

Contaminant	EPA	ASTM <sup>3</sup>	SM <sup>4</sup> 18th and 19th ed.	SM <sup>4</sup> 20th ed.	Other
2. Chloride	200.8 <sup>2</sup> .....	.....	3113 B.		
	200.9 <sup>2</sup> .....	.....	3111 D.		
	300.0 <sup>1</sup> .....	D4327-97 .....	4110 B .....	4110 B.	
3. Color	.....	.....	4500-Cl <sup>-</sup> D .....	4500-Cl <sup>-</sup> D.	
	.....	D512-89B .....	4500-Cl <sup>-</sup> B .....	4500-Cl <sup>-</sup> B.	
4. Foaming Agents	.....	.....	2120 B .....	2120 B.	
5. Iron	200.7 <sup>2</sup> .....	.....	5540 C .....	5540 C.	
	200.9 <sup>2</sup> .....	.....	3120 B .....	3120 B.	
6. Manganese	.....	.....	3111 B.		
	200.7 <sup>2</sup> .....	.....	3113 B.		
	200.8 <sup>2</sup> .....	.....	3120 B .....	3120 B.	
7. Odor	200.9 <sup>2</sup> .....	.....	3111 B.		
	.....	.....	3113 B.		
8. Silver	200.7 <sup>2</sup> .....	.....	2150 B .....	2150 B.	
	200.8 <sup>2</sup> .....	.....	3120 B .....	3120 B .....	I-3720-85 <sup>5</sup>
9. Sulfate	200.9 <sup>2</sup> .....	.....	3111 B.		
	300.0 <sup>1</sup> .....	D4327-97 .....	3113 B.		
	375.2 <sup>1</sup> .....	.....	4110 B .....	4110 B.	
10. Total Dissolved Solids	.....	D516-90 .....	4500-SO <sub>4</sub> <sup>2-</sup> F .....	4500-SO <sub>4</sub> <sup>2-</sup> F.	
	.....	.....	4500-SO <sub>4</sub> <sup>2-</sup> C, D .....	4500-SO <sub>4</sub> <sup>2-</sup> C, D.	
11. Zinc	200.7 <sup>2</sup> .....	.....	4500-SO <sub>4</sub> <sup>2-</sup> E .....	4500-SO <sub>4</sub> <sup>2-</sup> E.	
	200.8 <sup>2</sup> .....	.....	2540 C .....	2540 C.	
	.....	.....	3120 B .....	3120 B.	
	.....	.....	3111 B.		

The procedures shall be done in accordance with the documents listed below. The incorporation by reference of the following documents was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the documents may be obtained from the sources listed below. Information regarding obtaining these documents can be obtained from the Safe Drinking Water Hotline at 800-426-4791. Documents may be inspected at EPA's Drinking Water Docket, EPA West, 1301 Constitution Avenue, NW, Room B135, Washington, DC (Telephone: 202-566-2426); or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

<sup>1</sup> "Methods for the Determination of Inorganic Substances in Environmental Samples", EPA/600/R-93-100, August 1993. Available at NTIS, PB94-120821.

<sup>2</sup> "Methods for the Determination of Metals in Environmental Samples—Supplement I", EPA/600/R-94-111, May 1994. Available at NTIS, PB 95-125472.

<sup>3</sup> *Annual Book of ASTM Standards*, 1994, 1996, or 1999, Vols. 11.01 and 11.02, ASTM International; any year containing the cited version of the method may be used. Copies may be obtained from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428. sa

<sup>4</sup> Standard Methods for the Examination of Water and Wastewater, 18th edition (1992), 19th edition (1995), or 20th edition (1998). American Public Health Association, 1015 Fifteenth Street, NW, Washington, DC 20005. The cited methods published in any of these three editions may be used, except that the versions of 3111 B, 3111 D, and 3113 B in the 20th edition may not be used.

<sup>5</sup> Method I-3720-85, *Techniques of Water Resources Investigation of the U.S. Geological Survey*, Book 5, Chapter A-1, 3rd ed., 1989; Available from Information Services, U.S. Geological Survey, Federal Center, Box 25286, Denver, CO 80225-0425.

[44 FR 42198, July 19, 1979, as amended at 53 FR 5147, Feb. 19, 1988; 56 FR 30281, July 1, 1991; 59 FR 62470, Dec. 5, 1994; 64 FR 67466, Dec. 1, 1999; 67 FR 65252, Oct. 23, 2002; 69 FR 18803, Apr. 9, 2004]

**PART 144—UNDERGROUND INJECTION CONTROL PROGRAM**

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AUTHORITY: Safe Drinking Water Act, 42 U.S.C. 300f *et seq.*; Resource Conservation and Recovery Act, 42 U.S.C. 6901 *et seq.*

SOURCE: 48 FR 14189, Apr. 1, 1983, unless otherwise noted.

### Subpart A—General Provisions

#### § 144.1 Purpose and scope of part 144.

(a) *Contents of part 144.* The regulations in this part set forth requirements for the Underground Injection Control (UIC) program promulgated under Part C of the Safe Drinking Water Act (SDWA) (Pub. L. 93-523, as amended; 42 U.S.C. 300f *et seq.*) and, to the extent that they deal with hazardous waste, the Resource Conservation and Recovery Act (RCRA) (Pub. L. 94-580 as amended; 42 U.S.C. 6901 *et seq.*).

(b) *Applicability.* (1) The regulations in this part establish minimum requirements for UIC programs. To the extent set forth in part 145, each State must meet these requirements in order to obtain primary enforcement authority for the UIC program in that State.

(2) In addition to serving as minimum requirements for UIC programs, the regulations in this part constitute a part of the UIC program for States listed in part 147 to be administered directly by EPA.

(c) The information requirements located in the following sections have been cleared by the Office of Management and Budget: Sections 144.11, 144.28(c)(d)(i), 144.31, 14.33, 144.51(j)(m)(n), 144.52(a), 144.54, 144.55, 144.15, 144.23, 144.26, 144.27, 144.28(i)(k), 144.51(o), 146.52. The OMB clearance number is 2040-0042.

(d) *Authority.* (1) Section 1421 of SDWA requires the Administrator to promulgate regulations establishing minimum requirements for effective UIC programs.

(2) Section 1422 of SDWA requires the Administrator to list in the FEDERAL REGISTER “each State for which in his judgment a State underground injection control program may be necessary to assure that underground injection will not endanger drinking water sources” and to establish by regulation a program for EPA administration of UIC programs in the absence of an approved State program in a listed State.

(3) Section 1423 of SDWA provides procedures for EPA enforcement of UIC requirements.

(4) Section 1431 authorizes the Administrator to take action to protect the health of persons when a contaminant which is present in or may enter a public water system or underground source of drinking water may present an imminent and substantial endangerment to the health of persons.

(5) Section 1445 of SDWA authorizes the promulgation of regulations for such recordkeeping, reporting, and monitoring requirements “as the Administrator may reasonably require \* \* \* to assist him in establishing regulations under this title,” and a “right of entry and inspection to determine compliance with this title, including for this purpose, inspection, at reasonable time, or records, files, papers, processes, controls, and facilities \* \* \*.”

(6) Section 1450 of SDWA authorizes the Administrator “to prescribe such regulations as are necessary or appropriate to carry out his functions” under SDWA.

(e) *Overview of the UIC program.* An UIC program is necessary in any State listed by EPA under section 1422 of the SDWA. Because all States have been listed, the SDWA requires all States to submit an UIC program within 270 days after July 24, 1980, the effective date of 40 CFR part 146, which was the final element of the UIC minimum requirements to be originally promulgated, unless the Administrator grants an extension, which can be for a period not to exceed an additional 270 days. If a State fails to submit an approvable program, EPA will establish a program

for that State. Once a program is established, SDWA provides that all underground injections in listed States are unlawful and subject to penalties unless authorized by a permit or a rule. This part sets forth the requirements governing all UIC programs, authorizations by permit or rule and prohibits certain types of injection. The technical regulations governing these authorizations appear in 40 CFR part 146.

(f) *Structure of the UIC program—(1) Part 144.* This part sets forth the permitting and other program requirements that must be met by UIC Programs, whether run by a State or by EPA. It is divided into the following subparts:

(i) Subpart A describes general elements of the program, including definitions and classifications.

(ii) Subpart B sets forth the general program requirements, including the performance standards applicable to all injection activities, basic elements that all UIC programs must contain, and provisions for waiving permit of rule requirements under certain circumstances.

(iii) Subpart C sets forth requirements for wells authorized by rule.

(iv) Subpart D sets forth permitting procedures.

(v) Subpart E sets forth specific conditions, or types of conditions, that must at a minimum be included in all permits.

(vi) Subpart F sets forth the financial responsibility requirements for owners and operators of all existing and new Class I hazardous waste injection wells.

(vii) Subpart G of this part sets forth requirements for owners and operators of Class V injection wells.

(2) *Part 145.* While part 144 sets forth minimum requirements for all UIC Programs, these requirements are specifically identified as elements of a State application for primacy to administer an UIC Program in part 145. Part 145 also sets forth the necessary elements of a State submission and the procedural requirements for approval of State programs.

(3) *Part 124.* The public participation requirements that must be met by UIC Programs, whether administered by the State or by EPA, are set forth in part 124. EPA must comply with all

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part 124 requirements; State administered programs must comply with part 124 as required by part 145. These requirements carry out the purposes of the public participation requirement of 40 CFR part 25 (Public Participation), and supersede the requirements of that part as they apply to the UIC Program.

(4) *Part 146.* This part sets forth the technical criteria and standards that must be met in permits and authorizations by rule as required by part 144.

(g) *Scope of the permit or rule requirement.* The UIC Permit Program regulates underground injections by five classes of wells (see definition of “well injection,” §144.3). The five classes of wells are set forth in §144.6. All owners or operators of these injection wells must be authorized either by permit or rule by the Director. In carrying out the mandate of the SDWA, this subpart provides that no injection shall be authorized by permit or rule if it results in the movement of fluid containing any contaminant into Underground Sources of Drinking Water (USDWs—see §144.3 for definition), if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR part 141 or may adversely affect the health of persons (§144.12). Existing Class IV wells which inject hazardous waste directly into an underground source of drinking water are to be eliminated over a period of six months and new such Class IV wells are to be prohibited (§144.13). For Class V wells, if remedial action appears necessary, a permit may be required (§144.25) or the Director must require remedial action or closure by order (§144.12(c)). During UIC Program development, the Director may identify aquifers and portions of aquifers which are actual or potential sources of drinking water. This will provide an aid to the Director in carrying out his or her duty to protect all USDWs. An aquifer is a USDW if it fits the definition, even if it has not been “identified.” The Director may also designate “exempted aquifers” using the criteria in 40 CFR 146.4. Such aquifers are those which would otherwise qualify as “underground sources of drinking water” to be protected, but which have no real potential to be used as drinking water sources. Therefore, they are not

USDWs. No aquifer is an “exempted aquifer” until it has been affirmatively designated under the procedures in §144.7. Aquifers which do not fit the definition of “underground source of drinking water” are not “exempted aquifers.” They are simply not subject to the special protection afforded USDWs.

(1) *Specific inclusions.* The following wells are included among those types of injection activities which are covered by the UIC regulations. (This list is not intended to be exclusive but is for clarification only.)

(i) Any injection well located on a drilling platform inside the State’s territorial waters.

(ii) Any dug hole or well that is deeper than its largest surface dimension, where the principal function of the hole is emplacement of fluids.

(iii) Any well used by generators of hazardous waste, or by owners or operators of hazardous waste management facilities, to dispose of fluids containing hazardous waste. This includes the disposal of hazardous waste into what would otherwise be septic systems and cesspools, regardless of their capacity.

(iv) Any septic tank, cesspool, or other well used by a multiple dwelling, community, or Regional system for the injection of wastes.

(2) *Specific exclusions.* The following are not covered by these regulations:

(i) Injection wells located on a drilling platform or other site that is beyond the State’s territorial waters.

(ii) Individual or single family residential waste disposal systems such as domestic cesspools or septic systems.

(iii) Non-residential cesspools, septic systems or similar waste disposal systems if such systems (A) Are used solely for the disposal of sanitary waste, and (B) have the capacity to serve fewer than 20 persons a day.

(iv) Injection wells used for injection of hydrocarbons which are of pipeline quality and are gases at standard temperature and pressure for the purpose of storage.

(v) Any dug hole, drilled hole, or bored shaft which is not used for the subsurface emplacement of fluids.

(3) The prohibition applicable to Class IV wells under §144.13 does not

apply to injections of hazardous wastes into aquifers or portions thereof which have been exempted pursuant to §146.04.

(h) *Interim Status under RCRA for Class I Hazardous Waste Injection Wells.* The minimum national standards which define acceptable injection of hazardous waste during the period of interim status under RCRA are set out in the applicable provisions of this part, parts 146 and 147, and §265.430 of this chapter. The issuance of a UIC permit does not automatically terminate RCRA interim status. A Class I well's interim status does, however, automatically terminate upon issuance to that well of a RCRA permit, or upon the well's receiving a RCRA permit-by-rule under §270.60(b) of this chapter. Thus, until a Class I well injecting hazardous waste receives a RCRA permit or RCRA permit-by-rule, the well's interim status requirements are the applicable requirements imposed pursuant to this part and parts 146, 147, and 265 of this chapter, including any requirements imposed in the UIC permit.

[48 FR 14189, Apr. 1, 1983, as amended at 49 FR 20181, May 11, 1984; 52 FR 20676, June 2, 1987; 52 FR 45797, Dec. 1, 1987; 53 FR 28147, July 26, 1988; 64 FR 68565, Dec. 7, 1999; 67 FR 39592, June 7, 2002]

#### §144.2 Promulgation of Class II programs for Indian lands.

Notwithstanding the requirements of this part or parts 124 and 146 of this chapter, the Administrator may promulgate an alternate UIC Program for Class II wells on any Indian reservation or Indian lands. In promulgating such a program the Administrator shall consider the following factors:

(a) The interest and preferences of the tribal government having responsibility for the given reservation or Indian lands;

(b) The consistency between the alternate program and any program in effect in an adjoining jurisdiction; and

(c) Such other factors as are necessary and appropriate to carry out the Safe Drinking Water Act.

#### §144.3 Definitions.

Terms not defined in this section have the meaning given by the appro-

priate Act. When a defined term appears in a definition, the defined term is sometimes placed within quotation marks as an aid to readers.

*Administrator* means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

*Application* means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions.

*Appropriate Act and regulations* means the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA); or Safe Drinking Water Act (SDWA), whichever is applicable; and applicable regulations promulgated under those statutes.

*Approved State Program* means a UIC program administered by the State or Indian Tribe that has been approved by EPA according to SDWA sections 1422 and/or 1425.

*Aquifer* means a geological "formation," group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

*Area of review* means the area surrounding an injection well described according to the criteria set forth in §146.06 or in the case of an area permit, the project area plus a circumscribing area the width of which is either ¼ of a mile or a number calculated according to the criteria set forth in §146.06.

*Cesspool* means a "drywell" that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides.

*Contaminant* means any physical, chemical, biological, or radiological substance or matter in water.

*Director* means the Regional Administrator, the State director or the Tribal director as the context requires, or an authorized representative. When there is no approved State or Tribal program, and there is an EPA administered program, "Director" means the Regional Administrator. When there is an approved State or Tribal program, "Director" normally means the State or