR 140, or other advisory levels identified by the department may be designated by the department as contaminated.

History: Cr. Register, January, 1991, No. 421, eff. 2-1-91; correction made under s. 13.93 (2m) (b) 7., Stats., Register, September, 1994, No. 465.

**NR 812.07 Definitions.** The following terms are defined as follows:

(1) "Adequate water supply" means a water supply which has a well yield and the pump capacity to provide the quantity and quality, where obtainable, according to s. NR 812.06, of water necessary for human or sanitary use, or for the preparation of food products and other purposes for which the water is intended to be used.

(2) "Animal barn pen" means a covered, enclosed concrete area where animals are kept.

(3) "Animal yard" means an uncovered, paved or unpaved area in which animals are kept or manure is loaded. This includes an area where an individual animal is kept, but does not include a single pet kennel enclosing 3 or fewer adult pets on a residential lot.

(4) "Animal shelter" means a covered, paved or unpaved area in which animals are kept. This includes an area where an individual animal is kept, but does not include a single pet house or single pet kennel housing 3 or fewer adult pets on a residential lot.

(5) "Annular space" means the space between 2 concentric cylinders or circular objects, such as the space between an upper enlarged drillhole and a well casing pipe.

(6) "API" means American petroleum institute.

(7) "Approval" means the prior approval of the department.

(8) "Approved" means approved by the department.

(9) "ASSE" means American society of sanitary engineering.

(10) "ASTM" means the American society for testing materials.

(11) "Aquifer" means a geological layer of either unconsolidated material, usually sand or gravel or both, or bedrock lying below the ground surface, that is all or partially saturated with