

**NAVAJO NATION UNDERGROUND INJECTION  
CONTROL REGULATIONS**

**REVISED**

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## Table of Contents

[Citations in brackets are to corresponding provisions of federal regulations in 40 CFR]

PART 1 -- UNDERGROUND INJECTION CONTROL PROGRAM REQUIREMENTS	1
Subpart A - General Provisions	1
101.1 Applicability [144.1, 146.1]	1
101.2 Authority [144.1, 146.2]	1
101.3 Purpose and scope of regulations [144.1, 146.1]	1
101.4 Applicability of Uniform Regulations	2
101.5 Definitions [144.3, 146.3]	2
101.6 Confidentiality of information [144.5]	10
101.7 Classification of wells [144.6, 146.5]	10
101.8 Identification of underground sources of drinking water and exempted aquifers [144.7, 144.31, Subpart HHH - Appendix A, 147.3003]	13
101.9 Noncompliance and program reporting by the Director [144.8]	15
101.10 Public participation in enforcement actions	18
Subpart B - General Program Requirements	20
101.21 Prohibition of unauthorized injection [144.11]	20
101.22 Prohibition of movement of fluid into underground sources of drinking water [144.12]	20
101.23 Prohibition of Class I and Class IV wells [144.13, 145.21(e)]	21
101.24 Waiver of requirement by Director [144.16]	22
101.25 Records [144.17]	22
101.26 Emergency Actions	22
101.27 Navajo Nation Underground Injection Control Fund	23
101.28 Fees for Direct Emergency Action by the Director	23
Subpart C - Information requirements	23
101.31 Requiring other information [144.27]	23
PART 2 -- UNDERGROUND INJECTION CONTROL PERMITS	24
Subpart A - Permit Applications, Issuance and Fees	24
102.1 Application for a permit [144.31]	24
102.2 Signatories to permit applications and reports [144.32]	27
102.3 Area and multi-well permits [144.33]	29
102.4 Emergency permits [144.34]	31
102.5 Effect of a permit [144.35]	32
102.6 Duration of permits [144.36]	32
102.7 Continuation of expiring permits [144.37]	33
102.8 Transfer of permits [144.38]	33
102.9 Modification or revocation and reissuance of permits [144.39]	34
102.10 Termination of permits [144.40]	36
102.11 Minor modifications of permits [144.41]	37
102.12 Permit fees	37

102.13	Transition to Navajo Regulation after Primacy .....	38
Subpart B -	Permit Conditions .....	40
102.21	Conditions applicable to all permits [144.51] .....	40
102.22	Establishing permit conditions [144.52] .....	45
102.23	Schedule of compliance [144.53] .....	47
102.24	Requirements for recording and reporting of monitoring results [144.54]	49
102.25	Corrective action [144.55] .....	49
PART 3 --	CRITERIA AND STANDARDS .....	50
Subpart A -	General Criteria .....	50
103.1	Criteria for exempted aquifers [146.4, 147.3008] .....	50
103.2	Area of review [146.6] .....	51
103.3	Corrective action [146.7] .....	53
103.4	Mechanical integrity [146.8] .....	54
103.5	Criteria for establishing permitting priorities [146.9] .....	56
103.6	Plugging and abandoning Class II and Class III wells [146.10, 147.3011]	56
Subpart B -	Criteria and Standards Applicable to Class II Wells .....	57
103.21	Applicability [146.21] .....	57
103.22	Construction requirements [146.22] .....	57
103.23	Operating, monitoring and reporting requirements [146.23] .....	60
103.24	Information to be considered by the Director [146.24] .....	62
Subpart C -	Criteria and Standards Applicable to Class III Wells .....	64
103.31	Applicability [146.31] .....	64
103.32	Construction requirements [146.32, 147.3014] .....	64
103.33	Operating, monitoring, and reporting requirements [146.33] .....	66
103.34	Information to be considered by the Director [146.34, 147.3015] .....	68
Subpart D -	Criteria and Standards Applicable to Class V Injection Wells .....	71
103.41	Applicability [146.51] .....	71
103.42	[Reserved] .....	71

**NAVAJO NATION UNDERGROUND INJECTION CONTROL  
PROGRAM REGULATIONS**

**PART 1 – UNDERGROUND INJECTION CONTROL PROGRAM REQUIREMENTS**

**Subpart A - General Provisions**

**101.1 Applicability**

- (a) These regulations apply to all persons (including persons subject to voluntary compliance agreements pursuant to Section 106 of the NNSDWA) and to all underground injection activities within the Navajo Nation.
- (b) These regulations shall become effective once they are approved by the Navajo Nation Resources Committee.

**101.2 Authority**

The Navajo Nation Safe Drinking Water Act and the federal Safe Drinking Water Act, 42 U.S.C. § 300f *et seq.*, authorize the Navajo Nation EPA (“NNEPA”) to promulgate regulations to implement a Navajo Nation UIC program.

**101.3 Purpose and scope of regulations**

- (a) These regulations set forth requirements for the Navajo Nation Underground Injection Control program promulgated under the Navajo Nation Safe Drinking Water Act (“NNSDWA”).
- (b) These regulations are divided into the following parts:
  - (1) Part 1 contains general requirements for the Navajo Nation UIC program. It is divided into Subpart A, which includes definitions and classifications; Subpart B, which includes performance standards applicable to all injection activities, basic elements that all UIC programs must contain, and provisions for waiving permit requirements under certain circumstances; and Subpart C, which sets forth information collection requirements.
  - (2) Part 2 contains permitting requirements for the Navajo Nation UIC program. It is divided into Subpart A, which includes permit application, modification and fee requirements; and Subpart B, which includes permit conditions that must be included in all permits.
  - (3) Part 3 contains criteria and standards for the Navajo Nation UIC program. It is divided into Subpart A, which sets forth general criteria; Subpart B,

which sets forth criteria and standards for Class II wells; Subpart C, which sets forth criteria and standards for Class III wells; and Subpart D, which sets forth criteria and standards for Class V wells.

#### **101.4 Applicability of Uniform Regulations**

The Navajo Nation Uniform Regulations for Permit Review, Administrative Enforcement Orders, Hearings and Rulemakings under the Navajo Nation Environmental Acts (“Uniform Regulations”) shall apply to all underground injection control permits issued under the NNSDWA and these regulations, and to all administrative enforcement orders, hearings and rulemakings issued or conducted under the NNSDWA or these regulations, except to the extent that different or additional procedures are set forth herein.

#### **101.5 Definitions**

- (a) The definitions in this section apply to all parts of this regulation. Terms not defined in this section have the meaning given by the NNSDWA or the appropriate federal statute. When a defined term appears in a definition, the defined term is sometimes placed within quotation marks as an aid to readers.
  - (1) *Abandoned well* means a well whose use has been permanently discontinued or which is in a state of disrepair such that it cannot be used for its intended purpose or for observation purposes.
  - (2) *Administrator* means the Administrator of the United States Environmental Protection Agency, or an authorized representative.
  - (3) *Application* means the NNEPA standard forms for applying for a permit, including any additions, revisions or modifications to the forms, or forms approved by EPA for such use, including any approved modifications or revisions to such forms.
  - (4) *Aquifer* means a geological "formation," group of formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.
  - (5) *Area of review* means the area surrounding an injection well described according to the criteria set forth in § 103.2 or, in the case of an area permit, the project area plus a circumscribing area the width of which is either ½ of a mile or a number calculated according to the criteria set forth in § 103.2.
  - (6) *Attorney General* means the Attorney General of the Navajo Nation.
  - (7) *Casing* means a pipe or tubing of appropriate material, of varying diameter

and weight, lowered into a borehole during or after drilling in order to support the sides of the hole and thus prevent the walls from caving, to prevent loss of drilling mud into porous ground, or to prevent water, gas, or other fluid from entering or leaving the hole.

- (8) *Catastrophic collapse* means the sudden and utter failure of overlying "strata" caused by removal of underlying materials.
- (9) *Cementing* means the operation whereby a cement slurry is pumped into a drilled hole and/or forced behind the casing.
- (10) *Confining bed* means a body of impermeable or distinctly less permeable material stratigraphically adjacent to one or more aquifers.
- (11) *Confining zone* means a geological formation, group of formations, or part of a formation that is capable of limiting fluid movement above an injection zone.
- (12) *Contaminant* means any physical, chemical, biological or radiological substance or matter in water.
- (13) *Conventional mine* means an open pit or underground excavation for the production of minerals.
- (14) *Director* means the Executive Director of the Navajo Nation Environmental Protection Agency or an authorized representative. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved Navajo Nation program. In such cases, the term "Director" means the Regional Administrator and not the Navajo Nation Director.
- (15) *Disposal well* means a well used for the disposal of waste into a subsurface stratum.
- (16) *Draft permit* means a document prepared under §205 of the Uniform Regulations" indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate or reissue a "permit." A notice of intent to terminate a permit and a notice of intent to deny a permit, as discussed in §204 of the "Uniform Regulations," are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination, as discussed in §204 of the "Uniform Regulations," is not a "draft permit."
- (17) *Drilling mud* means a heavy suspension used in drilling an "injection well," introduced down the drill pipe and through the drill bit.

- (18) *Dry well* means a well, other than an improved sinkhole or subsurface fluid distribution system, completed above the water table so that its bottom and sides are typically dry except when receiving fluids.
- (19) *Emergency permit* means a UIC "permit" issued in accordance with §102.4.
- (20) *Environmental Protection Agency* or *EPA* means the United States Environmental Protection Agency.
- (21) *Exempted aquifer* means an "aquifer" or portion of an aquifer that meets the criteria in the definition of "underground source of drinking water" but which has been exempted according to the procedures in §101.8.
- (22) *Existing injection well* means an "injection well" other than a "new injection well."
- (23) *Experimental technology* means a technology that has not been proven feasible under the conditions in which it is being tested.
- (24) *Facility or activity* means any "HWM facility," UIC "injection well," NPDES "point source," Clean Water Act § 404 dredge and fill activity, or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under RCRA, UIC, NPDES, or Clean Water Act § 404 programs.
- (25) *Fault* means a surface or zone of rock fracture along which there has been displacement.
- (26) *Flow rate* means the volume per time unit given to the flow of gases or other fluid substance which emerges from an orifice, pump or turbine or passes along a conduit or channel.
- (27) *Fluid* means any material or substance which flows or moves, whether in a semisolid, liquid, sludge, gas, or any other form or state.
- (28) *Formation* means a body of consolidated or unconsolidated rock characterized by a degree of lithologic homogeneity which is prevailing, but not necessarily, tabular and is mappable on the earth's surface or traceable in the subsurface.
- (29) *Formation fluid* means "fluid" present in a "formation" under natural conditions as opposed to introduced fluids, such as "drilling mud."
- (30) *Generator* means any person, by site location, whose act or process produces

hazardous waste identified or listed in 40 CFR § 261.3.

- (31) *Ground water* means water below the land surface in a zone of saturation.
- (32) *Hazardous waste* means a hazardous waste as defined in 40 CFR § 261.3.
- (33) *Hazardous waste management facility* or *HWM facility* means all contiguous land and structures, other appurtenances, and improvements on the land used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or a combination of them).
- (34) *Indian lands* means "Indian country" as defined in 18 U.S.C. § 1151. That section defines Indian country as:
  - (A) all land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation;
  - (B) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State; and
  - (C) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.
- (35) *Indian tribe* means any Indian tribe which has a federally recognized governing body carrying out substantial governmental duties and powers over a defined area.
- (36) *Injection well* means a "well" into which "fluids" are being injected.
- (37) *Injection zone* means a geological "formation," group of formations, or part of a formation receiving fluids through a "well."
- (38) *Lithology* means the description of rocks on the basis of their physical and chemical characteristics.
- (39) *Major facility* means any UIC "facility or activity" classified as such by the Regional Administrator in conjunction with the Director.
- (40) *Manifest* means the shipping document originated and signed by the "generator" which contains the information required by subpart B of 40 CFR



part 262.

- (41) *Navajo Nation* means, when referring to governmental territory, all land and water within the territorial boundaries of the Navajo Nation, including:
- (A) all land and water within the exterior boundaries of the Navajo Indian Reservation or of the Eastern Navajo Agency or within the boundaries of Navajo dependent Indian communities, including all land within the boundaries of Navajo chapter governments, all without regard to the nature of title thereto;
  - (B) all land and water held in trust by the United States for, or restricted by the United States or otherwise set apart under the superintendence of the United States for the use of the Navajo Nation, or benefit of the Navajo Tribe, any Band of Navajo Indians or any individual Navajo Indians as such; and
  - (C) all other land and water over which the Navajo Nation may exercise governmental jurisdiction in accordance with federal or international law.
- (42) *Navajo Nation Environmental Protection Agency* or *NNEPA* means the agency established by the Navajo Nation Council, pursuant to CAP-47-95, 2 N.N.C. §§ 1921 et seq., to carry out the environmental laws and regulations adopted by the Navajo Nation.
- (43) *Navajo Nation Safe Drinking Water Act* or *NNSDWA* means the Act passed by the Navajo Nation Council and intended to protect underground sources of drinking water and establish drinking water standards.
- (44) *Navajo Nation Underground Injection Control Program* means the NNEPA program office responsible for implementing and enforcing the provisions of the NNSDWA pertaining to underground injection and the protection of underground sources of drinking water.
- (45) *New injection well* means an "injection well" where injection begins after June 28, 2001, the date that the Navajo Nation UIC Program Regulations were approved by the Resources Committee of the Navajo Nation Council.
- (46) *NPDES* means the "National Permit Discharge Elimination System" established under the federal Clean Water Act, 33 U.S.C. §§ 1251-1387.
- (47) *Owner or operator* means the owner or operator of any facility or activity subject to regulation under the RCRA, UIC, NPDES, or Clean Water Act

§ 404 programs.

- (48) *Packer* means a device lowered into a well to produce a fluid-tight seal.
- (49) *Permit* means an authorization, license or equivalent control document issued by EPA or NNEPA to implement these UIC Regulations. "Permit" includes an area permit (§ 102.3) and an emergency permit (§102.4). "Permit" does not include RCRA interim status or any permit that has not yet been the subject of official agency action, such as a "draft permit."
- (50) *Person* means any individual, public or private corporation, company, partnership, firm, association or society of persons, the federal, state or local governments or any of their programs or agencies, any Indian tribe, including the Navajo Nation, or any of its agencies, enterprises, departments, programs, enterprises, companies, chapters or other political subdivisions.
- (51) *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."
- (52) *Plugging record* means a systematic listing of permanent or temporary abandonment of water, oil, gas, test, exploration and waste injection wells, and may contain a well log, description of amounts and types of plugging material used, the method employed for plugging, a description of formations which are sealed and a graphic log of the well showing formation location, formation thickness, and location of plugging structures.
- (53) *Pressure* means the total load or force per unit area acting on a surface.
- (54) *Project* means a group of wells in a single operation.
- (55) *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.
- (56) *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.*
- (57) *Regional Administrator* means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency or the authorized representative of the Regional Administrator.
- (58) *Sanitary waste* means liquid or solid wastes originating solely from humans

and human activities, such as wastes collected from toilets, showers, wash basins, sinks used for cleaning domestic areas, sinks used for food preparation, clothes washing operations, and sinks or washing machines where food and beverage serving dishes, glasses, and utensils are cleaned. Sources of these wastes may include single or multiple residences, hotels and motels, restaurants, bunkhouses, schools, ranger stations, crew quarters, guard stations, campgrounds, picnic grounds, day-use recreation areas, other commercial facilities, and industrial facilities provided the waste is not mixed with industrial waste.

- (59) *Schedule of compliance* means a schedule of remedial measures included in a "permit," including an enforceable sequence of interim requirements (for example, actions, operations or milestone events) leading to compliance with the "appropriate Act and regulations."
- (60) *SDWA* means the Safe Drinking Water Act (Pub. L. 93-523, as amended), 42 U.S.C. § 300f *et seq.*
- (61) *Septic system* means a well that is used to emplace sanitary waste below the surface and is typically comprised of a septic tank and subsurface fluid distribution system or disposal system.
- (62) *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.
- (63) *Sole or principal source aquifer* means an aquifer which has been designated by the Administrator pursuant to section 1424(a) or (e) of the SDWA.
- (64) *Stratum (plural strata)* means a single sedimentary bed or layer, regardless of thickness, that consists of generally the same kind of rock material.
- (65) *Subsidence* means the lowering of the natural land surface in response to: earth movements; lowering of fluid pressure; removal of underlying supporting material by mining or solution of solids, either artificially or from natural causes; compaction due to wetting (hydrocompaction); oxidation of organic matter in soils; or added load on the land surface.
- (66) *Surface casing* means the first string of well casing to be installed in the well.
- (67) *Total dissolved solids* or *TDS* means the total dissolved (filterable) solids as determined by use of the method specified in 40 CFR part 136.
- (68) *Transferee* means the owner or operator receiving ownership and/or

operational control of the well.

- (69) *Transferor* means the owner or operator transferring ownership and/or operational control of the well.
- (70) *UIC* means “underground injection control,” referring to the program created by the SDWA and NNSDWA to regulate underground injections, as defined in these regulations.
- (71) *Underground injection* means a "well injection."
- (72) *Underground injection activity or facility* means any underground injection well or another facility or activity that is subject to regulation under the NNSDWA.
- (73) *Underground source of drinking water or USDW* means an aquifer or portion of an aquifer:
  - (A) which either
    - (i) supplies any public water system; or
    - (ii) contains a sufficient quantity of ground water to supply a public water system; and
      - a) currently supplies drinking water for human consumption; or
      - b) contains fewer than 10,000 mg/l total dissolved solids; and
  - (B) which is not an exempted aquifer.
- (74) *Uniform Regulations* mean the Navajo Nation Uniform Regulations for Permit Review, Administrative Enforcement Orders, Hearings and Rulemakings under the Navajo Nation Environmental Acts.
- (75) *Well* means a bored, drilled or driven shaft whose depth is greater than the largest surface dimension; or, a dug hole, whose depth is greater than the largest surface dimension; or, an improved sinkhole; or, a subsurface fluid distribution system.
- (76) *Well injection* means the subsurface emplacement of "fluids" through a bored, drilled, or driven shaft, or a dug hole, whose depth is greater than the largest

surface dimension.

- (77) *Well plug* means a water-tight and gas-tight seal installed in a borehole or well to prevent movement of fluids.
- (78) *Well stimulation* means several processes used to clean the well bore, enlarge channels, and increase pore space in the interval to be injected, thus making it possible for wastewater to move more readily into the formation, and includes (A) surging, (B) jetting, (C) blasting, (D) acidizing and (E) hydraulic fracturing.
- (79) *Well monitoring* means the measurement, by on-site instruments or laboratory methods, of the quality of water in a well.

#### **101.6 Confidentiality of information**

- (a) Any information submitted to NNEPA pursuant to these regulations may be claimed as confidential by the submitter in accordance with 40 CFR part 2. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, NNEPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR part 2.
- (b) Claims of confidentiality for the following information will be denied:
  - (1) the name and address of any permit applicant or permittee;
  - (2) information that deals with the existence, absence, or level of contaminants in drinking water.

#### **101.7 Classification of wells**

- (a) Injection wells are classified by the federal EPA in the five categories described below. These regulations apply to wells in Class II, Class III and Class V. They do not cover Class I wells, since as of the effective date of these regulations there are no Class I wells within the Navajo Nation, nor do they cover Class IV wells, which are prohibited within the Navajo Nation. The federal EPA class numbers and federal regulatory section numbers are retained in these regulations to facilitate cross-reference to the analogous federal regulations.
  - (1) *Class I*

- (A) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to inject hazardous waste beneath the lowermost formation containing, within one-quarter ( 1/4) mile of the well bore, an underground source of drinking water.
- (B) Other industrial and municipal disposal wells which inject fluids beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water.
- (C) Radioactive waste disposal wells which inject fluids below the lowermost formation containing an underground source of drinking water within one-quarter (1/4) mile of the well bore.

(2) *Class II*

- (A) Wells that inject fluids that are brought to the surface in connection with natural gas storage operations or conventional oil or natural gas production and may be commingled with waste waters from gas plants that are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection.
- (B) Wells that inject fluids for enhanced recovery of oil or natural gas.
- (C) Wells that inject fluids for storage of hydrocarbons that are liquid at standard temperature and pressure.

(3) *Class III*

Wells that inject for extraction of minerals, including:

- (A) Mining of sulfur by the Frasch process.
- (B) In situ production of uranium or other metals. This category includes only in-situ production from ore bodies which have not been conventionally mined. Solution mining of conventional mines such as stopes leaching is included in Class V.
- (C) Solution mining of salts or potash.

(4) *Class IV*

- (A) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose

of hazardous waste or radioactive waste into a formation which within one quarter (1/4) mile of the well contains an underground source of drinking water.

- (B) Wells used by generators of hazardous waste or of radioactive waste, by owners or operators of hazardous waste management facilities, or by owners or operators of radioactive waste disposal sites to dispose of hazardous waste or radioactive waste above a formation which within one quarter (1/4) mile of the well contains an underground source of drinking water.
- (C) Wells used by generators of hazardous waste or owners or operators of hazardous waste management facilities to dispose of hazardous waste, which cannot be classified under paragraphs (1)(A) or (4)(A) or (B) (e.g., wells used to dispose of hazardous wastes into or above a formation which contains an aquifer which has been exempted pursuant to §100.4).

(5) *Class V*

Injection wells not included in Class I, II, III, or IV. Class V wells include:

- (A) Air conditioning return flow wells used to return to the supply aquifer the water used for heating or cooling in a heat pump.
- (B) Cesspools, including multiple dwelling, community or regional cesspools, or other devices that receive sanitary wastes which have an open bottom and sometimes have perforated sides. The UIC requirements do not apply to single family residential cesspools nor to non-residential cesspools that receive solely sanitary wastes and have the capacity to serve fewer than 20 persons a day.
- (C) Cooling water return flow wells used to inject water previously used for cooling.
- (D) Drainage wells used to drain surface fluid, primarily storm runoff, into a subsurface formation.
- (E) Dry wells used for the injection of wastes into a subsurface formation.
- (F) Recharge wells used to replenish the water in an aquifer.
- (G) Salt water intrusion barrier wells used to inject water into a fresh water aquifer to prevent the intrusion of salt water into the fresh

water.

- (H) Sand backfill and other backfill wells used to inject a mixture of water and sand, mill tailings or other solids into mined-out portions of subsurface mines, whether or not the solids that are injected are radioactive waste.
- (I) Septic system wells used to inject the waste or effluent from a multiple dwelling, business establishment, community or regional business establishment septic tank. The UIC requirements do not apply to single family residential septic system wells, nor to non-residential septic system wells that are used solely for the disposal of sanitary waste and have the capacity to serve fewer than 20 persons a day.
- (J) Subsidence control wells (not used for the purpose of oil or natural gas production) used to inject fluids into a non-oil- or gas- producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water.
- (K) Injection wells associated with the recovery of geothermal energy for heating, aquaculture and production of electric power.
- (L) Wells used for solution mining of conventional mines, such as stopes leaching.
- (M) Wells used to inject spent brine into the same formation from which it was withdrawn after extraction of halogens or their salts.
- (N) Injection wells used in experimental technologies.
- (O) Injection wells used for in situ recovery of lignite, coal, tar sands, and oil shale.
- (P) Motor vehicle waste disposal wells that receive or have received fluids from vehicular repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (e.g., transmission and muffler repair shop), or any facility that does any vehicular repair work.

#### **101.8 Identification of underground sources of drinking water and exempted aquifers**

- (a) The Director may identify (by narrative description, illustrations, maps, or other means) and shall protect, except where exempted under paragraph (b) of this section,



as an underground source of drinking water, all aquifers or parts of aquifers which meet the definition of an "underground source of drinking water." Even if an aquifer has not been specifically identified by the Director, it is an underground source of drinking water if it meets the definition in § 101.5.

- (b) The Director may identify (by narrative description, illustrations, maps, or other means) and describe in geographic and/or geometric terms (such as vertical and lateral limits and gradient) which are clear and definite, all aquifers or parts thereof which the Director proposes to designate as exempted aquifers using the criteria in § 103.1.
  - (1) No designation of an exempted aquifer submitted as part of a UIC program shall be final until approved by the Administrator as part of the Navajo Nation UIC program.
  - (2) Subsequent to program approval or promulgation, the Director may, after notice and opportunity for a public hearing, identify additional exempted aquifers. For the approved Navajo Nation UIC program, exemption of aquifers identified under § 103.1(a)(2)(A)-(D) will be treated as a UIC program revision under 40 CFR § 145.32.
- (c) For Class III wells, the Director shall require an applicant for a permit which necessitates an aquifer exemption under § 103.1(a)(2)(A) to furnish the data necessary to demonstrate that the aquifer is expected to be mineral or hydrocarbon producing. Information contained in the mining plan for the proposed project, such as a map and general description of the mining zone, general information on the mineralogy and geochemistry of the mining zone, analysis of the amenability of the mining zone to the proposed mining method, and a time-table of planned development of the mining zone shall be considered by the Director, in addition to the following information:
  - (1) dates well was operated; and
  - (2) specification of all wastes which have been injected into the well, if available.
- (d) For Class II wells, a demonstration of commercial producibility shall be made as follows:
  - (1) For a Class II well to be used for enhanced oil recovery processes in a field or project containing aquifers from which hydrocarbons were previously produced, commercial producibility shall be presumed by the Director upon a demonstration by the applicant of historical production having occurred in the project area or field.

- (2) For Class II wells not located in a field or project containing aquifers from which hydrocarbons were previously produced, information such as logs, core data, formation description, formation depth, formation thickness and formation parameters such as permeability and porosity shall be considered by the Director, to the extent such information is available.
- (e) The areas described by a 1/4 mile radius around the wells listed in Attachment H to the Program Description are exempted for the purpose of Class II injection into the intended injection zone.
- (f) In addition to the requirements of subsection (c) of this section, an applicant for a uranium mining permit which necessitates an aquifer exemption shall submit a plugging and abandonment plan containing an aquifer cleanup plan, acceptable to the Director, describing the methods or techniques that will be used to meet the standards of § 103.6. The cleanup plan shall include an analysis of pre-injection water quality for the constituents required by the Director. The Director shall consider the cleanup plan in addition to the other information required for permit applications under §§ 102.1(e) and 103.34.

#### **101.9 Noncompliance and program reporting by the Director**

The Director shall prepare quarterly and annual reports as detailed below. NNEPA shall submit any reports required under this section to the Regional Administrator.

- (a) *Quarterly reports.* The Director shall submit quarterly narrative reports for major facilities as follows:
  - (1) *Format.* The report shall use the following format:
    - (A) Provide an alphabetized list of permittees. When two or more permittees have the same name, the lowest permit number shall be entered first.
    - (B) For each entry on the list, include the following information in the following order:
      - (i) Name, location, and permit number of the noncomplying permittees.
      - (ii) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the

information into a single entry for each such permittee.

- (iii) The date(s) and a brief description of the action(s) taken by the Director to ensure compliance.
- (iv) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.
- (v) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) *Instances of noncompliance to be reported.* Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

- (A) *Failure to complete construction elements.* When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required elements of the schedule within 30 days from the date a compliance schedule report is due under the permit.
- (B) *Modifications to schedules of compliance.* When a schedule of compliance in the permit has been modified under § 102.9 or § 102.11 because of the permittee's noncompliance.
- (C) *Failure to complete or provide compliance schedule or monitoring reports.* When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.
- (D) *Deficient reports.* When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.
- (E) *Noncompliance with other permit requirements.* Noncompliance shall be reported in the following circumstances:

- (i) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(A) or (B) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or
  - (ii) When the Director determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or
  - (iii) When the Director determines significant permit noncompliance or other significant event has occurred, such as a migration of fluids into a USDW.
- (F) *All other.* Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) *Annual reports*

- (1) *Annual noncompliance report.* Statistical reports shall be submitted by the Director on non-major UIC permittees indicating the total number reviewed, the number of noncomplying non-major permittees, the number of enforcement actions and the number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in subsection (a) of this section.
- (2) In addition to the annual noncompliance report, the Director shall:
  - (A) Submit each year a UIC program report to the Administrator (in a manner and form prescribed by the Administrator) consisting of:
    - (i) A detailed description of NNEPA's implementation of its UIC program;
    - (ii) Suggested changes, if any, to the UIC program description (see 40 CFR § 145.23(f)) which are necessary to reflect more accurately NNEPA's progress in issuing permits;

- (iii) An updated inventory of active underground injection operations in the Navajo Nation.

(c) *Schedule.*

- (1) *For all quarterly reports.* On the last working day of May, August, November, and February, the Director shall submit to the Regional Administrator information concerning noncompliance with permit requirements by major facilities in the Navajo Nation in accordance with the following schedule.

**Quarters Covered by Reports on Noncompliance by Major Facilities**

[Date for completion of reports]

January, February, and March . \*May 31  
April, May, and June . . . . . \*Aug. 31  
July, August, and September. . \*Nov. 30  
October, November, and December \*Feb. 28

\*Reports must be made available to the public for inspection and copying on this date.

- (2) *For all annual reports.* The period for annual reports shall be for the calendar year ending December 31, with reports completed and available to the public no more than 60 days later.

**101.10 Public participation in enforcement actions**

In addition to the public participation provisions in the Uniform Regulations, the Navajo Nation UIC Program will provide the following opportunities for public participation in enforcement actions:

- (a) *Citizen complaints.* Pursuant to NNSDWA § 802(A), the Director bases enforcement actions, both administrative and judicial, on “any information available” to him, which includes information gathered from citizen complaints. Citizen complaints may be made orally or in writing directly to the Navajo Nation UIC Program. The Navajo Nation UIC Program will investigate the complaint as appropriate and provide a written response to the complaint within 30 days of receipt of the complaint.
- (b) *Intervention in enforcement actions.* NNEPA will not oppose intervention by any person in a UIC enforcement action when permissive intervention may be authorized by statute, rule or regulation.

- (c) *Settlements.* NNEPA will publish notice of and provide at least 30 days for public comment on any proposed settlement of a Navajo enforcement action. Notice will be provided by each of the following methods:
- (1) A notice by mail to each of the persons listed below. Persons otherwise entitled to receive notice under this paragraph may waive their rights to receive notice by expressly advising the Director in writing.
    - (A) Federal and Navajo Nation agencies with jurisdiction over fish and wildlife resources, the Advisory Council on Historic Preservation, the Navajo Nation Historic Preservation Department, and other appropriate agencies of affected states or tribes, including the state or tribal Historic Preservation Officer;
    - (B) Any Chapter or other unit of local government having jurisdiction over the area where the facility in question is located and each Navajo Nation agency having any authority under Navajo Nation law with respect to such facility; and
    - (C) Persons on a mailing list developed by:
      - (i) Including those who request to be on the list;
      - (ii) Soliciting persons for area lists from participants in permit proceedings in that area; and
      - (iii) Notifying the public of the opportunity to be put on the mailing list through periodic publication in the public press and in such publications as newsletters, environmental bulletins, and tribal law journals. The Director may update the mailing list from time to time by requesting written indication of continued interest from those listed. The name of any person who fails to respond to such a request may be deleted from the list.
  - (2) A notice in a daily or weekly newspaper within the area affected by the facility or activity;
  - (3) A notice broadcast over local radio stations in English and Navajo; and
  - (4) Any other method reasonably determined to give actual notice of the action in question to the persons potentially affected by it, including press releases or any other forum or medium to elicit public participation.

## **Subpart B - General Program Requirements**

### **101.21 Prohibition of unauthorized injection**

Any underground injection is prohibited except as authorized by a permit issued by NNEPA. Notwithstanding the foregoing sentence, if the owner or operator of an existing injection well has made a timely and complete permit application to NNEPA, pursuant to § 102.1(a) of these regulations and § 205 of the NNSDWA, but a permit has not yet been issued, the underground injection may continue as authorized by rule or by permit under the SDWA, pursuant to the requirements for authorization by rule under the SDWA or the EPA permit, respectively, and enforceable by EPA, until the Navajo permit is issued. Upon the effective date of EPA's grant of primacy to the Navajo Nation for the Navajo Nation UIC Program, the underground injection may continue as provided in § 102.13 of these regulations.

### **101.22 Prohibition of movement of fluid into underground sources of drinking water**

- (a) No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any Navajo primary drinking water regulation or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of this paragraph are met.
- (b) For Class II and III wells, if any water quality monitoring of an underground source of drinking water indicates the movement of any contaminant into the underground source of drinking water, except as authorized under part 3 of these regulations, the Director shall prescribe such additional requirements for construction, corrective action, operation, monitoring or reporting (including closure of the injection well) as are necessary to prevent such movement. These additional requirements shall be imposed by modifying the permit in accordance with § 102.9, or the permit may be terminated under § 102.10 if cause exists, or appropriate enforcement action may be taken if the permit has been violated.
- (c) For Class V wells, if at any time the Director learns that a Class V well may cause a violation of Navajo primary drinking water regulations, he or she shall:
  - (1) require the injector to obtain an individual permit;
  - (2) order the injector, in accordance with the appropriate provisions of the NNSDWA, to take such actions (including, where required, closure of the injection well) as may be necessary to prevent the violation; or
  - (3) take enforcement action.

- (d) Whenever the Director learns that a Class V well may be otherwise adversely affecting the health of persons, he or she may prescribe such actions as may be necessary to prevent the adverse effect, including any action authorized under subsection (c) of this section.
- (e) Notwithstanding any other provision of this section, the Director may take emergency action upon receipt of information that a contaminant which is present in or likely to enter a public water system or underground source of drinking water may present an imminent and substantial endangerment to the health of persons.

### **101.23 Prohibition of Class I and Class IV wells**

- (a) The construction, operation or maintenance of any Class IV well is prohibited.
- (b) Wells used to inject contaminated ground water that has been treated and is being reinjected into the same formation from which it was drawn are not prohibited by this section if such injection is approved by EPA pursuant to provisions for cleanup of releases under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA"), 42 U.S.C. § 9601 *et seq.*, and the Navajo Nation CERCLA or pursuant to requirements and provisions under RCRA.
- (c) The construction, operation or maintenance of any Class I well is prohibited until the Navajo Nation EPA has developed an approved program for Class I wells. The Director is under no obligation to develop such a program.
- (d) If the Director promulgates a program to regulate Class I wells, that is approved by EPA, then the following wells will not be prohibited by this regulation:
  - (1) Wells used to inject hazardous waste into aquifers or portions of aquifers that have been exempted pursuant to § 103.1, if the exempted aquifer into which waste is injected underlies the lowermost formation containing a USDW. Such wells are Class I wells as specified in § 101.7(a)(1), and the owner or operator must comply with the requirements applicable to Class I wells.
  - (2) Wells used to inject hazardous waste where no USDW exists within one-quarter (1/4) mile of the well bore in any underground formation, provided that the Director determines that such injection is into a formation sufficiently isolated to ensure that injected fluids do not migrate from the injection zone. Such wells are Class I wells as specified in § 101.7(a)(1), and the owner or operator must comply with the requirements applicable to Class I wells.
  - (3) Other industrial and municipal disposal wells used to inject non-hazardous waste beneath the lowermost formation containing, within one-quarter (1/4)



mile of the well bore, a USDW.

#### **101.24 Waiver of requirement by Director**

- (a) When injection does not occur into, through or above an underground source of drinking water, the Director may authorize a well or project with less stringent requirements for area of review, construction, mechanical integrity, operation, monitoring, and reporting than required in part 3 of these regulations or §102.22 to the extent that the reduction in requirements will not result in an increased risk of movement of fluids into an underground source of drinking water.
- (b) When injection occurs through or above an underground source of drinking water, but the radius of endangering influence when computed under § 103.2(b) is smaller or equal to the radius of the well, the Director may authorize a well or project with less stringent requirements for operation, monitoring, and reporting than required in part 3 of these regulations or § 102.22 to the extent that the reduction in requirements will not result in an increased risk of movement of fluids into an underground source of drinking water.
- (c) When reducing requirements under paragraph (a) or (b) of this section, the Director shall prepare a fact sheet under §206 of the Uniform Regulations explaining the reasons for the action.

#### **101.25 Records**

The Director may require, by written notice on a selective well-by-well basis, an owner or operator of an injection well to establish and maintain records, make reports, conduct monitoring, and provide other information as is deemed necessary to determine whether the owner or operator has acted or is acting in compliance with the NNSDWA or its implementing regulations.

#### **101.26 Emergency Actions**

Pursuant to section 802(C) of the NNSDWA, if the Director determines that a contaminant which is present in or is likely to enter an underground source of drinking water is presenting an imminent and substantial endangerment to the public health or welfare or the environment, and determines, in consultation with the Attorney General, that it is not practicable to assure prompt protection of public health or welfare or the environment by commencement of a civil action pursuant to section 803 of the NNSDWA, the Director may take such actions as the Director may deem necessary in order to protect the public health, welfare or environment. Such actions may include requiring the immediate closure of such underground injection facility and issuing such orders as may be necessary to protect the health of persons who are or may be users of such system (including travelers), including orders requiring the provision of alternative water supplies by persons who caused or contributed to the endangerment. Such orders shall be effective immediately

upon issuance and shall remain in effect for not more than 60 days, unless the Director brings an action for injunctive relief pursuant to section 803 of the NNSDWA within the 60-day period. If the Director brings such an action, the order shall remain in effect for an additional 14 days or for such longer period as may be authorized by the court in which such action is brought.

### **101.27 Navajo Nation Underground Injection Control Fund**

All penalties collected in any action to enforce the NNSDWA, these regulations, or any permits, orders, variances, or exemptions issued thereunder shall be deposited in the Navajo Nation Underground Injection Control Fund established pursuant to §703 of the NNSDWA.

### **101.28 Fees for Direct Emergency Action by the Director**

In the event that the Director is required to take direct action, in place of the owner or operator of the underground injection facility at issue, to respond to an emergency in order to protect the public health and welfare from imminent and substantial endangerment, the Director may charge a fee to cover the cost of such action. Such action may include, but is not limited to, conducting clean-up, closing a facility or providing alternative water supplies to the affected population. The fee shall be charged to the owner or operator of the relevant underground injection facility, and may be in addition to any penalty imposed in any civil action to enforce an order to comply or emergency order or any administrative penalty imposed under §304 of the Uniform Regulations.

## **Subpart C - Information requirements**

### **101.31 Requiring other information**

- (a) The Director may require the owner or operator of any well to submit information deemed necessary by the Director to determine whether a well may be endangering an underground source of drinking water in violation of § 101.22 of these regulations.
- (b) Such information requirements may include, but are not limited to:
  - (1) performance of ground water monitoring and the periodic submission of reports of such monitoring;
  - (2) an analysis of injected fluids, including periodic submission of such analyses; and
  - (3) a description of the geologic strata through and into which injection is taking place.
- (c) Any request for information under this section shall be made in writing, and include a brief statement of the reasons for requiring the information. An owner or operator shall submit the information within the time period(s) provided in the notice.

- (d) An owner or operator of an injection well is prohibited from injecting into the well upon failure of the owner or operator to comply with a request for information within the time period(s) specified by the Director pursuant to paragraph (c) of this section. An owner or operator of a well prohibited from injection under this section shall not resume injection until he has complied with the request for information to the Director's reasonable satisfaction.

## **PART 2 – UNDERGROUND INJECTION CONTROL PERMITS**

### **Subpart A - Permit Applications, Issuance and Fees**

#### **102.1 Application for a permit**

- (a) *Permit application.* Pursuant to § 205 of the NNSDWA, within 90 days of the effective date of the 2001 amendments to the NNSDWA, no person shall operate or construct an underground injection facility unless such person holds or, in the case of an existing facility, has applied for a permit from the Director.
- (b) *Who applies?* When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit.
- (c) *Time to apply.* Any person who performs or proposes an underground injection for which a permit is or will be required shall submit an application to the Director as follows:
  - (1) For existing wells, as expeditiously as practicable, subject to the requirements of subsection (a) above and § 205 of the NNSDWA.
  - (2) For new injection wells, a reasonable time before construction is expected to begin, subject to the requirements of subsection (a) above and § 205 of the NNSDWA.
- (d) *Completeness.* The Director shall not issue a permit before receiving a complete application for a permit, except for emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information, completed to his or her satisfaction, and the applicable permit application fees. For a facility or activity with an existing EPA permit, a permit transfer fee may be submitted to the Director rather than a permit application fee when applying for a Navajo permit. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity. All applications will be reviewed under §202 of the Uniform Regulations. An application will be deemed complete when the Director receives either a complete application or the information listed in a notice of

deficiency.

- (e) *Information requirements.* All applicants for permits shall provide the following information to the Director, using the application form provided by the Director.
- (1) The activities conducted by the applicant which require it to obtain permits under RCRA, UIC, the National Pollution Discharge Elimination System (“NPDES”) program under the Clean Water Act, or the Prevention of Significant Deterioration (“PSD”) program under the Clean Air Act.
  - (2) Name, mailing address, and location of the facility for which the application is submitted.
  - (3) Up to four SIC codes which best reflect the principal products or services provided by the facility.
  - (4) The operator's name, address, telephone number, ownership status, and status as federal, state, private, public, or other entity.
  - (5) A listing of all permits or construction approvals received or applied for under any of the following programs:
    - (A) Hazardous Waste Management program under RCRA.
    - (B) UIC program under SDWA.
    - (C) NPDES program under CWA.
    - (D) PSD program under the Clean Air Act.
    - (E) Nonattainment program under the Clean Air Act.
    - (F) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.
    - (G) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.
    - (H) Dredge and fill permits under section 404 of CWA.
    - (I) Other relevant environmental permits, including permits issued by the Navajo Nation.
  - (6) A topographic map (or other map if a topographic map is unavailable)

extending two miles in the case of Class II wells and 2½ miles in the case of Class III wells beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, and other surface water bodies and drinking water wells listed in public records or otherwise known to the applicant within ½ mile of the facility property boundary in the case of Class II wells and 2½ miles in the case of Class III wells.

- (7) A brief description of the nature of the business.
- (8) The applicant shall identify and submit on a list with the permit application the names and addresses of all owners of record of land within ½ mile of the facility boundary. This requirement may be waived by the Director where the site is located in a populous area and the Director determines that the requirement would be impracticable.
- (9) A plugging and abandonment plan that meets the requirements of § 103.6, where applicable, and is acceptable to the Director.
- (f) *Application by Facility Authorized by Rule.* A UIC facility authorized by rule pursuant to 40 C.F.R. part 144 that is a Class II enhanced recovery or hydrocarbon storage facility is required to obtain a permit from the Director. In such case, the permit applicant shall submit a copy of the inventory information and other information submitted to EPA pursuant to 40 C.F.R. parts 144 and 147. If such information does not include information required in subsection (e) of this section, the applicant must supplement its application to include this information. This submittal shall constitute the permit application and, if submitted within 90 days of the effective date of the NNSDWA, the facility may continue to operate pending issuance of a permit by the Director. The Director may issue a permit upon a determination that the facility is in compliance with the federal requirements for facilities authorized by rule, including financial responsibility, casing and cementing, mechanical integrity, monitoring, reporting and record-keeping requirements. This determination may be based on a certification by EPA that the facility is in compliance with such requirements. Authorization by rule for a well or project for which a permit application has been submitted terminates for the well or project upon the effective date of the permit and as provided in § 102.13.
- (g) *Recordkeeping.* Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under this section for a period of at least 3 years from the date the application is signed.
- (h) *Public notice of permit applications.* In addition to the permit application

requirements above, an applicant shall give public notice of its intention to apply for a permit as follows:

- (1) Prior to submitting an application to the Director, the applicant shall give notice to each landowner, tenant, and operator of a producing lease within one-half mile of the well and to the NNUIC Program. The notice shall include: (A) the name and address of the applicant; (B) a brief description of the planned injection activities, including well location, name and depth of the injection zone, maximum injection pressure and volume, and source and description of the fluid to be injected; (C) name, address, and phone number of the NNUIC Program contact person; and (D) a statement that opportunity to comment will be announced to the public after NNEPA prepares a draft permit.
- (2) The applicant shall submit to the Director, in addition to the information requirements listed in § 102.1(e), a description of the way notice was given and the names and addresses of those to whom it was given.
- (3) Upon written request and supporting documentation, the Director may waive the requirement in paragraph (1) to give individual notice of intent to apply for permits in an area where it would be impractical. However, notice to the NNUIC Program shall not be waived.

## **102.2 Signatories to permit applications and reports**

- (a) *Applications.* All permit applications, except those submitted for Class II wells (see paragraph (b) of this section), shall be signed as follows:
  - (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
    - (A) a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
    - (B) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: NNEPA does not require specific assignments or delegations of authority to responsible corporate officers identified in paragraph (1)(A) of

this subsection. The Agency will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under paragraph (1)(B) of this subsection rather than to specific individuals.

- (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
  - (3) For a municipality, tribal, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
    - (A) The chief executive officer of the agency, or
    - (B) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).
- (b) *Reports.* All reports required by permits, other information requested by the Director, and all permit applications submitted for Class II wells under § 102.1 shall be signed by a person described in subsection (a) of this section or by a duly authorized representative of that person. A person is a duly authorized representative only if:
- (1) The authorization is made in writing by a person described in subsection (a) of this section;
  - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
  - (3) The written authorization is submitted to the Director.
- (c) *Changes to authorization.* If an authorization under subsection (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

- (d) *Certification.* Any person signing a document under subsection (a) or (b) of this section shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

### **102.3 Area and multi-well permits**

- (a) *Area permits.*

- (1) The Director may issue a permit on an area basis, rather than for each well individually, provided that the permit is for injection wells:
  - (A) described and identified by location in permit application(s) if they are existing wells, except that the Director may accept a single description of wells with substantially the same characteristics;
  - (B) within the same well field, facility site, reservoir, project, or similar unit;
  - (C) operated by a single owner or operator; and
  - (D) used to inject other than hazardous waste.
- (2) Area permits shall specify:
  - (A) the area within which underground injections are authorized, and
  - (B) the requirements for construction, monitoring, reporting, operation, and abandonment, for all wells authorized by the permit.
- (3) The area permit may authorize the permittee to construct and operate, convert, or plug and abandon wells within the permit area, provided:
  - (A) the permittee notifies the Director at such time as the permit requires;
  - (B) the additional well satisfies the criteria in paragraph (1) of this section



and meets the requirements specified in the permit under paragraph (2) of this section; and

(C) the cumulative effects of drilling and operation of additional injection wells are considered by the Director during evaluation of the area permit application and are acceptable to the Director.

(4) If the Director determines that any well constructed pursuant to paragraph (3) of this section does not satisfy any of the requirements of paragraphs (3)(A) and (B) of this section, the Director may modify the permit under § 102.9, terminate under §102.10, or take enforcement action. If the Director determines that cumulative effects are unacceptable, the permit may be modified under §102.9.

(b) *Multi-well permits.*

(1) At the request of the operator or at the discretion of the Director, the Director may process the applications for several wells in a given area in a single permitting action and may issue a single multi-well permit. A multi-well permit may be appropriate in the following circumstances:

(A) when information as to the geology of the strata through and into which the injection is taking place is likely to be similar or identical for each well, so that a single set of descriptive documents may provide sufficient information for all the wells;

(B) when an owner or operator seeks to construct a new well concurrently with an application to permit an existing well in the same area, such as construction of a back-up well for an existing waste disposal well;

(C) when the wells to be permitted are of the same construction; or

(D) in other instances where the issuance of a multi-well permit furthers the goals of administrative efficiency and convenience.

(2) For the Director to issue a multi-well permit, the following criteria must be met:

(A) a separate application must be submitted for each well (both for existing wells and wells yet to be constructed), although, if supporting information is identical or similar for several wells, the applicant may submit a single set of documents providing such information;

(B) the wells must be operated by a single owner or operator;

- (C) the wells must be located within a given area.
- (3) When processing a multi-well permit, the Director may take all review and approval actions concurrently for the wells involved, including reviewing the permit applications, issuing public notice on the applications and setting the period for public comment.
- (4) The wells listed in the permit comprise the permit in its entirety. Any proposed changes to the permit specifications after issuance of the permit must be processed as permit modifications, pursuant to these regulations and the Uniform Regulations. However, wells covered by a multi-well permit may be plugged and abandoned without affecting the remaining wells covered by the permit.

#### **102.4 Emergency permits**

- (a) *Coverage.* Notwithstanding any other provision of these regulations or the Uniform Regulations, the Director may temporarily permit a specific underground injection if:
  - (1) an imminent and substantial endangerment to the health of persons will result unless a temporary emergency permit is granted; or
  - (2) a substantial and irretrievable loss of oil or gas resources will occur unless a temporary emergency permit is granted to a Class II well; and
    - (A) timely application for a permit could not practicably have been made; and
    - (B) the injection will not result in the movement of fluids into underground sources of drinking water; or
  - (3) a substantial delay in production of oil or gas resources will occur unless a temporary emergency permit is granted to a new Class II well and the temporary authorization will not result in the movement of fluids into an underground source of drinking water.
- (b) Requirements for issuance.
  - (1) Any temporary permit under paragraph (a)(1) of this section shall be for no longer term than required to prevent the hazard.
  - (2) Any temporary permit under paragraph (a)(2) of this section shall be for no

longer than 90 days, except that if a permit application has been submitted prior to the expiration of the 90-day period, the Director may extend the temporary permit until final action on the application.

- (3) Any temporary permit under paragraph (a)(3) of this section shall be issued only after a complete permit application has been submitted and shall be effective until final action on the application.
- (4) Notice of any temporary permit under this paragraph shall be published in accordance with §207 of the Uniform Regulations within 10 days of the issuance of the permit.
- (5) The temporary permit under this section may be either oral or written. If oral, it must be followed within 5 calendar days by a written temporary emergency permit.
- (6) The Director shall condition the temporary permit in any manner he or she determines is necessary to ensure that the injection will not result in the movement of fluids into an underground source of drinking water.

#### **102.5 Effect of a permit**

- (a) Except for Class II and III wells, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with those provisions of the NNSDWA that pertain to the protection of underground sources of drinking water. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in §§ 102.9 and 102.10.
- (b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.
- (c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of Navajo Nation law or regulations.

#### **102.6 Duration of permits**

- (a) Permits for Class V wells shall be effective for a fixed term not to exceed 10 years. UIC permits for Class II and III wells shall be issued for a period up to the operating life of the facility. The Director shall review each issued Class II or III well UIC permit at least once every 5 years to determine whether it should be modified, revoked and reissued, terminated, or a minor modification made as provided in §§ 102.9, 102.10, and 102.11.

- (b) Except as provided in §102.7, the term of a permit shall not be extended by modification beyond the maximum duration specified in this section.
- (c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

### **102.7 Continuation of expiring permits**

- (a) *Continuation by NNEPA.* A permit does not continue in force beyond its expiration date unless NNEPA allows the permit to continue until the effective date of the new permit. NNEPA may continue the permit provided the permittee has complied with the requirements of subsection (b) of this section. If NNEPA does not continue the permit, the facility or activity in question is operating without a permit from the time of expiration of the old permit to the effective date of the new permit, in violation of the NNSDWA and these regulations.
- (b) *Requirements for continuation.* For a permit to be continued, the responsible person must have submitted a timely and complete application for renewal to NNEPA, pursuant to these regulations, and the reason for the continuance must not be due to any fault of the permittee (for example, it may be due instead to time or resource constraints of NNEPA).
- (c) *Enforcement.* Permits continued under this section remain fully effective and are enforceable by NNEPA. When the permittee is not in compliance with the conditions of the expiring or expired permit the Director may choose to do any or all of the following:
  - (1) initiate enforcement action based upon the permit that has been continued;
  - (2) issue a notice of intent to deny the new permit. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
  - (3) issue a new permit pursuant to the Uniform Regulations, with appropriate conditions; or
  - (4) take other actions authorized by these regulations.

### **102.8 Transfer of permits**

- (a) *Transfers by modification.* Except as provided in subsection (b) of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 102.9(c)(2)) or a minor

modification made (under §102.11(a)(4)) to identify the new permittee and incorporate such other requirements as may be necessary under the NNSDWA, and the applicable transfer fee has been paid.

- (b) *Automatic transfers.* As an alternative to transfers under subsection (a) of this section, any UIC permit for a well not injecting hazardous waste may be automatically transferred to a new permittee if:
- (1) The current permittee notifies the Director at least 30 days in advance of the proposed transfer date referred to in paragraph (b)(2) of this section;
  - (2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them, and the notice demonstrates that the financial responsibility requirements of §102.22(a)(6) will be met by the new permittee; and
  - (3) The Director does not notify the existing permittee and the proposed new permittee of his intent to modify or revoke and reissue the permit. A modification under this paragraph may also be a minor modification under §102.11. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph (b)(2) of this section.

### **102.9 Modification or revocation and reissuance of permits**

- (a) When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see §102.21), receives a request for modification or revocation and reissuance under this section and §204 of the Uniform Regulations, or conducts a review of the permit file), he or she may determine whether or not one or more of the causes listed in subsections (b) and (c) of this section for modification or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of subsection (d) of this section and upon payment of the applicable permit fee, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. See §204 (c)(2) of the Uniform Regulations. If cause does not exist under this section or §102.11, the Director shall not modify or revoke and reissue the permit. If a permit modification satisfies the criteria in §102.11 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other procedures in the Uniform Regulations must be followed.
- (b) *Causes for modification.* The following are causes for modification. For Class II or

Class III wells the following may be causes for revocation and reissuance as well as modification, and for all other wells the following may be cause for revocation or reissuance as well as modification when the permittee requests or agrees.

- (1) *Alterations.* There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.
- (2) *Information.* The Director has received information. Permits other than for Class II and III wells may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance. For UIC area permits (§102.3), this cause shall include any information indicating that cumulative effects on the environment are unacceptable.
- (3) *New regulations.* The standards or regulations on which the permit was based have been changed by promulgation of new or amended standards or regulations or by judicial decision after the permit was issued. Permits other than for Class II or Class III wells may be modified during their terms for this cause only as follows:
  - (A) For promulgation of amended standards or regulations, when:
    - (i) The permit condition requested to be modified was based on a promulgated part 3 regulation; and
    - (ii) NNEPA has revised, withdrawn, or modified that portion of the regulation on which the permit condition was based, and
    - (iii) A permittee requests modification in accordance with §204 of the Uniform Regulations within ninety (90) days after issuance, under section 107(D) of the NNSDWA, of the action on which the request is based.
  - (B) For judicial decisions, a court of competent jurisdiction has remanded and stayed NNEPA- promulgated regulations if the remand and stay concern that portion of the regulations on which the permit condition was based and a request is filed by the permittee in accordance with §204 of the Uniform Regulations within ninety (90) days of judicial remand.
- (4) *Compliance schedules.* The Director determines good cause exists for

modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. See also §102.11(a)(3) (minor modifications).

- (c) *Causes for modification or revocation and reissuance.* The following are causes to modify or, alternatively, revoke and reissue a permit:
  - (1) Cause exists for termination under § 102.10, and the Director determines that modification or revocation and reissuance is appropriate.
  - (2) The Director has received notification (as required in the permit, see §102.11(a)(4)) of a proposed transfer of the permit. A permit also may be modified to reflect a transfer after the effective date of an automatic transfer (§ 102.8(b)) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.
  - (3) A determination that the waste being injected is a hazardous waste as defined in 40 CFR §261.3 either because the definition has been revised, or because a previous determination has been changed.
- (d) *Facility siting.* Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

### **102.10 Termination of permits**

- (a) The Director may terminate a permit during its term, or deny a permit renewal application for the following causes:
  - (1) noncompliance by the permittee with any condition of the permit;
  - (2) the permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or
  - (3) a determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.
- (b) The Director shall follow the applicable procedures in the Uniform Regulations in terminating any permit under this section.

### **102.11 Minor modifications of permits**

- (a) Upon the consent of the permittee, the Director may modify a permit to make the corrections or allowances for changes in the permitted activity listed in this section, without following the procedures of § 204 of the Uniform Regulations. Any permit modification not processed as a minor modification under this section must be made for cause and with draft permit and public notice as required in §102.9 and the Uniform Regulations. Minor modifications may only:
- (1) correct typographical errors;
  - (2) require more frequent monitoring or reporting by the permittee;
  - (3) change an interim compliance date in a schedule of compliance, provided the new date is not more than 120 days after the date specified in the existing permit and does not interfere with attainment of the final compliance date requirement;
  - (4) allow for a change in ownership or operational control of a facility where the Director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittees has been submitted to the Director;
  - (5) change quantities or types of fluids injected which are within the capacity of the facility as permitted and, in the judgment of the Director, would not interfere with the operation of the facility or its ability to meet conditions described in the permit and would not change its classification;
  - (6) change construction requirements approved by the Director pursuant to §102.22(a)(1) (establishing UIC permit conditions), provided that any such alteration shall comply with the requirements of the regulations in this part and in part 3;
  - (7) amend a plugging and abandonment plan which has been updated under §102.22(a)(5).

### **102.12 Permit fees**

The Director shall publish a schedule of permit fees (including permit application fees, annual permit fees, and fees to modify, revoke and reissue, and transfer permits) to be paid to NNEPA and deposited in the Navajo Nation UIC Fund. The revenue from such fees shall be used by the Director, in his discretion, to pay for reasonable direct and indirect costs of developing, implementing and administering the Navajo Nation UIC Program, including the cost of making



permit determinations and conducting inspections associated with ensuring compliance with permit conditions. The schedule of fees shall be adjusted for inflation as reasonably necessary and republished from time to time.

### **102.13 Transition to Navajo Regulation after Primacy**

- (a) *Wells with both Navajo and EPA permits.* Upon the effective date of EPA's grant of primacy for the Navajo Nation UIC Program, all Navajo permits that EPA has federalized by making a determination that they meet the requirements of the approved Navajo Nation UIC Program shall replace all EPA permits issued for the same wells. The EPA permits issued for those wells shall expire automatically upon the effective date of the grant of primacy.
  
- (b) *Wells with EPA permits only.* Upon the effective date of EPA's grant of primacy for the Navajo Nation UIC Program, NNEPA shall administer any existing EPA permits (including permits continued pursuant to 40 C.F.R. § 144.37) for wells for which there are no corresponding federalized Navajo permits. NNEPA shall administer the EPA permits, pursuant to Navajo law, until such time as NNEPA replaces the EPA permits with Navajo permits issued after the effective date of primacy. An EPA permit shall expire automatically on the date that a Navajo permit is issued to replace it.
  - (1) NNEPA shall give notice of the change in administration of the EPA permit to the affected permittees within 10 days of receiving primacy. The notice shall be mailed to each of the affected permittees together with copies of the Navajo laws and regulations applicable to the permittee. The notice shall contain the following information:
    - (A) the name of each well and its permit number;
    - (B) the effective date of EPA's grant of primacy to the Navajo Nation for the Navajo Nation UIC Program;
    - (C) the name and address of the Navajo Nation UIC Program, and the name, address, and telephone number of the contact person to whom the permittee will submit information pursuant to these regulations;
    - (D) the name, address, and telephone number of a contact person from whom the permittee may obtain further information about the transition; and
    - (E) any additional information that the Director considers necessary or appropriate.

- (2) NNEPA shall provide copies of the notice to the following additional entities:
- (A) the EPA Region 9 UIC Program, federal and Navajo agencies with jurisdiction over fish and wildlife resources or the public health, the Advisory Council on Historic Preservation, the Navajo Nation Historic Preservation Department, the relevant state Historic Preservation Department, and other appropriate agencies of affected states or tribes;
  - (B) any Chapter or other unit of local government having jurisdiction over the area where the well is located;
  - (C) each federal or Navajo Nation agency having any authority with respect to construction or operation of the well and not already notified pursuant to subparagraph (A); and
  - (D) any person who requested, in writing, to be notified.
- (3) The terms and conditions under which the EPA permit was issued remain the same unless the permit is modified.
- (c) *Wells with Navajo permits only.* Wells that are authorized by rule (“ABR”) under the federal UIC regulations are required to obtain permits under Section 205 of the Navajo Nation Safe Drinking Water Act and Section 102.1 of these regulations. Upon the effective date of EPA’s grant of primacy for the Navajo Nation UIC Program, these wells shall be subject to the federalized Navajo permits issued for these wells, and shall no longer be subject to the federal ABR regulations.
- (d) *Wells without permits.* In the event that there are wells authorized by rule under the federal UIC regulations that, on the effective date of EPA’s grant of primacy for the Navajo Nation UIC Program, do not yet have Navajo permits, NNEPA hereby incorporates by reference the federal ABR regulations, contained in 40 C.F.R. §§ 144.21-144.28 and 147.3006, solely for the purpose of regulating these wells that are temporarily without permits. The owners and operators of these ABR wells shall continue to comply with the ABR regulations, as incorporated by reference herein, until Navajo permits are issued for the wells, provided that any information required to be submitted pursuant to those regulations, such as inventories, well listings, and reports, shall be submitted to the Navajo Nation UIC Program instead of the EPA Region 9 Regional Administrator, and that references to the “Director” in those regulations shall mean the Executive Director of NNEPA. As soon as a Navajo permit is issued for a well, the well shall be subject to the Navajo permit and shall no longer be subject to the ABR regulations. This incorporation by reference of the ABR regulations shall terminate as soon as all ABR wells existing on the effective date of EPA’s grant of primacy have been issued Navajo permits.

- (1) Within 10 days of receiving primacy, NNEPA shall give notice, as provided in subsection (b)(1) of this section, to the owners and operators of the affected wells of the change in administration of the ABR regulations, and shall provide copies of such notice to the entities listed in subsection (b)(2).

## **Subpart B - Permit Conditions**

### **102.21 Conditions applicable to all permits**

The following conditions apply to all UIC permits. All conditions applicable to all permits shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

- (a) *Duty to comply.* The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the NNSDWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit under § 102.4.
- (b) *Duty to reapply.* If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- (c) *Need to halt or reduce activity not a defense.* It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) *Duty to mitigate.* The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
- (e) *Proper operation and maintenance.* The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.
- (f) *Permit actions.* This permit may be modified, revoked and reissued, or terminated

for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- (g) *Property rights.* This permit does not convey any property rights of any sort, or any exclusive privilege.
- (h) *Duty to provide information.* The permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.
- (i) *Inspection and entry.* The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:
  - (1) enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - (2) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - (3) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - (4) sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the NNSDWA, any substances or parameters at any location.
- (j) *Monitoring and records.*
  - (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - (2) The permittee shall retain records of all monitoring information, including the following:
    - (A) Calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3

years from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time.

- (B) The nature and composition of all injected fluids until three years after the completion of any plugging and abandonment procedures specified under §102.22(a)(5). The Director may require the owner or operator to deliver the records to the Director at the conclusion of the retention period.
- (3) Records of monitoring information shall include:
- (A) the date, exact place, and time of sampling or measurements;
  - (B) the individual(s) who performed the sampling or measurements;
  - (C) the date(s) analyses were performed;
  - (D) the individual(s) who performed the analyses;
  - (E) the analytical techniques or methods used; and
  - (F) the results of such analyses.
- (k) *Signatory requirement.* All applications, reports, or information submitted to the Director or the Administrator shall be signed and certified. (See §102.2.)
- (l) *Reporting requirements.*
- (1) *Planned changes.* The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.
  - (2) *Anticipated noncompliance.* The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
  - (3) *Transfers.* This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the NNSDWA. (See §102.8; in some cases, modification or revocation and reissuance is mandatory.)

- (4) *Monitoring reports.* Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (5) *Compliance schedules.* Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 30 days following each schedule date.
- (6) *Twenty-four hour reporting.* The permittee shall report any noncompliance which may endanger health or the environment, including:
  - (A) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; or
  - (B) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- (7) *Other noncompliance.* The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.
- (8) *Other information.* Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.
- (m) *Requirements prior to commencing injection.* Except for all new wells authorized by an area permit under §102.3(c), a new injection well may not commence injection until construction is complete, and
  - (1) the permittee has submitted notice of completion of construction to the Director; and
  - (2) (A) the Director has inspected or otherwise reviewed the new injection well

and finds it is in compliance with the conditions of the permit; or

(B) the permittee has not received notice from the Director of his intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in paragraph (m)(1) of this section, in which case prior inspection or review is waived and the permittee may commence injection. The Director shall include in his notice a reasonable time period in which he shall inspect the well.

- (n) The permittee shall notify the Director at such times as the permit requires before conversion or abandonment of the well or in the case of area permits before closure of the project.
- (o) A Class II or III permit shall include and a Class V permit may include conditions which meet the applicable requirements of § 103.6 to insure that plugging and abandonment of the well will not allow the movement of fluids into or between USDWs. Where the plan meets the requirements of § 103.6, the Director shall incorporate it into the permit as a permit condition. Where the Director's review of an application indicates that the permittee's plan is inadequate, the Director may require the applicant to revise the plan, prescribe conditions meeting the requirements of this paragraph, or deny the permit. For purposes of this paragraph, temporary or intermittent cessation of injection operations is not abandonment.
- (p) *Plugging and abandonment report.* Within 30 days after plugging a well or at the time of the next quarterly report (whichever is less), the owner or operator shall submit a report to the Director. If the quarterly report is due less than 15 days before completion of plugging, then the report shall be submitted within 30 days. The report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:
  - (1) a statement that the well was plugged in accordance with the plan previously submitted to the Director; or
  - (2) where actual plugging differed from the plan previously submitted, an updated version of the plan on the form supplied by the Director, specifying the differences.
- (q) *Duty to establish and maintain mechanical integrity.*
  - (1) The owner or operator of a Class II or III well permitted under these regulations shall establish, prior to commencing injection or on a schedule determined by the Director, and thereafter maintain mechanical integrity as defined in § 103.4. The Director may require by written notice that the owner or operator comply with a schedule describing when mechanical integrity

demonstrations shall be made.

- (2) When the Director determines that a Class II or III well lacks mechanical integrity pursuant to § 103.4, he shall give written notice of his determination to the owner or operator. Unless the Director requires immediate cessation, the owner or operator shall cease injection into the well within 48 hours of receipt of the Director's determination. The Director may allow plugging of the well pursuant to the requirements of § 103.6 or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluid into or between USDWs caused by the lack of mechanical integrity. The owner or operator may resume injection upon written notification from the Director that the owner or operator has demonstrated mechanical integrity pursuant to § 103.4.
- (3) The Director may allow the owner or operator of a well which lacks mechanical integrity pursuant to § 103.4(a)(1) to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between USDWs.

#### **102.22 Establishing permit conditions**

- (a) In addition to conditions required in § 102.21, the Director shall establish conditions, as required on a case-by-case basis under § 102.6 (duration of permits), § 102.23(a) (schedules of compliance) and § 102.24 (monitoring). Permits for Class II, Class III, and Class V wells shall contain the following requirements, when applicable:
  - (1) Construction requirements as set forth in part 3. Existing wells shall achieve compliance with such requirements according to a compliance schedule established as a permit condition. The owner or operator of a proposed new injection well shall submit plans for testing, drilling, and construction as part of the permit application. Except as authorized by an area permit, no construction may commence until a permit has been issued containing construction requirements (see §101.21). New wells shall be in compliance with these requirements prior to commencing injection operations. Changes in construction plans during construction may be approved by the Director as minor modifications (§102.11). No such changes may be physically incorporated into construction of the well prior to approval of the modification by the Director.
  - (2) Corrective action as set forth in § 102.25 and § 103.3.
  - (3) Operation requirements as set forth in part 3. The permit shall establish any maximum injection volumes and/or pressures necessary to assure that



fractures are not initiated in the confining zone, that injected fluids do not migrate into any underground source of drinking water, that formation fluids are not displaced into any underground source of drinking water, and to assure compliance with part 3 operating requirements.

- (4) Monitoring and reporting requirements as set forth in part 3. The permittee shall be required to identify types of tests and methods used to generate the monitoring data.
- (5) After a cessation of operations of two years the owner or operator shall plug and abandon the well in accordance with the plan unless he/she:
  - (A) Provides notice to the Director.
  - (B) Describes actions or procedures, satisfactory to the Director, that the owner or operator will take to ensure that the well will not endanger USDWs during the period of temporary abandonment. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the Director.
- (6) *Financial responsibility.*
  - (A) The permittee, including the transferor of a permit, is required to demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director until:
    - (i) the well has been plugged and abandoned in accordance with an approved plugging and abandonment plan pursuant to §102.21(o) and § 103.6, and submitted a plugging and abandonment report pursuant to § 102.21(p); or
    - (ii) the well has been converted in compliance with the requirements of § 102.21(n); or
    - (iii) the transferor of a permit has received notice from the Director that the owner or operator receiving transfer of the permit, the new permittee, has demonstrated financial responsibility for the well.
  - (B) The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, letter of credit, insurance, corporate guarantee or other adequate assurance, such as

a financial statement or other materials acceptable to the Director. The Director may on a periodic basis require the holder of a permit to submit an estimate of the resources needed to plug and abandon the well revised to reflect inflation of such costs, and a revised demonstration of financial responsibility, if necessary.

- (7) *Mechanical integrity.* A permit for any Class II or III well or injection project which lacks mechanical integrity shall include, and for any Class V well may include, a condition prohibiting injection operations until the permittee shows to the satisfaction of the Director under § 103.4 that the well has mechanical integrity.
  - (8) *Additional conditions.* The Director shall impose on a case-by-case basis such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water.
- (b) In addition to conditions required in all permits the Director shall establish conditions in permits as required on a case-by-case basis, to provide for and assure compliance with all applicable requirements of the NNSDWA and these regulations.
- (1) An applicable requirement is a NNEPA statutory or regulatory requirement which takes effect prior to final administrative disposition of the permit. An applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 102.9.
  - (2) New or reissued permits and, to the extent allowed under § 102.9, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in this section.
- (c) *Incorporation.* All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

### **102.23 Schedule of compliance**

- (a) *General.* The permit may, when appropriate, specify a schedule of compliance leading to compliance with the NNSDWA and these regulations.
  - (1) *Time for compliance.* Any schedules of compliance shall require compliance as soon as possible, and in no case later than 3 years after the effective date of the permit.
  - (2) *Interim dates.* Except as provided in paragraph (b)(1)(B) of this section, if

a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

- (A) The time between interim dates shall not exceed 1 year.
  - (B) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.
- (3) *Reporting.* The permit shall be written to require that if paragraph (a)(1) of this section is applicable, progress reports be submitted no later than 30 days following each interim date and the final date of compliance.
- (b) *Alternative schedules of compliance.* A permit applicant or permittee may cease conducting regulated activities (by plugging and abandonment) rather than continue to operate and meet permit requirements as follows:
- (1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:
    - (A) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or
    - (B) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.
  - (2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.
  - (3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:
    - (A) both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

- (B) one schedule shall lead to timely compliance with applicable requirements;
  - (C) the second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;
  - (D) each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(A) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.
- (4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as a resolution of the board of directors of a corporation.

#### **102.24 Requirements for recording and reporting of monitoring results**

All permits shall specify:

- (a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);
- (b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;
- (c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in part 3. Reporting shall be no less frequent than specified in the above regulations.

#### **102.25 Corrective action**

- (a) *Coverage.* Applicants for Class II (other than existing) or III injection well permits shall identify the location of all known wells within the injection well's area of review which penetrate the injection zone or, in the case of Class II wells operating over the fracture pressure of the injection formation, all known wells within the area of review penetrating formations affected by the increase in pressure. For such wells which are improperly sealed, completed or abandoned, the applicant shall also submit a plan consisting of such steps or modifications as are necessary to prevent

movement of fluid into underground sources of drinking water ("corrective action"). Where the plan is adequate, the Director shall incorporate it into the permit as a condition. Where the Director's review of an application indicates that the permittee's plan is inadequate (based on the factors in § 103.3), the Director shall require the applicant to revise the plan, prescribe a plan for corrective action as a condition of the permit under subsection (b) of this section, or deny the application. The Director may disregard the provisions of § 103.2 (Area of Review) and § 103.3 (Corrective Action) when reviewing an application to permit an existing Class II well.

(b) *Requirements.*

- (1) *Existing injection wells.* Any permit issued for an existing injection well (other than Class II) requiring corrective action shall include a compliance schedule requiring any corrective action accepted or prescribed under subsection (a) of this section to be completed as soon as possible.
- (2) *New injection wells.* No owner or operator of a new injection well may begin injection until all required corrective action has been taken.
- (3) *Injection pressure limitation.* The Director may require as a permit condition that injection pressure be so limited that pressure in the injection zone does not exceed hydrostatic pressure at the site of any improperly completed or abandoned well within the area of review. This pressure limitation shall satisfy the corrective action requirement. Alternatively, such injection pressure limitation can be part of a compliance schedule and last until all other required corrective action has been taken.
- (4) *Class III wells only.* When setting corrective action requirements the Director shall consider the overall effect of the project on the hydraulic gradient in potentially affected USDWs, and the corresponding changes in potentiometric surface(s) and flow direction(s) rather than the discrete effect of each well. If a decision is made that corrective action is not necessary based on the determinations above, the monitoring program required in § 103.23(b) shall be designed to verify the validity of such determinations.

## **PART 3 -- CRITERIA AND STANDARDS**

### **Subpart A - General Criteria**

#### **103.1 Criteria for exempted aquifers**

- (a) An aquifer or a portion thereof which meets the criteria for an "underground source of drinking water" in § 101.5 may be determined under § 101.8 to be an "exempted

aquifer" if it meets the following criteria:

- (1) it does not currently serve as a source of drinking water; and
- (2) it can not now and will not in the future serve as a source of drinking water because:
  - (A) it is mineral-, hydrocarbon- or geothermal energy-producing, or can be demonstrated by a permit applicant as part of a permit application for a Class II or III operation to contain minerals or hydrocarbons that, considering their quantity and location, are expected to be commercially producible;
  - (B) it is situated at a depth or location that makes recovery of water for drinking water purposes economically or technologically impractical;
  - (C) it is so contaminated that it would be economically or technologically impractical to render that water fit for human consumption; or
  - (D) it is located over a Class III well mining area subject to subsidence or catastrophic collapse.

### **103.2 Area of review**

- (a) The area of review for each injection well or each field, project or area of the Navajo Nation shall be determined according to either subsection (b) or (c) of this section. The Director may solicit input from the owners or operators of injection wells within the Navajo Nation as to which method is most appropriate for each geographic area or field.
- (b) *Zone of endangering influence.*
  - (1) The zone of endangering influence shall be:
    - (A) In the case of application(s) for well permit(s) under § 102.1, that area the radius of which is the lateral distance in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of drinking water; or
    - (B) In the case of an application for an area permit under § 102.3, the project area plus a circumscribing area the width of which is the lateral distance from the perimeter of the project area, in which the pressures in the injection zone may cause the migration of the injection and/or formation fluid into an underground source of

drinking water.

- (2) Computation of the zone of endangering influence may be based upon the parameters listed below and should be calculated for an injection time period equal to the expected life of the injection well or pattern. The following modified Theis equation illustrates one form which the mathematical model may take.

$$r = [(2.25KHt)/(S)(10^{EE(x)})]^{EE(0.5)}$$

where:

$$x = [(4)(\pi)(K)(H)(h_w - (h_{bo})(S_p)(G_b))]/[(2.3)(Q)]$$

note:

The symbol "()" denotes multiplication, "/" denotes division, "EE" denotes exponentiation.

r=Radius of endangering influence from injection well (length)

k=Hydraulic conductivity of the injection zone (length/time)

H=Thickness of the injection zone (length)

t=Time of injection (time)

S=Storage coefficient (dimensionless)

Q=Injection rate (volume/time)

h<sub>bo</sub>=Observed original hydrostatic head of injection zone (length) measured from the base of the lowermost underground source of drinking water

h<sub>w</sub>=Hydrostatic head of underground source of drinking water (length) measured from the base of the lowest underground source of drinking water

S<sub>p</sub>G<sub>b</sub>=Specific gravity of fluid in the injection zone (dimensionless)

π=3.142 (dimensionless)

The above equation is based on the following assumptions:

- (A) The injection zone is homogenous and isotropic;
- (B) The injection zone has infinite area extent;
- (C) The injection well penetrates the entire thickness of the injection zone;
- (D) The well diameter is infinitesimal compared to "r" when injection time is longer than a few minutes; and
- (E) The emplacement of fluid into the injection zone creates

instantaneous increase in pressure.

(c) *Fixed radius - Class II*

- (1) In the case of application(s) for well permit(s) under § 102.1, a fixed radius around the well of not less than one-half ( $\frac{1}{2}$ ) mile may be used.
- (2) In the case of an application for an area permit under § 102.3, a fixed width of not less than one-half ( $\frac{1}{2}$ ) mile for the circumscribing area may be used.

In determining the fixed radius, the following factors shall be taken into consideration: chemistry of injected and formation fluids; hydrogeology; population and ground-water use and dependence; and historical practices in the area.

(d) *Fixed radius - Class III.* The area of review for Class III wells or well fields may be any one of the following:

- (1) An area defined by a radius two and one-half miles from the well or well field;
- (2) An area one-quarter mile or one-half mile from the well or well field where the well field production at the times exceeds injection to produce a net withdrawal; or
- (3) A suitable distance, not less than one-quarter mile, proposed by the owner or operator and approved by the Director based upon a mathematical calculation such as that found in paragraph (b)(2).

(e) If the area of review is determined by a mathematical model pursuant to subsection (b) of this section, the permissible radius is the result of such calculation even if it is less than the previous distances for radii.

### **103.3 Corrective action**

- (a) In determining the adequacy of corrective action proposed by the applicant under § 102.25 and in determining the additional steps needed to prevent fluid movement into underground sources of drinking water, the following criteria and factors shall be considered by the Director:
- (1) nature and volume of injected fluid;
  - (2) nature of native fluids or by-products of injection;
  - (3) potentially affected population;



- (4) geology;
- (5) hydrology;
- (6) history of the injection operation;
- (7) completion and plugging records;
- (8) abandonment procedures in effect at the time the well was abandoned; and
- (9) hydraulic connections with underground sources of drinking water.

#### **103.4 Mechanical integrity**

- (a) An injection well has mechanical integrity if:
  - (1) there is no significant leak in the casing, tubing or packer; and
  - (2) there is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore.
- (b) One of the following methods must be used to evaluate the absence of significant leaks under paragraph (a)(1) of this section:
  - (1) following an initial pressure test (using liquid or gas that clearly demonstrates that mechanical integrity exists at the time of the pressure test), monitoring of the tubing-casing annulus pressure with sufficient frequency to be representative, as determined by the Director, while maintaining an annulus pressure different from atmospheric pressure measured at the surface;
  - (2) pressure test with liquid or gas; or
  - (3) records of monitoring showing the absence of significant changes in the relationship between injection pressure and injection flow rate for the following Class II enhanced recovery wells:
    - (A) existing wells completed without a packer provided that a pressure test has been performed and the data is available, and provided further that one pressure test shall be performed at a time when the well is shut down and if the running of such a test will not cause further loss of significant amounts of oil or gas; or
    - (B) existing wells constructed without a long string casing but with

surface casing which terminates at the base of fresh water, provided that local geological and hydrological features allow such construction and provided further that the annular space shall be visually inspected. For these wells, the Director shall prescribe a monitoring program which will verify the absence of significant fluid movement from the injection zone into a USDW.

- (c) One of the following methods must be used to determine the absence of significant fluid movement under paragraph (a)(2) of this section:
  - (1) the results of a temperature or noise log; or
  - (2) for Class II wells only, cementing records demonstrating the presence of adequate cement to prevent such migration; or
  - (3) for Class III wells where the nature of the casing precludes the use of the logging techniques prescribed in paragraph (c)(1) of this section, cementing records demonstrating the presence of adequate cement to prevent such migration.
  - (4) For Class III wells where the Director elects to rely on cementing records to demonstrate the absence of significant fluid movement, the monitoring program prescribed by § 103.33(b) shall be designed to verify the absence of significant fluid movement.
- (d) The Director may allow the use of a test to demonstrate mechanical integrity other than those listed in subsection (b) and paragraph (c)(2) of this section with the written approval of the Administrator. To obtain approval, the Director shall submit a written request to the Administrator, which shall set forth the proposed test and all technical data supporting its use. The Administrator will approve the request if it will reliably demonstrate the mechanical integrity of wells for which its use is proposed. Any alternate method approved by the Administrator will be published in the Federal Register and may be used within the Navajo Nation unless its use is restricted at the time of approval by the Administrator.
- (e) In conducting and evaluating the tests enumerated in this section or others to be allowed by the Director, the owner or operator and the Director shall apply methods and standards generally accepted in the industry. When the owner or operator reports the results of mechanical integrity tests to the Director, he shall include a description of the test(s) and the method(s) used. In making his/her evaluation, the Director shall review monitoring and other test data submitted since the previous evaluation.
- (f) The Director may require additional or alternative tests if the results presented by the owner or operator under subsection (e) of this section are not satisfactory to the

Director to demonstrate that there is no movement of fluid into or between USDWs resulting from the injection activity.

### **103.5 Criteria for establishing permitting priorities**

- (a) In determining priorities for setting times for owners or operators to submit applications for authorization to inject under the procedures of §102.1(a),(c) and (g), the Director shall take account of the following factors:
  - (1) injection wells known or suspected to be contaminating underground sources of drinking water;
  - (2) injection wells known to be injecting fluids containing hazardous contaminants;
  - (3) likelihood of contamination of underground sources of drinking water;
  - (4) potentially affected population;
  - (5) injection wells violating existing tribal requirements;
  - (6) coordination with the issuance of permits required by other tribal or federal permit programs;
  - (7) age and depth of the injection well; and
  - (8) expiration dates of existing tribal or federal permits, if any.

### **103.6 Plugging and abandoning Class II and Class III wells**

- (a) Prior to abandoning a Class II or Class III well, the well shall be plugged with cement in a manner that will not allow the movement of fluids either into or between underground sources of drinking water. The Director may allow Class III wells to use other plugging materials if he/she is satisfied that such materials will prevent movement of fluids into or between underground sources of drinking water.
- (b) Placement of the cement plugs shall be accomplished by one of the following:
  - (1) the Balance method;
  - (2) the Dump Bailer method;
  - (3) the Two-Plug method; or

- (4) an alternative method approved by the Director, which will reliably provide a comparable level of protection to underground sources of drinking water.
- (c) The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director, prior to the placement of the cement plug(s).
- (d) The plugging and abandonment plan required in §§ 102.22(a)(5) and 102.21(o) shall, in the case of a Class III project which underlies or is in an aquifer which has been exempted under § 103.1, also demonstrate adequate protection of USDWs. The Director shall prescribe aquifer cleanup and monitoring where he/she deems it necessary and feasible to insure adequate protection of USDWs.
- (e) The Director shall include in each permit for a Class III uranium project the concentrations of contaminants to which aquifers must be cleaned up in order to protect surrounding USDWs. The concentrations will be set as close as is feasible to the original conditions.
- (f) For Class III uranium projects, when requesting permission to plug a well, owners and operators shall submit for the Director's approval a schedule for the proposed aquifer cleanup, in addition to the information required by §103.34(c).
- (g) For Class III uranium projects, cleanup and monitoring shall be continued until the owner or operator certifies that no constituent listed in the permit exceeds the concentrations required by the permit, and the Director notifies the permittee in writing that cleanup activity may be terminated.

## **Subpart B - Criteria and Standards Applicable to Class II Wells**

### **103.21 Applicability**

This subpart establishes criteria and standards for the Navajo Nation Underground Injection Control program to regulate Class II wells.

### **103.22 Construction requirements**

- (a) All new Class II wells shall be sited in such a fashion that they inject into a formation which is separated from any USDW by a confining zone that is free of known open faults or fractures within the area of review.
- (b) All Class II injection wells shall be cased and cemented to prevent movement of fluids into or between underground sources of drinking water. The casing and cement used in the construction of each newly drilled well shall be designed for the

life expectancy of the well.

- (1) In determining and specifying casing and cementing requirements, the following factors shall be considered:
    - (A) depth to the injection zone;
    - (B) depth to the bottom of all USDWs; and
    - (C) estimated maximum and average injection pressures.
  - (2) In addition, the Director may consider information on:
    - (A) nature of formation fluids;
    - (B) lithology of injection and confining zones;
    - (C) external pressure, internal pressure, and axial loading;
    - (D) hole size;
    - (E) size and grade of all casing strings; and
    - (F) class of cement.
- (c) The requirements in subsection (b) of this section need not apply to existing or newly converted Class II wells located in existing fields if:
- (1) regulatory controls for casing and cementing existed for those wells at the time of drilling and those wells are in compliance with those controls; and
  - (2) well injection will not result in the movement of fluids into an underground source of drinking water so as to create a significant risk to the health of persons.
- (d) The requirements in subsection (b) of this section need not apply to newly drilled wells in existing fields if:
- (1) they meet tribal requirements for casing and cementing applicable to that field at the time of submission of the Navajo program to the Administrator; and
  - (2) well injection will not result in the movement of fluids into an underground source of drinking water so as to create a significant risk to the health of

persons.

- (e) Where the Navajo Nation did not have regulatory controls for casing and cementing prior to the time of submission of the Navajo program to the Administrator, the Director need not apply the casing and cementing requirements in subsection (b) of this section if he/she submits, as a part of the application for primacy, an appropriate plan for casing and cementing of existing, newly converted and newly drilled wells in existing fields, and the Administrator approves the plan.
- (f) Appropriate logs and other tests shall be conducted during the drilling and construction of new Class II wells. A descriptive report interpreting the results of that portion of those logs and tests which specifically relate to (1) a USDW and the confining zone adjacent to it, and (2) the injection and adjacent formations, shall be prepared by a knowledgeable log analyst and submitted to the Director. At a minimum, these logs and tests shall include:
  - (1) Deviation checks on all holes constructed by first drilling a pilot hole and then enlarging the pilot hole by reaming or another method. Such checks shall be at sufficiently frequent intervals to assure that vertical avenues for fluid movement in the form of diverging holes are not created during drilling.
  - (2) Such other logs and tests as may be needed after taking into account the availability of similar data in the area of the drilling site, the construction plan, and the need for additional information that may arise from time to time as the construction of the well progresses. In determining which logs and tests shall be required, the following shall be considered by the Director in setting logging and testing requirements:
    - (A) For surface casing intended to protect underground sources of drinking water in areas where the lithology has not been determined:
      - (i) electric and caliper logs before casing is installed; and
      - (ii) a cement bond, temperature, or density log after the casing is set and cemented.
    - (B) For intermediate and long strings of casing intended to facilitate injection:
      - (i) electric porosity and gamma ray logs before the casing is installed;
      - (ii) fracture finder logs; and

- (iii) a cement bond, temperature, or density log after the casing is set and cemented.
- (g) At a minimum, the following information concerning the injection formation shall be determined or calculated for new Class II wells or projects:
  - (1) fluid pressure;
  - (2) estimated fracture pressure; and
  - (3) physical and chemical characteristics of the injection zone.

### **103.23 Operating, monitoring and reporting requirements**

- (a) *Operating requirements.* Operating requirements shall, at a minimum, specify that:
  - (1) Injection pressure at the wellhead shall not exceed a maximum which shall be calculated so as to assure that the pressure during injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into an underground source of drinking water.
  - (2) In addition to the requirements in paragraph (1) above,
    - (A) owners and operators shall use an injection pressure no greater than the pressure established by the Director for the field or formation in which the well is located. The Director shall establish such maximum pressure after notice, opportunity for comment, and opportunity for public hearing according to the Uniform Regulations, and shall inform owners and operators in writing of the applicable maximum pressure; or
    - (B) an owner or operator may inject at a pressure greater than that specified in paragraph (A) for the field or formation in which he is operating after demonstrating in writing to the satisfaction of the Director that such injection pressure will not violate the requirements of paragraph (a)(1) of this section. The Director may grant such a request after notice, opportunity for comment, and opportunity for public hearing according to the Uniform Regulations.
  - (3) Prior to the time that the Director establishes rules for maximum injection pressure under paragraph (a)(2)(A), the owner or operator shall:
    - (A) limit injection pressure to a value which will not exceed the operating

requirements of paragraph (a)(1); and

(B) submit data acceptable to the Director which defines the fracture pressure of the formation in which injection is taking place. A single submission may be made on behalf of two or more operators conducting operations in the same field and formation, if the Director approves.

(4) Injection between the outermost casing protecting underground sources of drinking water and the well bore shall be prohibited.

(b) *Monitoring requirements.* Monitoring requirements shall, at a minimum, include:

(1) Monitoring of the nature of injected fluids at time intervals sufficiently frequent to yield data representative of their characteristics.

(2) Observation of injection pressure, flow rate, and cumulative volume at least with the following frequencies:

(A) weekly for produced fluid disposal operations;

(B) monthly for enhanced recovery operations;

(C) daily during the injection of liquid hydrocarbons and injection for withdrawal of stored hydrocarbons; and

(D) daily during the injection phase of cyclic steam operations;

and recording of one observation of injection pressure, flow rate and cumulative volume at reasonable intervals no greater than 30 days.

(3) A demonstration of mechanical integrity pursuant to § 103.4 at least once every three or five years during the life of the injection well (see NNUIC Program Description, Attachment J: NNEPA Mechanical Integrity Test (MIT) Part I: Requirements for Internal Test).

(4) Maintenance of the results of all monitoring until the next permit review (see § 102.22(a)(4)).

(5) Hydrocarbon storage and enhanced recovery may be monitored on a field or project basis rather than on an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well, operating with a common manifold. Separate monitoring systems for each well are not required provided the



owner/operator demonstrates that manifold monitoring is comparable to individual well monitoring.

(c) *Reporting requirements.*

- (1) Reporting requirements shall at a minimum include an annual report to the Director summarizing the results of monitoring required under subsection (b) of this section. Such summary shall include monthly records of injected fluids and any major changes in characteristics or sources of injected fluid. Previously submitted information may be included by reference.
- (2) Owners or operators of hydrocarbon storage and enhanced recovery projects may report on a field or project basis rather than an individual well basis where manifold monitoring is used.

**103.24 Information to be considered by the Director**

This section sets forth the information which must be considered by the Director in authorizing Class II wells. Certain maps, cross-sections, tabulations of wells within the area of review, and other data may be included in the application by reference provided they are current, readily available to the Director (for example, in the Navajo Nation Underground Injection Control Program's files) and sufficiently identified to be retrieved.

- (a) Prior to the issuance of a permit for an existing Class II well to operate or for the construction or conversion of a new Class II well the Director shall consider the following:
  - (1) Information required in § 102.1.
  - (2) A topographic map showing the injection well or project area for which a permit is sought and the applicable area of review. Within the area of review, the topographic map must show the number or name and location of all existing producing wells, injection wells, abandoned wells, dry holes, and water wells. The topographic map may also show surface bodies of water, mines (surface and subsurface), quarries and other pertinent surface features including residences and roads, and faults if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map. This requirement does not apply to existing Class II wells.
  - (3) A tabulation of data reasonably available from public records or otherwise known to the applicant on all wells within the area of review included on the map required under paragraph (a)(2) of this section which penetrate the proposed injection zone or, in the case of Class II wells operating over the

fracture pressure of the injection formation, all known wells within the area of review which penetrate formations affected by the increase in pressure. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and completion, and any additional information the Director may require. In cases where the information would be repetitive and the wells are of similar age, type and construction, the Director may elect to require data on only a representative number of wells. This requirement does not apply to existing Class II wells.

- (4) Proposed operating data:
    - (A) average and maximum daily rate and volume of fluids to be injected;
    - (B) average and maximum injection pressure; and
    - (C) source and an appropriate analysis of the chemical and physical characteristics of the injection fluid.
  - (5) Appropriate geological data on the injection zone and confining zone including lithologic description, geological name, thickness and depth.
  - (6) Geologic name and depth to bottom of all underground sources of drinking water which may be affected by the injection.
  - (7) Schematic or other appropriate drawings of the surface and subsurface construction details of the well.
  - (8) In the case of new injection wells, the corrective action proposed to be taken by the applicant under § 102.25.
  - (9) A certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by § 102.22(a)(6).
- (b) In addition, the Director may consider the following:
- (1) Proposed formation testing program to obtain the information required by § 103.22(g).
  - (2) Proposed stimulation program.
  - (3) Proposed injection procedure.
  - (4) Proposed contingency plans, if any, to cope with well failures so as to prevent

migration of contaminating fluids into an underground source of drinking water.

- (5) Plans for meeting the monitoring requirements of § 103.23(b).
- (c) Prior to granting approval for the operation of a Class II well the Director shall consider the following information:
- (1) All available logging and testing program data on the well.
  - (2) A demonstration of mechanical integrity pursuant to § 103.4.
  - (3) The anticipated maximum pressure and flow rate at which the permittee will operate.
  - (4) The results of the formation testing program.
  - (5) The actual injection procedure.
  - (6) For new wells, the status of corrective action on defective wells in the area of review.
- (d) Prior to granting approval for the plugging and abandonment of a Class II well the Director shall consider the following information:
- (1) The type and number of plugs to be used.
  - (2) The placement of each plug, including the elevation of top and bottom.
  - (3) The type, grade, and quantity of cement to be used.
  - (4) The method of placement of the plugs.
  - (5) The procedure to be used to meet the requirements of § 103.6.

## **Subpart C - Criteria and Standards Applicable to Class III Wells**

### **103.31 Applicability**

This subpart establishes criteria and standards for the Navajo Nation Underground Injection Control program to regulate Class III wells.

### **103.32 Construction requirements**

- (a) All new Class III wells shall be cased and cemented to prevent the migration of fluids into or between underground sources of drinking water. The Director may waive the cementing requirement for new wells in existing projects or portions of existing projects where he/she has substantial evidence that no contamination of underground sources of drinking water would result. The casing and cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. In determining and specifying casing and cementing requirements, the following factors shall be considered:
- (1) depth to the injection zone;
  - (2) injection pressure, external pressure, internal pressure, axial loading, etc.;
  - (3) hole size;
  - (4) size and grade of all casing strings (wall thickness, diameter, nominal weight, length, joint specification, and construction material);
  - (5) corrosiveness of injected fluids and formation fluids;
  - (6) lithology of injection and confining zones; and
  - (7) type and grade of cement.
- (b) Appropriate logs and other tests shall be conducted during the drilling and construction of new Class III wells. A descriptive report interpreting the results of such logs and tests shall be prepared by a knowledgeable log analyst and submitted to the Director. The logs and tests appropriate to each type of Class III well shall be determined based on the intended function, depth, construction and other characteristics of the well, availability of similar data in the area of the drilling site and the need for additional information that may arise from time to time as the construction of the well progresses. Deviation checks shall be conducted on all holes where pilot holes and reaming are used, unless the hole will be cased and cemented by circulating cement to the surface. Where deviation checks are necessary they shall be conducted at sufficiently frequent intervals to assure that vertical avenues for fluid migration in the form of diverging holes are not created during drillings.
- (c) Where the injection zone is a formation which is naturally water-bearing, the following information concerning the injection zone shall be determined or calculated for new Class III wells or projects:
- (1) fluid pressure;
  - (2) fracture pressure; and

- (3) physical, chemical and radiological characteristics of the formation fluids.
- (d) Where the injection formation is not a water-bearing formation, the information in paragraph (c)(2) of this section must be submitted.
- (e) Where injection is into a formation which contains water with less than 10,000 mg/l TDS, monitoring wells shall be completed into the injection zone and into any underground sources of drinking water above or below the injection zone which could be affected by the mining operation. These wells shall be located in such a fashion as to detect any excursion of injection fluids, process by-products or formation fluids outside the mining area or zone. If the operation may be affected by subsidence or catastrophic collapse the monitoring wells shall be located so that they will not be physically affected.
- (f) Where injection is into a formation that does not contain water with less than 10,000 mg/l TDS, no monitoring wells are necessary in the injection stratum.
- (g) Where the injection wells penetrate a USDW in an area subject to subsidence or catastrophic collapse, an adequate number of monitoring wells shall be completed into the USDW to detect any movement of injected fluids, process by-products or formation fluids into the USDW. The monitoring wells shall be located outside the physical influence of the subsidence or catastrophic collapse.
- (h) In determining the number, location, construction and frequency of monitoring of the monitoring wells, the following criteria shall be considered:
  - (1) the population relying on the USDW affected or potentially affected by the injection operation;
  - (2) the proximity of the injection operation to points of withdrawal of drinking water;
  - (3) the local geology and hydrology;
  - (4) the operating pressures and whether a negative pressure gradient is being maintained;
  - (5) the nature and volume of the injected fluid, the formation water, and the process by-products; and
  - (6) the injection well density.

### **103.33 Operating, monitoring, and reporting requirements**

- (a) *Operating requirements.* Operating requirements prescribed shall, at a minimum, specify that:
- (1) Except during well stimulation, injection pressure at the wellhead shall be calculated so as to assure that the pressure in the injection zone during injection does not initiate new fractures or propagate existing fractures in the injection zone. In no case shall injection pressure initiate fractures in the confining zone or cause the migration of injection or formation fluids into an underground source of drinking water.
  - (2) Injection between the outermost casing protecting underground sources of drinking water and the well bore is prohibited.

- (b) *Monitoring requirements.* Monitoring requirements shall, at a minimum, specify:
- (1) Monitoring of the nature of injected fluids with sufficient frequency to yield representative data on its characteristics. Whenever the injection fluid is modified to the extent that the analysis required by § 103.34(b)(11)(C) is incorrect or incomplete, a new analysis as required by § 103.34(b)(11)(C) shall be provided to the Director.
  - (2) Monitoring of injection pressure and either flow rate or volume semi-monthly, or metering and daily recording of injected and produced fluid volumes as appropriate.
  - (3) Demonstration of mechanical integrity pursuant to § 103.4 at least once every three or five years during the life of the well for salt solution mining.
  - (4) Monitoring of the fluid level in the injection zone semi-monthly, where appropriate, and monitoring of the parameters chosen to measure water quality in the monitoring wells required by § 103.32(e) semi-monthly.
  - (5) Quarterly monitoring of wells required by § 103.32(g).

All Class III wells may be monitored on a field or project basis rather than an individual well basis by manifold monitoring. Manifold monitoring may be used in cases of facilities consisting of more than one injection well operating with a common manifold. Separate monitoring systems for each well are not required provided the owner or operator demonstrates that manifold monitoring is comparable to individual well monitoring.

- (c) *Reporting requirements.* Reporting requirements shall, at a minimum, include:

- (1) Quarterly reporting to the Director on required monitoring.
- (2) Results of mechanical integrity and any other periodic test required by the Director reported with the first regular quarterly report after the completion of the test.

Monitoring may be reported on a project or field basis rather than individual well basis where manifold monitoring is used.

### **103.34 Information to be considered by the Director**

- (a) This section sets forth the information which must be considered by the Director in authorizing Class III wells. Certain maps, cross sections, tabulations of wells within the area of review and other data may be included in the application by reference provided they are current, readily available to the Director (for example, in the Navajo Nation Underground Injection Control Program's files) and sufficiently identified to be retrieved. In cases where EPA issues the permit, all the information in this section must be submitted to the Administrator.
- (b) Prior to the issuance of a permit for an existing Class III well or area to operate or the construction of a new Class III well, the Director shall consider the following:
  - (1) Information required in § 102.1.
  - (2) Proposed construction procedures, including a cementing and casing program, logging procedures, deviation checks, and a drilling, testing and coring program.
  - (3) Depth to the proposed injection zone, and a chemical, physical and radiological analysis of the groundwater in the proposed injection zone sufficient to define pre-injection water quality as required for aquifer cleanup by § 103.6.
  - (4) An aquifer cleanup plan if required by § 101.8.
  - (5) Any additional information that may be necessary to demonstrate that cleanup will reduce the level of contaminants in the surrounding USDWs as close as feasible to the original conditions.
  - (6) A map showing the injection well or project area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name and location of all existing producing wells, injection wells, abandoned wells, dry holes, public water systems and water wells. The map may also show surface bodies of water, mines (surface and

subsurface), quarries and other pertinent surface features including residences and roads, and faults if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.

- (7) A tabulation of data reasonably available from public records or otherwise known to the applicant on wells within the area of review included on the map required under paragraph (b)(2) of this section which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and completion, and any additional information the Director may require. In cases where the information would be repetitive and the wells are of similar age, type, and construction the Director may elect to require data on only a representative number of wells.
- (8) Maps and cross-sections indicating the vertical limits of all underground sources of drinking water within the area of review, their position relative to the injection formation, and the direction of water movement, where known, in every underground source of drinking water which may be affected by the proposed injection.
- (9) Maps and cross-sections detailing the geologic structure of the local area.
- (10) Generalized maps and cross-sections illustrating the regional geologic setting.
- (11) Proposed operating data:
  - (A) average and maximum daily rate and volume of fluid to be injected;
  - (B) average and maximum injection pressure; and
  - (C) qualitative analysis and ranges in concentrations of all constituents of injected fluids. The applicant may request federal confidentiality as specified in 40 CFR part 2. If the information is proprietary an applicant may, in lieu of the ranges in concentrations, choose to submit maximum concentrations which shall not be exceeded. In such a case the applicant shall retain records of the undisclosed concentrations and provide them upon request to the Director as part of any enforcement investigation.
- (12) Proposed formation testing program to obtain the information required by § 103.32(c).
- (13) Proposed stimulation program.



- (14) Proposed injection procedure.
  - (15) Schematic or other appropriate drawings of the surface and subsurface construction details of the well.
  - (16) Plans (including maps) for meeting the monitoring requirements of § 103.33(b).
  - (17) Expected changes in pressure, native fluid displacement and direction of movement of injection fluid.
  - (18) Contingency plans to cope with all shut-ins or well failures so as to prevent the migration of contaminating fluids into underground sources of drinking water.
  - (19) A certificate that the applicant has assured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by § 102.22(a)(6).
  - (20) The corrective action proposed to be taken under § 102.25.
- (c) Prior to granting approval for the operation of a Class III well, the Director shall consider the following information:
- (1) All available logging and testing data on the well.
  - (2) A satisfactory demonstration of mechanical integrity for all new wells and for all existing salt solution wells pursuant to § 103.4.
  - (3) The anticipated maximum pressure and flow rate at which the permittee will operate.
  - (4) The results of the formation testing program.
  - (5) The actual injection procedures.
  - (6) The status of corrective action on defective wells in the area of review.
  - (7) Any information required by subsection (b) of this section that has been gathered during construction.
- (d) Prior to granting approval for the plugging and abandonment of a Class III well the Director shall consider the following information:

- (1) The type and number of plugs to be used.
- (2) The placement of each plug, including the elevation of the top and bottom.
- (3) The type, grade, and quantity of cement to be used.
- (4) The method of placement of the plugs.
- (5) The procedure to be used to meet the requirements of § 103.6(c).

#### **Subpart D - Criteria and Standards Applicable to Class V Injection Wells**

##### **103.41 Applicability**

- (a) This subpart sets forth criteria and standards for underground injection control programs to regulate all injection not regulated in subparts B and C and not classified as Class I or Class IV.
- (b) Generally, wells covered by this subpart inject non-hazardous fluids into or above formations that contain underground sources of drinking water. This subpart applies to all wells listed in § 101.7(a)(5) but is not limited to those types of injection wells.
- (c) This subpart also applies to wells not covered in Class IV that inject radioactive material listed in 10 CFR part 20, appendix B, table II, column 2.

##### **103.42 [Reserved]**