37.03.03 – RULES AND MINIMUM STANDARDS FOR THE CONSTRUCTION AND USE OF INJECTION WELLS

000. LEGAL AUTHORITY.
Sections 42-3903A, and 42-3913 through 42-3915, Idaho Code. ( )

001. SCOPE.

01. These rules establish minimum standards and criteria for construction and abandonment of Class V deep and shallow injection wells in the state of Idaho, except Indian lands, and the injection of fluids to such wells. The construction and use of Class I, III, IV, or VI injection wells are prohibited by these rules. All Class V deep and shallow injection wells shall be permitted and constructed in accordance with the "Well Construction Standards Rules" found in IDAPA 37.03.09 which are authorized under Section 42-238, Idaho Code. ( )

02. Rule Coverage. In the event that a portion of these rules is less stringent than the minimum requirements for injection wells as established by Federal regulations (40 CFR Parts 141, 144, 145, and 146), the correlative Federal requirement will be used to regulate the injection well. ( )

002. -- 009. (RESERVED)

010. DEFINITIONS.

01. Agricultural Runoff Waste. Excess surface water from agricultural fields generated during any agricultural operation, including runoff of irrigation tail water, as well as natural drainage resulting from precipitation, snowmelt, and floodwaters. ( )

02. Applicant. Any owner or operator submitting an application for permit to construct, modify or maintain an injection well to the Director. ( )

03. Application. The standard Department forms for applying for a permit, including any additions, revisions or modifications to the forms. ( )

04. Aquifer. Any geologic formation(s) that yields water to a well in sufficient quantities to make the production of water from the formation feasible for beneficial use. ( )

05. Beneficial Use. One (1) or more of the recognized beneficial uses of water including but not limited to, domestic, municipal, irrigation, hydropower generation, industrial, commercial, recreation, aquifer recharge and storage, stockwatering and fish propagation. ( )

06. Best Management Practice (BMP). A practice or combination of practices that are more effective than other techniques at preventing or reducing contamination of ground water and surface water by injection well operation. ( )

07. Board. The Idaho Water Resource Board. ( )

08. Casing. The permanent conduit installed in a well to provide physical stabilization, prevent caving or collapse of the borehole, maintain the well opening and serve as a solid inner barrier to allow for the installation of an annular seal. ( )

09. Cesspool. An injection well that receives untreated sanitary waste containing human excreta, and which sometimes has an open bottom and/or perforated sides. ( )

10. Coliform Bacteria. All of the aerobic and facultative anaerobic, gram-negative, non-spore

forming, rod-shaped bacteria that either ferment lactose broth with gas formation within forty-eight (48) hours at thirty-five degrees Celsius (35C), or produce a dark colony with a metallic sheen within twenty-four (24) hours on an Endo-type medium containing lactose. ( )

11. Confining Bed. A body of impermeable or distinctly less permeable material stratigraphically adjacent to one (1) or more aquifers. ( )

12. Construct. To create a new injection well or to convert any structure into an injection well. ( )

13. Contaminant. Any physical, chemical, biological, or radiological substance or matter. ( )

14. Contamination. The introduction into the natural ground water of any physical, chemical, biological, or radioactive material that may: ( )

a. Cause a violation of Idaho Ground Water Quality Standards found in IDAPA 58.01.11 "Ground Water Quality Rule" or the federal drinking water quality standards, whichever is more stringent; or ( )

b. Adversely affect the health of the public; or ( )

c. Adversely affect a designated or beneficial use of the State's ground water. ( )

15. Conventional Mine. An open pit or underground excavation for the production of minerals. ( )

16. Decommission (Abandon). Any well that has been permanently removed from service and filled or plugged in accordance with these rules so as to meet the intent of these rules. A properly decommissioned well will not: ( )
a. Produce or accept fluids; ( )
b. Serve as a conduit for the movement of contaminants inside or outside the well casing; or ( )
c. Allow the movement of surface or ground water into unsaturated zones, into another aquifer, or between aquifers. ( )

17. DEQ. The Idaho Department of Environmental Quality. ( )

18. Deep Injection Well. An injection well which is more than eighteen (18) feet in vertical depth below land surface. ( )

19. Department. The Idaho Department of Water Resources. ( )

20. Director. The Director of the Idaho Department of Water Resources. ( )

21. Disposal Well. A well used for the disposal of waste into a subsurface stratum. ( )

22. Draft Permit. A prepared document indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a "permit." Permit conditions, compliance schedules, and monitoring requirements are typically included in a "draft permit". A notice of intent to terminate a permit, and a notice of intent to deny a permit are types of "draft permits." A denial of a request for modification, revocation and reissuance, or termination is not a "draft permit." ( )

23. Drilling Fluid. A heavy suspension used in drilling an "injection well," introduced down the drill pipe and through the drill bit.

24. Endangerment. Injection of any fluid which exceeds Idaho ground water quality standards, or federal drinking water quality standards, whichever is more stringent, that may result in the presence of any contaminant in ground water which supplies or can reasonably be expected to supply any public or non-public water

system, and if the presence of such contaminant may result in such a system not complying with any ground water quality standard or may otherwise adversely affect the health of persons or result in a violation of ground water quality standards that would adversely affect beneficial uses. ( )

25. Exempted Aquifer. An "aquifer" or its portion that meets the criteria in the definition of USDW but which has been recategorized as "other" according to the procedures in IDAPA 58.01.11 "Ground Water Quality Rule". ( )

26. Experimental Technology. A technology which has not been proven feasible under the conditions in which it is being tested. ( )

27. Fluid. Any material or substance which flows or moves, whether in a semisolid, liquid, sludge, gaseous or any other form or state. ( )

28. Ground Water. Water below the land surface in a zone of saturation. ( )

29. Ground Water Quality Standards. Standards found in IDAPA 58.01.11, "Ground Water Quality Rule," Section 200. ( )

30. Hazardous Waste. Any substance defined by IDAPA 58.01.05, "Rules and Standards for Hazardous Waste." ( )

31. Indian Lands. "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. ( )

32. Individual Subsurface Sewage Disposal System. For the purpose of these rules, any standard or alternative disposal system which injects sanitary waste from single family domestic septic systems, or non-domestic septic systems which are used solely for the disposal of sanitary waste and have the capacity to serve fewer than twenty (20) people a day. ( )

33. Improved Sinkhole. A naturally occurring crevice found in geologic settings that have been modified by man for the purpose of directing and emplacing fluids into the subsurface. ( )

34. Injection. The subsurface emplacement of fluids through an injection well. ( )

35. Injection Well. Any feature that is operated to allow injection which also meets at least one (1) of the following criteria: ( )

a. A bored, or driven shaft whose depth is greater than the largest surface dimension; ( )

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

c. An improved sinkhole; or ( )

d. A subsurface fluid distribution system. ( )

36. Large Capacity Cesspools. Any cesspool used by a multiple dwelling, community or regional system for the disposal of sanitary wastes (for example: a duplex or an apartment building) or any cesspool used by or intended to be used by twenty (20) or more people per day (for example: a rest stop, campground, restaurant or church). ( )

37. Modify. To alter the construction of an injection well, but does not include cleaning or redrilling operations which neither deepen nor increase the dimensions of the well. ( )

38. Motor Vehicle Waste Disposal Wells. Injection wells that receive or have received fluids from vehicle repair or maintenance activities, such as an auto body repair shop, automotive repair shop, new and used car dealership, specialty repair shop (transmission and muffler repair shop), or any facility that does any vehicular repair work. ( )

39. Open-Loop Heat Pump Return Wells. Injection wells that receive surface water or ground water that has been passed through a heat exchange system for cooling or heating purposes. ( )

40. Owner or Operator. The owner or operator of any facility or activity subject to regulation under the UIC program. ( )

41. Permit. An authorization, license, or equivalent control document issued by the Department. ( )

42. Point of Beneficial Use. The top or surface of a USDW, directly below an injection well, where water is available for a beneficial use. ( )

43. Point of Diversion for Beneficial Use. A location such as a producing well or spring where ground water is taken under control and diverted for a beneficial use. ( )

44. Point of Injection. The last accessible sampling point prior to waste being released into the subsurface environment through an injection well. For example, the point of injection for a Class V septic system might be the distribution box. For a drywell, it is likely to be the well bore itself. ( )

45. Radioactive Material. Any material, solid, liquid or gas which emits radiation spontaneously. Radioactive geologic materials occurring in their natural state are not included. ( )

46. Radioactive Waste. Any fluid which contains radioactive material in concentrations which exceed those listed in 10 CFR part 20, appendix B, table II, column 2. ( )

47. Septic System. An injection well that is used to inject sanitary waste below the surface. A septic system is typically comprised of a septic tank and subsurface fluid distribution system or disposal system. ( )

48. Shallow Injection Well. An injection well which is less than or equal to eighteen (18) feet in vertical depth below land surface. ( )

49. Subsidence. 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; oxidation of organic matter in soils; or added load on the land surface. ( )

50. Subsurface Fluid Distribution System. An assemblage of perforated pipes, drain tiles, or other similar mechanisms intended to distribute fluids below the surface of the ground. ( )

51. UIC. The Underground Injection Control program under Part C of the Safe Drinking Water Act, including an “approved State program.” ( )

52. Underground Source of Drinking Water (USDW). An aquifer or its portion: ( )

a. Which: ( )

i. Supplies any public water system; or ( )

ii. Contains a sufficient quantity of ground water to supply a public water system; or ( )

(1) Currently supplies drinking water for human consumption; or ( )

(2) Contains fewer than ten thousand (10,000) mg/l total dissolved solids; and ( )

b. Which is not an exempted aquifer. ( )

53. Water Quality Standards. Refers to those standards found in Idaho Department of Environmental Quality Rules, IDAPA 58.01.02, "Water Quality Standards" and IDAPA 58.01.11, "Ground Water Quality Rule." ( )

011. -- 019. (RESERVED)

020. CLASSIFICATION OF INJECTION WELLS.

01. Classification of Injection Wells. For the purposes of these rules, injection wells are classified as follows: ( )

a. Class I: ( )

i. 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. ( )

ii. 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. ( )

iii. 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. ( )

b. Class II. Wells used to inject fluids: ( )

i. Which 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, dehydration stations, or compressor stations which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection. ( )

ii. For enhanced recovery of oil or natural gas; and ( )

iii. For storage of hydrocarbons which are liquid at standard temperature and pressure. ( )

c. Class III. Wells used to inject fluids for extraction of minerals including: ( )

i. Mining of sulfur by the Frasch process; ( )

ii. 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. ( )

iii. Solution mining of salts or potash. ( )

d. Class IV: ( )

i. 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 or above a formation which within one-quarter (1/4) mile of the well contains an underground source of drinking water. ( )

ii. 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 Subparagraphs 035.01.a.i. or 035.01.d.i. or 035.01.d.ii. of this rule (e.g., wells used to dispose of hazardous waste into or above a formation which contains an aquifer which has been exempted pursuant to Section 025 of these rules). ( )

e. Class V -- All injection wells not included in Classes I, II, III, IV, or VI. ( )

f. Class VI. ( )

i. Wells that are not experimental in nature that are used for geologic sequestration of carbon dioxide beneath the lowermost formation containing a USDW; or ( )

ii. Wells used for geologic sequestration of carbon dioxide that have been granted a waiver of the injection depth requirements pursuant to requirements at 40 CFR Section146.95; or ( )

iii. Wells used for geologic sequestration of carbon dioxide that have received an expansion to the areal extent of an existing Class II enhanced oil recovery or enhanced gas recovery aquifer exemption pursuant to Section 025 of these rules. ( )

02. Subclassification. Class V wells are subclassified as follows: ( )

a. 5A5-Electric Power Generation. ( )

b. 5A6-Geothermal Heat. ( )

c. 5A7-Heat Pump Return. ( )

d. 5A8-Aquaculture Return Flow. ( )

e. 5A19-Cooling Water Return. ( )

f. 5B22-Saline Water Intrusion Barrier. ( )

g. 5D2-Storm Runoff. ( )

h. 5D3-Improved Sinkholes. ( )

i. 5D4-Industrial Storm Runoff. ( )

j. 5F1-Agricultural Runoff Waste. ( )

k. 5G30-Special Drainage Water. ( )

l. 5N24-Radioactive Waste Disposal[1]. ( )

m. 5R21-Aquifer Recharge. ( )

n. 5S23-Subsidence Control. ( )

o. 5W9-Untreated Sewage[1]. ( )

p. 5W10-Large Capacity Cesspools[1]. ( )

q. 5W11-Septic Systems (General). ( )

r. 5W12-Waste Water Treatment Plant Effluent. ( )

s. 5W20-Industrial Process Water. ( )

t. 5W31-Septic Systems (Well Disposal). ( )

u. 5W32-Septic System (Drainfield). ( )

v. 5X13-Mine Tailings Backfill. ( )

w. 5X14-Solution Mining. ( )

x. 5X15-In-Situ Fossil Fuel Recovery. ( )

y. 5X16-Spent Brine Return Flow. ( )

z. 5X25-Experimental Technology. ( )

aa. 5X26-Aquifer Remediation. ( )

bb. 5X27-Other Wells. ( )

cc. 5X28-Motor Vehicle Waste Disposal Wells[1]. ( )

dd. 5X29-Abandoned Water Wells. ( )

[1] The construction and operation of wells in these subclasses is currently prohibited in Idaho.

021. -- 024. (RESERVED)

025. AUTHORIZATIONS, PROHIBITIONS AND EXEMPTIONS.

01. Authorizations. Construction and use of Class V deep injection wells may be authorized by permit as approved by the Director in accordance with these rules. ( )

02. Prohibitions. ( )

a. These rules prohibit the permitting, construction, or use of any Class I, III, IV, or VI injection well. ( )

b. No owner or operator shall construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows or causes 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 primary or secondary drinking water regulation, under IDAPA 58.01.11, "Ground Water Quality Rule," Section 200 or may otherwise adversely affect the health of persons. The applicant for a permit shall have the burden of showing that the requirements of Paragraph 025.02.c. are met. ( )

c. 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. ( )

d. Large capacity cesspools, motor vehicle waste disposal wells, radioactive waste disposal wells, and untreated sewage disposal wells are prohibited. All prohibited wells described in this section must be decommissioned in accordance with these rules. ( )

e. 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 these rules 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, 42 U.S.C. 9601–9657, or pursuant to requirements and provisions under the Resource Conservation and Recovery Act, 42 U.S.C. 6901 through 6987. ( )

f. Owners or operators of shallow injection wells are prohibited from injecting into the well upon failure to submit inventory information in a timely manner pursuant to these rules. (

03. Exemptions. ( )

a. Construction and use of other Class V shallow injection wells are authorized by these rules without permit provided that: ( )

i. Required inventory information is submitted to the Director in accordance with these rules. ( )

ii. Use of the shallow injection well shall not result in unreasonable contamination of a USDW or cause a violation of surface or ground water quality standards that would affect a beneficial use. ( )

b. Individual subsurface sewage disposal system wellsare exempt from these Rules but subject to the permitting and fee requirements of IDAPA 58.01.03 "Individual/Subsurface Sewage Disposal Rules," Title 39, Chapter 1 and Title 39, Chapter 36, Idaho Code. ( )

c. State or local government entities are exempt from the permit requirements of these rules for wells associated with highway and street construction and maintenance projects, but shall submit shallow injection well inventory information for said wells and shall comply with all other requirements of these rules. ( )

d. Mine tailings backfill (5X13) wells are authorized by rule as part of mining operations. They are therefore exempt from the ground water quality standards and permitting requirements of these rules provided that their use is limited to the injection of mine tailings only. The use of any 5X13 well(s) shall not result in water quality standards at points of diversion for beneficial use being exceeded or otherwise affect a beneficial use. Should water quality standards be exceeded or beneficial uses be affected, the Director may order the wells to be put under the permit requirements of these rules, or the wells may be required to be remediated or closed. As a condition of their use, the Director may require the construction and sampling of monitoring wells by the owner/operator. 5X13 wells are subject to the inventory requirementsdescribed in these Rules. ( )

04. Variance of Methods. The Director may approve the use of a different testing method or technology if it is no less protective of human health and the environment, will not allow the migration of injected fluids into a USDW, meets the intent of the rule, and yields information or data consistent with the original method or technology required. A request for review by the Director must be submitted in writing by the applicant, permit holder, or operator and be included with all pertinent information necessary for the Director to evaluate the proposed testing method or technology. ( )

026. -- 029. (RESERVED)

030. CLASS V SHALLOW INJECTION WELL REQUIREMENTS

01. Authorization. As a condition of authorization, all owners or operators of shallow Class V injection wells, including improved sinkholes used for aquifer recharge, that dispose of nonhazardous and

nonradioactive wastes are required to submit a Shallow Injection Well Inventory Form to the Department no later than thirty (30) days prior to commencement of construction for each new well or no later than thirty (30) days after the discovery of an existing injection well that has not previously been inventoried with the Department. State or local government entities shall submit the following inventory information for wells associated with highway and street construction and maintenance projects. ( )

a. Facility name and location; and ( )

b. County in which the injection well(s) is (are) located; and ( )

c. Ownership of the well(s); and ( )

d. Name, address and phone number of legal contact; and ( )

e. Type or function of the well(s); and ( )

f. Number of wells of each type; and ( )

g. Operational status of the well(s). ( )

02. Inventory Fees. For shallow injection wells constructed after July 1, 1997, the Shallow Injection Well Inventory Form shall be accompanied by a fee as specified in Section 42-3905, Idaho Code, payable to the Department of Water Resources. State or local government entities are exempt from Shallow Injection Well Inventory Form filing fees for wells associated with highway and street construction and maintenance. ( )

03. Permit Requirements. If operation of a shallow Class V injection well is causing or may cause unreasonable contamination of a USDW, or cause a violation of the ground water quality standards at a place of beneficial use, the Director shall require immediate cessation of the injection activity. Where a Class V injection well is owned or operated by an entity other than a state or local entity involved in highway and street construction and maintenance, the Director may authorize continued operation of the well through a permit that specifies the terms and conditions of acceptable operation. ( )

04. Decommission. Owners or operators of shallow injection wells shall notify the Director not less than thirty (30) days prior to permanent decommissioning of any shallow injection well. Decommissioning shall be accomplished in accordance with procedures approved by the Director. ( )

05. Inter-Agency Cooperation. The Department may seek the assistance of other government agencies, including cities and counties, health districts, highway districts, and other departments of state government to inventory, monitor and inspect shallow injection wells, where local assistance is needed to prevent deterioration of ground water quality, and where injection well operation overlaps with water quality concerns of other agencies or local governing entities. Assistance is to be negotiated through a memorandum of understanding between the Department and the local entity, agency, or department, and is subject to the approval of the Director. ( )

031. -- 034. (RESERVED)

035. CLASS V DEEP INJECTION WELL REQUIREMENTS

01. Application Requirements. ( )

a. No person shall continue to maintain or use an unauthorized injection well after the effective date given in Section 42-3903, Idaho Code, unless a permit therefor has been issued by the Director. No injection well requiring a permit shall be constructed, modified or maintained after the effective date given in Section 42-3903, Idaho Code, unless a permit therefor has been issued by the Director. No injection well requiring a permit shall continue to be used after the expiration of the permit issued for such well unless another application for permit therefor has been received by the Director. ( )

b. Applicants shall file with the department a completed application on a form provided by the department accompanied by a filing fee as specified in Section 42-3905, Idaho Code. ( )

02. Application Information Required. An applicant shall submit the following information to the Director for all injection wells to be authorized by permit, unless the Director determines that it is not needed in whole or in part, and issues a written waiver to the applicant: ( )

a. Facility name and location; ( )

b. Name, address and phone number of the well operator; ( )

c. Class, subclass and function of the injection well (see Section 035); ( )

d. Latitude/longitude or legal description of the well location to the nearest ten (10) acre tract; ( )

e. Ownership of the well; ( )

f. County in which the injection well is located; ( )

g. Construction information for the well; ( )

h. Describe the quality, composition, and quantity of the injected fluids; ( )

i. Status of the well; ( )

j. A topographic map or aerial photograph extending one (1) mile beyond property boundaries, depicting: ( )

(1) Location of the injection well and associated facilities described in the application; ( )

(2) Locations of other injection wells; ( )

(3) Approximate drainage area, if applicable; ( )

(4) Hazardous waste facilities, if applicable; ( )

(5) All wells used to withdraw drinking water; ( )

(6) All other wells, springs and surface waters. ( )

i. Distance and direction to nearest domestic well; ( )

ii. Depth to ground water; and ( )

iii. Alternative methods of waste disposal. ( )

03. Additional Information. The Director may require the following additional information for Class V injection wells to assess potential effects of injection: ( )

a. A topographic map showing locations of the following within a two (2) mile radius of the injection well: ( )

(1) All wells producing water; ( )

(2) All exploratory and test wells; ( )

(3) All other injection wells; ( )

(4) Surface waters (including man-made impoundments, canals and ditches); ( )

(5) Mines and quarries; ( )

(6) Residences; ( )

(7) Roads; ( )

(8) Bedrock outcrops; and ( )

(9) Faults and fractures. ( )

b. Additional maps or aerial photographs of suitable scale to accurately depict the following: ( )

(1) Location and surface elevation of the injection well described in this permit; ( )

(2) Location and identification of all facilities within the property boundaries; ( )

(3) Locations of all wells penetrating the proposed injection zone or within a one-quarter (1/4) mile radius of the injection well; ( )

(4) Maps and cross sections depicting all underground sources of drinking water to include vertical and lateral limits within a one-quarter (1/4) mile radius of the injection well, their position relative to the injection zone and the direction of water movement: local geologic structures; regional geologic setting. ( )

c. A comprehensive report of the following information: ( )

(1) A tabulation of all wells penetrating the proposed injection zone, listing owner, lease holder and operator; well identification (permit) number; size, weight, depth and cementing data for all strings of casing; ( )

(2) Description of the quality, composition, and quantity of fluids to be injected; ( )

(3) Description of geologic, hydrogeologic, and geochemical conditions present in the injection zone and confining beds; methods for determining geochemical conditions shall be approved by the Director; ( )

(4) Engineering data for the proposed injection well; ( )

(5) Proposed operating pressure; ( )

(6) A detailed evaluation of alternative disposal practices; ( )

(7) A plan of corrective action for wells penetrating the zone of injection, but not properly sealed or decommissioned; and ( )

(8) Contingency plans to cope with all shut-ins or well failures to prevent the migration of unacceptable fluids into underground sources of drinking waters. ( )

d. Name, address and phone number of person(s) or firm(s) supplying the technical information and/or designing the injection well; ( )

e. Proof that the applicant is financially responsible, through a performance bond or other appropriate means, to decommission the injection well in a manner approved by the Director. ( )

04. Other Information. The Director may require of any applicant such additional information as may be necessary to demonstrate that the proposed or existing injection well will not endanger a USDW. The Director will not complete the processing of an application for which additional information has been requested until such time as the additional information is supplied. The Director may return any incomplete application and will not process such application until such time as the application is received in complete form. ( )

036. -- 049. (RESERVED)

050. CLASS V INJECTION WELL STANDARDS

01. Application Processing. ( )

a. Draft Permit. After all application information is received and evaluated, the Director will prepare a draft permit or denial, which will include the application for permit, permit conditions or reasons for denial, and any compliance schedules or monitoring requirements. In preparing the draft permit or denial, the Director shall consider the following factors: ( )

i. The availability of economic and practical alternative means of disposal; ( )

ii. The application of best management practices to the facilities and/or area draining into the well; ( )

iii. The availability of economical, practical means of treating or otherwise reducing the amount of contaminants in the injected fluids; ( )

iv. The quality of the receiving ground water, its category, its present and future beneficial uses or interconnected surface water; ( )

v. The location of the injection well with respect to drinking water supply wells; and ( )

vi. Compliance with the IDAPA 58.01.11, "Ground Water Quality Rule." ( )

vii. The benefit to the State of Idaho.

b. Public Notice. The Director will provide public notice of any draft permit to construct, maintain or modify a Class V injection well by means of a legal notice in a newspaper of general circulation in the county in which the well is located. The Director may give additional notice as necessary to adequately inform the interested public and governmental agencies. There shall be a period of at least thirty (30) days following publication for any interested person to submit written comments. ( )

c. **Review by the Directors of Other State Agencies.** The Directors of other state agencies, as determined by the Director, shall be given an opportunity to review and comment on draft permits. Comments shall be submitted to the Director within thirty (30) days of the public or legal notice. ( )

d. Open-Loop Heat Pump Return Wells (Subclass 5A7). ( )

i. An open-loop heat pump return well greater than eighteen (18) feet in depth to be used solely for disposal of heat pump water at a rate not exceeding fifty (50) gpm does not require a draft permit and is not subject to a recurring permit cycle, however, registration of the well with the Department and submittal of a filing fee as specified in Section 42-3905, Idaho Code is required. The Director reserves the right to override the exemptions from the draft permit and permit cycle requirements. ( )

ii. An open-loop heat pump return well greater than eighteen (18) feet in depth to be used solely for

disposal of heat pump return water at a rate exceeding fifty (50) gpm is subject to the requirements of these rules.( )

e. Fact-Finding Hearings. At the Director's discretion, or upon motion of any interested individual, the Director may elect to hold a fact-finding hearing. Said hearing will be held at a location in the geographical area of the injection well. Notice of said hearing will be provided at least thirty (30) days in advance of the hearing by regular mail to the applicant and to the person or persons requesting the hearing. Public notice of the fact-finding hearing will be made by means of press release to a newspaper of general circulation in the county of the application. ( )

02. Draft Permit Processing and Permit Issuance. The Director shall determine whether or not the injection wells and their respective owners or operators are in compliance with the intent of these rules to protect ground water against unreasonable contamination or deterioration of quality. ( )

a. Consideration. The Director will consider the following factors in taking final action on draft permits: ( )

i. The likelihood and consequences of the injection well system failing; ( )

ii. The long-term effects of such disposal or storage; ( )

iii. The recommendations and related justifications of the Directors of other state agencies and the public; ( )

iv. The potential for violation of ground water quality standards at the point of injection or the point of beneficial use; and ( )

v. Compliance with the Idaho Ground Water Quality Plan. ( )

b. Issuance of Permit. After considering the draft permit for construction, modification, or maintenance, and all matters relating thereto, the Director shall issue a permit if the standards and criteria described in these rules will be met and USDW's will not be unreasonably affected. If the Director finds that the standards and criteria cannot be met or that ground water sources cannot be protected from unreasonable contamination at all times, the draft permit may be denied or a permit may be issued with conditions designed to protect ground water sources. The Director's decision shall be in writing and a copy shall be mailed by regular mail to the applicant and to all persons who commented in writing on the draft permit or appeared at a hearing held to consider the draft permit. ( )

c. Permit Conditions and Requirements. Any permit issued by the Director shall contain conditions to protect ground water sources from waste, contamination, or deterioration of ground water quality standards. In addition to specific construction, operation, maintenance, monitoring, and reporting requirements that the Director finds necessary, each permit shall be subject to the standard conditions and requirements of this rule.( )

d. Construction Requirements. ( )

i. Well drillers or other persons involved with the construction of any injection well requiring a permit shall not commence construction on the facility until a certified copy of the approved permit is obtained from the Director. ( )

ii. Deep injection wells shall be constructed by a licensed water well driller to conform with the current Minimum Well Construction Standards and the conditions of the permit, except that a driller's license is not required for the construction of a driven mine shaft or a dug hole. ( )

iii. Shallow injection wells authorized by permit shall be constructed in accordance with the conditions of the permit. Rule-authorized shallow injection wells shall be constructed as shown or described in the inventory submittal. ( )

iv. Injection wells shall be constructed to prevent the entrance of any fluids other than specified in the permit. ( )

v. Injection wells shall be constructed to prevent waste of artesian fluids or movement of fluids from one aquifer into another. ( )

vi. When construction or modification of an injection well has been completed, the owner or operator shall inform the Director of completion on a form provided by the Department. ( )

vii. A sampling port shall be provided if the injection well system is enclosed. ( )

viii. All new injection wells constructed into alluvial formations shall have a minimum ten (10) foot separation from the bottom of the well and seasonal high ground water. ( )

(1) Injection wells installed into fractured basalt are exempt from separation distances. ( )

(2) The Director may reduce separation distance requirements if the quality of injected fluids are improved through additional treatment or BMPs. ( )

(3) Heat pump return wells (sub-class 5A7) are exempt from the separation distance requirement of this section. ( )

e. Operational Conditions. ( )

i. The injection well shall not be used until the construction, operation and maintenance requirements of the permit are met and provisions are made for any required inspection, monitoring and record keeping. ( )

ii. Injection of any contaminant at concentrations exceeding the standards set in Paragraph 050.03.c. into a present or future drinking or other ground water source that may cause a health hazard or adversely affect a designated and protected use is prohibited. ( )

iii. The injection well owner or operator shall develop approved procedures to detect constructional or operational failure in a timely fashion, and shall have contingency plans to cope with the well failure. ( )

iv. Authorized representatives of the Department shall be allowed to enter, inspect and/or sample: ( )

(1) The injection well and related facilities; ( )

(2) The owner or operator's records of the injection operation; ( )

(3) Monitoring instrumentation associated with the injection operation; and ( )

(4) The injected fluids. ( )

v. The injection facilities shall be operated and maintained to achieve compliance with all terms and conditions of this permit. ( )

(1) Proper operation and maintenance includes effective performance, adequate funding, operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures; ( )

(2) If compliance cannot be met, the owner shall take corrective action as determined by the Director or terminate injection. ( )

vi. The owner shall mitigate any adverse effects resulting from non-compliance with the terms and conditions of the permit. ( )

vii. If the injection well was constructed prior to issuance of the permit, the well shall be brought into compliance with the terms and conditions of the permit in accordance with the schedule of compliance issued by the Director. ( )

viii. The permit shall not convey any property rights. ( )

f. Conditions of Permanent Decommissioning. ( )

i. Notice of intent to permanently decommission a well shall be submitted to the Director not less than thirty (30) days prior to commencement of the decommissioning activity. ( )

ii. The method of permanent decommissioning for all injection wells shall be approved by the Director prior to commencement of the decommissioning activity. ( )

iii. Notice of completion of permanent decommission shall be submitted to the Director within thirty (30) days of completion. ( )

iv. All deep injection wells that are to be permanently decommissioned shall be plugged in accordance with current Well Construction Standards. ( )

v. Following permanent cessation of use, or where an injection well is not completed, the Director shall be notified. Decommissioning procedures or other action, as prescribed by the Director, shall be conducted. ( )

vi. The injection well owner or operator has the responsibility to ensure that the injection operation is decommissioned as prescribed. ( )

g. Duration of Approved Permits. The length of time that a permit may be in effect for Class V wells requiring permits shall not exceed ten (10) years. ( )

03. Standards For the Quality of Injected Fluids and Criteria for Location and Use. ( )

a. General. These standards, which are minimum standards that are to be adhered to for all deep injection wells and shallow injection wells requiring permits and rule-authorized wells not requiring permits, are based on the premise that if the injected fluids meet ground water quality standards for physical, chemical and radiological contaminants, and if ground water produced from adjacent points of diversion for beneficial use meets the water quality standards as defined in these rules, then that aquifer will be protected from unreasonable contamination and will be preserved for diversion to beneficial uses. The Director may, however, when it is deemed necessary, require specific injection wells to be constructed and operated in compliance with additional requirements, such as best management practices (BMPs), so as to protect the ground water resource from deterioration and preserve it for diversion to beneficial use. ( )

b. Waivers. A waiver of one (1) or more standards may be granted by the Director if it can be demonstrated by the applicant that the contaminants in injected fluid will not endanger a ground water source for any present or future beneficial use. ( )

c. Standards for Quality of Fluids Injected into Class V Wells. ( )

i. Ground water quality standards for chemical and radiological contaminants in injected fluids. After the effective date of these standards, the following limits shall not be exceeded in injected fluids from a well when such fluids will or are likely to reach a USDW: ( )

(1) Chemical contaminants. The concentration of each chemical contaminant in the injected fluids

shall not exceed the ground water quality standard for that chemical contaminant, or the concentration of each contaminant in the receiving water, whichever requirement is less stringent; and ( )

(2) Radiological contaminants. Radiological levels of the injected fluids shall not exceed those levels specified by the ground water quality standards. ( )

ii. Restrictions on injection of fluids containing biological contaminants. The following restrictions apply to biological contaminants included in the ground water quality standard in injected fluids. Coliform bacteria: injected fluids containing coliform bacteria are subject to the following restrictions: ( )

(1) Contamination of ground water produced at any existing point of diversion for beneficial use, or any point of diversion for beneficial use developed in the future, by injected fluids is prohibited; ( )

(2) The Director may require the use of best management practices (BMPs) to reduce the concentration of coliform bacteria in the injected fluids; ( )

(3) The Director may require the use of water treatment technology, including ozonation and chlorination devices, sand filters, and settling pond specifications to reduce the concentration of coliform bacteria in injected fluids; ( )

(4) Ground water produced from points of diversion for beneficial use adjacent to injection wells that dispose of fluids containing coliform bacteria in concentrations greater than the current ground water quality standard shall be subject to monitoring for bacteria by the owner/operator of the injection well. A waiver of the monitoring requirement may be granted by the Director when it can be demonstrated that injection will not result in unreasonable contamination of ground water produced from these adjacent points; ( )

(5) Construction of new Subclass 5F1 injection wells, and other shallow and deep injection wells, as specified by the Director, that are likely to exceed the current ground water quality standard for coliform bacteria at the point of beneficial use is prohibited; and ( )

(6) At no time shall any fluid containing or suspected of containing fecal contaminants of human origin be injected into any Class V injection well authorized under these rules. ( )

iii. Physical, visual and olfactory characteristics. The following restrictions apply to physical, visual and olfactory characteristics of injected fluids. Temperature, color, odor, turbidity, conductivity and pH: the temperature, color, odor, conductivity, turbidity, pH or other characteristics of the injected fluid may not result in the receiving ground water becoming less suitable for diversion to beneficial uses, as determined by the Director. ( )

iv. Contamination by an injection well of ground water produced at an existing point of diversion for beneficial use, or a point of diversion for beneficial use developed in the future, shall not exceed water quality standards defined in these rules. ( )

d. Criteria for Location and Use of Class V Wells Requiring Permits. ( )

i. A Class V well requiring a permit may be required to be located a minimum distance, as determined from Table 1, from any point of diversion for beneficial use that could be harmed by bacterial contaminants. This requirement is not applicable to injection wells injecting wastes of quality equal to or better than adopted ground water quality standards in all respects. In addition, Class V wells may be required to be located at such a distance from a point of diversion for beneficial use as to minimize or prevent ground water contamination resulting from unauthorized or accidental injection, as determined by the Director. ( )

ii. These location requirements in Table 1 may be waived when the applicant can demonstrate that any springs or wells within the calculated perimeter of the generated perched water zone will not be contaminated by the applicant's waste disposal or injection well. Monitoring by the applicant of the production wells or springs in question may be required to demonstrate that they are not being contaminated.

Determined Radii of Perched Water Zones Based on Maximum Average Weekly Injection Rates (cfs) of Class V Injection Wells *	
Injection (cfs)	**Radius of Generated Perched Water Zone (ft)**
0 - 0.20	800
0.20 - 0.60	1,400
0.61 - 1.00	1,800
1.01 - 2.00	2,500
2.01 - 3.00	3,000
3.01 - 4.00	3,500
4.01 - 5.00	4,000
Greater than 5.00	As determined by the Director

* Injection rates shall be based on the average volume of wastes injected by the well during the week of greatest injection in an average water year. ( )

e. Standards for the Quality of Fluids Injected by Subclass 5A7 Wells (Open-Loop Heat Pump Return). ( )

i. The quality of fluids injected by a Subclass 5A7 injection well shall comply with ground water quality standards or shall be equal to the quality of the ground water source to the heat pump, whichever is less stringent. ( )

ii. If the quality of the ground water source does not meet ground water quality standards, the injected fluids must be returned to the formation containing the ground water source. ( )

iii. The temperature of the injected fluids shall not impair the designated beneficial uses of the receiving ground water. ( )

iv. All Rule-authorized Injection Wells shall conform to the ground water quality standards at the point of injection and not cause any water quality standards to be violated at any point of beneficial use. ( )

04. Monitoring, Record Keeping, and Reporting Requirements. The Director may require monitoring, record keeping, and reporting by any owner or operator if the Director finds that the well may adversely affect a ground water source or is injecting a contaminant that could have an unacceptable effect upon the quality of the ground waters of the state. ( )

a. Monitoring. ( )

i. Any injection authorized by the Director shall be subject to monitoring and record keeping requirements as conditions of the permit. Such conditions may require the installation, use and maintenance of monitoring equipment or methods. The Director may require where appropriate, but is not limited to, the following: ( )

(1) Monitoring of injection pressures and pressures in the annular space between casings; ( )

(2) Flow rate and volumes; ( )

(3) Analysis of quality of the injected fluids for contaminants that are subject to limitation or reduction under the conditions of the permit; or contaminants which the Director determines could have an unacceptable effect on the quality of the ground waters of the state, and which the Director has reason to believe are in the injected fluids; ( )

(4) Monitoring of ground water through special monitoring wells or existing points of diversion for beneficial use in the zone of influence as determined by the Director; ( )

(5) A demonstration of the integrity of the casing, tubing or seal of the injection well. ( )

ii. The frequency of required monitoring shall be specified in the permit when issued, except that the Director at any time may, in writing, require additional monitoring and reporting. ( )

iii. All monitoring tests and analysis required by permit conditions shall be performed in a state certified laboratory or other laboratory approved by the Director. ( )

iv. Any field instrumentation used to gather data, when specified as a condition of the permit, shall be required by the Director to be tested and maintained in such a manner as to ensure the accuracy of the data. ( )

v. All samples and measurements taken for the purpose of monitoring shall be representative of the monitoring activity and fluids injected. ( )

b. Record Keeping. The permittee shall maintain records of all monitoring activities to include: ( )

i. Date, time and exact place of sampling; ( )

ii. Person or firm performing analysis; ( )

iii. Date of analysis, analytical methods used and results of analysis; ( )

iv. Calibration and maintenance of all monitoring instruments; and ( )

v. All original tapes, strip charts or other data from continuous or automated monitoring instruments. ( )

c. Reporting. ( )

i. Monitoring results obtained by the permittee pursuant to the monitoring requirements prescribed by the Director shall be reported to the Director as required by permit conditions. ( )

ii. The Director shall be notified in writing by the permittee within five (5) days after the discovery of violation of the terms and conditions of the permit. If the injection activity endangers human health or a public or domestic water supply, use of the injection well shall be immediately discontinued and the owner or operator shall immediately notify the Director. Notification shall contain the following information: ( )

(1) A description of the violation and its cause; ( )

(2) The duration of the violation, including dates and times; if not corrected or use of the well discontinued, the anticipated time of correction; and ( )

(3) Steps being taken to reduce, eliminate and prevent recurrence of the injection. ( )

iii. Where the owner or operator becomes aware of failure to submit any relevant facts in any permit application or report to the Director, that person shall promptly submit such facts or information. ( )

iv. The permittee shall furnish the Director, within a time specified by the Director, any information which the Director may request to determine compliance with the permit. ( )

v. All applications for permits, notices and reports submitted to the Director shall be signed and certified. ( )

vi. The Director shall be notified in writing of planned physical alterations or additions to any facility related to the permitted injection well operation. ( )

vii. Additional information to be reported to the Director in writing: ( )

(1) Transfer of ownership; ( )

(2) Any change in operational status not previously reported; ( )

(3) Any anticipated noncompliance; and ( )

(4) Reports of progress toward meeting the requirements of any compliance schedule attached or assigned to this permit. ( )

05. Permit Assignable. Permits may be assigned to a new owner or operator of an injection well if the new owner or operator, within thirty (30) days of the change, notifies the Director of such change. The new owner or operator shall be responsible for complying with the terms and conditions of the permit from the time that such change takes place. ( )

051. -- 059. (RESERVED)

060. HEARING BEFORE THE IDAHO WATER RESOURCE BOARD.

01. General. All hearings before the Board will be conducted in accordance with Chapter 52, Title 67, Idaho Code. Judicial review of the final determination by the Board may be secured by the owner by filing a petition for review as prescribed by Chapter 52, Title 67, Idaho Code, in the District Court of the county where the injection well is situated or proposed to be located. The petition for review shall be served upon the Chairman of the Board and upon the Attorney General. ( )

02. Hearings on Conditional Permits, Disapproved Applications, or Petitions for Exemption. Any owner or operator aggrieved by the approval or disapproval of an application, or by conditions imposed upon a permit, or any person aggrieved by the Director's decision on a petition for exemption under these rules, shall be afforded an opportunity for a hearing before the Board or its designated hearing officer. Written notice of such grievance shall be transmitted to the Director within thirty (30) days after receipt of notice of such approval, disapproval or conditional approval. Such hearing shall be held for the purpose of determining whether the permit shall be issued, whether the conditions imposed in a permit are reasonable, whether a change in circumstances warrants a change in conditions imposed in a valid permit, or whether the Director's decision on a petition for exemption should not be changed. ( )

03. Hearings on Permit Cancellations. When the Director has reason to believe the operation of an injection well for which a permit has been issued is interfering with the right of the public to withdraw water for beneficial uses, or is causing unreasonable contamination of a drinking or other ground water source as provided for in Title 42, Chapter 39, Idaho Code, the permit may be canceled by the Director. Prior to the cancellation of such permit there shall be a hearing before the Board for the purpose of determining whether or not the permit should be canceled. At least thirty (30) days prior to the hearing, a notice, which shall be in accordance with Chapter 52, Title

67, Idaho Code, shall be sent by certified mail to the owner or operator whose permit is proposed to be canceled. The Board shall affirm, modify, or reject the Director's decision and make its decision in the form of an order to the Director. ( )

061. -- 069. (RESERVED)

070. VIOLATIONS, FORMAL NOTIFICATION AND ENFORCEMENT.

01. Violations. It shall be a violation of these rules for any owner or operator to: ( )

a. Fail to comply with a permit or authorization, or terms or conditions thereof; ( )

b. Fail to comply with applicable standards for water quality; ( )

c. Fail to comply with any permit application notification or filing requirement; ( )

d. Knowingly make any false statement, representation or certification in any application, report, document or record filed pursuant to these rules, or terms and conditions of an issued permit; ( )

e. Falsify, tamper with or knowingly render inaccurate any monitoring device or method required to be maintained or utilized by the terms and conditions of an issued permit; ( )

f. Fail to respond to any formal notification of a violation when a response is required; or ( )

g. Decommission a well in an unauthorized manner. ( )

02. Additional. It shall be a violation of these rules for any person to construct, operate, maintain, convert, plug, decommission or conduct any other activity in a manner which results or may result in the unauthorized injection of a hazardous or radioactive waste by an injection well. ( )

03. Formal Notification. Formal notification of violations may be communicated to the owner or operator with a letter, a notice of violation, a compliance or enforcement order or other appropriate means. ( )

04. Enforcement. Violation of any of the provisions of the Injection Well Act (Chapter 39, Title 42, Idaho Code) or of any rule, regulation, standard or criteria pertaining to the Injection Well Act may result in the Director initiating an enforcement action as provided under Chapters 17 and 39, Title 42, Idaho Code. ( )

071. -- 999. (RESERVED)