



Certification Page Regular and Emergency Rules

Revised May 2014

Emergency Rules *(After completing all of Sections 1 and 2, proceed to Section 5 below)*

Regular Rules

1. General Information

| | | |
|---|---|----------------------|
| a. Agency/Board Name Environmental Quality | | |
| b. Agency/Board Address 122 W 25th St | c. City Cheyenne | d. Zip Code 82001 |
| e. Name of Contact Person William Tillman | f. Contact Telephone Number 307-777-6941 | |
| g. Contact Email Address william.tillman@wyo.gov | h. Adoption Date July 8, 2015 | |
| i. Program Water Quality | | |

2. Rule Type and Information

For each chapter listed, indicate if the rule is New, Amended, or Repealed.
If "New," provide the Enrolled Act numbers and years enacted:

c. Provide the Chapter Number, Short Title, and Rule Type of Each Chapter being Created/Amended/Repealed
(Please use the Additional Rule Information form for more than 10 chapters, and attach it to this certification)

| Chapter Number: | Chapter Name: | New | Amended | Repealed |
|-----------------|---|--------------------------|-------------------------------------|-------------------------------------|
| 8 | QUALITY STANDARDS FOR WYOMING GROUNDWATERS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 13 | CLASS I HAZARDOUS WASTE AND NON-HAZARDOUS WASTE WELLS UNDERGROUND INJECTION CONTROL PROGRAM | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 16 | Class V Injection Wells and Facilities Underground Injection Control Program | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 27 | Underground Injection Control Program | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

d. The Statement of Reasons is attached to this certification.

e. If applicable, describe the emergency which requires promulgation of these rules without providing notice or an opportunity for a public hearing:

3. State Government Notice of Intended Rulemaking

a. Date on which the Notice of Intent containing all of the information required by W.S. 16-3-103(a) was filed with the Secretary of State: **May 5, 2015**

b. Date on which the Notice of Intent and proposed rules in strike and underscore format and a clean copy were provided to the Legislative Service Office: **May 5, 2015**

c. Date on which the Notice of Intent and proposed rules in strike and underscore format and a clean copy were provided to the Attorney General: **May 5, 2015**

4. Public Notice of Intended Rulemaking

a. Notice was mailed 45 days in advance to all persons who made a timely request for advance notice. Yes No N/A

b. A public hearing was held on the proposed rules. Yes No

| | | | | |
|-----------|---------------------------|----------------------|-----------------------|--|
| If "Yes:" | Date: July 8, 2015 | Time: 9:00 am | City: Cheyenne | Location: 122 W 25th St Room 1699 |
|-----------|---------------------------|----------------------|-----------------------|--|

5. Final Filing of Rules

a. Date on which the Certification Page with original signatures and final rules were sent to the Attorney General's Office for the Governor's signature: **July 10, 2015**

b. Date on which final rules were sent to the Legislative Service Office: **July 10, 2015**

c. Date on which a PDF of the final rules was electronically sent to the Secretary of State: **July 10, 2015**

6. Agency/Board Certification

The undersigned certifies that the foregoing information is correct.

| | |
|---|--|
| Signature of Authorized Individual (Blue ink as per Rules on Rules, Section 7) |  |
| Printed Name of Signatory | Todd Parfitt |
| Signatory Title | Director |
| Date of Signature | |

7. Governor's Certification

I have reviewed these rules and determined that they:

1. Are within the scope of the statutory authority delegated to the adopting agency;
2. Appear to be within the scope of the legislative purpose of the statutory authority; and, if emergency rules,
3. Are necessary and that I concur in the finding that they are an emergency.

Therefore, I approve the same.

| | |
|----------------------|--|
| Governor's Signature | |
| Date of Signature | |

Attorney General: 1. Statement of Reasons; 2. Original Certification Page; 3. Summary of Comments (regular rules); 4. Hard copy of rules: clean and strike/underscore; and 5. Memo to Governor documenting emergency (for emergency rules only).

LSO: 1. Statement of Reasons; 2. Copy of Certification Page; 3. Summary of Comments (regular rules); 4. Hard copy of rules: clean and strike/underscore; 5. Electronic copy of rules (PDFs) emailed to Criss.Carlson@wvleg.gov; clean and strike/underscore; and 6. Memo to Governor documenting emergency (for emergency rules only).

SOS: 1. PDF of clean copy of rules; and 2. Hard copy of Certification Page as delivered by the AG.

**BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING**

| | | |
|---|---|--------------------------|
| IN THE MATTER OF REVISIONS TO |) | |
| WATER QUALITY RULES AND |) | STATEMENT OF |
| REGULATIONS: CHAPTER 8 QUALITY |) | PRINCIPAL REASONS |
| STANDARDS FOR WYOMING |) | FOR ADOPTION |
| GROUNDWATERS, SECTION 6, |) | |
| STANDARDS FOR THE UNDERGROUND |) | |
| MANAGEMENT OF HAZARDOUS OR TOXIC |) | |
| WASTES; CHAPTER 13 CLASS I HAZARDOUS |) | |
| WASTE AND NON- HAZARDOUS WASTE |) | |
| WELLS UNDERGROUND INJECTION |) | |
| CONTROL PROGRAM; CHAPTER |) | |
| 16, CLASS V INJECTION WELLS AND |) | |
| FACILITIES UNDERGROUND INJECTION |) | |
| CONTROL PROGRAM; AND CHAPTER 27, |) | |
| UNDERGROUND INJECTION CONTROL |) | |
| PROGRAM CLASS I AND V WELLS |) | |

INTRODUCTION

The Environmental Quality Council, pursuant to the authority vested in it by Wyoming Statute 35-11-112 (a)(i) has adopted revisions to the following chapters and sections of the Wyoming Water Quality Rules and Regulations: Chapter 8, Quality Standards For Wyoming Groundwaters, Section 6, Standards for the Underground Management of Hazardous or Toxic Wastes; Chapter 13, Class I Hazardous Waste and Non-Hazardous Waste Wells Underground Injection Control Program; Chapter 16, Class V Injection Wells and Facilities Underground Injection Control Program; and Chapter 27, Underground Injection Control Program Class I and V Wells.

Section 35-11-302 (a) of the Environmental Quality Act (Act) states that the administrator, after receiving public comment and after consultation with the advisory board, shall recommend to the director rules, regulations, standards and permit systems to promote the purposes of the Act. Such rules, regulations, standards and permit systems shall prescribe:

(iii) Standards for the issuance of permits for construction, installation, modification or operation of any public water supply and sewerage system, subdivision water supply, treatment works, disposal system or other facility, capable of causing or contributing to pollution.

(vi) In recommending any standards, rules, regulations, or permits, the administrator and advisory board shall consider all the facts and circumstances bearing upon the reasonableness of the pollution involved including:

(A) The character and degree of injury to or interference with the health and well being of the people, animals, wildlife, aquatic life and plant life affected;

- (B) The social and economic value of the source of pollution;
- (C) The priority of location in the area involved;
- (D) The technical practicability and economic reasonableness of reducing or eliminating the source of pollution; and
- (E) The effect upon the environment.

SUMMARY OF PROPOSED REVISIONS TO CHAPTER 8, SECTION 6

Chapter 8, Quality Standards for Wyoming Groundwaters, Section 6, Standards for the Underground Management of Toxic Wastes, was edited in paragraph (b)(iii) to change the reference to Class IV groundwater to Class VI groundwater. The original reference to Class IV was in error based on the original rulemaking transcripts and supporting documents. The passage now correctly refers to Class VI groundwater.

SUMMARY OF PROPOSED REVISIONS TO CHAPTER 13

The contents of Chapter 13, Class I Hazardous Waste and Non-Hazardous Waste Wells: Underground Injection Control Program, were moved to Chapter 27. Chapter 13 is now repealed.

SUMMARY OF PROPOSED REVISIONS TO CHAPTER 16

The contents of Chapter 16, Class V Injection Wells and Facilities were moved to Chapter 27. Chapter 16 is now repealed.

SUMMARY OF PROPOSED REVISIONS TO CHAPTER 27

As stated above, the contents of Chapter 13 and Chapter 16 were moved to the newly created Chapter 27.

Section 1. The references to promulgation authority were combined from Chapters 13 and 16.

Section 2. The definitions from Chapter 13, Section 2 and Chapter 16, Section 2 were merged together.

The definition of “Class IV well” from Chapter 13, Section 2(j) was corrected. The final line of the definition previously stated “These wells are regulated as a class V well, type 5X26 under these regulations.” The final line has been stricken to remove confusion, as the type 5X26 well is a federal class, not a state class.

Chapter 13 defined “Class V well” and Chapter 16 defined “Class V facility”. Because the two definitions were duplicative, the definition of “Class V well” previously contained in Chapter 13 was stricken in favor of maintaining the more descriptive definition of “Class V facility” previously contained in Chapter 16. The cross references were updated.

Chapter 13 and Chapter 16 both defined “draft permit.” The two definitions were merged and the extra, unnecessary language from the Chapter 13 definition was eliminated for clarity.

Chapter 13 and Chapter 16 both defined “hazardous waste.” The definition in Chapter 13 cross referenced Wyoming Hazardous Waste Rules and Regulations for the full definition of the term. However, the Wyoming Hazardous Waste Rules and Regulations have recently adopted a change where the term of “hazardous waste” is no longer described, but is instead cross referenced to 40 CFR 261.3. Since this cross reference is already stated in the version previously contained in Chapter 16, the division elected to retain the reference to 40 CFR 261.3 and eliminate the reference to the Hazardous Waste Rules and Regulations.

Chapter 13 and Chapter 16 both defined “underground source of drinking water.” The two definitions were merged and the extra language from Chapter 16, “which have a total dissolved solids content of less than 10,000 mg/L” was included.

Chapter 16 defined “vadose zone” in a less precise manner than Water Quality Rules and Regulations Chapter 9. The definition from Chapter 16 was stricken in favor of the more precise definition, which also appears in Chapter 8. The precise version of “vadose zone” allows for consistency with other chapters of the Water Quality Rules and Regulations and also clarifies that perched water is excluded from the vadose zone. This exclusion was requested by Water and Waste Advisory Board member Lorie Cahn.

Chapter 13 Chapter 16 both defined “well”. Because the two definitions were duplicative, the definition of “well” previously contained in Chapter 16 was stricken in favor of maintaining the more descriptive definition of “well” previously located in Chapter 13.

Section 3. The applicability statements previously located in Chapter 13, Section 3 and Chapter 16, Section 16 were merged into Section 3 of Chapter 27. The cross reference to Appendix A was corrected to Appendix C.

Section 4. Language previously contained in Chapter 16, Section 4 was moved to Section 4 of Chapter 27. No edits were made.

Section 5. Language previously contained in Chapter 13, Section 4 was moved to Section 5 of Chapter 27. “Chapter VIII” was corrected to “Chapter 8” and “mg/l” was corrected to “mg/L”.

Section 6. Language previously contained in Chapter 13, Sections 5 and 9 was merged with language previously contained in Chapter 16, Sections 5 and 9. This merge placed all of the permitting requirements together, instead of spreading them out as had been done in Chapters 13 and 16.

Redundant passages previously contained in Chapter 13, Section 9(c); Chapter 16, Section 5(a); Chapter 13, Section 9(d); Chapter 13, Section 10; Chapter 16, Section 9(d)(xv); Chapter 13, Section 9(d)(xxiv); Chapter 13, Section 9(d)(xxvii); and Chapter 13, Section 9(d)(xxix) were either stricken because the language is redundant to other requirements in Section 6, or they were reworded for clarity.

Cross references to other sections and appendices within Chapter 27 and references to Chapter 8 were updated.

Section 7. The permit processing procedures previously located in Chapter 13, Sections 6 and 8, and Chapter 16, Section 5 were merged together in Section of Chapter 27. This merge placed all of the processing procedures together, instead of spreading them out as had been done in Chapter 13.

Redundant passages previously contained in Chapter 16, Section 5(b)(iii); Chapter 13, Section 8(g); Chapter 13, Section 8(h); Chapter 16, Section 5(b); Chapter 13, Section 8(e); Chapter 16, Section 5(b)(vii); Chapter 13, Section 8(k)(i); Chapter 13, Section 8(j); and Chapter 13, Section 8(l) were either stricken because the language is redundant to other requirements in Section 7, or they were reworded for clarity.

Instances of “Environmental Quality Act” were corrected to “Wyoming Environmental Quality Act.” Additional edits included adding clarifying transition language to note which requirements pertain to Class I or Class V wells, and updating cross references.

Section 8. The records and reporting requirements previously located in Chapter 13, Sections 9 and 15, and Chapter 16, Section 5 were merged together in Section 8 of Chapter 27. This merge placed all of the record keeping and reporting requirements together, instead of spreading them out as had been done in Chapter 13.

Redundant passages previously contained in Chapter 16, Section 5(d); Chapter 13, Section 15(c); Chapter 13, Section 15(d); Chapter 16, Section 15(d)(ii)(A); and Chapter 13, Section 15(g) were either stricken because the language is redundant to other requirements in Section 8, or they were reworded for clarity.

Section 9. The requirements previously contained in Chapter 16, Section 6, regarding individual permits were moved to Section 9 of Chapter 27. Cross references were updated. A transition statement previously located in Chapter 16, Section 6(c)(xii) was updated for clarity and to include a newly added cross reference.

Section 10. The requirements previously contained in Chapter 16, Section 7, regarding general permits were moved to Section 10 of Chapter 27. Cross references were updated.

Section 11. The requirements previously contained in Chapter 16, Section 8, regarding permit by rule were moved to Section 11 of Chapter 27. Cross references were updated.

Section 12. The requirements previously contained in Chapter 13, Section 11, regarding Class I well construction standards were moved to Section 12 of Chapter 27. Cross references were updated.

Section 13. The requirements previously contained in Chapter 16, Section 10, regarding Class V well construction and operation standards were moved to Section 13 of Chapter 27. Cross references were updated.

Section 14. The requirements previously contained in Chapter 13, Section 12, regarding Class I well siting conditions were moved to Section 14 of Chapter 27. No additional edits were made.

Section 15. The monitoring requirements previously located in Chapter 13, Section 13 and Chapter 16, Section 11 were merged together in Section 15 of Chapter 27. This merge placed all of the monitoring program requirements together. Cross references were updated.

Section 16. The requirements previously located in Chapter 13, Section 14 were moved to Section 16 of Chapter 27. No additional edits were made.

Section 17. The requirements previously located in Chapter 13, Section 16 were moved to Section 17 of Chapter 27. Cross references were updated. “Region VIII” was changed to “Region 8.”

Section 18. The requirements previously located in Chapter 16, Section 12 were moved to Section 18 of Chapter 27. “30” was corrected to “thirty (30)” for consistency with the rest of the chapter.

Section 19. The requirements previously located in Chapter 13, Section 17 were moved to Section 19 of Chapter 27. No additional edits were made.

Section 20. The prohibitions previously located in Chapter 13, Section 18 and Chapter 16, Section 9 were merged together in Section 20 of Chapter 27. This merge placed all of the prohibitions together.

Redundant passages previously contained in Chapter 13, Section 18(a); Chapter 13, Section 18(a)(i); Chapter 13, Section 18(a)(ii); Chapter 13, Section 18(a)(iii); and Chapter 13, Section (b) were either stricken because the language is redundant to other requirements in Section 20, or they were reworded for clarity. Additional edits included adding clarifying transition language and updating cross references.

Section 21. The public participation, public notice, and public hearing requirements previously located in Chapter 13, Section 19 and Chapter 16, Section 13 were moved to Section 21 of Chapter 27.

Redundant passages previously contained in Chapter 16, Section 13(a); Chapter 16, Section 13(c); Chapter 16, Section 13(d); Chapter 13, Section 19(d); Chapter 13, Section 19(d)(iii); Chapter 13, Section 19(j); Chapter 13, Section 19(k); Chapter 13, Section 19(n); and Chapter 13, Section 19(q) were either stricken because the language is redundant to other requirements in Section 21, or they were reworded for clarity. Additional edits included adding clarifying transition language and updating cross references.

Section 22. The language previously contained in Chapter 13, Section 20 was moved to Chapter 27, Section 22. The cross reference was updated.

Appendix A. The table previously located in Chapter 13, Appendix A was moved to Chapter 27, Appendix A. All instances of “mg/l” were updated to “mg/L” per standard notation practices.

Appendix B. The table previously located in Chapter 13, Appendix B was moved to Chapter 27, Appendix B. All instances of “PPB” were updated to “ppb” per standard notation practices.

Appendix C. The table previously located in Chapter 16, Appendix A was moved to Chapter 27, Appendix C. No additional edits were made.

Appendix D. The table previously located in Chapter 16, Appendix B was moved to Chapter 27, Appendix D. No additional edits were made.

The Council finds that these regulations are reasonable and necessary to accomplish the policy and purpose of the Act, as stated in W.S. 35-11-102, and that they have been promulgated in accordance with rulemaking provisions of the Wyoming Administrative Procedures Act.

Dated this _____ day of _____, 2015.

Hearing Examiner – *Printed Name*
Wyoming Environmental Quality Council

Hearing Examiner – **Signed Name**
Wyoming Environmental Quality Council

CHAPTER 8
QUALITY STANDARDS FOR WYOMING GROUNDWATERS

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CHAPTER 8

QUALITY STANDARDS FOR WYOMING GROUNDWATERS

Section 1. Authority.

These regulations are promulgated pursuant to Sections 35-11-101 through 1104 of the Wyoming Statutes, specifically Section 35-11-302, and no person shall cause, threaten or allow violation of any water quality standard or provision contained herein.

Section 2. Definitions.

The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.

(a) "Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

(b) "Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to a subsurface discharge.

(c) "Below-Surface Receiver (Receiver)" means any zone, interval, formation or unit in the subsurface which can accept water or fluid from other sources.

(d) "Domestic Water" means a water which is suitable for uses, including but not limited to, drinking, gardening and other household uses, municipal uses and farmstead uses, including water used in the washing or hydro-cooling of farm products destined for human consumption on the farm, for sale on the fresh food market or for delivery to a processing plant for canning, freezing or other type of preparation prior to marketing. Classification of Domestic water does not mean that it meets the national drinking water standards.

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

(f) "Groundwater" means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.

(g) "Groundwaters of the State" are all bodies of underground water which are wholly or partially within the boundaries of the State; Groundwaters of the State is synonymous with Groundwaters of Wyoming.

(h) "Hazardous Material (Substance)" means any matter of any description including petroleum related products and radioactive material (substance) which, when

45 discharged into any waters of the State presents an imminent and substantial hazard to public
46 health or welfare and shall include all materials (substances) so designated by the U.S.
47 Environmental Protection Agency in the Federal Register for March 13, 1978 (Part III), Water
48 Programs, Hazardous Substances.

49
50 (i) "Milliequivalents Per Liter", abbreviated meq/L, used to report the Residual
51 Sodium Carbonate concentration in water used for irrigation, is defined as 0.001 of the equivalent
52 weight of the ion per liter volume.

53
54 (j) "Milligrams Per Liter", abbreviated mg/L, means milligrams of solute per liter of
55 solution -- equivalent to parts per million assuming unit density of water.

56
57 (k) "Parameter" means one of a set of physical or chemical properties whose
58 measured values determine the characteristics of a fluid.

59
60 (l) "pH" is a term to express the intensity of the acid or basic condition. A pH value
61 of 7.0 at 25 degrees C is neutral, with pH's of less than 7.0 progressively more acid and pH's of
62 greater than 7.0 progressively more basic.

63
64 (m) "Picocuries Per Liter", abbreviated pCi/L, is a measure of radioactivity of waters
65 or fluids. A picocurie is equal to 10⁻¹² curie; a curie is defined as 3.7 x 10¹⁰ disintegrations per
66 second.

67
68 (n) "Residual Sodium Carbonate", abbreviated RSC, is defined as twice the
69 concentration of carbonate or bicarbonate a water would contain after subtracting an amount
70 equivalent to the calcium plus the magnesium, and is a measure of potential hazard which exists
71 when waters high in carbonate and bicarbonate and relatively low in calcium and magnesium are
72 used for irrigation.

73
74 (o) "Sodium Adsorption Ratio", abbreviated SAR, of a water is defined by the
75 U.S. Department of Agriculture Laboratory (1954) as: where ion concentrations are expressed in
76 milliequivalents per liter. The SAR predicts reasonably well the degree to which irrigation water
77 tends to enter into cation-exchange reactions in soil.

78
79 (p) "Standard Unit", abbreviated s.u., is the unit of measurement used to describe the
80 numerical pH of a solution, fluid or pollutant.

81
82 (q) "Subsurface Discharge" means a discharge to a below-surface receiver.

83
84 (r) "Total Dissolved Solids", abbreviated TDS, is the sum of the dissolved mineral
85 constituents in water, expressed as mg/L.

86
87 (s) "Toxic Materials (Substances)" are those materials (substances) or combinations
88 of materials (substances), including disease causing agents, which, after discharge and upon
89 exposure, ingestion, inhalation or assimilation into any environmentally significant organism,
90 either directly from the environment or indirectly by ingestion through food chains, may cause

91 death, disease, behavioral abnormalities, cancer, genetic malfunctions, physiological
92 malfunctions (including malfunctions in reproduction of offspring) or physical deformations in
93 such organisms or their offspring; and includes all materials (substances) so designated as toxic
94 by the U.S. Environmental Protection Agency in the Federal Register for December 24, 1975
95 (Part IV), Water Programs, National Interim Primary Drinking Water Regulations.

96
97 (t) "Underground Water" means subsurface water, which is any body of water
98 under the surface of the earth, including water in the vadose zone and groundwater.

99
100 (u) "Vadose Zone" means the unsaturated zone in the earth, between the land
101 surface and the top of the first saturated aquifer which is not a perched water aquifer. The vadose
102 zone characteristically contains liquid water under less than atmospheric pressure, and water
103 vapor and air or other gases at atmospheric pressure. Perched water bodies exist within the vadose
104 zone.

105
106 (v) "Virtually Free" means a concentration less than the concentration which is the
107 lower limit of detection.

108
109 **Section 3. Underground Water Protected.**

110
111 (a) All waters, including groundwaters of the State, within the boundaries of the
112 State of Wyoming are the property of the State; and control of the beneficial use of waters of the
113 State resides with the Wyoming State Engineer.

114
115 (b) Nothing herein contained shall be construed so as to interfere with the right of
116 any person to use water from any underground water source for any purpose identified in W.S.
117 35-11-102 and 35-11-103(c)(i); or to limit or interfere with the jurisdiction, duties or authorities
118 of other Wyoming State agencies or officials.

119
120 (c) Protection shall be afforded all underground water bodies (including water in the
121 vadose zone). Water being used for a purpose identified in W.S. 35-11-102 and 103(c)(i) shall be
122 protected for its intended use and uses for which it is suitable. Water not being put to use shall be
123 protected for all uses for which it is suitable.

124
125 **Section 4. Quality Standards Prescribed; Groundwaters of the State Classified.**

126
127 (a) Standards are prescribed to protect the natural quality of underground water:

128
129 (i) Receiving pollution or wastes directly from a subsurface discharge or by
130 migrating water or fluid of a discharge;

131
132 (ii) Invaded by underground water of inferior quality as a result of well or
133 exploration hole drilling or completion practices;

135 (iii) From pollution which may result from above-ground facilities capable of
136 causing or contributing to pollution;
137
138 (iv) From pollution which may result from surface mining operations.
139
140 (b) Groundwaters of the State are classified in order to apply standards to protect
141 water quality. Groundwaters of the State are classified by use, and by ambient water quality.
142
143 (c) Waters which are known sources of supply and appropriated for uses identified in
144 W.S. 35-11-102 and 103(c)(i) are classified herein as: Domestic water; Water for fish and aquatic
145 life; Water for agriculture; Water for livestock; and, Water for industry. A discharge or activity
146 that impacts an underground source of water for existing uses identified in W.S. 35-11-102 and
147 103(c)(i) shall not make the affected water unsuitable for its intended use or uses, at any place or
148 places of withdrawal or natural flow to the surface.
149
150 (d) Unappropriated waters are classified by ambient water quality.
151
152 (i) Class I Groundwater of the State - This water is suitable for domestic
153 use. The ambient quality of underground water of this suitability does not have a concentration in
154 excess of any of the standards for Class I Groundwater of the State (see Table I, page 9).
155
156 (ii) Class II Groundwater of the State - This water is suitable for agricultural
157 use where soil conditions and other factors are adequate. The ambient quality of underground
158 water of this suitability does not have a concentration in excess of any of the standards for Class
159 II Groundwater of the State (see Table I, page 9).
160
161 (iii) Class III Groundwater of the State - This water is suitable for livestock.
162 The ambient quality of underground water of this suitability does not have a concentration in
163 excess of any of the standards for Class III Groundwater of the State (see Table I, page 9).
164
165 (iv) Class Special (A) Groundwater of the State -This water is suitable for
166 fish and aquatic life. The ambient quality of underground water of this suitability does not have a
167 concentration in excess of any of the standards for Class Special (A) Groundwater of the State
168 (see Table I, page 10).
169
170 (v) Underground water of Class I, II, III or Special
171
172 (A) shall not contain biological, hazardous, toxic or potentially toxic
173 materials or substances in concentrations or amounts which exceed maximum allowable
174 concentrations based upon information of the EPA in the Federal Register for December 24, 1975
175 (Part IV), Water Programs, National Interim Primary Drinking Water Regulations; and in the
176 Federal Register for March 13, 1978 (Part II), Water Programs, Hazardous Substances. In
177 addition, underground water of Class I, II, III or Special (A) shall not contain any biological,
178 hazardous, toxic or potentially toxic materials or substances in concentrations or amounts which,
179 based upon the latest available scientific information and as determined by the Administrator, will

180 impair this water for its use suitability or which may contribute to a condition in contravention of
181 groundwater quality standards or to any toxic or hazardous effect on natural biota.

182
183 (vi) A discharge into an aquifer containing Class I, II, III or Special
184

185 (A) Groundwater of the State shall not result in variations in the
186 range of any parameter, or concentrations of constituents in excess of the standards of these
187 regulations at any place or places of withdrawal or natural flow to the surface. A discharge which
188 results in concentrations in excess of standards shall be permitted if post-discharge water quality
189 can be returned to a quality of use equal to, or better than, and consistent with the uses for which
190 the water was suitable prior to the operation.

191
192 (vii) Class IV Groundwater of the State - This water is suitable for industry.
193 The quality requirements for industrial water supplies range widely and almost every industrial
194 application has its own standards.

195
196 (A) Class IV (A) Groundwater of the State has a total dissolved
197 solids concentration not in excess of 10,000 mg/L.

198
199 (B) Class IV (B) Groundwater of the State has a total dissolved
200 solids concentration in excess of 10,000 mg/L.

201
202 (C) A discharge into an aquifer containing Class IV (A) or
203 IV (B) Groundwater of the State shall not result in the water being unfit for its intended use.

204
205 (D) A discharge into an aquifer with Class IV (A) or IV (B)
206 Groundwater of the State shall not result in oil and grease concentrations in excess of 10 mg/L or
207 a lesser amount if a concentration in excess of the lesser amount is determined to be toxic; or oil
208 and grease in excess of background concentrations of the underground water, whichever is
209 greater, at any place or places of withdrawal or natural flow to the surface.

210
211 (E) A discharge into an aquifer with Class IV (A) or IV (B)
212 Groundwater of the State shall not result in radioactivity concentrations or amounts which exceed
213 the standards for Class I through III and Special (A) Groundwaters of the State; or in
214 concentrations or amounts which exceed background concentrations of the underground water,
215 whichever is greater, at any place or places of withdrawal or natural flow to the surface.

216
217 (F) A discharge into an aquifer with Class IV (A) or IV (B)
218 Groundwater of the State shall not result in biological, hazardous, toxic or potentially toxic
219 materials or substances including pesticides, insecticides or herbicides in concentrations or
220 amounts which exceed maximum allowable concentrations, based upon information of the EPA
221 in the Federal Register for December 24, 1975 (Part IV), Water Programs, National Interim
222 Primary Drinking Water Regulations, and in the Federal Register for March 13, 1978 (Part II),
223 Water Programs, Hazardous Substances; or which exceed background concentrations of the
224 underground water, whichever is greater, at any place or places of withdrawal or natural flow to
225 the surface.

226 In addition, a discharge shall not result in any biological, hazardous, toxic or potentially
227 toxic materials or substances, in concentrations or amounts which, based on the latest available
228 scientific information and as determined by the Administrator, will impair the quality of ambient
229 groundwaters of the State of this Class; or which may contribute to a condition in contravention
230 of groundwater quality standards or cause, allow or permit any deleterious effect on natural biota.

231
232 (viii) Groundwater of the State found closely associated with commercial
233 deposits of hydrocarbons and/or other minerals, or which is considered a geothermal resource, is
234 Class V (Hydrocarbon Commercial), Class V (Mineral Commercial) or Class V (Geothermal)
235 Groundwater of the State.

236
237 (A) A discharge into a Class V (Hydrocarbon Commercial)
238 Groundwater of the State shall be for the purpose of the production of oil and gas and shall not
239 result in the degradation or pollution or waste of other water resources.

240
241 (B) A discharge into a Class V (Mineral Commercial)
242 Groundwater of the State shall be for the purpose of mineral production and shall not result in the
243 degradation or pollution of the associated or other groundwater and, at a minimum, be returned to
244 a condition and quality consistent with the pre-discharge use suitability of the water.

245
246 (C) A discharge into a Class V (Geothermal) Groundwater of the
247 State shall be for the purpose of the production of geothermal resources and shall not result in the
248 degradation or pollution or waste of other water resources.

249
250 (ix) Class VI Groundwater of the State may be unusable or unsuitable for
251 use:

252
253 (A) Due to excessive concentration of total dissolved solids or
254 specific constituents; or

255
256 (B) Is so contaminated that it would be economically or
257 technologically impractical to make the water useable; or

258
259 (C) Is located in such a way, including depth below the surface, so as
260 to make use economically and technologically impractical.

261

262 **Section 5. Classification for Groundwater of the State Affected by a Discharge;**
263 **Classification by Aquifer and Area.**

264
265 (a) Classification of groundwaters of the State shall be based on the water quality
266 standards of this chapter; excepting, a Class I Groundwater of the State shall be classified by
267 ambient water quality and the technical practicability and economic reasonableness of treating
268 ambient water quality to meet use suitability standards.

269

270 (b) Underground water quality shall be classified for an aquifer which is or may be
271 affected by a subsurface discharge or other activity identified in Section 4.a. of these regulations.
272

273 (c) Classification shall be made:
274

275 (i) Whenever there is pollution or the threat of pollution to a groundwater of
276 the State; or
277

278 (ii) The physical, chemical, radiological or biological properties of any
279 groundwater of the State are or may be altered by man's action.

280 (d) Classification shall be for a water in a specified locally defined area by named
281 and described aquifer or receiver. Any aquifer or receiver in its regional setting
282 may have one or more classifications by defined area or areas.
283

284 (i) The name shall be a recognized geologic name whenever possible;
285

286 (ii) The description shall include a lithologic description.
287

288 (e) The lateral and vertical limits of an aquifer or receiver, for purposes of
289 classification, shall be based on existing water use, ambient water quality and geologic and
290 hydrologic characteristics of the aquifer or of the receiver.
291

292 (f) An underground water may be reclassified if new or additional data warrant
293 reclassification.

TABLE I

| UNDERGROUND WATER CLASS Use Suitability Constituent or Parameter | I Domestic* <u>Concentration**</u> | II Agriculture <u>Concent.**</u> | III Livestock <u>Concent.**</u> |
|---|--|--|---------------------------------------|
| Aluminum (Al) | --- | 5.0 | 5.0 |
| Ammonia (NH ₃ -N) | 0.5 ⁷ | --- | --- |
| Arsenic (AS) | 0.05 | 0.1 | 0.2 |
| Barium (Ba) | 2.0 | --- | --- |
| Beryllium (Be) | --- | 0.1 | --- |
| Boron (B) | 0.75 | 0.75 | 5.0 |
| Cadmium (Cd) | .005 | 0.01 | 0.05 |
| Chloride (Cl) | 250.0 | 100.0 | 2000.0 |
| Chromium (Cr) | .10 | 0.1 | 0.05 |
| Cobalt (Co) | --- | 0.05 | 1.0 |
| Copper (Cu) | 1.0 | 0.2 | 0.5 |
| Cyanide (CN) | 0.2 | --- | --- |
| Fluoride (F) | 4.0 | --- | --- |
| Hydrogen Sulfide(H ₂ S) | 0.05 | --- | --- |
| Iron (Fe) | 0.3 | 5.0 | --- |
| Lead (Pb) | .015 | 5.0 | 0.1 |
| Lithium (Li) | --- | 2.5 | --- |
| Manganese (Mn) | 0.05 | 0.2 | --- |
| Mercury (Hg) | 0.002 | --- | 0.0005 |
| Nickel (Ni) | --- | 0.2 | --- |
| Nitrate (NO ₃ -N) | 10.0 | --- | --- |
| Nitrite (NO ₂ -N) | 1.0 | --- | 10.0 |
| (NO ₃ +NO ₂)-N | --- | --- | 100.0 |
| Oil & Grease | Virtually Free | 10.0 | 10.0 |
| Phenol | 0.001 | --- | --- |
| Selenium (Se) | .05 | 0.02 | 0.05 |
| Silver (Ag) | .10 | --- | --- |
| Sulfate (SO ₄) | 250.0 | 200.0 | 3000.0 |
| Total Dissolved Solids (TDS) | 500.0 | 2000.0 | 5000.0 |
| Vanadium (V) | --- | 0.1 | 0.1 |
| Zinc (Zn) | 5.0 | 2.0 | 25.0 |
| pH | 6.5-8.5 | 4.5-9.0s.u. | 6.5-8.5s.u |
| SAR | --- | 8 | --- |
| RSC | --- | 1.25 meq/L | --- |
| Combined Total Radium 226 and Radium 228 ⁸ | 5pCi/L | 5pCi/L | 5pCi/L |
| Total Strontium 90 | 8pCi/L | 8pCi/L | 8pCi/L |
| Gross alpha particle radioactivity (including Radium 226 but excluding Radon and Uranium ⁸ | 15pCi/L | 15pCi/L | 15pCi/L |

* This list does not include all constituents in the national drinking water standards.

** mg/L, unless other wise indicated

TABLE I

| UNDERGROUND WATER CLASS <u>Use Suitability Constituent or Parameter</u> | Special (A) Fish/Aquatic Life <u>Concentration*</u> |
|---|--|
| Aluminum (Al) | 0.1 |
| Ammonia (NH ₃) | 0.021 |
| Arsenic (As) | 0.05 |
| Barium (Ba) | 5.0 |
| Beryllium (Be) | 0.011-1.3 ³ |
| Boron (B) | --- |
| Cadmium(Cd) | 0.0004-0.015 ³ |
| Chloride (Cl) | --- |
| Chromium (Cr) | 0.05 |
| Cobalt (Co) | --- |
| Copper (Cu) | 0.01-0.04 ³ |
| Cyanide (CN) | 0.005 |
| Fluoride (F) | --- |
| Hydrogen Sulfide (H ₂ S) | 0.0022 |
| Iron (Fe) | 0.5 |
| Lead (Pb) | 0.004-0.15 ³ |
| Lithium (Li) | --- |
| Manganese (Mn) | 1.0 |
| Mercury (Hg) | 0.00005 |
| Nickel (Ni) | 0.05-0.4 ³ |
| Nitrate (NO ₃ -N) | --- |
| Nitrite (NO ₂ -N) | --- |
| (NO ₃ +NO ₂ -N) | --- |
| Oil & Grease | Virtually free |
| Phenol | 0.001 |
| Selenium(Se) | 0.05 |
| Silver(Ag) | 0.0001-0.00025 ³ |
| Sulfate (SO ₄) | --- |
| TotalDissolvedSolids(TDS) | 500.0 ⁴ -1000.0 ⁵ -2000.0 ⁶ |
| Uranium (U) | 0.03-1.4 ³ |
| Vanadium (V) | --- |
| Zinc (Zn) | 0.05-0.6 ³ |
| pH | 6.5s.u.-9.0s.u. |
| Combined Total | |
| Radium 226 and | |
| Radium 228 ⁸ | 5pCi/L |
| Total Strontium 90 | 8pCi/L |
| Gross alpha particle | |
| radioactivity (including | |
| Radium 226 but excluding | |
| Radon and Uranium ⁸ | 15pCi/L |

*mg/L, unless other wise indicated

TABLE I

Explanation for Superscripts Used in Table I

¹Unionized ammonia: When ammonia dissolves in water, some of the ammonia reacts with water to form ammonium ions. A chemical equilibrium is established which contains unionized ammonia (NH_3), ionized ammonia (NH_4^+) and hydroxide ions (OH^-). The toxicity of aqueous solutions of ammonia is attributed to NH_3 ; therefore, the standard is for unionized ammonia. (Note: 0.02 mg/L NH_3 is equivalent to 0.016 NH_3 as N.)

²Undissociated H_2S : The toxicity of sulfides derives primarily from H_2S , rather than from the dissociated (HS^-) or (S^{2-}) ions; therefore, the standard is for the toxic undissociated H_2S .

³Dependent on hardness: The toxicity of metals in natural waters varies with the hardness of the water; generally, the limiting concentration is higher in hard water than in soft water.

⁴Egg hatching

⁵Fish rearing

⁶Fish and aquatic life

⁷Total ammonia nitrogen

⁸Requirements and procedures for the measurement and analysis of gross alpha particle activity, Radium 226 and Radium 228 shall be the same as requirements and procedures of the U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations, EPA-570/9-76-003, effective June 24, 1977.

Section 6. Standards for the Underground Management of Hazardous or Toxic Wastes.

The underground management of wastes includes the temporary storage and the ultimate disposal of all hazardous or toxic wastes in below-surface receivers. The following standards apply to any underground storage or disposal of hazardous or toxic wastes.

- (a) The below-surface receiver:
 - (i) Is an extensive sedimentary rock stratum or strata free of complex faulting and folding and distant from any underground water recharge area;
 - (ii) Is adequately separated from aquifers both above and below;
 - (iii) Has normal or low formation pressure and is capable of accepting the discharge without necessitating excessive discharge or injection pressure;
 - (iv) Has slow movement of ambient formation fluid under the natural horizontal gradient and is not in an area of underground water discharge for the receiver;
 - (v) Is located areally and stratigraphically so that an escape of waste to useable water resources would not be anticipated due to:
 - (A) Seismic risk;
 - (B) Abandoned holes; or
 - (C) Mineral exploration or other drilling, or mineral development.
- (b) The underground water in the receiver;
 - (i) Is not an economically available source of water or is unusable;
 - (ii) Is confined by strata overlying and underlying the receiver; and
 - (iii) Is classified as class VI groundwater by this chapter.
- (c) The discharge or waste:
 - (i) Will not create or result in a hazard to health or impair existing rights, and is not prohibited from subsurface disposal by Federal or State law or regulation;
 - (ii) Will not degrade or decrease the availability of mineral resources, including oil and gas;

(iii) Is compatible with the receiver and ambient water; and

(iv) Can be controlled at all times.

Section 7. Testing Procedures.

(a) For determination of the parameters involved in the standards, analysis will be in accord with test procedures as defined pursuant to: Title 40, Code of Federal Regulations, Part 136, or any modifications thereto. For test procedures not listed in the Code of Federal Regulations, test procedures outlined in EPA Methods for Chemical Analysis of Water and Wastes (March, 1979); or Standard Methods for the Examination of Water and Wastewaters (1975); or, A.S.T.M. Standards, Part 31 (1979), Water shall be used.

(b) The analytical technique for total uranium (as U) shall be the fluorometric method as referenced in Methods for Determination of Radioactive Substances in Water and Fluvial Sediments, Techniques of Water - Resource Investigations of the U.S. Geological Survey, Book 5, Chapter A-5 (1977).

(c) Where standard methods of testing have not been established, the suitability of testing procedures shall be determined by the Department.

Section 8. Limit of Detection.

Where the standard is below the lower limit of detection given in EPA Methods for Chemical Analysis of Water and Wastes (March, 1979), or Standard Methods for the Examination of Water and Wastewaters (1975), or, A.S.T.M. Standards, Part 31 (1979), Water, the standard shall be the lower limit of detection, unless otherwise provided by the Council.

CHAPTER 8

QUALITY STANDARDS FOR WYOMING GROUNDWATERS

Section 1. Authority.

These regulations are promulgated pursuant to Sections 35-11-101 through 1104 of the Wyoming Statutes, specifically Section 35-11-302, and no person shall cause, threaten or allow violation of any water quality standard or provision contained herein.

Section 2. Definitions.

The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.

(a) "Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

(b) "Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to a subsurface discharge.

(c) "Below-Surface Receiver (Receiver)" means any zone, interval, formation or unit in the subsurface which can accept water or fluid from other sources.

(d) "Domestic Water" means a water which is suitable for uses, including but not limited to, drinking, gardening and other household uses, municipal uses and farmstead uses, including water used in the washing or hydro-cooling of farm products destined for human consumption on the farm, for sale on the fresh food market or for delivery to a processing plant for canning, freezing or other type of preparation prior to marketing. Classification of Domestic water does not mean that it meets the national drinking water standards.

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

(f) "Groundwater" means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.

(g) "Groundwaters of the State" are all bodies of underground water which are wholly or partially within the boundaries of the State; Groundwaters of the State is synonymous with Groundwaters of Wyoming.

(h) "Hazardous Material (Substance)" means any matter of any description including petroleum related products and radioactive material (substance) which, when discharged into any waters of the State presents an imminent and substantial hazard to public health or welfare and shall include all materials (substances) so designated by the U.S.

Environmental Protection Agency in the Federal Register for March 13, 1978 (Part III), Water Programs, Hazardous Substances.

(i) "Milliequivalents Per Liter", abbreviated meq/L, used to report the Residual Sodium Carbonate concentration in water used for irrigation, is defined as 0.001 of the equivalent weight of the ion per liter volume.

(j) "Milligrams Per Liter", abbreviated mg/L, means milligrams of solute per liter of solution -- equivalent to parts per million assuming unit density of water.

(k) "Parameter" means one of a set of physical or chemical properties whose measured values determine the characteristics of a fluid.

(l) "pH" is a term to express the intensity of the acid or basic condition. A pH value of 7.0 at 25 degrees C is neutral, with pH's of less than 7.0 progressively more acid and pH's of greater than 7.0 progressively more basic.

(m) "Picocuries Per Liter", abbreviated pCi/L, is a measure of radioactivity of waters or fluids. A picocurie is equal to 10⁻¹² curie; a curie is defined as 3.7 x 10¹⁰ disintegrations per second.

(n) "Residual Sodium Carbonate", abbreviated RSC, is defined as twice the concentration of carbonate or bicarbonate a water would contain after subtracting an amount equivalent to the calcium plus the magnesium, and is a measure of potential hazard which exists when waters high in carbonate and bicarbonate and relatively low in calcium and magnesium are used for irrigation.

(o) "Sodium Adsorption Ratio", abbreviated SAR, of a water is defined by the U.S. Department of Agriculture Laboratory (1954) as: where ion concentrations are expressed in milliequivalents per liter. The SAR predicts reasonably well the degree to which irrigation water tends to enter into cation-exchange reactions in soil.

(p) "Standard Unit", abbreviated s.u., is the unit of measurement used to describe the numerical pH of a solution, fluid or pollutant.

(q) "Subsurface Discharge" means a discharge to a below-surface receiver.

(r) "Total Dissolved Solids", abbreviated TDS, is the sum of the dissolved mineral constituents in water, expressed as mg/L.

(s) "Toxic Materials (Substances)" are those materials (substances) or combinations of materials (substances), including disease causing agents, which, after discharge and upon exposure, ingestion, inhalation or assimilation into any environmentally significant organism, either directly from the environment or indirectly by ingestion through food chains, may cause death, disease, behavioral abnormalities, cancer, genetic malfunctions, physiological malfunctions (including malfunctions in reproduction of offspring) or physical deformations in

such organisms or their offspring; and includes all materials (substances) so designated as toxic by the U.S. Environmental Protection Agency in the Federal Register for December 24, 1975 (Part IV), Water Programs, National Interim Primary Drinking Water Regulations.

(t) "Underground Water" means subsurface water, which is any body of water under the surface of the earth, including water in the vadose zone and groundwater.

(u) "Vadose Zone" means the unsaturated zone in the earth, between the land surface and the top of the first saturated aquifer which is not a perched water aquifer. The vadose zone characteristically contains liquid water under less than atmospheric pressure, and water vapor and air or other gases at atmospheric pressure. Perched water bodies exist within the vadose zone.

(v) "Virtually Free" means a concentration less than the concentration which is the lower limit of detection.

Section 3. Underground Water Protected.

(a) All waters, including groundwaters of the State, within the boundaries of the State of Wyoming are the property of the State; and control of the beneficial use of waters of the State resides with the Wyoming State Engineer.

(b) Nothing herein contained shall be construed so as to interfere with the right of any person to use water from any underground water source for any purpose identified in W.S. 35-11-102 and 35-11-103(c)(i); or to limit or interfere with the jurisdiction, duties or authorities of other Wyoming State agencies or officials.

(c) Protection shall be afforded all underground water bodies (including water in the vadose zone). Water being used for a purpose identified in W.S. 35-11-102 and 103(c)(i) shall be protected for its intended use and uses for which it is suitable. Water not being put to use shall be protected for all uses for which it is suitable.

Section 4. Quality Standards Prescribed; Groundwaters of the State Classified.

(a) Standards are prescribed to protect the natural quality of underground water:

(i) Receiving pollution or wastes directly from a subsurface discharge or by migrating water or fluid of a discharge;

(ii) Invaded by underground water of inferior quality as a result of well or exploration hole drilling or completion practices;

(iii) From pollution which may result from above-ground facilities capable of causing or contributing to pollution;

(iv) From pollution which may result from surface mining operations.

(b) Groundwaters of the State are classified in order to apply standards to protect water quality. Groundwaters of the State are classified by use, and by ambient water quality.

(c) Waters which are known sources of supply and appropriated for uses identified in W.S. 35-11-102 and 103(c)(i) are classified herein as: Domestic water; Water for fish and aquatic life; Water for agriculture; Water for livestock; and, Water for industry. A discharge or activity that impacts an underground source of water for existing uses identified in W.S. 35-11-102 and 103(c)(i) shall not make the affected water unsuitable for its intended use or uses, at any place or places of withdrawal or natural flow to the surface.

(d) Unappropriated waters are classified by ambient water quality.

(i) Class I Groundwater of the State - This water is suitable for domestic use. The ambient quality of underground water of this suitability does not have a concentration in excess of any of the standards for Class I Groundwater of the State (see Table I, page 9).

(ii) Class II Groundwater of the State - This water is suitable for agricultural use where soil conditions and other factors are adequate. The ambient quality of underground water of this suitability does not have a concentration in excess of any of the standards for Class II Groundwater of the State (see Table I, page 9).

(iii) Class III Groundwater of the State - This water is suitable for livestock. The ambient quality of underground water of this suitability does not have a concentration in excess of any of the standards for Class III Groundwater of the State (see Table I, page 9).

(iv) Class Special (A) Groundwater of the State -This water is suitable for fish and aquatic life. The ambient quality of underground water of this suitability does not have a concentration in excess of any of the standards for Class Special (A) Groundwater of the State (see Table I, page 10).

(v) Underground water of Class I, II, III or Special

(A) shall not contain biological, hazardous, toxic or potentially toxic materials or substances in concentrations or amounts which exceed maximum allowable concentrations based upon information of the EPA in the Federal Register for December 24, 1975 (Part IV), Water Programs, National Interim Primary Drinking Water Regulations; and in the Federal Register for March 13, 1978 (Part II), Water Programs, Hazardous Substances. In addition, underground water of Class I, II, III or Special (A) shall not contain any biological, hazardous, toxic or potentially toxic materials or substances in concentrations or amounts which, based upon the latest available scientific information and as determined by the Administrator, will impair this water for its use suitability or which may contribute to a condition in contravention of groundwater quality standards or to any toxic or hazardous effect on natural biota.

(vi) A discharge into an aquifer containing Class I, II, III or Special

(A) Groundwater of the State shall not result in variations in the range of any parameter, or concentrations of constituents in excess of the standards of these regulations at any place or places of withdrawal or natural flow to the surface. A discharge which results in concentrations in excess of standards shall be permitted if post-discharge water quality can be returned to a quality of use equal to, or better than, and consistent with the uses for which the water was suitable prior to the operation.

(vii) Class IV Groundwater of the State - This water is suitable for industry. The quality requirements for industrial water supplies range widely and almost every industrial application has its own standards.

(A) Class IV (A) Groundwater of the State has a total dissolved solids concentration not in excess of 10,000 mg/L.

(B) Class IV (B) Groundwater of the State has a total dissolved solids concentration in excess of 10,000 mg/L.

(C) A discharge into an aquifer containing Class IV (A) or IV (B) Groundwater of the State shall not result in the water being unfit for its intended use.

(D) A discharge into an aquifer with Class IV (A) or IV (B) Groundwater of the State shall not result in oil and grease concentrations in excess of 10 mg/L or a lesser amount if a concentration in excess of the lesser amount is determined to be toxic; or oil and grease in excess of background concentrations of the underground water, whichever is greater, at any place or places of withdrawal or natural flow to the surface.

(E) A discharge into an aquifer with Class IV (A) or IV (B) Groundwater of the State shall not result in radioactivity concentrations or amounts which exceed the standards for Class I through III and Special (A) Groundwaters of the State; or in concentrations or amounts which exceed background concentrations of the underground water, whichever is greater, at any place or places of withdrawal or natural flow to the surface.

(F) A discharge into an aquifer with Class IV (A) or IV (B) Groundwater of the State shall not result in biological, hazardous, toxic or potentially toxic materials or substances including pesticides, insecticides or herbicides in concentrations or amounts which exceed maximum allowable concentrations, based upon information of the EPA in the Federal Register for December 24, 1975 (Part IV), Water Programs, National Interim Primary Drinking Water Regulations, and in the Federal Register for March 13, 1978 (Part II), Water Programs, Hazardous Substances; or which exceed background concentrations of the underground water, whichever is greater, at any place or places of withdrawal or natural flow to the surface.

In addition, a discharge shall not result in any biological, hazardous, toxic or potentially toxic materials or substances, in concentrations or amounts which, based on the latest available scientific information and as determined by the Administrator, will impair the quality of ambient

groundwaters of the State of this Class; or which may contribute to a condition in contravention of groundwater quality standards or cause, allow or permit any deleterious effect on natural biota.

(viii) Groundwater of the State found closely associated with commercial deposits of hydrocarbons and/or other minerals, or which is considered a geothermal resource, is Class V (Hydrocarbon Commercial), Class V (Mineral Commercial) or Class V (Geothermal) Groundwater of the State.

(A) A discharge into a Class V (Hydrocarbon Commercial) Groundwater of the State shall be for the purpose of the production of oil and gas and shall not result in the degradation or pollution or waste of other water resources.

(B) A discharge into a Class V (Mineral Commercial) Groundwater of the State shall be for the purpose of mineral production and shall not result in the degradation or pollution of the associated or other groundwater and, at a minimum, be returned to a condition and quality consistent with the pre-discharge use suitability of the water.

(C) A discharge into a Class V (Geothermal) Groundwater of the State shall be for the purpose of the production of geothermal resources and shall not result in the degradation or pollution or waste of other water resources.

(ix) Class VI Groundwater of the State may be unusable or unsuitable for use:

(A) Due to excessive concentration of total dissolved solids or specific constituents; or

(B) Is so contaminated that it would be economically or technologically impractical to make the water useable; or

(C) Is located in such a way, including depth below the surface, so as to make use economically and technologically impractical.

Section 5. Classification for Groundwater of the State Affected by a Discharge; Classification by Aquifer and Area.

(a) Classification of groundwaters of the State shall be based on the water quality standards of this chapter; excepting, a Class I Groundwater of the State shall be classified by ambient water quality and the technical practicability and economic reasonableness of treating ambient water quality to meet use suitability standards.

(b) Underground water quality shall be classified for an aquifer which is or may be affected by a subsurface discharge or other activity identified in Section 4.a. of these regulations.

(c) Classification shall be made:

(i) Whenever there is pollution or the threat of pollution to a groundwater of the State; or

(ii) The physical, chemical, radiological or biological properties of any groundwater of the State are or may be altered by man's action.

(d) Classification shall be for a water in a specified locally defined area by named and described aquifer or receiver. Any aquifer or receiver in its regional setting may have one or more classifications by defined area or areas.

(i) The name shall be a recognized geologic name whenever possible;

(ii) The description shall include a lithologic description.

(e) The lateral and vertical limits of an aquifer or receiver, for purposes of classification, shall be based on existing water use, ambient water quality and geologic and hydrologic characteristics of the aquifer or of the receiver.

(f) An underground water may be reclassified if new or additional data warrant reclassification.

TABLE I

| UNDERGROUND WATER CLASS Use Suitability Constituent or Parameter | I Domestic* <u>Concentration**</u> | II Agriculture <u>Concent.**</u> | III Livestock <u>Concent.**</u> |
|---|--|--|---------------------------------------|
| Aluminum (Al) | --- | 5.0 | 5.0 |
| Ammonia (NH ₃ -N) | 0.5 ⁷ | --- | --- |
| Arsenic (AS) | 0.05 | 0.1 | 0.2 |
| Barium (Ba) | 2.0 | --- | --- |
| Beryllium (Be) | --- | 0.1 | --- |
| Boron (B) | 0.75 | 0.75 | 5.0 |
| Cadmium (Cd) | .005 | 0.01 | 0.05 |
| Chloride (Cl) | 250.0 | 100.0 | 2000.0 |
| Chromium (Cr) | .10 | 0.1 | 0.05 |
| Cobalt (Co) | --- | 0.05 | 1.0 |
| Copper (Cu) | 1.0 | 0.2 | 0.5 |
| Cyanide (CN) | 0.2 | --- | --- |
| Fluoride (F) | 4.0 | --- | --- |
| Hydrogen Sulfide(H ₂ S) | 0.05 | --- | --- |
| Iron (Fe) | 0.3 | 5.0 | --- |
| Lead (Pb) | .015 | 5.0 | 0.1 |
| Lithium (Li) | --- | 2.5 | --- |
| Manganese (Mn) | 0.05 | 0.2 | --- |
| Mercury (Hg) | 0.002 | --- | 0.00005 |
| Nickel (Ni) | --- | 0.2 | --- |
| Nitrate (NO ₃ -N) | 10.0 | --- | --- |
| Nitrite (NO ₂ -N) | 1.0 | --- | 10.0 |
| (NO ₃ +NO ₂)-N | --- | --- | 100.0 |
| Oil & Grease | Virtually Free | 10.0 | 10.0 |
| Phenol | 0.001 | --- | --- |
| Selenium (Se) | .05 | 0.02 | 0.05 |
| Silver (Ag) | .10 | --- | --- |
| Sulfate (SO ₄) | 250.0 | 200.0 | 3000.0 |
| Total Dissolved Solids (TDS) | 500.0 | 2000.0 | 5000.0 |
| Vanadium (V) | --- | 0.1 | 0.1 |
| Zinc (Zn) | 5.0 | 2.0 | 25.0 |
| pH | 6.5-8.5 | 4.5-9.0s.u. | 6.5-8.5s.u |
| SAR | --- | 8 | --- |
| RSC | --- | 1.25 meq/L | --- |
| Combined Total Radium 226 and Radium 228 ⁸ | 5pCi/L | 5pCi/L | 5pCi/L |
| Total Strontium 90 | 8pCi/L | 8pCi/L | 8pCi/L |
| Gross alpha particle radioactivity (including Radium 226 but excluding Radon and Uranium ⁸ | 15pCi/L | 15pCi/L | 15pCi/L |

* This list does not include all constituents in the national drinking water standards.

** mg/L, unless other wise indicated

TABLE I

| UNDERGROUND WATER CLASS <u>Use Suitability Constituent or Parameter</u> | Special (A) Fish/Aquatic Life <u>Concentration*</u> |
|--|--|
| Aluminum (Al) | 0.1 |
| Ammonia (NH ₃) | 0.021 |
| Arsenic (As) | 0.05 |
| Barium (Ba) | 5.0 |
| Beryllium (Be) | 0.011-1.3 ³ |
| Boron (B) | --- |
| Cadmium(Cd) | 0.0004-0.015 ³ |
| Chloride (Cl) | --- |
| Chromium (Cr) | 0.05 |
| Cobalt (Co) | --- |
| Copper (Cu) | 0.01-0.04 ³ |
| Cyanide (CN) | 0.005 |
| Fluoride (F) | --- |
| Hydrogen Sulfide (H ₂ S) | 0.0022 |
| Iron (Fe) | 0.5 |
| Lead (Pb) | 0.004-0.15 ³ |
| Lithium (Li) | --- |
| Manganese (Mn) | 1.0 |
| Mercury (Hg) | 0.00005 |
| Nickel (Ni) | 0.05-0.4 ³ |
| Nitrate (NO ₃ -N) | --- |
| Nitrite (NO ₂ -N) | --- |
| (NO ₃ +NO ₂ -N) | --- |
| Oil & Grease | Virtually free |
| Phenol | 0.001 |
| Selenium(Se) | 0.05 |
| Silver(Ag) | 0.0001-0.00025 ³ |
| Sulfate (SO ₄) | --- |
| TotalDissolvedSolids(TDS) | 500.0 ⁴ -1000.0 ⁵ -2000.0 ⁶ |
| Uranium (U) | 0.03-1.4 ³ |
| Vanadium (V) | --- |
| Zinc (Zn) | 0.05-0.6 ³ |
| pH | 6.5s.u.-9.0s.u. |
| Combined Total Radium 226 and Radium 228 ⁸ | 5pCi/L |
| Total Strontium 90 | 8pCi/L |
| Gross alpha particle radioactivity (including Radium 226 but excluding Radon and Uranium ⁸) | 15pCi/L |

*mg/L, unless other wise indicated

TABLE I

Explanation for Superscripts Used in Table I

¹Unionized ammonia: When ammonia dissolves in water, some of the ammonia reacts with water to form ammonium ions. A chemical equilibrium is established which contains unionized ammonia (NH₃), ionized ammonia (NH₄⁺) and hydroxide ions (OH⁻). The toxicity of aqueous solutions of ammonia is attributed to NH₃; therefore, the standard is for unionized ammonia. (Note: 0.02 mg/L NH₃ is equivalent to 0.016 NH₃ as N.)

²Undissociated H₂S: The toxicity of sulfides derives primarily from H₂S, rather than from the dissociated (HS) or (S) ions; therefore, the standard is for the toxic undissociated H₂S.

³Dependent on hardness: The toxicity of metals in natural waters varies with the hardness of the water; generally, the limiting concentration is higher in hard water than in soft water.

⁴Egg hatching

⁵Fish rearing

⁶Fish and aquatic life

⁷Total ammonia nitrogen

⁸Requirements and procedures for the measurement and analysis of gross alpha particle activity, Radium 226 and Radium 228 shall be the same as requirements and procedures of the U.S. Environmental Protection Agency, National Interim Primary Drinking Water Regulations, EPA-570/9-76-003, effective June 24, 1977.

Section 6. Standards for the Underground Management of Hazardous or Toxic Wastes.

The underground management of wastes includes the temporary storage and the ultimate disposal of all hazardous or toxic wastes in below-surface receivers. The following standards apply to any underground storage or disposal of hazardous or toxic wastes.

- (a) The below-surface receiver:
 - (i) Is an extensive sedimentary rock stratum or strata free of complex faulting and folding and distant from any underground water recharge area;
 - (ii) Is adequately separated from aquifers both above and below;
 - (iii) Has normal or low formation pressure and is capable of accepting the discharge without necessitating excessive discharge or injection pressure;
 - (iv) Has slow movement of ambient formation fluid under the natural horizontal gradient and is not in an area of underground water discharge for the receiver;
 - (v) Is located areally and stratigraphically so that an escape of waste to useable water resources would not be anticipated due to:
 - (A) Seismic risk;
 - (B) Abandoned holes; or
 - (C) Mineral exploration or other drilling, or mineral development.
- (b) The underground water in the receiver;
 - (i) Is not an economically available source of water or is unusable;
 - (ii) Is confined by strata overlying and underlying the receiver; and
 - (iii) Is classified as class ~~IV~~ VI groundwater by this chapter.
- (c) The discharge or waste:
 - (i) Will not create or result in a hazard to health or impair existing rights, and is not prohibited from subsurface disposal by Federal or State law or regulation;
 - (ii) Will not degrade or decrease the availability of mineral resources, including oil and gas;
 - (iii) Is compatible with the receiver and ambient water; and

(iv) Can be controlled at all times.

Section 7. Testing Procedures.

(a) For determination of the parameters involved in the standards, analysis will be in accord with test procedures as defined pursuant to: Title 40, Code of Federal Regulations, Part 136, or any modifications thereto. For test procedures not listed in the Code of Federal Regulations, test procedures outlined in EPA Methods for Chemical Analysis of Water and Wastes (March, 1979); or Standard Methods for the Examination of Water and Wastewaters (1975); or, A.S.T.M. Standards, Part 31 (1979), Water shall be used.

(b) The analytical technique for total uranium (as U) shall be the fluorometric method as referenced in Methods for Determination of Radioactive Substances in Water and Fluvial Sediments, Techniques of Water - Resource Investigations of the U.S. Geological Survey, Book 5, Chapter A-5 (1977).

(c) Where standard methods of testing have not been established, the suitability of testing procedures shall be determined by the Department.

Section 8. Limit of Detection.

Where the standard is below the lower limit of detection given in EPA Methods for Chemical Analysis of Water and Wastes (March, 1979), or Standard Methods for the Examination of Water and Wastewaters (1975), or, A.S.T.M. Standards, Part 31 (1979), Water, the standard shall be the lower limit of detection, unless otherwise provided by the Council.

CHAPTER 13

Class I Hazardous Waste and Non-Hazardous Waste Wells Underground Injection Control Program

REPEALED

CHAPTER XIII
CLASS I HAZARDOUS WASTE AND NON-HAZARDOUS WASTE WELLS
UNDERGROUND INJECTION CONTROL PROGRAM

Section 1.— Authority.— These regulations are promulgated pursuant to W.S. 35-11-101 through 1413, specifically 302, and no person shall cause, threaten or allow violations of any provision contained herein.

Section 2.— Definitions.— The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.

(a) — "Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

(b) — "Area of review" means the area for which information and analyses shall be submitted as part of an underground injection control permit application, and reviewed for issuance of a permit.

(c) — "Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to the subsurface discharge.

(d) — "Bore/casing annulus" means the space between the well bore and the well casing.

(e) — "Casing/tubing annulus" means the space between the well casing and the tubing.

(f) — "Cementing" means to seal the annular space around the outside of a casing string using a specially formulated portland cement mixture or other hydraulic cement mixture to hold the casing in place and prevent any movement of fluid in this annular space. Cementing also includes operations to seal the well at the time of abandonment.

(g) — "Class I well" means a well used to inject hazardous or non-hazardous industrial, commercial or municipal waste beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water. Class I wells are regulated under this chapter.

(h) — "Class II well" means a well regulated by the Wyoming Oil and Gas Conservation Commission, other than a Class II commercial disposal well, which injects fluids:

~~(i) Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production. Non-hazardous gas plant wastes may be disposed of in a class II well pending Environmental Protection Agency co-approval.~~

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

~~(iii) For storage of hydrocarbons which are liquid at standard temperature and pressure;'~~

~~(i) "Class III well" means a well used for in situ mining which injects for extraction of minerals, or products, or recovers recovery fluids, minerals or products, including a well used in:~~

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

~~(ii) In situ mining of uranium or other metals; this category includes in situ production from ore bodies which have not been conventionally mined by means of an open pit or underground excavation.~~

~~(iii) In situ mining of salts, trona, or potash;~~

~~(iv) Underground coal gasification operations;~~

~~(v) Solution mining of open pits or underground excavations used for the production of minerals, such as stopes leaching;~~

~~(vi) Fossil fuel recovery including coal, lignite, oil shale, and tar sands; and~~

~~(vii) Experimental technologies, such as pilot scale in situ mining wells in previously unmined areas.~~

~~(j) "Class IV well" means a well used to dispose of hazardous waste or radioactive waste into or above a formation which contains, within one quarter (1/4) mile of the well bore, an underground source of drinking water. Class IV wells are prohibited by Chapter XIII, Water Quality Rules and Regulations.~~

~~Except that a well is not class IV if it is used to inject contaminated groundwater that has been treated and reinjected into the same formation from which it is drawn for the purpose of aquifer remediation where the ultimate cleanup criteria is protective of groundwater standards of these regulations. These wells are regulated as a class V well, type 5X26 under these regulations.~~

~~(k) "Class V well" means any injection well not included in Classes I, II, III, or IV.~~

~~(l) "Cone of influence" means that area around a well within which increased discharge zone pressures caused by the injection would be sufficient to force fluids into an underground source of drinking water.~~

~~(m) "Confining zone" means the zone in the well designated in the permit application to provide hydrologic separation between the receiver and any underground source of drinking water.~~

~~(n) "Draft permit" means a document indicating the tentative decision by the Department to issue or deny, modify, revoke, or terminate a permit or license. 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. A draft permit for issuance shall contain all conditions and content, compliance schedules and monitoring requirements required by this Chapter.~~

~~(o) "Duly authorized representative" means a specific individual or a position having responsibility for the overall operation of the regulated facility or activity. The authorization shall be made in writing by a responsible corporate officer and shall be submitted to the administrator.~~

~~(p) "Endangerment" means exposure to actions or activities which could pollute groundwaters of the State.~~

~~(q) "Fact Sheet" means a document briefly setting forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. Fact sheets for class I wells are incorporated into the public notice.~~

~~(r) "Fluid" means any material which flows or moves, whether semisolid, liquid, sludge, gas or any other form or state.~~

~~(s) "Groundwater" means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.~~

~~(t) "Groundwaters of the State" are all bodies of underground water which are wholly or partially within the boundaries of the State.~~

~~(u) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.~~

~~(v) "Lithology" means the description of rocks on the basis of their physical and chemical characteristics.~~

~~(w) "Long string casing" means a casing which is continuous from at least the top of the injection interval to the surface and which is cemented in place.~~

~~(x) "Log" means to make a written record progressively describing the strata and geologic and hydrologic character thereof to include electrical, radioactivity, radioactive tracer, temperature, cement bond and similar surveys, a lithologic description of all cores, and test data.~~

~~(y) "Radioactive Waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2.~~

~~(z) "Mechanical integrity" means the sound and unimpaired condition of all components of the well or facility or system for control of a subsurface discharge and associated activities.~~

~~(aa) "Permit" means a Wyoming Underground Injection Control permit, unless otherwise specified.~~

~~(bb) "Permittee" means the named permit holder.~~

~~(cc) "Receiver" means any zone, interval, formation or unit in the subsurface into which fluids and pollutants are discharged.~~

~~(dd) "Responsible corporate officer" means 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.~~

~~(ee) "Subsurface discharge" means a discharge into a receiver.~~

~~(ff) "Underground source of drinking water" means those aquifers or portions thereof that have been classified as either Class I, II, III, IV(a), or Special (A), pursuant to~~

~~Chapter VIII, Quality Standards for Wyoming Groundwaters, Water Quality Rules and Regulations.~~

~~(gg) "Well" means an opening, excavation, shaft or hole in the ground allowing or used for an underground injection or for the purpose of extracting a fluid, mineral, product or pollutant from the subsurface or for monitoring.~~

~~(hh) "Workover" means to pull the tubing, packer, or any downhole hardware from the well and inspect, replace, or refurbish it prior to placing that hardware back in service, or to enter the hole with any drilling tool.~~

~~Section 3. Applicability. These regulations shall apply to all Class I, Class IV, commercial oil field waste disposal wells and those gas plant waste wells not regulated by the Wyoming Oil and Gas Conservation Commission.~~

~~Section 4. Control of Class I well subsurface discharges; permit required; aquifer exemptions.~~

~~(a) Class I wells shall be allowed only pursuant to the Wyoming Environmental Quality Act, Chapter VIII, Wyoming Water Quality Rules and Regulations, and this chapter.~~

~~(b) Discharges into or construction of Class I wells are prohibited unless a permit has been obtained from the Department of Environmental Quality through the Water Quality Division.~~

~~(c) Injections from Class I wells shall be restricted to those receivers defined as Class VI groundwaters by the department pursuant to Chapter VIII, Quality Standards for Wyoming Groundwaters, Water Quality Rules and Regulations and receivers which have obtained an aquifer exemption pursuant to this section.~~

~~(d) Permits may be issued for individual wells or on an area basis except Class I hazardous waste wells, which shall have individual permits.~~

~~(e) The procedure for obtaining an aquifer exemption from the U.S. Environmental Protection Agency shall be as follows:~~

~~(i) Water Quality Division shall submit one complete copy of the application, the Draft Permit, and the public notice to the U.S. Environmental Protection Agency, Region VIII. This submission shall be made so that EPA receives the complete application at least twenty (20) days prior to the scheduled start of the public comment period.~~

~~(ii) When the aquifer exemption request is for an aquifer containing 3,000 mg/l or more of total dissolved solids, the following procedure shall be used: Within forty five (45) days of EPA receipt of a complete aquifer exemption request, EPA shall provide the department a written interim determination of intention to issue or deny the aquifer exemption pending receipt and review of the results of the public participation process conducted by the department. The interim response will become final if there are no comments relating to the aquifer exemption request during the comment or hearing process. If comments are received during the public comment or hearing process, the interim response will become final if not modified by EPA in writing within thirty (30) days of receipt of all comments.~~

~~(iii) An aquifer exemption request for an aquifer containing less than 3,000 mg/l of total dissolved solids requires the aquifer exemption request to be processed as a program revision pursuant to 40 CFR 145.32.~~

~~Section 5. Permit application.~~

~~(a) It is the operator's responsibility to make application for and obtain a permit in accordance with these regulations. Each application must be submitted with all supporting data.~~

~~(b) A complete application for a Class I well shall include:~~

~~(i) A brief description of the nature of the business and the activities to be conducted that require the applicant to obtain a permit under this chapter.~~

~~(ii) The name, address and telephone number of the operator, and the operator's ownership status and status as a Federal, State, private, public or other entity.~~

~~(iii) The name address and telephone number of the facility. Additionally, the location of the facility shall be identified by section, township, range and county, and whether or not it is located on Indian lands.~~

~~(iv) A calculation of the area of review, which requires the calculation of the cone of influence and the area of the ultimate limit of emplaced waste.~~

~~(A) The formula for determining the cone of influence is:~~

$$r = \frac{2.25 K H t}{S 10^x}$$

$$\text{where: } x = \frac{W - B}{G} - \frac{4PKH}{2.3Q}$$

~~r = Radius of the cone of influence of an injection well (feet)~~

~~K = Hydraulic conductivity of the injection zone (feet/day)~~

~~H = Thickness of the injection zone (feet)~~

~~t = Time of injection (days)~~

~~S = Storage coefficient (dimensionless)~~

~~Q = Injection rate (cubic feet/day)~~

~~B = Original hydrostatic head of injection zone (feet) measured from the base of the injection zone~~

~~W = Hydrostatic head of underground source of drinking water (feet) measured from the base of the injection zone~~

~~G = Specific gravity of fluid in the injection zone (dimensionless)~~

~~P = 3.142 (dimensionless)~~

~~(B) — A volume calculation to determine the maximum area that the injected waste could occupy shall be submitted on all new Class I wells. This calculation determines the total amount of void space around the well and assumes that the injected fluid completely displaces the formation water.~~

~~(C) — A Class I non-hazardous waste well's area of review shall never be less than one-quarter (1/4) mile, the cone of influence, or the area of emplaced waste, whichever is greatest.~~

~~(D) — A Class I hazardous waste well's area of review shall never be less than two (2) miles, the cone of influence, or the area of emplaced waste, whichever is greatest.~~

~~(E) — All Areas of Review shall be legally described by Township, Range and Section to the nearest 1/4 1/4 of a section.~~

~~(v) — Information about the proposed facility, including:~~

~~(A) — A description of the substances proposed to be discharged, including type, source, and chemical, physical, radiological and toxic characteristics; and~~

~~(B) Construction and engineering details in accordance with Section 11 of this chapter.~~

~~(vi) Information, including the name, description, depth and geology of the receiver and confining zone and the hydrology, fluid chemistry, fluid pressure, temperature, fracture pressure and the total dissolved solids (TDS) in the receiver.~~

~~(vii) Water quality information, including back-ground water quality data, which will facilitate the classification of any groundwaters which may be affected by the proposed discharge. This must include information necessary for the Water Quality Division to classify the receiver as class VI under Chapter VIII Section 4(d) (9) of the Wyoming Water Quality Rules and Regulations.~~

~~(viii) A topographic and other pertinent maps, extending at least one (1) mile beyond the property boundaries of the facility, but never less than the area of review, depicting:~~

~~(A) The facility and each of its intake and discharge structures;~~

~~(B) Each of its hazardous waste treatment, storage, or disposal facilities;~~

~~(C) Each well where fluids from the facility are injected underground;~~

~~(D) Other wells, springs, and surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within a minimum one-quarter (1/4) mile of the facility property boundary, or further, as the administrator may determine is necessary; and~~

~~(E) General geology and hydrogeology in the area.~~

~~(ix) A list of other relevant permits, whether Federal or State, that the facility has been required to obtain, such as construction permits.~~

~~(x) A listing of all wells that penetrate the confining zone and are within the area of review, and records of plugging or completion, sufficient to satisfy the administrator as to the adequacy of the plugging or completion.~~

~~(A) For those wells that the administrator determines have not been adequately plugged, completed, or~~

~~abandoned, or for wells which lack supporting information, the applicant shall also submit a plan to prevent movement of fluids into Underground Source of Drinking Waters through these wells, and this plan, after approval or modification by the administrator, shall be incorporated as a permit condition.~~

~~(xi) Detailed plans for:~~

~~(A) Monitoring volume and chemistry of the discharge, and water quality of water wells within the area of review;~~

~~(B) Monitoring injection and annular pressures in the well, to minimize the potential for fracturing of the confining zone and below the receiver; and~~

~~(C) Corrective action to cope with alarms, shut-downs, malfunctions or well failures, so as to prevent endangerment of groundwater.~~

~~(xii) Information sufficient to demonstrate mechanical integrity of the well, and compatibility between the proposed discharge and the well material.~~

~~(xiii) Information sufficient to demonstrate compliance with Sections 11, 12, 13, 14, 16 and 17 of this chapter.~~

~~(xiv) All applications for permits shall be signed by a responsible officer as follows:~~

~~(A) For a corporation -- by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:~~

~~(1) 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 decisionmaking functions for the corporation; or~~

~~(2) 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.~~

~~(B) For a partnership or sole proprietorship -- by a general partner or the proprietor, respectively;~~

~~(C) For a municipality, state, federal or other public agency by either the principal executive officer or ranking elected official.~~

~~(xv) The application shall contain the following certification by the person signing the application:~~

~~"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."~~

~~(c) All relevant data used to complete permit applications shall be kept for a minimum of three (3) years from the date of signing.~~

~~Section 6. Application processing procedures.~~

~~(a) The applicant shall file seven (7) copies of the permit application with the Water Quality Division.~~

~~(b) Within sixty (60) days of submission of the application, the administrator shall make an initial determination of completeness. An application shall be determined complete when the administrator receives an application and any supplemental information necessary to determine compliance with these regulations.~~

~~(c) An incomplete application will be processed in the following manner:~~

~~(i) For an extremely incomplete application, additional information shall be requested in detail or the application will be returned to the applicant. Incomplete permit applications will result in permit denial.~~

~~(ii) If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six months to comply with the requests. If the applicant fails to provide the requested information within that period, the entire incomplete application shall be returned.~~

~~(iii) Resubmittal of information by an applicant on an incomplete application will begin the process described in subsection (b) of this section.~~

~~(d) During any sixty (60) day review period where an application is determined complete, the administrator shall take one of the following actions:~~

~~(i) Prepare a draft permit for issuance or denial, prepare a fact sheet on the proposed operation, and provide public notice pursuant to Section 19; or~~

~~(ii) Provide the applicant notice that the permit is deficient and state the deficiencies in the application.~~

~~(e) Determinations of deficiency by the Department are appealable by the applicant to the Environmental Quality Council. Requests for appeal must be in writing, state the reasons for appeal, and be made to both the Director and the Chairman of the Environmental Quality Council. A deficient application is considered a permit denial but is not subject to the public notice requirements of Section 19 unless a hearing is requested by the applicant. Resubmittal of information for a deficient application will start the sixty (60) day review period again.~~

~~(f) Denials of permit applications will be pursuant to procedures outlined in Section 7 of this chapter.~~

~~(g) All draft permits for Class I wells require public notice pursuant to Section 19 of this chapter.~~

~~Section 7. Permit denial.~~

~~(a) The administrator may deny a permit for any of the following reasons:~~

~~(i) The application is incomplete; or~~

~~(ii) Other justifiable reasons necessary to carry out the provisions of the Environmental Quality Act.~~

~~(iii) If the applicant has been and continues to be in violation of the provisions of the Wyoming Environmental Quality Act.~~

~~(b) The administrator shall deny a permit for any of the following reasons:~~

~~(i) The project, if constructed and/or operated, will cause violation of applicable state surface or groundwater standards;~~

~~(ii) The application contains a proposed construction or operation which does not meet the requirements of this chapter; or~~

~~(iii) The application does not provide documentation to comply with financial responsibility requirements of section 17.~~

~~(c) The administrator shall deny any permit for which the U.S. Environmental Protection Agency has denied an aquifer exemption.~~

~~(d) When the department intends to deny a permit for any reason other than an incomplete or deficient application, a draft permit shall be prepared and public notice issued pursuant to section 19.~~

~~Section 8. Permit modification, revocation, termination or transfer.~~

~~(a) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee or licensee) or upon the administrator's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in this section. All requests shall be in writing and shall contain facts or reasons supporting the request.~~

~~(b) If the administrator decides the request is not justified, he or she shall send the requester a brief written response giving the reason for the decision. A request for modification, revocation and reissuance, or termination shall be considered denied if the Administrator takes no action within 60 days after receiving the written request. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice and comment. Denials by the administrator may be appealed for hearing to the Environmental Quality Council by a letter briefly setting forth the relevant facts.~~

~~(c) The administrator shall modify a permit or license when:~~

~~(i) Any material or substantial alterations or additions to the facility occur after permitting or licensing, which justify the application of permit conditions that are different or absent in the existing permit; or~~

~~(ii) Any modification in the operation of the facility is capable of causing or increasing pollution in excess of applicable standards or permit conditions.~~

~~(iii) Information warranting modification is discovered after the operation has begun that would have justified the application of different permit conditions at the time of permit issuance;~~

~~(iv) Regulations or standards upon which the permit or license was based have changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued;~~

~~(v) Cause exists for termination, as described in this section, but the department determines that modification is appropriate; or~~

~~(vi) Modification is necessary to comply with applicable statutes, standards or regulations.~~

~~(d) Minor modifications of permits may be performed with the consent of the permittee or licensee without following the public notice requirements applicable to other modifications. Minor modifications will become final twenty (20) days from the date of receipt of such notice. For the purposes of this chapter, minor modifications may only:~~

~~(i) Correct typographical errors;~~

~~(ii) Require more frequent monitoring or reporting by the permittee;~~

~~(iii) 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;~~

~~(iv) Allow for a change in ownership or operational control of a facility where the director determines that no other change in the permit or license is necessary, provided that a written agreement containing a specific date for transfer of permit or license responsibility, coverage, and liability between the current and new permittees has been submitted to the administrator;~~

~~(v) Change quantities or types of fluids injected which are within the capacity of the facility as permitted or licensed 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 or license and would not change its classification;~~

~~(vi) Change construction requirements approved by the director pursuant to department rules and regulations provided that any such alteration shall comply with the requirements of this chapter; or~~

~~(vii) Amend a plugging and abandonment plan.~~

~~(e) The administrator may revoke a permit for the following reasons:~~

~~(i) noncompliance with terms and conditions of the permit;~~

~~(ii) failure in the application or during the issuance process to disclose fully all relevant facts, or misrepresenting any relevant facts at any time; or~~

~~(iii) a determination that the activity endangers human health or the environment and can only be regulated to acceptable levels by a permit or license modification or termination.~~

~~(f) The administrator may modify a permit or license to resolve issues that could lead to the revocation or consider any of the reasons in Section (e) of this section as sufficient justification to terminate a permit or license. The administrator as part of any notification of intent to terminate a permit or license shall order the permittee or licensee to proceed with reclamation on a reasonable time period.~~

~~(g) If the administrator tentatively decides to modify or revoke and reissue a permit, he or she shall prepare a draft permit or license incorporating the proposed changes. The administrator may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits, the administrator shall require the submission of a new application.~~

~~(h) In a permit modification under this section, only those conditions to be modified shall be reopened when a new draft permit or license is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit. When a permit is revoked and reissued under this section, the entire permit is reopened just as if the permit has expired and was being reissued. During any revocation and reissuance proceeding the permittee shall~~

~~comply with all conditions of the existing permit until a new final permit is issued.~~

~~(i) Permits will be automatically terminated after closure and release of the financial responsibility requirements of Section 17 by the department.~~

~~(j) When a permit transfer occurs pursuant to this section, the past permit will automatically terminate.~~

~~(k) Transfer of a permit is allowed only upon approval by the administrator.~~

~~(i) The permit holder shall apply in writing as though he was the original applicant for the permit and shall further agree to be bound by all of the terms and conditions of the permit and provide the necessary bonds;~~

~~(ii) The potential transferee shall file a statement of qualifications to hold a permit with the administrator; and~~

~~(iii) Transfer will not be allowed if the permittee is in noncompliance with any term and conditions of the permit, unless the transferee agrees to bring the facility back into compliance with the permit.~~

~~(iv) When a permit transfer occurs, the administrator may modify a permit pursuant to this section. The administrator shall provide public notice pursuant to Section 19 for any modification other than a minor modification defined by this section.~~

~~(l) Proposed modifications, revocations or terminations are subject to the public notice and hearing requirements outlined in Section 19 of this chapter.~~

~~Section 9. Permit conditions and contents.~~

~~(a) All permits issued under this chapter shall be for no more than ten (10) years duration.~~

~~(b) Each permit shall be reviewed at least once every five (5) years for continued validity of all permit conditions and contents.~~

~~(c) Permits that do not satisfy the review criteria are subject to modification, revocation and reissuance, or termination pursuant to Section 8 of this chapter.~~

~~(d) All permits issued under this chapter shall contain the following conditions:~~

~~(i) A requirement that the permittee comply with all conditions of the permit, and any permit noncompliance constitutes a violation of these regulations and is grounds for enforcement action, permit termination, revocation, or modification.~~

~~(ii) A requirement that the injection pressure shall be limited to the fracture pressure of the receiver, except as necessary during well stimulation, and, within one (1) year of the issuance of the permit, the operator shall conduct a step-rate injection test to determine the actual fracture pressure of the receiver.~~

~~(iii) A requirement that if the permittee wishes to continue injection activity after the expiration of the permit, he must apply to the administrator for and obtain a new permit.~~

~~(iv) A stipulation that 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.~~

~~(v) A requirement that the permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.~~

~~(vi) A requirement that the permittee properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes mechanical integrity of the well, effective performance, adequate funding and 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.~~

~~(vii) A requirement that mechanical integrity shall be maintained continuously and be reviewed at least every five (5) years. The test used to determine mechanical integrity shall be a two-part test approved by the administrator, who shall approve only those tests that have been approved first by the U.S. Environmental Protection Agency's Office of Drinking Water.~~

~~(A) Part one of the mechanical integrity test shall demonstrate the absence of leaks through the packer, tubing, casing, and well head.~~

~~(B) Part two of the mechanical integrity test shall demonstrate the absence of fluid movement behind the casing.~~

~~(C) Proposed mechanical integrity tests that have not yet been approved shall be submitted to the administrator who shall forward the information to the U.S. Environmental Protection Agency's Office of Drinking Water along with a request for approval, if, in the administrator's opinion, it will adequately determine mechanical integrity of the well system. A previously unauthorized mechanical integrity test submitted for approval shall include:~~

~~(I) The proposed method for demonstrating the lack of significant leaks in the well;~~

~~(II) The proposed method for showing the absence of significant fluid movement; and~~

~~(III) Any technical data supporting the use of this test.~~

~~(viii) A Class I well that cannot demonstrate mechanical integrity shall be shut down until such time as the mechanical integrity has been restored.~~

~~(ix) A stipulation that the filing of a request by the permittee, or at the instigation of the administrator, for a permit modification, revocation, termination, or notification of planned changes or anticipated non-compliance shall not stay any permit condition.~~

~~(x) A stipulation that this permit does not convey any property rights of any sort, or any exclusive privilege.~~

~~(xi) A stipulation that the permittee shall furnish to the administrator, within a specified time, any information which the administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. The permittee shall also furnish to the administrator, upon request, copies of records required to be kept by the permit.~~

~~(xii) A requirement that the permittee shall allow the administrator, or an authorized representative of~~

~~the administrator, upon the presentation of credentials, during normal working hours, to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and inspect the discharge and related facilities, review and copy reports and records required by the permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or regulation.~~

~~(xiii) A requirement that the permittee furnish any information necessary to establish a monitoring program pursuant to Section 13 of this chapter.~~

~~(xiv) A requirement that all samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity, and records of all monitoring information be retained by the permittee. The monitoring information to be retained shall be that information stipulated in the monitoring program established pursuant to the criteria in Section 13 of this chapter.~~

~~(xv) A requirement that all applications, reports, and other information submitted to the administrator contain certifications as required in Section 5(c)(14) of this chapter, and be signed by either a responsible corporate officer or a duly authorized representative.~~

~~(xvi) A requirement that the permittee give advance notice to the administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alteration or addition.~~

~~(xvii) A requirement that any modification which may result in a violation of a permit condition shall be reported to the administrator, and any modification that will result in a violation of a permit condition shall be reported to the administrator through the submission of a new or amended permit application.~~

~~(xviii) A requirement that any transfer of a permit must first be approved by the administrator, and that no transfer will be approved if the facility is not in compliance with the existing permit unless the proposed permittee agrees to bring the facility into compliance.~~

~~(xix) A requirement that monitoring results shall be reported at the intervals specified elsewhere in this permit.~~

~~(xx) A requirement that reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule, if one is required by the administrator, shall be submitted no later than thirty (30) days following each schedule date.~~

~~(xxi) A requirement that confirmed noncompliance resulting in the migration of injected fluid into any zone outside of the permitted receiver must be orally reported to the administrator within twenty-four (24) hours, and a written submission shall be provided within five (5) days of the time the permittee becomes aware of the excursion. The written submission shall contain:~~

~~(A) A description of the noncompliance and its cause;~~

~~(B) The period of noncompliance, including exact dates and times, and, if the noncompliance has not been controlled, the anticipated time it is expected to continue; and~~

~~(C) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.~~

~~(xxii) A requirement that the permittee report all instances of noncompliance not already required to be reported under paragraphs xix, xx and xxi of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph xxi(A) through (C) of this section.~~

~~(xxiii) A requirement that, in the situation 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 administrator, the permittee shall promptly submit such facts or information.~~

~~(xxiv) A requirement that the injection well meet construction requirements outlined in Section 11 of this chapter, and that the permittee submit notice of completion of construction to the administrator and allow for inspection of the well upon completion of construction, prior to commencing any injection activity.~~

~~(xxv) A requirement that the packer be set within five-hundred (500) feet of the top of the receiver, unless the administrator allows some other specific interval to be used to set the packer, but always within the zone covered by excellent cement bond as shown by the cement bond log.~~

~~(xxvi) A requirement that the permittee notify the administrator at such times as the permit requires before conversion or abandonment of the well.~~

~~(xxvii) A requirement that a plugging and abandonment report, detailing the compliance abandonment procedures outlined the original permit application, or describing any deviations from the original plan, be submitted as soon as practicable after plugging and abandonment.~~

~~(xxviii) Monitoring results shall be reported in the annual reports unless otherwise specified.~~

~~(xxix) Injection into a well may not commence until construction is complete.~~

~~(e) In addition to the conditions required of all permits, the administrator may establish on a case-by-case basis, conditions as required for monitoring, schedules of compliance, and such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water.~~

~~Section 10. Special permit conditions for hazardous waste wells. All Class I hazardous waste wells permitted under this chapter shall be subject to the special permit conditions listed in this section in addition to the conditions applicable to all Class I well permits in Section 9 of this chapter.~~

~~(a) All hazardous waste injection permits issued under this chapter shall include the following conditions:~~

~~(i) A requirement that the operator shall maintain a casing/tubing annulus pressure that exceeds the operating injection pressure, unless the administrator determines that such a requirement might harm the integrity of the well. The fluid used in the casing/tubing annulus shall be noncorrosive, and shall contain a corrosion inhibitor.~~

~~(ii) A requirement that the operator shall follow special procedures when wastes have the potential to react with the injection formation or to generate gases either during or after injection. These procedures may take the form of special permit conditions that limit the temperature or pH of the injected waste and require the operator to follow procedures necessary to assure that pressure imbalances which might cause a backflow or blowout do not occur.~~

~~(iii) A requirement that the operator shall install, maintain, and use continuous recording devices to~~

~~monitor the injection pressure, flow rate, temperature, of injected fluids and pressure on the casing/tubing annulus, and shall install and use automatic alarm and shut-off systems designed to shut down the well when pressures, flow rates, and other parameters approved by the administrator exceed the range specified in the permit.~~

~~(iv) A requirement that the operator have a trained operator onsite at all times the well is operating.~~

~~(v) A requirement that if an automatic alarm or shutdown is triggered, the operator shall immediately investigate and identify as early as possible, the cause of the alarm or shutdown. If, upon such investigation, or if required monitoring indicates, that the well is lacking in mechanical integrity, the operator shall:~~

~~(A) Cease all injections of waste fluids immediately;~~

~~(B) Take all necessary steps to determine the presence or absence of a leak; and~~

~~(C) Notify the administrator within twenty-four (24) hours after the alarm or shutdown, using procedures and criteria listed in paragraph 20 of Section 9(d) (xx) in this chapter.~~

~~(D) The operator shall restore and demonstrate, to the satisfaction of the administrator, mechanical integrity, prior to resuming injection activities.~~

~~(vi) A requirement that whenever the operator obtains evidence that there may have been a release of injected wastes into an unauthorized zone, regardless of whether or not an automatic alarm or shutdown was triggered, the operator shall:~~

~~(A) Immediately cease all injection activities;~~

~~(B) Notify the administrator pursuant to the procedures outlined in paragraph 20 of Section 9 in this chapter. In addition to the information required by paragraph 20, the operator shall also include, as part of the written submission, a proposed remedial action plan, designed to minimize the adverse impact of the unauthorized release;~~

~~(C) Comply with the requirements of any remedial action plan approved by the administrator; and~~

~~(D) — Where the unauthorized release is into a Class I aquifer, as classified under Chapter VIII, Quality Standards for Wyoming Groundwaters, Water Quality Rules and Regulations, which is currently serving as a water supply, the operator shall place a notice, describing the unauthorized release and the actions taken, in a newspaper of general circulation in the locality of the release.~~

~~(E) — The administrator may allow the operator to resume injection prior to completion of cleanup operations if the operator demonstrates, to the satisfaction of the administrator, that the injection activity will not endanger any Underground Source of Drinking Waters.~~

~~(vii) — A requirement that the operator notify the administrator and obtain his approval prior to conducting any well workover.~~

~~(viii) — A requirement that the operator comply with the following federal regulations contained in 40 CFR 264 or applicable state hazardous waste regulations:~~

~~(A) — Identification numbers;~~

~~(B) — Recordkeeping and reporting for manifested wastes;~~

~~(C) — Manifest discrepancies;~~

~~(D) — Operating record requirements;~~

~~(E) — Annual reporting requirements and unmanifested waste reports; and~~

~~(F) — Personnel training requirements.~~

~~(ix) — When abandonment is completed, the operator must submit to the administrator certification by the operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications detailed in the closure plan in Section 16 of this chapter.~~

~~Section 11. Construction standards for Class I wells.~~

~~(a) — All existing and new Class I wells shall be constructed to prevent the movement of fluids into any underground source of drinking water, permit the use of testing devices and workover tools, and permit continuous monitoring of injection tubing and long string casing, as required under Sections 9 and 10 of this chapter.~~

~~(b) All well materials shall be compatible with the wastes that may be contacted. The applicant shall submit data necessary to document compatibility.~~

~~(c) Casing and cement used in the construction of each newly drilled well shall be designed for the life expectancy of the well. The applicant shall provide all information required to make a determination based on these factors:~~

~~(i) Depth to the injection zone;~~

~~(ii) Injection pressure, external pressure, internal pressure, and axial loading;~~

~~(iii) Hole size;~~

~~(iv) Size and grade of all casing strings (wall thickness, diameter, nominal weight, length of joints, joint specifications and construction material);~~

~~(v) Corrosiveness of injected fluid, formation fluids, and temperatures;~~

~~(vi) Lithology of injection and confining intervals; and~~

~~(vii) Type or grade of cement.~~

~~(d) Construction requirements for Class I hazardous waste wells.~~

~~(i) For casing and cementing requirements, the applicant shall provide all information necessary to make a determination of adequacy based on quantity and chemical composition of injected fluids.~~

~~(ii) One surface casing string shall, at a minimum, extend into the confining zone below the lowest Underground Source of Drinking Water and be cemented by circulating cement from the base of the casing to the surface, using a minimum of one hundred twenty percent (120%) of the calculated annular volume. The administrator may require more than one hundred twenty percent (120%) when the geology or other circumstances warrant a greater percentage.~~

~~(iii) At least one long string casing, using a sufficient number of centralizers, shall extend to the receiver and shall be cemented by circulating cement to the surface in one or more stages:~~

~~(A) — Of sufficient quantity and quality to withstand the maximum operating pressure; and~~

~~(B) — In a quantity no less than one-hundred twenty percent (120%) of the calculated volume necessary to fill the annular space. The administrator may require more than one-hundred twenty percent (120%) when the geology or other circumstances warrant a greater percentage.~~

~~(iv) — Circulation of cement may be accomplished by staging. The administrator may approve an alternative method of cementing in cases where the cement cannot be recirculated to the surface, provided the operator can demonstrate by logs that the cement is continuous and does not allow fluid movement behind the casing.~~

~~(v) — Casings, including any casing connections, must be rated to have sufficient structural strength to withstand, for the life the well, the maximum burst and collapse pressures which may be experienced during the construction, operation, and closure of the well. Casings shall also be rated to withstand the maximum tensile stress which may be experienced at any point along the entire length of the casing during construction, operation, and closure of the well.~~

~~(vi) — At a minimum, cement and cement additives shall be of sufficient quantity and quality to maintain mechanical integrity over the design life of the well.~~

~~(vii) — For tubing and packer, the applicant shall provide all information necessary to make a determination of adequacy based on these factors:~~

~~(A) — Depth of setting;~~

~~(B) — Characteristics of the injection fluid, including chemical content, corrosiveness, temperature, and density;~~

~~(C) — Injection pressure;~~

~~(D) — Annular pressure;~~

~~(E) — Rate (intermittent or continuous), temperature, and volume of injected fluid;~~

~~(F) — Size of casing; and~~

~~(G) — Tubing tensile, burst, and collapse strengths.~~

~~(viii) During the drilling and construction of a Class I hazardous waste well, appropriate logs and tests shall be run to determine or verify the depth, thickness, porosity, permeability, and rock type of, and the salinity of any entrained fluids in all relevant geologic units to assure compliance with the performance standards of Section 14 of this chapter, and to compile baseline data against which future measurements may be compared. A descriptive report interpreting results of such logs and tests shall be prepared by the operator and submitted to the administrator. At a minimum, such logs shall include:~~

~~(A) Deviation checks made during drilling of all Class I hazardous waste wells. Such checks shall be done at sufficiently frequent intervals to determine the location of the borehole; and~~

~~(B) 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 as construction of the well progresses. At a minimum, the following logs shall be required:~~

~~(I) When installing the surface casing: resistivity, spontaneous potential, and caliper logs shall be run before the installation of the casing. A cement bond log and variable density log and temperature log are required after the surface casing is installed and before the well is deepened.~~

~~(II) When installing the long string casing: resistivity, spontaneous potential, porosity, caliper, gamma ray and fracture finder logs are required before the casing is installed. After the casing is installed and cemented, a cement bond log and variable density log are required before the well is completed.~~

~~(III) The administrator may allow the use of an alternative to the logs described above, when, in the administrator's opinion, the alternative will provide equivalent or better information.~~

~~(C) A mechanical integrity test as described in Section 9 of this chapter.~~

~~(D) Whole core or sidewall cores of the confining zone and receiver and formation fluid samples from the receiver shall be taken. The administrator may accept cores from nearby wells if the operator can demonstrate, to the administrator's satisfaction, that core retrieval is not~~

~~possible, and the other cores are representative of the conditions in the well. The administrator may require the operator to core other formations in the borehole.~~

~~(ix) The fluid temperature, pH, conductivity, pressure, and static fluid level of the discharge zone shall be recorded during construction.~~

~~(x) At a minimum, the following information about the injection and confining zones shall be calculated or determined during construction:~~

~~(A) The physical and chemical characteristics of the rock itself; and~~

~~(B) Physical and chemical characteristics of the formation fluids.~~

~~(C) Upon completion of construction, but still prior to operation, the operator shall conduct either pump tests or injectivity tests to verify the hydrogeologic characteristics of the discharge zone.~~

~~(e) Fluid seals are not allowed in place of a packer in any Class I well.~~

~~Section 12. Siting conditions for Class I wells.~~

~~(a) All Class I wells shall be situated such that they inject into a formation that is beneath the lowermost Underground Source of Drinking Water within one-quarter (1/4) mile of the well or within two (2) miles for Class I hazardous waste injection wells, and the discharge zone has sufficient permeability, porosity, thickness, and extends over a sufficient area to prevent migration of fluids into any underground source of drinking water.~~

~~(b) Class I wells shall be limited to areas that are determined by the administrator to be geologically suitable for the prevention of migration of fluids into underground source of drinking waters. In determining geological suitability, the administrator shall consider the following information submitted by the applicant:~~

~~(i) An analysis of the structural and stratigraphic geology, hydrogeology, and the seismicity of the region;~~

~~(ii) An analysis of the local geology and hydrogeology of the well site, including, at a minimum, detailed~~

~~information regarding the stratigraphy, structure, and rock properties, aquifer hydrodynamics, and mineral resources; and~~

~~(iii) A determination that the geology of the area can be described confidently, and, for hazardous waste wells only, that the waste fate and transport can be accurately predicted through the use of models.~~

~~(c) The operator shall demonstrate to the satisfaction of the administrator that:~~

~~(i) The confining zone is free from faults or fractures over an area sufficient to prevent the migration of fluids into a underground source of drinking water, and contains at least one formation of sufficient thickness and characteristics capable of preventing vertical propagation of fractures; and~~

~~(ii) The confining zone is separated from the base of the lowermost underground source of drinking water by at least one (1) sequence of permeable and less permeable strata that will provide an added layer of protection in the event of fluid movement through an unlocated borehole or fault; or~~

~~(iii) Within the area of review, the piezometric surface of the fluid in the receiver is less than the piezometric surface of the lowermost underground source of drinking water considering density effects, injection pressures, and any significant pumping of the overlying aquifer; or~~

~~(iv) There are no underground source of drinking waters present.~~

~~(d) The administrator may approve a site which does not meet the above requirements, if the operator can demonstrate that because of the site's geology, nature of the waste, or other considerations, it would not cause endangerment to any underground source of drinking waters.~~

~~Section 13. Environmental monitoring program for groundwaters of the State.~~

~~(a) A monitoring program shall be required for all Class I wells that will be adequate to establish baseline data and ensure knowledge of migration and behavior of the discharge.~~

~~(i) Monitoring may be required for any circumstance where groundwaters of the State could be affected.~~

~~(ii) The extent and design of a monitoring system shall be sufficient to deal with the pollution potential of the proposed discharge.~~

~~(b) The monitoring program shall consist of any or all of the following:~~

~~(i) Pre-discharge or pre-operational monitoring;~~

~~(ii) Operational monitoring;~~

~~(iii) Post-discharge or post-operational monitoring;~~

~~(iv) Recordkeeping and reporting;~~

~~(v) Such additional requirements established by the administrator to meet the purposes of the Wyoming Environmental Quality Act and these regulations.~~

~~(c) Each monitoring program shall include maps and cross-sections, where appropriate, showing the location, lithology, and screening interval of each monitoring site.~~

~~(d) The operator is responsible for properly installing, operating, maintaining and removing all necessary monitoring equipment.~~

~~(e) At a minimum, the permittee shall monitor the pressure in the injection zone annually, including at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure falloff curve.~~

~~(f) When prescribing a monitoring system, the administrator may also require:~~

~~(i) Continuous monitoring for pressure changes in the first aquifer overlying the confining zone. When such a well is installed, the operator shall, on a quarterly basis, sample the aquifer and analyze for constituents specified by the administrator;~~

~~(ii) The use of indirect, geophysical techniques to determine the position of the waste front, the water quality in a formation designated by the administrator, or to provide other site specific data;~~

~~(iii) Periodic monitoring of the groundwater quality in the first aquifer overlying the receiver;~~

~~(iv) Periodic monitoring of the groundwater quality in the lowermost underground source of drinking water; and~~

~~(v) Any additional monitoring necessary to determine whether fluids are moving into or between any aquifers penetrated by the well.~~

~~(vi) The administrator may require seismicity monitoring when he has reason to believe that the injection activity may have the capacity to cause seismic disturbances.~~

~~(g) The operator shall develop and follow an approved written waste analysis plan that describes the procedures to be carried out to obtain detailed chemical and physical analyses of a representative sample of the waste, including quality assurance procedures used. At a minimum, the plan shall specify:~~

~~(i) The parameters for which the waste will be analyzed, the rationale for the selection of these parameters, and the test methods to be used to test for these parameters; and~~

~~(ii) The sampling method that will be used to obtain a representative sample of the waste.~~

~~(h) The operator shall repeat the analysis of the injected wastes in the manner and on the schedule described in the waste analysis plan, and when process or operating changes occur that may significantly alter the characteristics process, or operating changes occur that may significantly alter the characteristics of the waste stream.~~

~~(i) The operator shall conduct continuous or periodic monitoring of selected parameters as required by the administrator.~~

~~(j) The operator shall assure that the plan remains accurate and the analyses remain representative.~~

~~(k) Testing and monitoring requirements for all Class I hazardous waste wells shall include:~~

~~(i) Submission of information by the applicant demonstrating that the waste stream and its anticipated reaction products will not alter the permeability, thickness, or other relevant characteristics of the confining or discharge zones such that they would no longer meet the requirements specified when the area of review was calculated.~~

~~(ii) Submission of information by the applicant demonstrating that the waste will be compatible with the well materials with which the waste is expected to come into contact and a description of the methodology used to make that determination. Compatibility for purposes of this requirement is established if contact with injected fluids will not cause the well materials to fail to satisfy any design requirement imposed under Section 11 of this chapter.~~

~~(iii) The administrator shall require continuous corrosion monitoring of the construction materials in the well for all wells where the pH of the injection fluid is less than two (2) or greater than eleven (11), and may require such monitoring of other wastes. This monitoring may be conducted by placing samples of the well construction materials in contact with the waste stream or routing the waste stream through a loop constructed of the same materials used in the well, or by using an alternative method approved by the administrator.~~

~~(iv) If a corrosion monitoring program is required, the test shall use identical materials to those used in the construction of the well, and such materials shall be continuously exposed to the operating pressures, temperatures, and flow rates of the injection operation as measured at the well head. The operator shall monitor the materials for loss of mass, thickness, pitting, and other signs of corrosion on a quarterly basis to ensure that the well components meet the minimum standards for material strength and performance set forth in Section 11 of this chapter.~~

~~(1) In addition to the above-mentioned requirements, operators of Class I hazardous waste wells shall also conduct mechanical integrity testing as follows:~~

~~(i) The long string casing, injection tubing, and annular seals shall be tested by means of an approved pressure test with liquid or gas on an annual basis and whenever there has been a well workover;~~

~~(ii) The bottom-hole cement shall be tested by means of an approved radioactive tracer survey annually;~~

~~(iii) An approved temperature, noise, or other approved log shall be run at least once every five (5) years to test for movement of fluid along the borehole. The administrator may require such tests whenever the well is worked over;~~

~~(iv) Casing inspection logs shall be run at least once every five (5) years, unless the administrator~~

~~waives this requirement due to well construction or other factor's which limit the test's reliability; and~~

~~(v) Any other test approved by the administrator may also be used. Procedures for approval of unauthorized mechanical integrity tests are outlined in Section 9(d) (7) of this chapter.~~

~~(vi) The administrator shall be given the opportunity to witness all logging and drill stem testing done by the operator at any time during the permitting of any well under this chapter. The operator shall submit a schedule of such planned logging and testing to the administrator at least thirty (30) days prior to the first test.~~

~~Section 14. Quality assurance and quality control for sample collection and analyses.~~

~~(a) Procedures and methods for sample collection and analyses shall be implemented by the permittee to ensure that the samples are representative of the groundwater, water, or wastes being sampled.~~

~~(b) Sample collection of groundwater shall be of such frequency and of such variety (season, time, location, depth, etc.,) to properly describe the groundwater, and shall be accomplished by the methods and procedures described in the U.S. Environmental Protection Agency manual RCRA Groundwater Monitoring Technical Enforcement Guidance Document, September, 1986, unless alternate methods and procedures are approved by the administrator.~~

~~(c) Analysis of all samples shall be accomplished pursuant to Chapter VIII, Water Quality Rules and Regulations, Sections 7 and 8.~~

~~Section 15. Records and reports.~~

~~(a) Monitoring reports required by the permit shall be submitted to the administrator.~~

~~(b) The permittee shall submit a written report to the administrator of all remedial work concerning the failure of equipment or operational procedures which resulted in a violation of a permit condition, at the completion of the remedial work.~~

~~(c) Quarterly and annual reports required by the permit shall be submitted to the administrator within thirty~~

~~(30) days following the end of the period covered in the report. Reports shall include the following information:~~

~~(i) The average, maximum and minimum injection pressures for each month;~~

~~(ii) A complete description of any event where maximum annular or injection pressures, as specified in the permit, were exceeded;~~

~~(iii) A complete description of any event that triggered any alarm or shutdown the well, and the response taken;~~

~~(iv) An accounting of the total volume of fluid injected for the period covered by the report, the year to date, and the life of the well to date;~~

~~(v) An analysis of the physical, chemical and other relevant characteristics of the injected fluid; and~~

~~(vi) Any well workover.~~

~~(d) For any aborted or curtailed operation, in lieu of an annual report, a complete report shall be submitted within thirty (30) days of complete termination of the discharge or associated activity.~~

~~(e) Quarterly and annual reports for hazardous waste wells shall also include a description of any change in the volume of fluid in the casing/tubing annulus of the well, and an explanation of the temperature/volume relationships covering the fluid. Any addition or withdrawal of fluids from the casing/tubing annulus shall be noted.~~

~~(f) The results of any mechanical integrity test, or any other testing done on a well, shall be submitted to the administrator within thirty (30) days or with the next quarterly report, whichever comes later, following the completion of the test.~~

~~(g) The permittee shall retain all monitoring records required by permit for a period of three (3) years following well closure, at which time the operator shall deliver the records to the administrator.~~

Section 16. Closure of hazardous waste wells.

~~(a) The operator of a Class I hazardous waste well shall prepare, maintain, and comply with a plan for closure of the well and post-closure care of the well that meets the~~

~~standards for well closure required in paragraph (d) of this section and post-closure care required in paragraph (e) of this section and is acceptable to the administrator. The obligation to implement the closure and post-closure plan survives the termination of a permit or the cessation of injection activities. The requirement to maintain and implement an approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.~~

~~(i) The operator shall submit the plan as part of the permit application, and, upon approval by the administrator, the plan shall be incorporated as a condition of any permit issued.~~

~~(ii) The operator shall submit any proposed significant revision to the method of closure reflected in the plan for approval by the administrator no later than the date on which notice of closure is required under paragraph (b) of this section.~~

~~(iii) The plan shall assure financial responsibility as required in Section 17 of this chapter.~~

~~(iv) The closure plan shall include the following information:~~

~~(A) The type and number of plugs to be used;~~

~~(B) The placement of each plug including the elevation of the top and bottom of each plug;~~

~~(C) The type and grade and quantity of material to be used in plugging;~~

~~(D) The method of placement of the plugs;~~

~~(E) Any proposed test or measure to be made;~~

~~(F) The amount, size, and location (by depth) of casing and any other materials to be left in the well;~~

~~(G) The method and location where casing is to be parted, if applicable;~~

~~(H) The procedure to be used to meet the requirements of paragraph (d) (5) of this section;~~

~~(I) The estimated cost of closure; and~~

~~(J) Any proposed test or measure to be made.~~

~~(v) Post-closure plans shall include the following information:~~

~~(A) The pressure in the injection zone before injection began;~~

~~(B) The anticipated pressure in the injection zone at the time of closure;~~

~~(C) The predicted time until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost Underground Source Drinking Water;~~

~~(D) Predicted position of the waste front at closure;~~

~~(E) The status of any required cleanups; and~~

~~(F) The estimated cost of proposed post-closure care.~~

~~(vi) The administrator may modify a closure plan in accordance with the procedures outlined in Section 8 of this chapter governing modification of permits.~~

~~(vii) An operator of a Class I hazardous waste injection well who ceases injection temporarily, may keep the well open provided:~~

~~(A) He receives authorization from the administrator; and~~

~~(B) He has described actions or procedures, satisfactory to the administrator, that the operator will take to ensure that the well will not endanger Underground Source of Drinking Waters during the period of temporary disuse. These actions and procedures shall include compliance with the technical requirements applicable to active injection wells unless waived by the administrator.~~

~~(viii) The operator of a well that has ceased operations for more than two years shall notify the administrator at least thirty (30) days prior to resuming operation of the well.~~

~~(b) The operator shall notify the administrator at least sixty (60) days prior to closure of a well. The adminis-~~

~~trator may allow a closure period of less than sixty (60) days.~~

~~(c) Within sixty (60) days after closure or at the time of the next quarterly report, whichever is less, except if the next quarterly report is due within fifteen (15) days, in which case the sixty (60) day requirement will be used, the operator shall submit a closure report to the administrator.~~

~~(i) Such report shall contain a certification by the operator and the person who performed the closure, if different from the operator, of the accuracy of the report, and:~~

~~(A) A statement that the well was closed in accordance with the closure plan previously submitted and approved by the administrator; or~~

~~(B) Where actual closure differed from the plan previously submitted, a written statement specifying the differences between the previous plan and the actual closure.~~

~~(d) Standards for well closure.~~

~~(i) Prior to well closure, the owner or operator shall observe and record the pressure decay for a time specified by the administrator, who shall then analyze the pressure decay and the transient pressure observations conducted to determine whether the injection activity has conformed with predicted values.~~

~~(ii) Prior to well closure, appropriate mechanical integrity testing shall be conducted to ensure the integrity of that portion of the long string casing and cement that will be left in the ground after closure. Testing methods shall be similar to the mechanical integrity tests required during the operating life of the well.~~

~~(iii) Prior to well closure, the well shall be flushed with a buffer fluid.~~

~~(iv) Upon closure, a Class I hazardous waste well shall be plugged with cement in a manner that will not allow the movement of fluids into or between any underground source of drinking water.~~

~~(v) Placement of the cement plugs shall be accomplished by circulating cement to the bottom of the well using a working string. The working string shall be removed as the cement is pumped. The cement used shall be of a~~

~~variety such that the working string can be withdrawn while still allowing the well to be filled with cement.~~

~~(vi) Each plug used shall be appropriately tagged and tested for seal and stability before closure is completed.~~

~~(vii) The well to be closed 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 described by the administrator, prior to the placement of the cement plugs.~~

~~(e) Post-closure care.~~

~~(i) The operator shall continue and complete any required cleanup action.~~

~~(ii) The operator shall continue to conduct any groundwater monitoring required under the permit until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost Underground Source of Drinking Water. The administrator may extend the period of post-closure monitoring if he determines that the well may endanger an Underground Source of Drinking Water.~~

~~(iii) The operator shall submit a survey plat to the local zoning authority designated by the administrator, indicating the location of the well relative to permanently surveyed benchmarks. A copy of the plat shall be submitted to the Regional administrator of the U.S. EPA Region VIII, the State Engineer's Office, and to the Wyoming Oil and Gas Conservation Commission.~~

~~(iv) The operator shall retain for a minimum of three (3) years following well closure, records reflecting the nature, composition and volume of all injected fluids. The administrator shall require the operator to deliver the records to the administrator at the conclusion of this retention period.~~

~~(f) Each owner of a Class I hazardous waste well, and the owner of the surface or subsurface property on or in which a Class I hazardous waste well is located, must record a notation on the deed to the facility property or on some other instrument which is normally examined during title search that will in perpetuity provide any potential purchaser of the property the following information:~~

~~(i) The fact that the land in question has been used to manage hazardous waste;~~

~~(ii) The name of the State agency or local authority with which the plat was filed, as well as the address of the Environmental Protection Agency Region VIII to which it was submitted; and~~

~~(iii) The type and volume of waste injected, the injection interval or intervals into which it was injected, and the period over which injection occurred.~~

~~Section 17. Financial responsibility.~~

~~(a) The operator of any Class I well shall demonstrate and maintain financial responsibility and resources to close, plug, abandon and maintain post-closure care for the underground injection operation in a manner prescribed by the administrator. The permittee shall show evidence of such financial responsibility to the administrator by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the administrator.~~

~~(b) The amount of the funds available shall be no less than the amount identified as the estimated cost of plugging, abandoning, and post-closure care.~~

~~(c) The obligation to maintain financial responsibility survives the termination of a permit or the cessation of injection. The requirements to maintain financial responsibility is enforceable regardless of whether the requirement is a condition of the permit.~~

~~(d) After plugging operations are completed, the amount of the financial surety required may be reduced by the administrator to the estimated cost of post-closure care.~~

~~(e) The owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of 40 CRF 144 Subpart F.~~

~~Section 18. Prohibitions.~~

~~(a) No person, except when authorized by a permit issued pursuant to the Wyoming Environmental Quality Act and this chapter, shall:~~

~~(i) Cause, threaten or allow the discharge of any pollution or wastes into any groundwaters of the State;~~

~~(ii) Alter the physical, chemical, radiological, biological or bacteriological properties of the waters of the state; or~~

~~(iii) Construct, install, or operate any discharge system capable of causing or contributing to pollution of groundwaters of the State.~~

~~(b) No person shall:~~

~~(i) Conduct any authorized injection activity in a manner that results in a violation of any permit condition or representations made in the application. A permit condition supersedes any application content;~~

~~(ii) Conduct any authorized injection activity in a manner that results in a movement of fluids out of the receiver, including, but not limited to:~~

~~(A) No zone or interval other than that represented as the discharge zone in the permit shall be used as a receiver for the discharge;~~

~~(B) No uncased hole may be used as a conduit for the discharge, excepting that portion of a hole in the discharge zone; or~~

~~(C) No annular space between the wall of the hole and casing in the hole may be used as a conduit for the discharge, excepting in that portion of a hole in the discharge zone; and~~

~~(iii) Construct, install, modify or improve an authorized injection facility except in compliance with the permit requirements.~~

~~(c) All Class IV wells are prohibited.~~

~~(d) No solvent wastes which are listed hazardous waste numbers F001, F002, F003, F004, or F005 under 40 CFR 261.31 shall be injected underground in any class I well unless those wastes are waste solvent mixtures that do not exceed or are treated to not exceed the standards listed in Appendix A.~~

~~(e) No dioxin containing wastes which are listed hazardous waste number F020, F021, F022, F023, F026, F027 or F028 under 40 CFR 261.31 shall be injected underground in any well unless those wastes do not exceed, or are treated to not exceed the standards listed in Appendix B.~~

~~(f) Treatment to meet appendix A or B limitations shall be accomplished according to a state hazardous waste treatment permit issued by the department. Dilution is prohibited as a substitute for treatment of wastes listed in subsections (d) and (e) above.~~

~~(g) No person shall inject any hazardous waste which has been banned from land disposal pursuant to 40 CFR 268.41 or department regulations, as applicable, unless:~~

~~(i) The hazardous waste has first been treated to a concentration of less than the levels specified in 40 CFR 268.41 or 40 CFR 268 Appendix I, or department regulations, as applicable; or~~

~~(ii) An exemption petition has been submitted and approved by the U.S. Environmental Protection Agency under 40 CFR 148.20, or department regulations, as applicable. After approval of such a petition, the operator is required to comply with all conditions contained as part of the granting of the petition.~~

~~Section 19. Public information, public participation, public hearing.~~

~~(a) Public notice is not required for minor modifications or for a permit denial where the application is determined incomplete or deficient in accordance with Section 6, unless the permittee or applicant requests a hearing before the council pursuant to this section.~~

~~(b) The administrator shall give public notice for any of the following actions:~~

~~(i) The administrator has prepared a draft permit which is intended for issuance, denial or reissuance;~~

~~(ii) The administrator intends to modify a permit;~~

~~(iii) The administrator intends to revoke or terminate a permit; and~~

~~(iv) Any hearing held as a result of a request for hearing on above actions or department actions appealable to the council.~~

~~(c) The administrator shall include a thirty (30) day public comment period for any action on items (a) (i), (ii) or (iii) or thirty (30) days notice before any hearing date as~~

~~part of the public notice. When two notices are required, they may be given at the same time.~~

~~(d) Public notice shall be given by the following methods:~~

~~(i) By mailing a copy of the notice to the following persons:~~

~~(A) The applicant, by certified or registered mail;~~

~~(B) The U.S. Environmental Protection Agency;~~

~~(C) Wyoming Oil and Gas Conservation Commission;~~

~~(D) Wyoming Game and Fish Department;~~

~~(E) Wyoming State Engineer;~~

~~(F) Land Quality Division;~~

~~(G) State Historical Preservation Officer;~~

~~(H) Persons on the mailing list developed by including those who request in writing to be on the list and soliciting persons for "area lists" from participants in proceedings in that area; and~~

~~(I) Any unit of local government having jurisdiction over the area where the facility is proposed to be located.~~

~~(ii) Publication of a notice in a newspaper of general circulation in the location of the facility or operation; and~~

~~(iii) At the discretion of the administrator, posting in a post office, public place of the nearest municipality or near the entrance to the facility.~~

~~(e) All public notices issued under this chapter shall contain the following minimum information:~~

~~(i) Name, address of the department;~~

~~(ii) Name and address of permittee or permit applicant, and, if different, of the facility or activity regulated by the permit;~~

~~(iii) A brief description of the business conducted at the facility or activity described in the permit application or the draft permit;~~

~~(iv) Name, address and telephone number of a person from who interested persons may obtain further information, including copies of the draft permit, as the case may be, statement of basis or fact sheet and the application;~~

~~(v) A brief description of comment procedures, procedures to request a hearing, and other procedures which the public may use to participate in the final permit decision; and~~

~~(vi) Any additional information considered necessary and proper.~~

~~(f) In addition to the information required in (e) of this section, any notice for public hearing shall contain the following:~~

~~(i) Reference to the date of previous public notices relating to the permit;~~

~~(ii) Date, time and place of hearing; and~~

~~(iii) A brief description of the nature and purpose of the hearing, including applicable rules and procedures.~~

~~(g) The department shall provide an opportunity for the applicant, permittee, or any interested person to submit written comments regarding any aspect of a permit including, but not limited to, permit issuance, denial, modification, revocation and reissuance, termination, or transfer and/or to request a public hearing.~~

~~(h) All information received on or with the permit application shall be made available to the public for inspection and copying except such information as has been determined to constitute trade secrets or confidential information pursuant to W.S. 35-11-1101. The department shall provide facilities for inspection and copying of all nonconfidential documents. Copying shall be at the expense of the person requesting copies.~~

~~(i) Requests for public hearings on permit applications or modifications must be made in writing to the administrator and shall state the reasons for the request. Requests for public hearings on permit issuance, denial, revocation, termination, or any other department action appealable to the Council, shall be made in writing to the chairman of the council and the department and state the grounds for the request.~~

~~(i) Requests for public hearings based on contested issues may be filed at any stage of the permitting process; and~~

~~(ii) After notice is given for public comment, requests for public hearings must be filed within thirty (30) days after the last publication of the public notice.~~

~~(j) The administrator shall render a decision on the action within thirty (30) days after the completion of the comment period if no hearing is requested.~~

~~(k) The administrator shall hold a hearing whenever he or she finds, on the basis of requests, a significant degree of public interest in a draft permit. The administrator may hold a hearing at his or her discretion whenever such a hearing may clarify issues involved in a permit decision.~~

~~(l) The Council shall hold hearings pursuant to the department Rules of Practice and Procedure.~~

~~(m) Public hearings will be held in the geographic area wherein the proposed discharge is located, or as nearby as reasonable. Public hearings will be held pursuant to department rules of practice and procedure.~~

~~(n) The director shall make a decision on any department hearing as soon as practicable after receipt of the office transcript or after the expiration of the time set to receive written comments.~~

~~(o) At the time a final decision is issued, the department shall respond, in writing, to those comments received during the public comment period or comments received during the allotted time for a hearing held by the department. This response shall:~~

~~(i) Specify any changes that have been made to the permit; and~~

~~(ii) Briefly describe and respond to all comments voicing a legitimate regulatory concern that is within the authority of the department to regulate.~~

~~(p) The response to comments shall also be available to the public.~~

~~(q) All comments received on contested issues before the council will be responded to in accordance with department Rules of Practice and Procedures.~~

~~Section 20. Class I permits issued before the effective date of these regulations. Any class I well permitted before the effective date of these regulations shall be reviewed pursuant to Section 9 (b) and (c).~~

APPENDIX A

| PARAMETER | MAXIMUM- ALLOWABLE CONCENTRATION |
|---------------------------------------|--|
| ACETONE | .05 MG/L |
| N-BUTYL ALCOHOL | 5.00 MG/L |
| CARBON DISULFIDE | 1.05 MG/L |
| CARBON TETRACHLORIDE | .05 MG/L |
| CHLOROBENZENE | .05 MG/L |
| CRESOLS AND CRESYLIC ACID | .75 MG/L |
| CYCLOHEXANONE | .125 MG/L |
| 1,2-DICHLOROBENZENE | .65 MG/L |
| ETHYL ACETATE | .05 MG/L |
| ETHYL BENZENE | .05 MG/L |
| ETHYL ETHER | .05 MG/L |
| ISOBUTANOL | 5.00 MG/L |
| METHANOL | .25 MG/L |
| METHYLENE CHLORIDE | .20 MG/L |
| METHYL ETHYL KETONE | .05 MG/L |
| METHYL ISOBUTYL KETONE | .05 MG/L |
| NITROBENZENE | .66 MG/L |
| PYRIDINE | .33 MG/L |
| TETRACHLOROETHYLENE | .05 MG/L |
| TOLUENE | .33 MG/L |
| 1,1,1-TRICHLOROETHANE | .41 MG/L |
| 1,2,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | .96 MG/L |
| TRICHLOROETHYLENE | .062 MG/L |
| TRICHLOROFLUOROMETHANE | .05 MG/L |
| XYLENE | .05 MG/L |
| POLYCHLORINATED BIPHENOLS | 500.00 MG/L |

~~APPENDIX B~~

| PARAMETER | MAXIMUM | ALLOWABLE | CONCENTRATION |
|--|--------------------|----------------------|--------------------------|
| HXCDD— ALL HEXACHLORODIBENZO-P-DIOXINS | 1 | PPB | |
| HXCDF— ALL HEXACHLORODIBENZOFURANS | 1 | PPB | |
| PECDD— ALL PENTACHLORODIBENZO-P-DIOXINS | 1 | PPB | |
| PECDF— ALL PENTACHLORODIBENZOFURANS | 1 | PPB | |
| TCDD— ALL TETRACHLORODIBENZO-P-DIOXINS | 1 | PPB | |
| TCDF— ALL TETRACHLORODIBENZOFURANS | 1 | PPB | |
| 2,4,5— TRICHLOROPHENOL | 50 | PPB | |
| 2,4,6— TRICHLOROPHENOL | 50 | PPB | |
| 2,3,4,6— TETRACHLOROPHENOL | 100 | PPB | |
| PENTACHLOROPHENOL | 10 | PPB | |

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CHAPTER XIII (Final)

30505.DOC

Revised February 3, 1993

CHAPTER 16

Class V Injection Wells and Facilities
Underground Injection Control Program

REPEALED

~~Class V Injection Wells and Facilities~~
~~Underground Injection Control Program~~

~~CHAPTER 16~~

~~Section 1.—Authority and Purpose.—These regulations are promulgated pursuant to W.S. 35-11-101 through 1413, specifically 302, and no person shall cause, threaten or allow violations of any provision contained herein.—These regulations fulfill Wyoming state obligations under Section 1422 of the Federal Safe Drinking Water Act and Federal Underground Injection Control regulations found in 40 CFR 124 and 40 CFR 144-148 (both as of December 7, 1999).~~

~~Section 2.—Definitions.—The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.~~

~~(a) —"Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.~~

~~(b) —"Area of review" means the area for which information and analyses shall be submitted as part of an underground injection control permit application, and reviewed for issuance of a permit.—The area of review must include all portions of an aquifer which will be affected in a measurable way within ten (10) years of the granting of a permit, assuming that the permit is complied with.~~

~~(c) —"Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to the subsurface discharge.~~

~~(d) —"Cesspool" means a drywell that receives solely untreated domestic sewage, and which sometimes has an open bottom and/or perforated sides.~~

~~(e) —"Class V facility" means any property which contains an injection well, drywell, or subsurface fluid distribution system which is not defined as a Class I, II, III, or IV well in Chapter 13, Water Quality Rules and Regulations.—The Class V facility includes all systems of collection, treatment, and control which are associated with the subsurface disposal.—Appendix A of this chapter contains a list of Class V facilities.~~

~~(f) —"Domestic sewage" means liquids or solid wastes obtained from humans and domestic activities including wastewater from activities such as showers, toilets, human wash basins, food preparation, clothes washing, and dishwashers.~~

~~(g) —"Draft permit" means a document indicating the tentative decision by the department to issue or deny, modify, revoke and reissue, or terminate a 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. A draft permit for issuance shall contain all conditions and content, compliance schedules and monitoring requirements required by this chapter.~~

~~(h) —“Drywell” means a well, other than an improved sinkhole or subsurface distribution system, completed above the water table so that its bottom and sides are typically dry, except when receiving fluids.~~

~~(i) —“Duly authorized representative” means a specific individual or a position having responsibility for the overall operation of the regulated facility or activity. The authorization shall be made in writing by a responsible corporate officer and shall be submitted to the administrator.~~

~~(j) —“Fact sheet” means a document briefly setting forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Fact sheets for Class I wells are incorporated into the public notice.~~

~~(k) —“Fluid” means any material which flows or moves, whether semisolid, liquid, sludge, gas or any other form or state.~~

~~(l) —“General permit” means a permit issued to a class of operators, all of which inject similar types of fluids for similar purposes. General permits require less information to be submitted by the applicant than individual permits and do not require public notice for a facility to be included under the authorization of a general permit.~~

~~(m) —“Groundwater” means subsurface water that fills available openings in rock or soil materials such that they may be considered water saturated under hydrostatic pressure.~~

~~(n) —“Groundwaters of the state” are all bodies of underground water which are wholly or partially within the boundaries of the state.~~

~~(o) —“Hazardous waste” means a hazardous waste as defined in Chapter 2, Section 1(c), Wyoming Hazardous Waste Rules and Regulations.~~

~~(p) —“Improved sinkhole” means a naturally occurring karst depression which has been modified by man for the purpose of directing and emplacing fluids into the subsurface.~~

~~(q) —“Individual permit” means a permit issued for a specific facility operated by an individual operator, company, municipality, or agency. An individual permit may be established as an area permit and include multiple points of discharge that are all operated by the same person.~~

~~(r) —“Injectate” means the wastewater being disposed of through any underground injection facility after it has received whatever pretreatment is done.~~

~~(s) — "Lithology" means the description of rocks on the basis of their physical and chemical characteristics.~~

~~(t) — "Permit" means a Wyoming Underground Injection Control permit, unless otherwise specified.~~

~~(u) — "Permit by rule" means an authorization included in these rules which does not require either an individual permit or a general permit. — A facility which is permitted by rule must meet the requirements found in this chapter, but is not required to apply for and obtain a permit to construct and operate the facility.~~

~~(v) — "Permittee" means the named permit holder.~~

~~(w) — "Point of compliance" means a point at which the permittee shall meet class of use standards for the receiver.~~

~~(x) — "Point of injection" means the last accessible sampling point prior to waste fluids being released into the subsurface environment through a Class V injection well. — For example the 'point of injection' of a Class V septic system might be the distribution box — the last accessible sampling point before the waste fluids drain into the underlying soils. — For a dry well, it is likely to be the well bore itself.~~

~~(y) — "Public hearing" means a non-adversary hearing held by the administrator or director of the department. — The hearing is conducted pursuant to Chapter 3 of the Wyoming Department of Environmental Quality Rules of Practice and Procedure.~~

~~(z) — "Radioactive waste" means any waste which contains radioactive material in concentrations which exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2 as of December 22, 1993.~~

~~(aa) — "Receiver" means any zone, interval, formation or unit in the subsurface into which fluids and pollutants are discharged.~~

~~(bb) — "Responsible corporate officer" means 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.~~

~~(cc) — "Secondarily affected aquifer" means any aquifer affected by migration of fluids from an injection facility, when the aquifer is not directly discharged into.~~

~~(dd) — "Septic system" means a facility that is used solely to emplace domestic sewage below the surface and is comprised of a septic tank and subsurface fluid distribution system.~~

~~(ee) —“Source water protection area” means the area delineated for the protection of ground and surface water sources for a public water supply under a department approved plan developed pursuant to Section 1453 of the Safe Drinking Water Act.~~

~~(ff) —“Subsurface fluid distribution system” means an assemblage of perforated pipes or drain tiles used to distribute fluids below the surface of the ground. — Subsurface fluid distribution systems include but are not limited to drain fields, leach fields, mounded leach fields, leach lines, bed type distribution systems, and gravel less chamber type distribution systems.~~

~~(gg) —“Vadose Zone” means the unsaturated zone in the earth, between the land surface and the top of the first saturated aquifer. — The vadose zone contains water at less than saturated conditions.~~

~~(hh) —“Underground source of drinking water” means those aquifers or portions thereof which have a total dissolved solids content of less than 10,000 mg/l, and are classified as either Class I, II, III, IV (a), or Special (A), pursuant to Chapter 8, Quality Standards for Wyoming Groundwaters, Water Quality Rules and Regulations.~~

~~(ii) —“Water quality management area” means the area delineated for the protection of water quality under a department approved plan developed under Sections 303, 208 and/or 201 of the Federal Clean Water Act, as amended.~~

~~(jj) —“Well” means a bored, drilled, or driven shaft; a hole dug whose depth is greater than the largest surface dimension; an improved sinkhole; or a subsurface fluid distribution system.~~

~~(kk) —“Wellhead protection area” means the area delineated for the protection of a public water supply utilizing a groundwater source under a department approved plan developed pursuant to Section 1428 of the federal Safe Drinking Water Act.~~

~~Section 3. — Applicability. — These regulations shall apply to any discharge to the subsurface, including the vadose zone, for all of the types of discharges listed in Appendix A of this chapter.~~

~~Section 4. — Timing of Compliance with These Regulations. — Any Class V permit issued under Chapters 9 or 16, Water Quality Rules and Regulations, prior to the effective date of these regulations shall remain in effect until replaced by an individual permit, a general permit or permit by rule pursuant to this chapter. — Existing individual permits issued under Chapters 9 or 16 will be reviewed on a five (5) year basis pursuant to Section 5 (a)(vii) of this chapter. Any individual permit issued pursuant to Chapters 9 or 16 prior to the effective date of these regulations fulfills all of the requirements to obtain a permit under this chapter.~~

~~(a) — All operators of existing systems which are required to obtain an individual~~

~~permit under these regulations shall obtain a permit by April 14, 2000.~~

~~(b) — General permits:~~

~~(i) — Within two (2) years of the effective date of the general permit, all operators of existing facilities which require coverage shall:~~

~~(A) — Apply for coverage under the general permit;~~

~~(B) — Apply for an individual permit for the facility;~~

~~(C) — Retain an existing permit issued under Chapter 9; or~~

~~(D) — Cease discharging fluids to the subsurface.~~

~~(ii) — All operators of facilities which are required to be covered by a general permit which are constructed after the effective date of these regulations shall apply for and obtain coverage prior to the construction of the facility.~~

~~(iii) — Facilities will be covered by general permits as soon as the department has issued a written statement of acceptance to construct and operate the facility under the general permit. The department will issue a statement either accepting the operation for coverage under a general permit, or denying coverage under a general permit within 60 days of the date when the operator has requested coverage.~~

~~(e) — Permit by rule:~~

~~(i) — All operators of existing facilities permitted by rule shall submit inventory information to the department within one (1) year of the effective date of this chapter.~~

~~(ii) — All operators of facilities permitted by rule which are to be constructed after the effective date of these regulations shall submit inventory information to the department prior to constructing the facility.~~

~~Section 5. — Permits Required; Processing of Permits; and Requirements Applicable to All Permits.~~

~~(a) — Permits required:~~

~~(i) — Construction, installation, modifications or operation of Class V facilities shall be allowed only in accordance with these regulations.~~

~~(ii) — Discharges into, or construction of, any Class V facility are prohibited unless permitted pursuant to this chapter.~~

~~(iii) — Every facility shall be covered by one of the three types of permitting systems: individual; general; or permit by rule. — The following sections of these regulations describe the permitting method for and subclasses of facilities. — The owner or operator of a facility which can be covered by a general permit or authorized under permit by rule may apply for and be permitted by an individual permit if the owner or operator desires. — Operators who do not meet the requirements for a general permit or permit by rule must obtain an individual permit prior to installation or construction of the Class V facility.~~

~~(iv) — Permits may be issued for individual facilities or they may be issued on an area basis for multiple points of discharge operated by the same person.~~

~~(v) — A separate permit to construct is not required under Chapter 3, Water Quality Rules and Regulations for any Class V facility. — Requirements of the Chapter 3 permit to construct will be included in the underground injection control permit issued under this chapter.~~

~~(vi) — All permits issued under this chapter, whether individual permits, or general permits, shall be for no more than ten (10) years duration.~~

~~(vii) — Each permit shall be reviewed by the department at least once every five (5) years for continued validity of all permit conditions and contents. Permits that do not satisfy the requirements of these regulations are subject to modification, revocation and reissuance, or termination pursuant to this chapter.~~

~~(viii) — Sections of permit applications filed under this chapter which represent engineering work shall be sealed, signed, and dated by a licensed professional engineer as required by Wyoming Statutes, Title 33, Chapter 29.~~

~~(ix) — Sections of permit applications filed under this chapter which represent geologic work shall be sealed, signed, and dated by a licensed professional geologist as required by Wyoming Statutes, Title 33, Chapter 41.~~

~~(b) — Permit processing procedures applicable to all Class V facilities, individual and general permits:~~

~~(i) — The director may deny an individual permit for any of the following reasons:~~

~~(A) — The application is incomplete;~~

~~(B) — The project, if constructed and/or operated, will cause violation of applicable state surface or groundwater standards;~~

~~(C) — The application contains a proposed construction or operation~~

which does not meet the requirements of this chapter;

(D) — ~~The permitted facility would be in conflict with or is in conflict with a state approved local wellhead protection plan, state approved local source water protection plan, or state approved water quality management plan; or~~

(E) — ~~Other justifiable reasons necessary to carry out the provisions of the Environmental Quality Act.~~

(ii) — ~~If the director intends to deny an individual permit for any reason other than an incomplete or deficient application, a draft permit shall be prepared and public notice issued pursuant to Section 13 of this chapter.~~

(iii) — ~~Permits may be modified, revoked and reissued, or terminated either in response to a petition from any interested person (including the permittee) or upon the administrator's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in Section 5 (b) (vi) of this chapter. All requests shall be in writing and shall contain facts or reasons supporting the request.~~

~~If the administrator decides the petition is not justified, the petitioner shall be sent a brief written response giving the reason for the decision. A request for modification, revocation and reissuance, or termination shall be considered denied if the administrator takes no action within 60 days after receiving the written request. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice and comment. Denials by the administrator may be appealed for hearing to the Environmental Quality Council by a letter briefly setting forth the relevant facts.~~

(iv) — ~~The administrator may modify a permit when:~~

(A) — ~~Any material or substantial alterations or additions to the facility occur after permitting or licensing, which justify the application of permit conditions that are different or absent in the existing permit;~~

(B) — ~~Any modification in the operation of the facility is capable of causing or increasing pollution in excess of applicable standards or permit conditions;~~

(C) — ~~Information warranting modification is discovered after the operation has begun that would have justified the application of different permit conditions at the time of permit issuance;~~

(D) — ~~Regulations or standards upon which the permit was based have changed by promulgation of amended standards or regulations, or by judicial decision after the permit was issued;~~

~~(E) — Cause exists for termination, as described in this section, but the department determines that modification is appropriate; or~~

~~(F) — Modification is necessary to comply with applicable statutes, standards or regulations.~~

~~(v) — Minor modifications of permits may occur with the consent of the permittee without following the public notice requirements. — Minor modifications will become final 20 days from the date of receipt of such notice. — For the purposes of this chapter, minor modifications may only:~~

~~(A) — Correct typographical errors;~~

~~(B) — Require more frequent monitoring or reporting by the permittee;~~

~~(C) — 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;~~

~~(D) — Allow for a change in ownership or operational control of a facility where the administrator 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 have been submitted to the administrator;~~

~~(E) — Change quantities or types of fluids injected which are within the capacity of the facility as permitted — and, in the judgment of the administrator, 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;~~

~~(F) — Change construction requirements approved by the administrator pursuant to department rules and regulations provided that any such alteration shall comply with the requirements of this chapter; or~~

~~(G) — Amend an abandonment plan.~~

~~(vi) — The administrator may revoke and reissue or terminate a permit for any of the following reasons:~~

~~(A) — Noncompliance with terms and conditions of the permit;~~

~~(B) — Failure in the application or during the issuance process to disclose fully all relevant facts, or misrepresenting any relevant facts at any time; or~~

~~(C) — A determination that the activity endangers human health or the environment and can only be regulated to acceptable levels by a permit modification or termination.~~

~~(vii) — The administrator may modify a permit to resolve issues that could lead to the revocation of the permit under Section 5 (b) (vi) of this chapter. — The administrator, as part of any notification of intent to terminate a permit, shall order the permittee to proceed with reclamation on a reasonable time period.~~

~~If the administrator tentatively decides to modify or revoke and reissue a permit, a draft permit incorporating the proposed changes shall be prepared. — The administrator may request additional information and, in the case of a modified permit, may require the submission of an updated application. — In the case of revoked and reissued permits, the administrator shall require the submission of a new application.~~

~~(viii) — In a permit modification under Section 5 (b) (iv) of this chapter, only those conditions to be modified shall be reopened when a new draft permit is prepared. — All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit and the modified permit shall expire on the date when the original permit would have expired. When a permit is revoked and reissued under this section, the entire permit is reopened as if the permit has expired and is being reissued. — When the entire permit is reopened, the modified permit shall be issued for no more than ten (10) years. — During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is issued.~~

~~(ix) — Permit modifications, revocations or terminations shall be developed as a draft permit and are subject to the public notice and hearing requirements outlined in Section 13.~~

~~(x) — Transfer of a permit is allowed only upon approval by the administrator. When a permit transfer occurs pursuant to this section, the permit rights of the previous permittee will automatically terminate.~~

~~(A) — The proposed permit holder shall apply in writing as though that person was the original applicant for the permit and shall further agree to be bound by all of the terms and conditions of the permit; and~~

~~(B) — Transfer will not be allowed if the permittee is in noncompliance with any term and conditions of the permit, unless the transferee agrees to bring the facility back into compliance with the permit.~~

~~(c) — Permit conditions:~~

~~(i) — All individual and general permits issued under this chapter shall contain the following conditions:~~

~~(A) — A requirement that the permittee comply with all conditions of the permit, and any permit noncompliance constitutes a violation of these regulations and is grounds for enforcement action, permit termination, revocation, or modification;~~

~~(B) — A requirement that if the permittee wishes to continue injection activity after the expiration of the permit, the permittee must apply to the administrator for, and obtain, a new permit;~~

~~(C) — A stipulation that 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) — A requirement that the permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit;~~

~~(E) — A requirement that the permittee properly operate and maintain all facilities and systems of treatment and control 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 and 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) — A stipulation that the filing of a request by the permittee, or at the instigation of the administrator, for a permit modification, revocation, termination, or notification of planned changes or anticipated non-compliance, shall not stay any permit condition;~~

~~(G) — A stipulation that this permit does not convey any property rights of any sort, or any exclusive privilege;~~

~~(H) — A stipulation that the permittee shall furnish to the administrator, within a specified time, any information which the administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. The permittee shall also furnish to the administrator, upon request, copies of records required to be kept by the permit;~~

~~(I) — A requirement that the permittee shall allow the administrator, or an authorized representative of the administrator, upon the presentation of credentials, during normal working hours, to enter the premises where a regulated facility is located, or where records are kept under the conditions of this permit, and inspect the discharge and related facilities, review and copy reports and records required by the permit, collect fluid samples for analysis, measure and record water levels, and perform any other function authorized by law or~~

regulation;

~~(J) — A requirement that the permittee furnish any information necessary to establish a monitoring program pursuant to Section 11 of this chapter;~~

~~(K) — A requirement that all samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity, and records of all monitoring information be retained by the permittee. The monitoring information to be retained shall be that information stipulated in the monitoring program established pursuant to the criteria in Section 11 of this chapter;~~

~~(L) — A requirement that all applications, reports, and other information submitted to the administrator contain certifications as required in Section 6 (c) (xii) of this chapter, and be signed by a person who meets the requirements to sign permit applications found in Section 6 (c) (xi), or for routine reports, a duly authorized representative;~~

~~(M) — A requirement that the permittee give advance notice to the administrator as soon as possible of any planned physical alteration or additions, other than authorized operation and maintenance, to the permitted facility and receive authorization prior to implementing the proposed alteration or addition;~~

~~(N) — A requirement that any modification which may result in a violation of a permit condition shall be reported to the administrator, and any modification that will result in a violation of a permit condition shall be reported to the administrator through the submission of a new or amended permit application;~~

~~(O) — A requirement that any transfer of a permit must first be approved by the administrator, and that no transfer will be approved if the facility is not in compliance with the existing permit unless the proposed permittee agrees to bring the facility into compliance;~~

~~(P) — A requirement that monitoring results shall be reported at the intervals specified elsewhere in the permit;~~

~~(Q) — A requirement that reports of compliance or non-compliance with, or any progress reports on interim and final requirements contained in any compliance schedule, if one is required by the administrator, shall be submitted no later than 30 days following each schedule date;~~

~~(R) — A requirement that confirmed noncompliance resulting in the migration of injected fluid into any zone outside of the permitted receiver must be orally reported to the administrator within 24 hours, and a written submission shall be provided within five (5) days of the time the permittee becomes aware of the excursion. — The written submission shall~~

contain:

~~(I) — A description of the noncompliance and its cause;~~

~~(II) — The period of noncompliance, including exact dates and times, and, if the noncompliance has not been controlled, the anticipated time it is expected to continue; and~~

~~(III) — Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.~~

~~(S) — A requirement that the permittee report all instances of noncompliance not already required to be reported under paragraphs (c) (i) (P) through (R) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (c) (i) (R) of this section;~~

~~(T) — A requirement that in the situation 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 administrator, the permittee shall promptly submit such facts or information;~~

~~(U) — A requirement that the injection facility meet construction requirements outlined in Section 10 of this chapter, and that the permittee submit notice of completion of construction to the administrator and allow for inspection of the facility upon completion of construction, prior to commencing any injection activity;~~

~~(V) — A requirement that the permittee notify the administrator at such times as the permit requires before conversion or abandonment of the facility;~~

~~(W) — A requirement that an abandonment report, detailing the compliance abandonment procedures outlined the original permit application, or describing any deviations from the original plan, be submitted as soon as practicable after abandonment; and~~

~~(X) — A requirement that injection may not commence until construction is complete.~~

~~(ii) — In addition to the conditions required of all permits, the administrator may establish, on a case by case basis, conditions as required for monitoring, schedules of compliance, and such additional conditions as are necessary to prevent the migration of fluids into underground sources of drinking water.~~

~~(d) — Records and reports required for general and individual permits.~~

~~(i) The permittee shall submit a written report to the administrator of all remedial work concerning the failure of equipment or operational procedures which resulted in a violation of a permit condition, at the completion of the remedial work.~~

~~(ii) Routine periodic reports required by the permit shall be submitted to the administrator within 30 days following the end of the period covered in the report. Reports shall include the following information:~~

~~(A) If the permit requires, an accounting of the total volume of injectate for the period covered by the report, the year to date, and the life of the facility to date; and~~

~~(B) An analysis of the physical, chemical and other relevant characteristics of the injected fluid.~~

~~(iii) For any aborted or curtailed operation, in lieu of an annual report, a complete report shall be submitted within 30 days of complete termination of the discharge or associated activity.~~

~~(iv) The permittee shall retain all monitoring records required by the permit for a period of three (3) years following facility closure.~~

~~Section 6. Individual Permits.~~

~~(a) The operator shall submit an application and obtain a permit prior to the construction, installation, modification or operation of any facility in the following subclasses: 5A3; 5B3; 5B5; 5C1; 5C2; 5C3; 5D1; 5D3; 5D4; 5E3; 5E4 and 5F2 unless the facility is covered by a general permit. In addition, any facility not authorized under Sections 7 and 8, and operators directed by the administrator to obtain an individual permit, shall obtain an individual permit under this section.~~

~~(b) The operator is responsible to make application for and obtain a permit. Each application must be submitted with all supporting data required in this chapter.~~

~~(c) A complete application for a Class V facility individual permit shall include:~~

~~(i) A brief description of the nature of the business and the activities to be conducted that require the applicant to obtain a permit under this chapter;~~

~~(ii) The name, address and telephone number of the operator, and the operator's ownership status and status as a federal, state, private, public or other entity;~~

~~(iii) The name address and telephone number of the facility. Additionally, the location of the facility shall be identified by section, township, range and county.~~

~~(iv) A calculation of the area of review, to include:~~

~~(A) — A calculation to determine the maximum area affected by the injected waste for all Class V facilities constructed or modified after the effective date of these regulations. — This calculation determines the total amount of void space around and down-gradient from the point of injection and uses accepted groundwater theory to determine the extent of any affected groundwater around the facility.~~

~~(B) — A Class V area of review shall never be less than the area of potentially impacted groundwater.~~

~~(C) — All areas of review shall be legally described by township, range and section to the nearest ten (10) acres as described under the general land survey system.~~

~~(v) — Information about the proposed facility including:~~

~~(A) — A description of the substances proposed to be discharged, including type, source, and chemical, physical, radiological and toxic characteristics; and~~

~~(B) — Construction and engineering details in accordance with Section 10 of this chapter and Chapter 11 Water Quality Rules and Regulations.~~

~~(vi) — Information, including the name, description, depth, geologic structure, faulting, fracturing, lithology, hydrology, and fluid pressure of the receiver and any relevant confining zones. — The fracture pressure of the receiver shall be submitted only if the injection is under pressure into a confined aquifer.~~

~~(vii) — Water quality information including background water quality data which will facilitate the classification of any groundwaters which may be affected by the proposed discharge. — This must include information necessary for the division to classify the receiver and any secondarily affected aquifers under Chapter 8, Wyoming Water Quality Rules and Regulations.~~

~~(viii) — A topographic and other pertinent maps, extending at least one (1) mile beyond the property boundaries of the facility, but never less than the area of review, depicting:~~

~~(A) — The facility and each of its intake and discharge structures;~~

~~(B) — Each well, drywell or subsurface fluid distribution system where fluids from the facility are injected underground;~~

~~(C) — Other wells, springs, and surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within the area of review; and~~

~~(D) — Bedrock and surficial geology, geologic structure, and~~

hydrogeology in the area.

(ix) ~~—A list of other relevant permits, whether federal or state, that the facility has been required to obtain, such as construction permits. This includes a statement as to whether or not the facility is within a state approved water quality management plan area, a state approved wellhead protection area or a state approved source water protection area.~~

(x) ~~—Detailed plans for monitoring the volume and chemistry of the discharge, and water quality of selected water wells within the area of review in accordance with Section 11 of this chapter;~~

(xi) ~~—All applications for permits, reports, or information to be submitted to the Administrator shall be signed by a responsible officer as follows:~~

(A) ~~—For a corporation a responsible corporate officer means:~~

(i) ~~—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~~

(ii) ~~—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.~~

(B) ~~—For a partnership or sole proprietorship — by a general partner or the proprietor, respectively;~~

(C) ~~—For a municipality, state, federal or other public agency — by either the principal executive officer or ranking elected official.~~

(xii) ~~—The application shall contain the following certification by the person signing the application:~~

~~"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."~~

(d) ~~—All data used to complete permit applications shall be kept by the applicant for a minimum of three (3) years from the date of signing.~~

~~(e) — The applicant shall submit five (5) copies of the permit application to the division.~~

~~(f) — Within 60 days of submission of the application, the administrator shall make an initial determination of completeness. — An application shall be determined complete when the administrator receives an application and any supplemental information necessary to determine compliance with these regulations.~~

~~(g) — Resubmittal of information by an applicant on an incomplete application will begin the process described in paragraph (f) of this section.~~

~~(h) — During any 60-day review period where an application is determined complete, the administrator shall prepare a draft permit for issuance or denial, prepare a fact sheet on the proposed operation, and provide public notice pursuant to Section 13.~~

~~(i) — A denial of the application by the department is appealable by the applicant to the Environmental Quality Council in accordance with the Rules of Practice and Procedure. — Requests for appeal must be in writing, state the reasons for appeal, and be made to both the director and the chairman of the Environmental Quality Council.~~

~~Section 7. — General Permits.~~

~~(a) — The department may develop and issue general permits pursuant to these regulations which cover Class V facilities for the following subclasses: 5A1, 5A2, 5B1, 5C4, 5C5, 5C6, 5D1, 5D2, 5E1, 5E3, and 5E5. — The administrator may issue general permits in other categories as the need arises. — 5E3 facilities which were permitted as small wastewater systems prior to April 14, 1998 are permitted by rule under Section 8 (c) (v) and are not covered by this section. — Facilities in these subclasses which have already been issued individual permits under Chapter 9 or Chapter 16, Water Quality Rules and Regulations may continue under these permits until they are terminated, revoked and reissued, or canceled at the request of the operator. — Coverage shall not be extended to any facility if such a facility would be in violation of any state-approved source water protection area. — Facilities in these subclasses not presently covered by an individual permit will be authorized by permit by rule until the general permit for the specific subclass is issued. — The operator of a facility listed in this section shall have two (2) years after the date of issuance of the general permit to:~~

~~(i) — Obtain coverage under the issued general permit;~~

~~(ii) — Submit an application and receive an individual permit under this chapter;~~

~~(iii) — Continue to be covered by a permit issued pursuant to Chapter 9 of these regulations; or~~

~~(iv) — Abandon the facility in accordance with Section 12.~~

~~(b) — If a general permit has been issued by the department, an operator of a facility must register the facility with the department and sign a statement agreeing to be bound by the conditions of that permit. Failure to register for general permit coverage, when available, is the same as operation of a facility without a permit, unless an individual permit has been obtained.~~

~~(c) — In order to be covered by a general permit, an operator must submit all information required in Section 6 (c) (i), (ii), and (iii), plus any additional information required to be submitted or reported in the issued general permit. — The submittal requesting coverage by a general permit shall be signed by a person meeting the same signatory requirements of Section 6 (c) (xi) and shall be certified in accordance with Section 6 (c) (xii). — Facilities will be covered by general permits as soon as the department has issued a written statement of acceptance to allow the construction and operation of the facility under the general permit. — The department will issue an authorization accepting the operation for coverage under the general permit or denying coverage under the general permit, within 60 days of the date when the operator requested coverage. — Requests for coverage under a general permit, which do not meet the requirements for general permit pursuant to this chapter, may be denied by the administrator.~~

~~(d) — Once issued, general permits must remain the same for all persons covered by the permit. — A general permit may be modified in accordance with Section 5 (b) (iv). — Any such modification must cover all persons covered by the permit.~~

~~(e) — General permits shall also include:~~

~~(i) — The permit conditions required in Section 5 (c) (i);~~

~~(ii) — A requirement to submit information necessary for the department to make an assessment of the vulnerability of the environment and public health to the injection from the Class V well. — Such information may include the depth to the groundwater table at the disposal field, groundwater quality or existing available information on the lithology, geology, hydrogeology and the location of the following items within 1/4 mile of the Class V facility:~~

~~(A) — All water supply wells and the uses of each respective well;~~

~~(B) — All property boundaries and land uses;~~

~~(C) — All surface water bodies or springs; and~~

~~(D) — All known sources of groundwater contamination or pollution.~~

~~(E) — All state approved source water protection areas, wellhead protection areas, 201 service areas, or water quality management plan areas.~~

~~(iii) — Depth below the ground surface for the point of injection and for the well-screening in all wells within the area of review;~~

~~(iv) — A requirement for facilities constructed after April 14, 1998 that the operator certifies the facility will meet the design, construction, and operational performance requirements in Section 10 for the specific subclass of facility.~~

~~(v) — A requirement that the operator submit the disposal capacity of the facility in gallons per day as calculated using Table 1, Chapter 25. Some facilities may be required to monitor the volume of injectate actually disposed of, or the volume of water used in the area served by the Class V facility.~~

~~(f) — The administrator may require any operator covered by a general permit to obtain an individual permit for the facility when a review of the information submitted under this section indicates that the general permit would not be protective of groundwater in that specific case. Any operator covered by a general permit may at any time apply for and obtain an individual permit for the same facility. Once issued, an individual permit will replace coverage by the general permit for that facility.~~

~~(g) — General permits will contain the subclass of injection facility covered, the geographic area covered, the general nature of the fluids to be discharged, and the location of the receiver where the discharge will be allowed. General permits will follow the public notice requirements of Section 13 of this chapter. During each five (5) year review of a general permit, a public notice shall be issued by the department stating that a five (5) year review has been done, listing the facilities covered by a general permit, and stating where the public may obtain a copy of the permit.~~

~~(h) — Operators of new injection facilities who believe that their facility may be covered by a general permit in class 5C6 facilities may apply for coverage under the general permit for that subclass. If not accepted for coverage under this general permit, the operator shall apply for an individual permit under subclass 5C3.~~

~~(i) — Operators of new injection facilities who believe that their facility may be covered by a general permit in class 5E5 facilities may apply for coverage under the general permit for that subclass. If not accepted for coverage under this general permit, the operator shall apply for an individual permit under subclass 5E3.~~

~~(j) — In order to obtain coverage under the general permit all operators of class 5C6 and 5E5 shall submit detailed construction drawings and an abbreviated groundwater study showing the approximate depth to groundwater and a list of water wells within one half mile of the facility.~~

~~(k) — General permits may be written to require the operator to monitor the water quality of the injected fluid and to submit the information to the department. Existing facilities under this section may be required to monitor injectate quality on a one time basis, on a quarterly basis, a semi-annual basis or annual basis depending on the ability of the facility to cause adverse environmental damage or affect human health.~~

~~(l) — General permits for Class 5C5 coal bed methane injection facilities shall require that:~~

~~(i) — Each operator provide background information showing that the class of use under Chapter 8 for each injection zone will not be violated by the injection of coal bed methane produced water;~~

~~(ii) — A valid pressure falloff curve be recorded for each well within one (1) year of the start of injection into that well; and~~

~~(iii) — The pressure of injection be continuously recorded and that the pressure of injection be limited to no more than the fracture pressure of the receiving formation. — This requirement can be met by assuming that the fracture gradient of the receiver is .70 psi/foot of depth and using the depth of the topmost perforation in making the calculation.~~

~~Section 8. — Permit by Rule. — The types of Class V facilities listed in this section represent minimal threats to pollute groundwater. — The referenced facilities which meet the requirements of this section are permitted by rule. — A permit by rule requires the owner or operator to submit information contained in this section before construction, installation or modification of a facility and to meet the performance standards contained in this section and in Section 10 of this Chapter. — No facility shall be located within a state approved local wellhead protection area, state approved source water protection area or a state approved water quality management area which is in conflict with any of those plans.~~

~~(a) — A facility permitted by rule under this section shall meet the following conditions:~~

~~(i) — In addition to the information listed in Section 6 (c) (i), (ii) and (iii) of this chapter, the operator shall submit the following inventory information to the department prior to construction for facilities constructed after the effective date of these regulations and within one (1) year of the effective date of these regulations for existing facilities: (Facilities which are already registered with the Underground Injection Control Program, or which were issued a permit under Chapters 3, 9 or 16, need not send a new registration, but may be asked for updated information from time to time.)~~

~~(A) — The location of the facility, either a complete legal description or~~

latitude and longitude preferably within a (ten) 10-meter accuracy;

(B) — Type and general description of the quality of the injected fluid;

(C) — The disposal capacity of the facility in gallons per day;

(D) — Depth of injection zone; and

(E) — Whether or not the facility is operating, temporarily abandoned, or permanently abandoned.

(ii) — The facility shall be designed, constructed and operated to protect groundwater standards contained in Chapter 8, Water Quality Rules and Regulations and performance standards found in this section and in Section 10 of this chapter;

(iii) — Chemical, bacteriological, radiological additives, hazardous substances or toxic substances additives shall not be mixed in the injected fluid at any time during use of the water, prior to injection or during injection; and

(iv) — Any violation of the requirements of these regulations by a Class V facility operator permitted by rule shall be reported to the department by telephone within twenty-four (24) hours of the time when the operator becomes aware of the violation. — A written report shall be filed by the operator with the department within seven (7) days detailing steps which have been taken and will be taken to eliminate the violation.

(b) — All facilities, referenced in this section, which do not meet the requirements of subsection (a) shall obtain an individual permit under this chapter. — For facilities constructed or modified after the effective date of these regulations requiring an individual permit, the owner or operator shall obtain the permit prior to any construction.

(c) — The following classes of facilities are permitted by rule under this section:

(i) — 5B2 facilities, except any facility which injects wastewater or contains polluted groundwater or surface water in concentrations above the receiver use standards contained in Chapter 8, Water Quality Rules and Regulations;

(ii) — After the effective date of these regulations, coal bed methane operators cannot be covered by 5B2 aquifer recharge rule authorizations. — All coal bed methane disposal systems must be covered by a general permit or an individual permit under this chapter if they inject into a USDW, or a Class II permit issued by the Wyoming Oil and Gas Conservation Commission if they inject into a Class VI aquifer;

(iii) — 5B4 facilities, provided that the water injected will not cause a groundwater standards violation under Chapter 8, Water Quality Rules and Regulations;

~~(iv) — 5B6 and 5B7 facilities;~~

~~(v) — 5D5 facilities, except those facilities receiving water polluted above the receiving groundwater class of use standards contained in Chapter 8, Water Quality Rules and Regulations and facilities injecting swimming pool wastes into a Class I groundwater;~~

~~(vi) — 5E3 facilities which were originally permitted under a small wastewater system permit issued by the Department of Environmental Quality or a local government delegated the authority to issue small wastewater system permits, located within any five (5) acres of land where the cumulative maximum peak daily wastewater flow injected from other small wastewater system permitted facilities under the same ownership would exceed 2,000 gallons per day; and~~

~~(vii) — 5F1 facilities, provided that information contained in Section 10 (m) of this chapter is submitted.~~

~~(d) — A permit by rule where the operator has provided the necessary information shall be valid until the facility is properly closed pursuant to these regulations or until a permit has been issued or denied under this chapter.~~

~~(e) — The administrator may request information from the owner or operator of a well or facility permitted by rule to determine whether the facility may be causing a violation of groundwater use standards in Chapter 8, Water Quality Rules and Regulations, the construction standards found in this chapter and in Chapter 11, Water Quality Rules and Regulations, or any other requirements of this chapter. — Such information may include, but is not limited to:~~

~~(i) — Analysis of injected fluids and periodic submission of reports of such monitoring;~~

~~(ii) — Groundwater monitoring and periodic submission of reports of such monitoring;~~

~~(iii) — Description of receiving strata; and~~

~~(iv) — Well locations and down gradient use of groundwater.~~

~~(f) — Any request for information under this section shall be made in writing and include a brief statement of the reasons for requesting the information. — An owner or operator shall submit the information within the time frames provided in the request for information.~~

~~(g) — The administrator may require any operator permitted by rule to obtain an individual permit for the facility when a review of the information submitted under Section 8 (e) of this chapter indicates that the permit by rule would not be protective of groundwater in that~~

specific case.

~~Section 9. — Prohibitions.~~

~~(a) — In addition to the requirements in W.S. 35-11-301 (a), no person shall:~~

~~(i) — Conduct any authorized injection activity in a manner that results in a violation of any permit condition or representations made in the application, the request for coverage under the general permit, individual permit, or permit by rule. — A permit condition supersedes any application content;~~

~~(ii) — Discharge to any zone except the authorized discharge zone as described in the permit; or~~

~~(iii) — Construct, install, modify or improve an authorized injection facility except in compliance with the permit requirements.~~

~~(b) — The construction of any Class 5C4 facility after the effective date of these regulations is prohibited.~~

~~(c) — No person shall inject any hazardous waste which has been banned from land disposal pursuant to Chapter 13, Wyoming Hazardous Waste Rules and Regulations unless the disposal conforms to that chapter.~~

~~(d) — No drainage facility, subclass 5D1 through 5D5 shall be constructed so as to directly receive any waste other than natural precipitation or natural groundwater unless permitted under an individual permit.~~

~~(e) — No heating and cooling facility, subclass 5A1 through 5A3, shall be constructed so as to receive any waste other than cooling water. — No corrosion inhibitors, scale inhibitors, biocides, antifreeze agents, salts, or refrigerants shall be added to the water prior to injection.~~

~~(f) — No abandoned drinking water well shall be used as a disposal well unless it can be demonstrated that the waste being disposed of will leave the class of use of the affected groundwater unchanged. — The class of use referred to is determined under Water Quality Rules and Regulations, Chapter 8 Quality Standards for Wyoming Ground Waters.~~

~~(g) — No wastewater produced by electric power generation from geothermal fluids shall be disposed of in any Class V injection facility. — Such wells are Class I injection wells and are covered by Chapter 13, Water Quality Rules and Regulations.~~

~~(h) — No wastewater produced by recovery of brines and extraction of halogens shall be disposed of in any Class V injection facility. — Such wells are Class I injection wells and are covered by Chapter 13, Water Quality Rules and Regulations.~~

~~(i) — No person shall construct and/or operate any cesspool after April 14, 1998. No Class V facility which receives domestic sewage shall be constructed and/or operated after April 14, 1998 unless the waste is first treated in a septic tank, or other pre-treatment device. Prior to closure of any cesspool, the operator shall notify the administrator 30 days in advance.~~

~~(j) — The operation of any Class V septic system with liquid waste visible on the ground surface shall be considered a failure of the system and a violation of these regulations.~~

~~(k) — An operator of a facility which is authorized by rule is prohibited from injection into the facility:~~

~~(i) — Upon failure to submit inventory information prior to construction for facilities constructed after April 14, 1999; and~~

~~(ii) — Upon failure to comply with a request for information under Section 8 (e) of this chapter.~~

~~(l) — Pumping domestic sewage out of any Class V facility for any use other than disposal to an approved facility is prohibited.~~

~~Section 10. — Construction and Operation Standards for Class V Facilities:~~

~~(a) — All Class V facilities must meet or exceed the design standards of these regulations including Part B of Chapter 11 and Chapter 26, Water Quality Rules and Regulations.~~

~~(b) — All Class V facilities shall be constructed to permit the use of testing devices, and allow monitoring of injected fluid quality. Class V facilities shall be constructed to provide for metering of the injectate volume if the individual or general permit requires such metering.~~

~~(c) — All heating and cooling facilities (5A1, 5A2 and 5A3) shall include:~~

~~(i) — Provision for the use of non-toxic circulating medium in closed loop systems or an operating system which cannot be made to operate with fluid leaking;~~

~~(ii) — Provision for operations without the use of corrosion inhibitors, biocides, or other toxic additives in open loop systems;~~

~~(iii) — Provisions to control the total dissolved solids of waters injected into open loop systems to the class of use standard;~~

~~(iv) — Provisions for automatic shutdown of the system in the event of a fluid~~

~~loss from a closed loop system or a loss of any product to an open loop system;~~

~~(v) — Provisions to ensure that injected water does not come to the surface or flood any subsurface structure in the immediate vicinity of the injection system; and~~

~~(vi) — Provisions to ensure that known groundwater contamination is not spread by the direct injection of contaminated water or by movement of contamination from one zone to another caused indirectly by the injection.~~

~~(d) — All mining, sand and backfill facilities (5B1) shall include:~~

~~(i) — Provision for insuring mechanical integrity of any well designed to remain in service for more than 60 days;~~

~~(ii) — Provision for controlling the type of material injected and to insure that no hazardous waste is injected;~~

~~(iii) — Provision for leak detection in all surface piping;~~

~~(iv) — Provision for insuring that the backfill remains within the permitted area of injection; and~~

~~(v) — Provision to insure that the injection does not cause a groundwater standards violation for the class of use of the receiver.~~

~~(e) — All beneficial use injection facilities (5B2, 5B3, 5B4, 5B5, 5B6, and 5B7) shall include:~~

~~(i) — Plans to insure that contaminants do not enter the injection stream;~~

~~(ii) — Information to show that the injection will accomplish the desired goal stated in the application; and~~

~~(iii) — Target restoration values for the groundwater in the affected area being remediated for 5B5 facilities.~~

~~(f) — All commercial and industrial Class V facilities (5C1, 5C2, 5C3 and 5C4) shall:~~

~~(i) — Include a pre-treatment plan to insure that toxic materials (substances) are not discharged to the groundwater at concentrations higher than the class of use standards found in Chapter 8, Wyoming Water Quality Rules and Regulations or any primary drinking water standard found in 40 CFR 141 (as of June 6, 2001), whichever is more stringent;~~

~~(ii) — Conform to applicable construction standards found in Chapter 25,~~

~~Wyoming Water Quality Rules and Regulations; and~~

~~(iii) — Include, at a minimum, annual sampling of the waste injected as part of the monitoring plan for the facility.~~

~~(g) — When a 5C3 facility receiving slaughter house wastes can demonstrate that no violations of groundwater standards will occur, the facility shall be:~~

~~(i) — Designed for the following minimum disposal capacities:~~

~~(A) — 300 gallons per day for plant cleanup plus;~~

~~(B) — 25 gallons per head of cattle slaughter capacity;~~

~~(C) — 40 gallons per head of hog slaughter capacity;~~

~~(D) — 35 gallons per head of sheep slaughter capacity; and~~

~~(E) — Appropriate capacity for any other species slaughtered on a per head basis.~~

~~(ii) — Designed to prevent the disposal of blood and viscera into the septic system except as a small incidental portion of the total flow. Blood and viscera shall be sent to a rendering plant or other approved disposal or recycling system.~~

~~(iii) — A grease trap shall be provided ahead of the septic system with a total capacity equal to one half of the total required capacity of the septic tank.~~

~~(h) — All drainage facilities (those with the code number 5D on Appendix A) shall include:~~

~~(i) — A plan to preclude the inadvertent introduction of contaminants into the wastewater stream;~~

~~(ii) — An operations and maintenance manual detailing maintenance required, reporting requirements for known spills affecting the facility, and steps to be taken to prevent the introduction of contaminants in the event of a spill within the area served by the facility; and~~

~~(iii) — Maps showing the area where runoff will be transported to the drainage facility.~~

~~(i) — All agricultural drainage facilities (5D1) injecting surface runoff from animal waste piles, feedlots, or dairy operations for which a demonstration can be made that the groundwater standards can be met, shall be designed for treatment in a septic tank, lagoon, or~~

~~other treatment technology prior to injection. The following requirements apply to these systems:~~

~~(i) The treatment facility shall be sized for the strength and solids content of the wastewater to be treated;~~

~~(ii) The flow capacity requirements shall include all runoff from operations within the collection area and all runoff from precipitation up to and including a 25 year, 24 hour design storm; and~~

~~(iii) The flow capacity requirements for drainage from a fully enclosed dairy or feeding operation shall be as follows:~~

~~(A) 20 gallons per day per animal up to 50 pounds;~~

~~(B) 100 gallons per day per animal up to 500 pounds; and~~

~~(C) 200 gallons per day per animal over 500 pounds.~~

~~(iv) The subsurface fluid distribution system shall be designed in accordance with general design requirements found in Chapter 25.~~

~~(j) All sewage disposal (5E) facilities shall:~~

~~(i) Conform to applicable construction standards found in Chapter 25, Wyoming Water Quality Rules and Regulations;~~

~~(ii) Comply with applicable sections of Chapter 11, Parts B and C, Water Quality Rules and Regulations for all piping systems or storage facilities feeding existing or Class V facilities constructed after the effective date of these regulations; and~~

~~(iii) Be designed for the maximum daily peak flow determined from Table 1 of Chapter 25, Water Quality Rules and Regulations. In addition, whenever multiple points of discharge under one owner within any five (5) acres of land have a design capacity under Chapter 25 to inject more than a total of 2,000 gallons per day of domestic sewage, they shall be permitted under this chapter in the same manner that they would be permitted if all the waste were delivered to a single point of discharge.~~

~~(k) All aquiculture return flow facilities (5E1) shall include pretreatment in a lagoon, septic tank, or oxidation ditch sized for the strength and volume of the wastes to be disposed of.~~

~~(l) All domestic wastewater treatment plant disposal facilities (5E4) shall also include:~~

~~(i) Provisions for filtering of the waste and disinfection of the injectate;~~

- ~~(ii) — An environmental monitoring program, including pre-discharge, operational monitoring, and post-discharge monitoring;~~
 - ~~(iii) — Monitoring of the injectate on at least a weekly basis for Nitrate as N, Ammonia as N, and coliform bacteria;~~
 - ~~(iv) — Design to prevent groundwater standards violations as defined by Chapter 8, Water Quality Rules and Regulations;~~
 - ~~(v) — The points of compliance shall be at down gradient monitor wells installed on land owned by the same utility that operates the treatment plant and injection facilities whenever the point of injection is not the point of compliance; and~~
 - ~~(vi) — Requirements for the submission, approval and conformance with an operational and maintenance manual.~~
- ~~(m) — All cathodic protection facilities (5F1) shall include:~~
- ~~(i) — A seal of sodium bentonite or sodium bentonite grout is required from the surface to a minimum depth of three (3) feet. — A second sodium bentonite or sodium bentonite grout seal is required for a minimum thickness of three (3) feet, just above the top of the coke breeze. — After the sodium bentonite has been placed in the hole, it shall be hydrated to insure a proper seal. — The remainder of the hole between these seals may be backfilled with cuttings. — The above seals may be placed directly in the hole or may be placed outside of a surface pipe of sufficient length to reach down to the anodes. — If a surface pipe is used, no seals are required inside the pipe except during final abandonment.~~
 - ~~(ii) — All aquifers encountered while drilling shall be isolated from one another using a bentonite seal of at least two (2) feet in vertical dimension.~~
 - ~~(iii) — The coke breeze shall be a high quality product containing a minimum of leachable metals or organic pollutants. — The coke breeze shall not discharge any pollutant which will cause a groundwater standard violation.~~
 - ~~(iv) — Surface access to the anode shall be kept sealed and locked at all times when the anode is not actually being serviced.~~
 - ~~(v) — Each separate aquifer penetrated shall require a separate breather pipe. — Each aquifer shall remain in hydrologic isolation from each other if they were isolated prior to installation.~~
 - ~~(vi) — If it becomes necessary to wet any anode installed under this section, only water from a public water supply or water meeting all of the standards for Class I groundwater of~~

~~the state shall be used unless the division is first supplied with an analyses of the water for approval.~~

~~(vii) — Each 5F1 facility shall be marked in the field with a sign showing the name, address, and telephone number of the operator who installed the system. — Upon abandonment, such markers shall remain in place.~~

~~(viii) — A 5F1 facility shall not be installed within 200 feet of any pipeline, wellhead, storage tank, mud pit or other potential source of pollution unless the operator's surface rights prevent this requirement from being met.~~

~~(n) — Except for beneficial use facilities, Class V facilities shall not be located within 200 feet of any active public water supply well, regardless of whether or not the well is completed in the same aquifer. — This minimum distance may increase or the existence of a Class V facility may be prohibited within a state approved wellhead protection area, source water protection area or water quality management plan area.~~

~~(o) — Class 5C6 and 5E5 facilities shall meet the construction standards and separation distances appropriate for the design flow as shown in Chapter 25.~~

~~(p) — Class 5C5 coal bed methane injection facilities shall:~~

~~(i) — Provide for metering of water injected into each well;~~

~~(ii) — Be constructed to insure that the water injected reaches the intended receiver and only the intended receiver. — The intended receiver shall be identified by geologic formation and/or member name as well as the depth of that receiver below ground surface;~~

~~(iii) — Provide for disinfection of the water injected if analysis shows that coliform bacteria, sulfate reducing bacteria or iron fixing bacteria are present in the water as pumped from the coal seam. — Treatment methods must be methods that would be appropriate for treating water in a public water supply system;~~

~~(iv) — Provide for injection at a pressure of less than the fracture pressure of the receiver; and~~

~~(v) — Provide for monitoring of the quality of the injected water on a periodic basis.~~

~~(vi) — Provide notification of the intent to obtain coverage under the general permit to all surface owners, mineral owners or water rights owners, oil and gas owners and the owners of coal leases within one half mile of the proposed point of injection.~~

~~(vii) — Provide for pressure testing of the casing before injection and at least once every five (5) years thereafter. — The casing shall be pressure tested up to an indicated surface~~

pressure of 700 psi and held for 15 minutes.—A passing result is indicated if the casing still has 690 psi at the end of the 15 minute shut in time.

~~Section 11.—Environmental Monitoring Program.~~

~~(a)—The monitoring program shall be adequate to ensure knowledge of migration and behavior of the discharge in the receiver.~~

~~(i)—Monitoring may be required for any circumstance where groundwaters of the state could be affected by a Class V facility.~~

~~(ii)—The extent and design of a monitoring system shall be sufficient to deal with the pollution potential of the proposed discharge.~~

~~(iii)—Before construction or installation of a Class V facility,—a monitoring program, when required, shall be adequate to establish baseline conditions of the receiver.~~

~~(b)—The monitoring program shall consist of any or all of the following:—~~

~~(i)—Pre discharge or pre operational monitoring;~~

~~(ii)—Operational monitoring;~~

~~(iii)—Post discharge or post operational monitoring;—~~

~~(iv)—Record keeping and reporting;~~

~~(v)—Such additional requirements established by the administrator to meet the purposes of the Environmental Quality Act and these regulations.~~

~~(c)—Each monitoring program shall include maps and cross sections, where appropriate, showing the location, lithology, and screening interval of each monitoring site.~~

~~(d)—The operator is responsible for properly installing, operating, maintaining and removing all necessary monitoring equipment.~~

~~(e)—The operator shall develop and follow a written waste analysis plan that describes the procedures to be carried out to obtain detailed chemical and physical analyses of a representative samples of the waste, including quality assurance procedures to be used.—Once approved by the department, the operator shall not deviate from the plan without filing an amended plan and obtaining department approval for that amended plan. At a minimum, any plan shall include:~~

~~(i)—The parameters for which the waste will be analyzed, the rationale for the~~

~~selection of these parameters, and the test methods to be used to test for these parameters; and~~

~~(ii) — The sampling method that will be used to obtain a representative sample of the waste.~~

~~(iii) — The operator shall repeat the analysis of the injected wastes in the manner and on the schedule described in the waste analysis plan or when operating changes occur that may significantly alter the characteristics of the waste stream.~~

~~(f) — All Class V permits shall contain a point of compliance. — The point of compliance shall be the point of injection or specific monitor wells located down gradient of the injection facilities.~~

~~(i) — For facilities where the point of compliance is the point of injection, the fluid to be injected shall be limited to the class of use standards for the receiver as found in Chapter 8 of these regulations or any primary drinking water standard found in 40 CFR 141, (as of June 6, 2001) whichever is more stringent. — The permittee may be required to maintain monitor wells in the vicinity of the discharge for the purpose of monitoring flow direction and monitoring groundwater quality in the event of non-compliance with the permit.~~

~~(ii) — For facilities where the point of compliance is at one or more down gradient monitor wells, the department shall establish permit limitations at the monitor well(s) consistent with the class of use of the receiver or any secondarily affected aquifer or surface water. Where necessary to protect existing or future uses, permit limitations may be established at the point of compliance which are more stringent than the class of use standard.~~

~~(iii) — Facilities where subsurface treatment is anticipated may be required to monitor the injected fluid at the point of injection. — Permit limits may be established at the point of injection which exceed the class of use standard for the affected aquifer, provided that a demonstration is made showing that a class of use standards violation will not occur at a point of compliance downgradient from the point of injection. — Permit limits of this nature are intended to provide early warning of possible non-compliance at the point of compliance.~~

~~(g) — Procedures and methods for sample collection and analyses shall be implemented by the permittee to ensure that the samples are representative of the groundwater, water, or wastes being sampled.~~

~~(h) — Sample collection of groundwater shall be of such frequency and of such variety (season, time, location, depth, etc.) to properly describe the groundwater, and shall be accomplished by the methods and procedures described in the U.S. Environmental Protection Agency manual RCRA Groundwater Monitoring Technical Enforcement Guidance Document, September, 1986, unless alternate methods and procedures are approved by the administrator.~~

~~(i) — Analysis of all samples shall be accomplished pursuant to Chapter 8, Water~~

Quality Rules and Regulations, Sections 7 and 8.

~~Section 12.—Abandonment of Class V Facilities.~~

~~(a) —After the effective date of these regulations, Class V facilities may be abandoned in place if the following conditions are met and if it can be demonstrated to the satisfaction of the administrator that:~~

~~(i) —No hazardous waste has ever been discharged through the facility;~~

~~(ii) —No radioactive waste has ever been discharged through the facility;~~

~~(iii) —All piping allowing for the discharge has either been removed or the ends of the piping have been plugged in such a way that the plug is permanent and will not allow for a discharge; and~~

~~(iv) —All accumulated sludges are removed from any septic tanks, holding tanks, lift stations, or other waste handling structures prior to abandonment;~~

~~(b) —Facilities which cannot demonstrate compliance with subsection (a) (i) or (a) (ii) of this section, may be abandoned in place if:~~

~~(i) —Tests are run on sludges accumulated in the septic tanks, holding tanks, lift stations, or other waste handling structures which shows that none of these materials contain characteristic hazardous waste or radioactive waste;~~

~~(ii) —Monitoring of the groundwater in the immediate area of the facility shows that there are no toxic materials (substances) present in the groundwater at levels higher than class of use standards, which are present as a result of the injection; or~~

~~(iii) —Some other method is determined to be acceptable to the administrator which demonstrates compliance with Chapter 8 of these regulations and prevents the movement of fluid containing any contaminant into an underground source of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water standard found in 40 CFR 141 (as of June 6, 2001).~~

~~(c) —Facilities which cannot make the demonstrations required under either subsection (a) or (b) of this section shall be excavated to the point where contamination is no longer visible in the soil. —At that point, samples shall be taken of the soil for all hazardous constituents which may have been discharged through the system. —Materials excavated shall be removed from the site for disposal under approval of the Solid and Hazardous Waste Management Division.~~

~~(d) —Cathodic protection (5F1) facilities will be considered to have made the demonstrations required under subsections (a) and (b) if no waste has been disposed of into the~~

facility.—After they have fulfilled their useful purpose, they shall be abandoned by filling all breather pipes with an impervious material and removing all surface installations down to a depth of three (3) feet.—All anodes where the construction included a surface casing shall also have the surface casing cut off three (3) feet below grade and a plug or cap shall be installed on the surface casing.—It is not necessary to remove the coke breeze, anodes, and seals during abandonment.—The administrator may approve other alternatives for abandonment if they provide adequate environmental protection.

(e) —Prior to abandoning any class 5C4 automotive waste disposal facility, the operator shall provide 30 days notice to the administrator.

Section 13.—Public Participation, Public Notice and Public Hearing Requirements.

(a) —Public notice is not required for minor modifications as described by Section 5 (b) (v) of this chapter or for a permit denial where the application is determined incomplete.

(b) —Public notice is not required for any facility permitted by rule or for any facility covered under general permit.—The department shall issue one public notice creating the general permit and then notice at each subsequent five (5) year review.

(c) —The administrator shall give public notice if a draft permit has been prepared or a hearing has been scheduled.

(d) —Public notice of the preparation of a draft permit shall allow at least 30 days for public comment.—Public notice of a public hearing shall be given at least 30 days before the hearing.—Public notice of the hearing may be given at the same time as public notice of the draft permit and the two notices may be combined.

(e) —Public notice shall be given by:

(i) —Mailing a copy of the notice to the following persons:

(A) —The applicant, by certified or registered mail.—For general permits this includes all persons registered as operators of facilities which the department believes will be covered by the general permit;

(B) —The U.S. Environmental Protection Agency;

(C) —Wyoming Game and Fish Department;

(D) —Wyoming State Engineer;

(E) —State Historical Preservation Officer;

~~(F) — Persons on the mailing list developed by including those who request in writing to be on the list and soliciting persons for "area lists" from participants in proceedings in that area; and~~

~~(G) — Any unit of local government having jurisdiction over the area where the facility is proposed to be located.~~

~~(ii) — Publication of the notice in a newspaper of general circulation in the location of the facility or operation; and~~

~~(iii) — At the discretion of the administrator, any other method reasonably expected 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.~~

~~(f) — All public notices issued under this chapter shall contain the following minimum information:~~

~~(i) — Name and address of the department;~~

~~(ii) — Name and address of permittee or permit applicant, and, if different, of the facility or activity regulated by the permit. — For general permits, this includes a list of existing facilities and the location of each facility which will be covered by the general permit. — If new facilities may be covered under a general permit as they are constructed, then that fact will also be stated;~~

~~(iii) — A brief description of the business conducted at the facility or activity described in the permit application or the draft permit. — For general permits a generic statement of the type of facility to be covered is all that is required;~~

~~(iv) — Name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft permit, as the case may be, statement of basis or fact sheet, and the application;~~

~~(v) — A brief description of comment procedures, procedures to request a hearing, and other procedures which the public may use to participate in the final permit decision; and~~

~~(vi) — Any additional information considered necessary and proper.~~

~~(g) — In addition to the information required in (f) of this section, any notice for public hearing shall contain the following:~~

~~(i) — Reference to the date of previous public notices relating to the permit;~~

~~(ii) — Date, time and place of hearing; and~~

~~(iii) — A brief description of the nature and purpose of the hearing, including applicable rules and procedures.~~

~~(h) — The department shall provide an opportunity for the applicant, permittee, or any interested person to submit written comments regarding any aspect of a permit or to request a public hearing.~~

~~(i) — All information received on or with the permit application shall be made available to the public for inspection and copying except such information as has been determined to constitute trade secrets or confidential information pursuant to W.S. 35-11-1101.~~

~~(j) — During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing. — Requests for public hearings must be made in writing to the administrator and shall state the reasons for the request.~~

~~(k) — The administrator shall hold a hearing whenever the administrator finds, on the basis of requests, a significant degree of public interest in a draft permit. The administrator has the discretion to hold a hearing whenever such a hearing may clarify issues involved in a permit decision.~~

~~(l) — The public comment period shall automatically extend to the close of any public hearing. — The administrator may also extend the comment period by so stating at the public hearing.~~

~~(m) — The director shall render a decision on the draft permit within 30 days after the completion of the comment period if no hearing is requested. If a hearing is held, the director shall make a decision on any department hearing as soon as practicable after receipt of the transcript or after the expiration of the time set to receive written comments.~~

~~(n) — At the time a final decision is issued, the department shall respond, in writing, to those comments received during the public comment period or comments received during the allotted time for a hearing held by the department. — This response shall:~~

~~(i) — Specify any changes that have been made to the permit; and~~

~~(ii) — Briefly describe and respond to all comments voicing a legitimate regulatory concern that is within the authority of the department to regulate.~~

~~(o) — The response to comments shall also be available to the public.~~

~~(p) — Requests for a contested case hearing on a permit issuance, denial, revocation,~~

~~termination, or any other final department action appealable to the Council, shall be made in writing to the chairman of the Environmental Quality Council and the director and state the grounds for the request pursuant to the Wyoming Department of Environmental Quality Rules of Practice and Procedure.~~

~~APPENDIX — A —~~
~~SUBCLASSES OF CLASS V FACILITIES~~

~~SUBCLASS ————— DESCRIPTION —~~

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|---|
| HEATING AND COOLING FACILITIES |
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- ~~5A1 ————— Direct Heat ReInjection Facilities — Reinject geothermal fluids used to provide direct heat for large buildings, developments or aquiculture facilities.~~
- ~~5A2 ————— Heat Pump/Air Conditioner Return Flow Facilities — Reinject groundwater used to heat or cool a building in a ground based heat pump system, or used to inject heat only using a closed loop heat pump system.~~
- ~~5A3 ————— Cooling Water Return Flow Facilities — Receive non-contact cooling water from industrial processes, both open and closed loop processes.~~

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| BENEFICIAL USE INJECTION FACILITIES |
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- ~~5B1 ————— Mining, Sand or Backfill Facilities — Used to inject a fluid mixture of sand, cement, fly ash used as a pozzalin, or mill tailings into mined out portions of underground mines.~~
- ~~5B2 ————— Aquifer Recharge Facilities — Receive water specifically for storage of water underground. — Must be coupled with the ability to withdraw stored water at a later date for beneficial use. — Coal bed methane operators cannot dispose of their produced water in class 5B2 injection wells after the effective date of these rules.~~
- ~~5B3 ————— Saline Water Intrusion Barrier Facilities — Receive fresh water to prevent the continued migration of saline water into a fresh water aquifer. — Includes projects installed to control contaminant plumes by injection of clean water.~~
- ~~5B4 ————— Subsidence Control Facilities — Receive fresh water for the purpose of controlling subsidence caused by an overdraft of water, oil or natural gas.~~
- ~~5B5 ————— Facilities which inject fluids and are used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality. — All 5B5 facilities are covered under Article 16 of the Environmental Quality Act.~~

| SUBCLASS | DESCRIPTION |
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| 5B6 | Department Controlled Facilities—Facilities which inject fluids and are used to prevent, control or remediate pollution, remediate subsiding mine sites, or produce other beneficial results which are owned or controlled by the Department of Environmental Quality.—These facilities include but are not limited to, facilities under the supervision of Water Quality Division's Underground Storage Tank Program, facilities under the control and direction of the Abandoned Mined Lands Program, and facilities under the supervision of the Solid and Hazardous Waste Management Division.—Control may be exercised through ownership, operation, or by administrative orders, stipulated settlements, consent decrees or other legal methods which result in control of a facility by the department. |
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| 5B7 | Air sparging facilities—Facilities used to inject only air for the purpose of either encouraging microbial breakdown of hydrocarbons or removing of volatile chemicals by vapor extraction. |
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| COMMERCIAL AND INDUSTRIAL FACILITIES | |
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| 5C1 | Air Scrubber Waste Disposal Facilities—Inject wastes from air scrubbers used to remove sulphur, fly ash, or other contaminants. |
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| 5C2 | Water Treatment Brine Disposal Facilities—Receive brine from water softening or other water treatment. |
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| 5C3 | Industrial Process Water and Waste Disposal Facilities—Receive wastes generated by industrial and commercial processes.—Examples include but are not limited to wastes from car washing, taxidermy, metal plating, printing, silk screening, refining, slaughter houses, and chemical manufacturing companies. |
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| 5C4 | Automotive Waste Disposal Facilities—Inject waste from floor drains or sinks where repair work is done on machinery of any description. |
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| 5C5 | Coal Bed Methane Injection Facilities—Inject groundwater produced in the process of coal bed methane extraction into a receiving aquifer containing water of the same or lower class of use. |
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| 5C6 | Small Commercial Disposal Systems—Inject wastewater which is of similar quality to domestic sewage which does not technically meet the definition of domestic sewage, in quantities of less than 2,000 gallons per day. |
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| SUBCLASS | DESCRIPTION |
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| DRAINAGE FACILITIES |
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| 5D1 | Agricultural Drainage Facilities—Receive irrigation tailwaters, other field drainage, animal yard, feedlot, or dairy runoff, and other agricultural wastewater. |
| 5D2 | Storm Water Drainage Facilities—Receive storm water runoff from paved areas, including parking lots, streets, residential subdivisions, building roofs, highways, etc. |
| 5D3 | Improved Sinkholes—Receive storm water runoff from developments located in karst topographic areas. |
| 5D4 | Industrial Drainage Facilities—Receive storm runoff from areas susceptible to spills, leaks, and other chemical discharges. |
| 5D5 | Special Drainage Facilities—Receive water from sources other than direct precipitation. Examples of this type include landslide control drainage facilities, potable water tank overflow drainage facilities, swimming pool drainage facilities, and lake level control drainage facilities. |

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| SEWAGE DISPOSAL FACILITIES |
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| 5E1 | Aquaculture Return Flow Facilities—Receive injectate from aquaculture operations. |
| 5E2 | Untreated Domestic sewage Disposal Facilities—Receive untreated domestic sewage from single or multiple sources. Does not include subsurface fluid distribution systems with septic tanks ahead of the subsurface fluid distribution system. Includes all cesspools, regardless of capacity. |
| 5E3 | Domestic Subsurface Fluid Distribution Systems—Receive more than 2,000 gallons per day of domestic sewage with only primary treatment such as effluent from a septic tank. In addition, any facility injecting domestic sewage within any five (5) acres of land is a class 5E3 facility whenever multiple 5E facilities under one owner inject a cumulative maximum peak design flow of more than 2,000 gallons per day of domestic sewage. |
| 5E4 | Domestic Wastewater Treatment Plant Disposal Facilities—Dispose of treated domestic waste after treatment to at least secondary treatment standards. |

| SUBCLASS | DESCRIPTION |
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| 5E5 | Small Domestic Subsurface Fluid Distribution Systems—Receive less than 2,000 gallons per day as an average of a typical week, of domestic sewage with only primary treatment in a septic tank.—These systems are designed to accept more than 2,000 gallons per day at a peak and are not small wastewater systems.—No class 5E5 system has a required design capacity in excess of 5,000 gallons per day. |

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| MISCELLANEOUS CLASS V FACILITIES |
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- ~~5F1—Cathodic Protection Facilities—Facilities constructed with coke-breeze and dust control oil for use as a permanent anode in a cathodic protection system for a fluid conveyor system or fluid containment system composed of metallic material.~~
- ~~5F2—All other facilities that inject fluids into or above an underground source of drinking water which do not fall into Classes I, II, III, or IV injection facilities.~~

~~APPENDIX B~~
~~TYPES OF PERMITS REQUIRED~~
~~TIMING OF COMPLIANCE~~

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|-----------------|--|------------------------------|---|
| 5A1 | Direct Heat Reinjection Facilities | General Permit | 2 years after date of general permit |
| 5A2 | Heat Pump/Air Conditioner Return Flow Facilities | General Permit | 2 years after date of general permit |
| 5A3 | Cooling Water Return Flow Facilities | Individual Permit | April 14, 2000 |
| 5B1 | Mining, Sand or Backfill Facilities | General Permit | 2 years after date of general permit |
| 5B2 | Aquifer Recharge Facilities | Permit by Rule | register by April 14, 1999 |
| 5B3 | Saline Water Intrusion Barrier Facilities | Individual Permit | April 14, 2000 |
| 5B4 | Subsidence Control Facilities | Permit by Rule | register by April 14, 1999 |
| 5B5 | Facilities used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality. | General Permit | 2 years after the date of the general permit |
| 5B6 | Department Controlled Facilities | Permit by Rule | register by April 14, 1999 |
| 5B7 | Air Sparging Facilities | Permit by Rule | register by April 14, 1999 |
| 5C1 | Air Scrubber Waste Disposal Facilities | Individual Permit | April 14, 2000 |
| 5C2 | Water Treatment Brine Disposal Facilities | Individual Permit | April 14, 2000 |
| 5C3 | Industrial Process Water and Waste Disposal Facilities | Individual Permit | April 14, 2000 |

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|------|---|------------------------------|---|
| 5C4 | Existing Automotive Waste Disposal Facilities | General Permit | 2 years after date of general permit |
| 5C4 | New Automotive Waste Disposal Facilities | Ban | April 14, 1998 |
| 5C5 | Coal Bed Methane Injection Facilities | General Permit | within 6 months of the date of issue for the general permit for existing facilities, and before injection for all new facilities |
| 5C6 | Small Commercial Disposal Systems | General Permit | 2 years after the date of the general permit |
| 5D1 | Agricultural Drainage Facilities | General Permit | 2 years after the date of the general permit |
| 5D2 | Storm Water Drainage Facilities | General Permit | 2 years after date of general permit |
| 5D3 | Improved Sinkholes | Individual Permit | April 14, 2000 |
| 5D4 | Industrial Drainage Facilities | Individual Permit | April 14, 2000 |
| 5D5 | Special Drainage Facilities | Permit by Rule | register by April 14, 1999 |
| 5E1 | Aquaculture Return Flow Facilities | General Permit | 2 years after date of general permit |
| 5E2 | Existing Untreated Domestic sewage Disposal Facilities (Cesspools) | Ban | April 14, 1998 |
| 5E3 | Existing Domestic Subsurface Fluid Distribution Systems | General Permit | 2 years after date of general permit |
| 5E3 | Existing Domestic Subsurface Fluid Distribution Systems—Permitted as a small-wastewater facility | Permit by Rule | register by April 14, 1999 |

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|----------------|--|------------------------------|--|
| 5E4 | New Domestic Wastewater Treatment Plant Disposal Facilities | Individual Permit | April 14, 2000 |
| 5E5 | Small Domestic Subsurface Fluid Distribution Systems | General Permit | 2 years after the date of the general permit |
| 5F1 | Cathodic Protection Facilities | Permit by Rule | register by April 14, 1999 |
| 5F2 | All other facilities that inject fluids into or above an underground source of drinking water which do not fall into Classes I, II, III, or IV injection facilities. | Individual Permit | April 14, 2000 |

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~~July 31, 2012~~

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CHAPTER 27

**UNDERGROUND INJECTION CONTROL PROGRAM
CLASS I AND V WELLS**

Section 1. Authority.

These regulations are promulgated pursuant to W.S. 35-11-101 through 1413, specifically 302, and no person shall cause, threaten or allow violations of any provision contained herein. These regulations fulfill Wyoming state obligations under Section 1422 of the Federal Safe Drinking Water Act and Federal Underground Injection Control regulations found in 40 CFR 124 and 40 CFR 144-148 (both as of December 7, 1999).

Section 2. Definitions.

The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.

(a) "Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

(b) "Area of review" means the area for which information and analyses shall be submitted as part of an underground injection control permit application, and reviewed for issuance of a permit. The area of review must include all portions of an aquifer which will be affected in a measurable way within ten (10) years of the granting of a permit, assuming that the permit is complied with.

(c) "Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to the subsurface discharge.

(d) "Bore/casing annulus" means the space between the well bore and the well casing.

(e) "Casing/tubing annulus" means the space between the well casing and the tubing.

(f) "Cementing" means to seal the annular space around the outside of a casing string using a specially formulated Portland cement mixture or other hydraulic cement mixture to hold the casing in place and prevent any movement of fluid in this annular space. Cementing also includes operations to seal the well at the time of abandonment.

(g) "Cesspool" means a drywell that receives solely untreated domestic sewage, and which sometimes has an open bottom and/or perforated sides.

(h) "Class I well" means a well used to inject hazardous or non-hazardous industrial, commercial or municipal waste beneath the lowermost formation containing, within one-quarter (1/4) mile of the well bore, an underground source of drinking water.

50 (i) "Class II well" means a well regulated by the Wyoming Oil and Gas
51 Conservation Commission, other than a Class II commercial disposal well, which injects fluids:

52
53 (i) Which are brought to the surface in connection with natural gas storage
54 operations, or conventional oil or natural gas production. Non-hazardous gas plant wastes may
55 be disposed of in a class II well pending Environmental Protection Agency co-approval.

56
57 (ii) For enhanced recovery of oil or natural gas.

58
59 (iii) For storage of hydrocarbons which are liquid at standard temperature
60 and pressure.

61
62 (j) "Class III well" means a well used for in situ mining which injects for
63 extraction of minerals, or products, or recovers recovery fluids, minerals or products, including
64 a well used in:

65
66 (i) Mining of sulfur by the Frasch process.

67
68 (ii) In situ mining of uranium or other metals; this category includes in situ
69 production from ore bodies that have not been conventionally mined by means of an open pit or
70 underground excavation.

71
72 (iii) In situ mining of salts, trona, or potash.

73
74 (iv) Underground coal gasification operations.

75
76 (v) Solution mining of open pits or underground excavations used for the
77 production of minerals, such as stopes leaching.

78
79 (vi) Fossil fuel recovery including coal, lignite, oil shale, and tar sands.

80
81 (vii) Experimental technologies, such as pilot scale in situ mining wells in
82 previously unmined areas.

83
84 (k) "Class IV well" means a well used to dispose of hazardous waste or radioactive
85 waste into or above a formation which contains, within one-quarter (1/4) mile of the well bore,
86 an underground source of drinking water. Class IV wells are prohibited by this Chapter.

87
88 Except that a well is not class IV if it is used to inject contaminated
89 groundwater that has been treated and reinjected into the same formation from which it is drawn
90 for the purpose of aquifer remediation where the ultimate cleanup criteria is protective of
91 groundwater standards of these regulations.

92
93 (l) "Class V facility" means any property which contains an injection well,
94 drywell, or subsurface fluid distribution system which is not defined as a Class I, II, III, or IV
95 well in this chapter. The Class V facility includes all systems of collection, treatment, and
96 control which are associated with the subsurface disposal. Appendix C of this chapter contains
97 a list of Class V facilities.

98

99 (m) "Cone of influence" means that area around a well within which increased
100 discharge zone pressures caused by the injection would be sufficient to force fluids into an
101 under- ground source of drinking water.
102

103 (n) "Confining zone" means the zone in the well designated in the permit
104 application to provide hydrologic separation between the receiver and any underground source
105 of drinking water.
106

107 (o) "Domestic sewage" means liquids or solid wastes obtained from humans and
108 domestic activities including wastewater from activities such as showers, toilets, human wash
109 basins, food preparation, clothes washing, and dishwashers.
110

111 (p) "Draft permit" means a document indicating the tentative decision by the
112 department to issue or deny, modify, revoke and reissue, or terminate a permit. A notice of
113 intent to terminate a permit and a notice of intent to deny a permit are types of draft permits. A
114 denial of a request for modification, revocation and reissuance, or termination is not a draft
115 permit. A draft permit for issuance shall contain all conditions and content, compliance
116 schedules and monitoring requirements required by this chapter.
117

118 (q) "Drywell" means a well, other than an improved sinkhole or subsurface
119 distribution system, completed above the water table so that its bottom and sides are typically
120 dry, except when receiving fluids.
121

122 (r) "Duly authorized representative" means a specific individual or a position
123 having responsibility for the overall operation of the regulated facility or activity. The
124 authorization shall be made in writing by a responsible corporate officer and shall be submitted
125 to the administrator.
126

127 (s) "Endangerment" means exposure to actions or activities which could pollute
128 groundwaters of the State.
129

130 (t) "Fact sheet" means a document briefly setting forth the principal facts and the
131 significant factual, legal, methodological, and policy questions considered in preparing the draft
132 permit. Fact sheets for Class I wells are incorporated into the public notice.
133

134 (u) "Fluid" means any material which flows or moves, whether semisolid, liquid,
135 sludge, gas or any other form or state.
136

137 (v) "General permit" means a permit issued to a class of operators, all of which
138 inject similar types of fluids for similar purposes. General permits require less information to be
139 submitted by the applicant than individual permits and do not require public notice for a facility
140 to be included under the authorization of a general permit.
141

142 (w) "Groundwater" means subsurface water that fills available openings in rock or
143 soil materials such that they may be considered water saturated under hydrostatic pressure.
144

145 (x) "Groundwaters of the state" are all bodies of underground water which are
146 wholly or partially within the boundaries of the state.
147

148 (y) "Hazardous waste" means a hazardous waste as defined in 40 CFR 261.3.
149
150 (z) "Improved sinkhole" means a naturally occurring karst depression which has
151 been modified by man for the purpose of directing and emplacing fluids into the subsurface.
152
153 (aa) "Individual permit" means a permit issued for a specific facility operated by an
154 individual operator, company, municipality, or agency. An individual permit may be
155 established as an area permit and include multiple points of discharge that are all operated by
156 the same person.
157
158 (bb) "Injectate" means the wastewater being disposed of through any underground
159 injection facility after it has received whatever pretreatment is done.
160
161 (cc) "Lithology" means the description of rocks on the basis of their physical and
162 chemical characteristics.
163
164 (dd) "Long string casing" means a casing which is continuous from at least the top
165 of the injection interval to the surface and which is cemented in place.
166
167 (ee) "Log" means to make a written record progressively describing the strata and
168 geologic and hydrologic character thereof to include electrical, radioactivity, radioactive tracer,
169 temperature, cement bond and similar surveys, a lithologic description of all cores, and test data.
170
171 (ff) "Mechanical integrity" means the sound and unimpaired condition of all
172 components of the well or facility or system for control of a subsurface discharge and associated
173 activities.
174
175 (gg) "Permit" means a Wyoming Underground Injection Control permit, unless
176 otherwise specified.
177
178 (hh) "Permit by rule" means an authorization included in these rules which does not
179 require either an individual permit or a general permit. A facility which is permitted by rule
180 must meet the requirements found in this chapter, but is not required to apply for and obtain a
181 permit to construct and operate the facility.
182
183 (ii) "Permittee" means the named permit holder.
184
185 (jj) "Point of compliance" means a point at which the permittee shall meet class of
186 use standards for the receiver.
187
188 (kk) "Point of injection" means the last accessible sampling point prior to waste
189 fluids being released into the subsurface environment through a Class V injection well. For
190 example the 'point of injection' of a Class V septic system might be the distribution box - the
191 last accessible sampling point before the waste fluids drain into the underlying soils. For a dry
192 well, it is likely to be the well bore itself.
193
194 (ll) "Public hearing" means a non-adversary hearing held by the administrator or
195 director of the department. The hearing is conducted pursuant to Chapter 3 of the Wyoming
196 Department of Environmental Quality Rules of Practice and Procedure.

197
198 (mm) "Radioactive waste" means any waste which contains radioactive material in
199 concentrations that exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2 as of
200 December 22, 1993.
201
202 (nn) "Receiver" means any zone, interval, formation or unit in the subsurface into
203 which fluids and pollutants are discharged.
204
205 (oo) "Responsible corporate officer" means a president, secretary, treasurer, or vice
206 president of the corporation in charge of a principal business function, or any other person who
207 performs similar policy- or decision-making functions for the corporation.
208
209 (pp) "Secondarily affected aquifer" means any aquifer affected by migration of
210 fluids from an injection facility, when the aquifer is not directly discharged into.
211
212 (qq) "Septic system" means a facility that is used solely to emplace domestic sewage
213 below the surface and is comprised of a septic tank and subsurface fluid distribution system.
214
215 (rr) "Source water protection area" means the area delineated for the protection of
216 ground and surface water sources for a public water supply under a department approved plan
217 developed pursuant to Section 1453 of the Safe Drinking Water Act.
218
219 (ss) "Subsurface discharge" means a discharge into a receiver.
220
221 (tt) "Subsurface fluid distribution system" means an assemblage of perforated pipes
222 or drain tiles used to distribute fluids below the surface of the ground. Subsurface fluid
223 distribution systems include but are not limited to drain fields, leach fields, mounded leach
224 fields, leach lines, bed type distribution systems, and gravel-less chamber type distribution
225 systems.
226
227 (uu) "Underground source of drinking water" means those aquifers or portions
228 thereof which have a total dissolved solids content of less than 10,000 mg/L, and are classified
229 as either Class I, II, III, IV (a), or Special (A), pursuant to Chapter 8, Quality Standards for
230 Wyoming Groundwaters, Water Quality Rules and Regulations.
231
232 (vv) "Vadose Zone" means the unsaturated zone in the earth, between the land
233 surface and the top of the first saturated aquifer which is not a perched water aquifer. The
234 vadose zone characteristically contains liquid water under less than atmospheric pressure, and
235 water vapor and air or other gases at atmospheric pressure. Perched water bodies exist within
236 the vadose zone.
237
238 (ww) "Water quality management area" means the area delineated for the protection
239 of water quality under a department approved plan developed under Sections 303, 208 and/or
240 201 of the Federal Clean Water Act, as amended.
241
242 (xx) "Well" means an opening, excavation, shaft or hole in the ground allowing or
243 used for an underground injection or for the purpose of extracting a fluid, mineral, product or
244 pollutant from the subsurface or for monitoring.
245

246 (yy) "Wellhead protection area" means the area delineated for the protection of a
247 public water supply utilizing a groundwater source under a department approved plan developed
248 pursuant to Section 1428 of the federal Safe Drinking Water Act.

249
250 (zz) "Workover" means to pull the tubing, packer, or any downhole hardware from
251 the well and inspect, replace, or refurbish it prior to placing that hardware back in service, or to
252 enter the hole with any drilling tool.

253
254 **Section 3. Applicability.**

255
256 These regulations shall apply to all Class I, Class IV, Class V, commercial oil field waste
257 disposal wells and those gas plant waste wells not regulated by the Wyoming Oil and Gas
258 Conservation Commission. In addition, these regulations shall apply to any discharge to the
259 subsurface, including the vadose zone, for all of the types of discharges listed in Appendix C of
260 this chapter.

261
262 **Section 4. Timing of Compliance with These Regulations for Class V Wells.**

263
264 Any Class V permit issued under Chapters 9 or 16, Water Quality Rules and Regulations, prior
265 to the effective date of these regulations shall remain in effect until replaced by an individual
266 permit, a general permit or permit by rule pursuant to this chapter. Existing individual permits
267 issued under Chapters 9 or 16 will be reviewed on a five (5) year basis pursuant to Section 6 (c)
268 of this chapter. Any individual permit issued pursuant to Chapters 9 or 16 prior to the effective
269 date of these regulations fulfills all of the requirements to obtain a permit under this chapter.

270
271 (a) All operators of existing systems which are required to obtain an individual
272 permit under these regulations shall obtain a permit by April 14, 2000.

273
274 (b) General permits

275
276 (i) Within two (2) years of the effective date of the general permit, all
277 operators of existing facilities which require coverage shall:

278 (A) Apply for coverage under the general permit.

279 (B) Apply for an individual permit for the facility.

280 (C) Retain an existing permit issued under Chapter 9.

281 (D) Cease discharging fluids to the subsurface.

282
283 (ii) All operators of facilities which are required to be covered by a general
284 permit which are constructed after the effective date of these regulations shall apply for and
285 obtain coverage prior to the construction of the facility.

286
287 (iii) Facilities will be covered by general permits as soon as the department
288 has issued a written statement of acceptance to construct and operate the facility under the
289 general permit. The department will issue a statement either accepting the operation for
290
291
292
293

294 coverage under a general permit, or denying coverage under a general permit within 60 days of
295 the date when the operator has requested coverage.

296
297 (c) Permit by rule

298
299 (i) All operators of existing facilities permitted by rule shall submit
300 inventory information to the department within one (1) year of the effective date of this chapter.

301
302 (ii) All operators of facilities permitted by rule which are to be constructed
303 after the effective date of these regulations shall submit inventory information to the department
304 prior to constructing the facility.

305
306 **Section 5. Control of Class I well subsurface discharges; permit required;**
307 **aquifer exemptions.**

308
309 (a) Class I wells shall be allowed only pursuant to the Wyoming Environmental
310 Quality Act, Chapter 8, Wyoming Water Quality Rules and Regulations, and this chapter.

311
312 (b) Discharges into or construction of Class I wells are prohibited unless a permit
313 has been obtained from the Department of Environmental Quality through the Water Quality
314 Division.

315
316 (c) Injections from Class I wells shall be restricted to those receivers defined as
317 Class VI groundwaters by the department pursuant to Chapter 8, Quality Standards for
318 Wyoming Groundwaters, Water Quality Rules and Regulations and receivers which have
319 obtained an aquifer exemption pursuant to this section.

320
321 (d) Permits may be issued for individual wells or on an area basis except Class I
322 hazardous waste wells, which shall have individual permits.

323
324 (e) The procedure for obtaining an aquifer exemption from the U.S. Environmental
325 Protection Agency shall be as follows:

326
327 (i) Water Quality Division shall submit one complete copy of the
328 application, the Draft Permit, and the public notice to the U.S. Environmental Protection
329 Agency, Region 8. This submission shall be made so that EPA receives the complete
330 application at least twenty (20) days prior to the scheduled start of the public comment period.

331
332 (ii) When the aquifer exemption request is for an aquifer containing 3,000
333 mg/L or more of total dissolved solids, the following procedure shall be used: Within forty five
334 (45) days of EPA receipt of a complete aquifer exemption request, EPA shall provide the
335 department a written interim determination of intention to issue or deny the aquifer exemption
336 pending receipt and review of the results of the public participation process conducted by the
337 department. The interim response will become final if there are no comments relating to the
338 aquifer exemption request during the comment or hearing process. If comments are received
339 during the public comment or hearing process, the interim response will become final if not
340 modified by EPA in writing within thirty (30) days of receipt of all comments.

341

342 (iii) An aquifer exemption request for an aquifer containing less than 3,000
343 mg/L of total dissolved solids requires the aquifer exemption request to be processed as a
344 program revision pursuant to 40 CFR 145.32.

345 **Section 6. Permits and Permit Applications.**

346
347 (a) It is the operator's responsibility to make application for and obtain a permit in
348 accordance with these regulations. Each application must be submitted with all supporting data.

349
350 (b) All permits issued under this chapter, whether individual permits, or general
351 permits, shall be for no more than ten (10) years duration.

352
353 (c) Each permit shall be reviewed by the department at least once every five (5)
354 years for continued validity of all permit conditions and contents. Permits that do not satisfy the
355 requirements of these regulations are subject to modification, revocation and reissuance, or
356 termination pursuant to this chapter.

357
358 (d) Sections of permit applications filed under this chapter which represent
359 engineering work shall be sealed, signed, and dated by a licensed professional engineer as
360 required by Wyoming Statutes, Title 33, Chapter 29.

361
362 (e) Sections of permit applications filed under this chapter which represent
363 geologic work shall be sealed, signed, and dated by a licensed professional geologist as required
364 by Wyoming Statutes, Title 33, Chapter 41.

365
366 (f) A complete application for a Class I well shall include:

367
368 (i) A brief description of the nature of the business and the activities to be
369 conducted that require the applicant to obtain a permit under this chapter.

370
371 (ii) The name, address and telephone number of the operator, and the operator's
372 ownership status and status as a Federal, State, private, public or other entity.

373
374 (iii) The name address and telephone number of the facility. Additionally, the
375 location of the facility shall be identified by section, township, range and county, and whether or
376 not it is located on Indian lands.

377
378 (iv) A calculation of the area of review, which requires the calculation of the
379 cone of influence and the area of the ultimate limit of emplaced waste.

380
381 (A) The formula for determining the cone of influence is:

382
383
$$r = \left(\frac{2.25 KHt}{S10^x} \right)^{\frac{1}{2}}$$

384
385 Where: $x = \left(\frac{W}{G} - B \right) \left(\frac{4PKH}{2.3Q} \right)$

386
387
388 r = Radius of the cone of influence of an injection well (feet)

389 K = Hydraulic conductivity of the injection zone (feet/day)
390 H = Thickness of the injection zone (feet)
391 t = Time of injection (days)
392 S = Storage coefficient (dimensionless)
393 Q = Injection rate (cubic feet/day)
394 B = Original hydrostatic head of injection zone (feet) measured from the base of the
395 injection zone
396 W = Hydrostatic head of underground source of drinking water (feet) measured from
397 the base of the injection zone
398 G = Specific gravity of fluid in the injection zone (dimensionless)
399 P = 3.142 (dimensionless)

400 (B) A volume calculation to determine the maximum area that the
401 injected waste could occupy shall be submitted on all new Class I wells. This calculation
402 determines the total amount of void space around the well and assumes that the injected fluid
403 completely displaces the formation water.
404

405 (C) A Class I non-hazardous waste well's area of review shall never be
406 less than one-quarter (1/4) mile, the cone of influence, or the area of emplaced waste, whichever
407 is greatest.
408

409 (D) A Class I hazardous waste well's area of review shall never be less
410 than two (2) miles, the cone of influence, or the area of emplaced waste, whichever is greatest.
411

412 (E) All Areas of Review shall be legally described by township,
413 range and section to the nearest quarter quarter of a section.
414

415 (v) Information about the proposed facility, including:
416

417 (A) A description of the substances proposed to be discharged,
418 including type, source, and chemical, physical, radiological and toxic characteristics; and
419

420 (B) Construction and engineering details in accordance with
421 Section 12 of this chapter.
422

423 (vi) Information, including the name, description, depth and geology of the
424 receiver and confining zone and the hydrology, fluid chemistry, fluid pressure, temperature,
425 fracture pressure and the total dissolved solids (TDS) in the receiver.
426

427 (vii) Water quality information, including background water quality data,
428 which will facilitate the classification of any groundwaters which may be affected by the
429 proposed discharge. This must include information necessary for the Water Quality Division to
430 classify the receiver as class VI under Chapter 8 Section 4(d)(9) of the Wyoming Water Quality
431 Rules and Regulations.
432

433 (viii) A topographic and other pertinent maps, extending at least one (1) mile
434 beyond the property boundaries of the facility, but never less than the area of review, depicting:
435
436 (A) The facility and each of its intake and discharge structures;
437
438 (B) Each of its hazardous waste treatment, storage, or disposal
439 facilities;
440
441 (C) Each well where fluids from the facility are injected
442 underground;
443
444 (D) Other wells, springs, and surface water bodies, and drinking
445 water wells listed in public records or otherwise known to the applicant within a minimum one-
446 quarter (1/4) mile of the facility property boundary, or further, as the administrator may
447 determine is necessary; and
448
449 (E) General geology and hydrogeology in the area.
450
451 (ix) A list of other relevant permits, whether federal or state, that the facility
452 has been required to obtain, such as construction permits.
453
454 (x) A listing of all wells that penetrate the confining zone and are within
455 the area of review, and records of plugging or completion, sufficient to satisfy the administrator
456 as to the adequacy of the plugging or completion.
457
458 (A) For those wells that the administrator determines have not been
459 adequately plugged, completed, or abandoned, or for wells which lack supporting information,
460 the applicant shall also submit a plan to prevent movement of fluids into Underground Source of
461 Drinking Waters through these wells, and this plan, after approval or modification by the
462 administrator, shall be incorporated as a permit condition.
463
464 (xi) Detailed plans for:
465
466 (A) Monitoring volume and chemistry of the discharge, and water
467 quality of water wells within the area of review;
468
469 (B) Monitoring injection and annular pressures in the well, to
470 minimize the potential for fracturing of the confining zone and below the receiver; and
471
472 (C) Corrective action to cope with alarms, shut-downs,
473 malfunctions or well failures, so as to prevent endangerment of groundwater.
474
475 (xii) Information sufficient to demonstrate mechanical integrity of the well,
476 and compatibility between the proposed discharge and the well material.
477
478 (xiii) Information sufficient to demonstrate compliance with Sections 12, 14,
479 15, 16, 17 and 19 of this chapter.
480

481 (xiv) All applications for permits shall be signed by a responsible officer as
482 follows:
483
484 (A) For a corporation - by a responsible corporate officer. For the
485 purpose of this section, a responsible corporate officer means:
486
487 (1) A President, Secretary, Treasurer, or Vice President of
488 the corporation in charge of a principal business function, or any other person who performs
489 similar policy or decision making functions for the corporation; or
490
491 (2) The manager of one or more manufacturing,
492 production, or operating facilities employing more than 250 persons or having gross annual
493 sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign
494 documents has been assigned or delegated to the manager in accordance with corporate
495 procedures.
496
497 (B) For a partnership or sole proprietorship -- by a general partner
498 or the proprietor, respectively;
499
500 (C) For a municipality, state, federal or other public agency -- by either
501 the principal executive officer or ranking elected official.
502
503 (xv) The application shall contain the following certification by the person
504 signing the application:
505
506 "I certify under penalty of law that this document and all attachments were prepared under my
507 direction or supervision in accordance with a system designed to assure that qualified personnel
508 properly gather and evaluate the information submitted. Based on my inquiry of the person or
509 persons who manage the system, or those persons directly responsible for gathering the
510 information, the information submitted is, to the best of my knowledge and belief, true,
511 accurate, and complete. I am aware that there are significant penalties for submitting false
512 information, including the possibility of fine and imprisonment for knowing violations."
513
514 (xvi) All relevant data used to complete permit applications shall be kept for
515 a minimum of three (3) years from the date of signing.
516
517 (g) For Class V facilities the following are applicable:
518
519 (i) A permit is required.
520
521 (ii) Construction, installation, modifications or operation of Class V
522 facilities shall be allowed only in accordance with these regulations.
523
524 (iii) Discharges into, or construction of, any Class V facility are prohibited
525 unless permitted pursuant to this chapter.
526
527 (iv) Every facility shall be covered by one of the three types of permitting
528 systems: individual; general; or permit by rule. The following sections of these regulations
529 describe the permitting method for and subclasses of facilities. The owner or operator of a

530 facility that can be covered by a general permit or authorized under permit by rule may apply
531 for and be permitted by an individual permit if the owner or operator desires. Operators who do
532 not meet the requirements for a general permit or permit by rule must obtain an individual
533 permit prior to installation or construction of the Class V facility.

534

535 (v) Permits may be issued for individual facilities or they may be issued on
536 an area basis for multiple points of discharge operated by the same person.

537

538 (vi) A separate permit to construct is not required under Chapter 3, Water
539 Quality Rules and Regulations for any Class V facility. Requirements of the Chapter 3 permit
540 to construct will be included in the underground injection control permit issued under this
541 chapter.

542

543 (h) Permit conditions and contents.

544

545 (i) All Class I permits issued under this chapter shall contain the following
546 conditions:

547

548 (A) A requirement that the injection pressure shall be limited to the
549 fracture pressure of the receiver, except as necessary during well stimulation, and, within one
550 (1) year of the issuance of the permit, the operator shall conduct a step-rate injection test to
551 determine the actual fracture pressure of the receiver.

552

553 (B) A requirement that mechanical integrity shall be maintained
554 continuously and be reviewed at least every five (5) years. The test used to determine
555 mechanical integrity shall be a two-part test approved by the administrator, who shall approve
556 only those tests that have been approved first by the U.S. Environmental Protection Agency's
557 Office of Drinking Water.

558

559 (I) Part one of the mechanical integrity test shall
560 demonstrate the absence of leaks through the packer, tubing, casing, and well head.

561

562 (II) Part two of the mechanical integrity test shall
563 demonstrate the absence of fluid movement behind the casing.

564

565 (III) Proposed mechanical integrity tests that have not yet
566 been approved shall be submitted to the administrator who shall forward the information to the
567 U.S. Environmental Protection Agency's Office of Drinking Water along with a request for
568 approval, if, in the administrator's opinion, it will adequately determine mechanical integrity of
569 the well system. A previously unauthorized mechanical integrity test submitted for approval
570 shall include:

571

572 (1.) The proposed method for demonstrating the
573 lack of significant leaks in the well;

574

575 (2.) The proposed method for showing the absence
576 of significant fluid movement; and

577

578 (3.) Any technical data supporting the use of this
579 test.

580
581 (C) A Class I well that cannot demonstrate mechanical integrity
582 shall be shut down until such time as the mechanical integrity has been restored.

583
584 (D) A requirement that the packer be set within five-hundred (500)
585 feet of the top of the receiver, unless the administrator allows some other specific interval to be
586 used to set the packer, but always within the zone covered by excellent cement bond as shown
587 by the cement bond log.

588
589
590 (ii) Special conditions for Class I hazardous waste wells.

591
592 (A) All Class I hazardous waste wells permitted under this chapter
593 shall be subject to the special permit conditions listed below in addition to the conditions
594 applicable to all Class I well permits in this chapter.

595
596 (B) All hazardous waste injection permits issued under this chapter
597 shall include the following conditions:

598
599 (I) A requirement that the operator shall maintain a
600 casing/tubing annulus pressure that exceeds the operating injection pressure, unless the
601 administrator determines that such a requirement might harm the integrity of the well. The fluid
602 used in the casing/tubing annulus shall be noncorrosive, and shall contain a corrosion inhibitor.

603
604 (II) A requirement that the operator shall follow special
605 procedures when wastes have the potential to react with the injection formation or to generate
606 gases either during or after injection. These procedures may take the form of special permit
607 conditions that limit the temperature or pH of the injected waste and require the operator to
608 follow procedures necessary to assure that pressure imbalances which might cause a backflow
609 or blowout do not occur.

610
611 (III) A requirement that the operator shall install, maintain,
612 and use continuous recording devices to monitor the injection pressure, flow rate, temperature,
613 of injected fluids and pressure on the casing/tubing annulus, and shall install and use automatic
614 alarm and shut-off systems designed to shut down the well when pressures, flow rates, and other
615 parameters approved by the administrator exceed the range specified in the permit.

616
617 (IV) A requirement that the operator have a trained operator
618 onsite at all times the well is operating.

619
620 (V) A requirement that if an automatic alarm or shutdown
621 is triggered, the operator shall immediately investigate and identify as early as possible, the
622 cause of the alarm or shutdown. If, upon such investigation, or if required monitoring indicates,
623 that the well is lacking in mechanical integrity, the operator shall:

624
625 (1.) Cease all injections of waste fluids
626 immediately.

627
628 (2.) Take all necessary steps to determine the
629 presence or absence of a leak.
630
631 (3.) Notify the administrator within twenty-four
632 (24) hours after the alarm or shutdown, using procedures and criteria listed in paragraph
633 (h)(iii)(Q) of this section.
634
635 (4.) The operator shall restore and demonstrate, to
636 the satisfaction of the administrator, mechanical integrity prior to resuming injection activities.
637
638 (VI) A requirement that whenever the operator obtains
639 evidence that there may have been a release of injected wastes into an unauthorized zone,
640 regardless of whether or not an automatic alarm or shutdown was triggered, the operator shall:
641
642 (1.) Immediately cease all injection activities.
643
644 (2.) Notify the administrator pursuant to the
645 procedures outlined in paragraph (h)(iii)(Q) of this section. In addition to the information
646 required by paragraph (h)(iii)(Q) of this section, the operator shall also include, as part of the
647 written submission, a proposed remedial action plan, designed to minimize the adverse impact
648 of the unauthorized release.
649
650 (3.) Comply with the requirements of any remedial
651 action plan approved by the administrator.
652
653 (4.) Where the unauthorized release is into a Class
654 I aquifer, as classified under Chapter 8, Quality Standards for Wyoming Groundwaters, Water
655 Quality Rules and Regulations, which is currently serving as a water supply, the operator shall
656 place a notice, describing the unauthorized release and the actions taken, in a newspaper of
657 general circulation in the locality of the release.
658
659 (5.) The administrator may allow the operator to
660 resume injection prior to completion of cleanup operations if the operator demonstrates, to the
661 satisfaction of the administrator, that the injection activity will not endanger any Underground
662 Source of Drinking Waters.
663
664 (VII) A requirement that the operator notify the administrator
665 and obtain his approval prior to conducting any well workover.
666
667 (VIII) A requirement that the operator comply with the
668 following federal regulations contained in 40 CFR 264 or applicable state hazardous waste
669 regulations:
670
671 (1.) Identification numbers.
672
673 (2.) Recordkeeping and reporting for manifested
674 wastes.
675

- 676 (3.) Manifest discrepancies.
677
678 (4.) Operating record requirements.
679
680 (5.) Annual reporting requirements and
681 unmanifested waste reports.
682 (6.) Personnel training requirements.
683

684 (IX) When abandonment is completed, the operator must
685 submit to the administrator certification by the operator and certification by an independent
686 registered professional engineer that the facility has been closed in accordance with the
687 specifications detailed in the closure plan in Section 17 of this chapter.
688

689 (iii) All individual and general permits issued under this chapter shall
690 contain the following conditions:
691

692 (A) A requirement that the permittee comply with all conditions of
693 the permit and any permit noncompliance constitutes a violation of these regulations and is
694 grounds for enforcement action, permit termination, revocation, or modification.
695

696 (B) A requirement that if the permittee wishes to continue injection
697 activity after the expiration of the permit, the permittee must apply to the administrator for, and
698 obtain, a new permit.
699

700 (C) A stipulation that it shall not be a defense for a permittee in an
701 enforcement action that it would have been necessary to halt or reduce the permitted activity in
702 order to maintain compliance with the conditions of this permit.
703

704 (D) A requirement that the permittee shall take all reasonable steps
705 to minimize or correct any adverse impact on the environment resulting from noncompliance
706 with this permit.
707

708 (E) A requirement that the permittee properly operate and maintain
709 all facilities and systems of treatment and control which are installed or used by the permittee to
710 achieve compliance with the conditions of this permit. Proper operation and maintenance
711 includes effective performance, adequate funding and operator staffing and training, and
712 adequate laboratory and process controls including appropriate quality assurance procedures.
713 This provision requires the operation of back-up or auxiliary facilities or similar systems only
714 when necessary to achieve compliance with the conditions of the permit.
715

716 (F) A stipulation that the filing of a request by the permittee, or at
717 the instigation of the administrator, for a permit modification, revocation, termination, or
718 notification of planned changes or anticipated non-compliance, shall not stay any permit
719 condition.
720

721 (G) A stipulation that this permit does not convey any property
722 rights of any sort, or any exclusive privilege.
723

724 (H) A stipulation that the permittee shall furnish to the
725 administrator, within a specified time, any information which the administrator may request to
726 determine whether cause exists for modifying, revoking and reissuing, or terminating the
727 permit, or to determine compliance with the permit. The permittee shall also furnish to the
728 administrator, upon request, copies of records required to be kept by the permit.
729

730 (I) A requirement that the permittee shall allow the administrator,
731 or an authorized representative of the administrator, upon the presentation of credentials, during
732 normal working hours, to enter the premises where a regulated facility is located, or where
733 records are kept under the conditions of this permit, and inspect the discharge and related
734 facilities, review and copy reports and records required by the permit, collect fluid samples for
735 analysis, measure and record water levels, and perform any other function authorized by law or
736 regulation.
737

738 (J) A requirement that the permittee furnish any information
739 necessary to establish a monitoring program pursuant to Section 15 of this chapter.
740

741 (K) A requirement that all samples and measurements taken for the
742 purpose of monitoring shall be representative of the monitored activity, and records of all
743 monitoring information be retained by the permittee. The monitoring information to be retained
744 shall be that information stipulated in the monitoring program established pursuant to the
745 criteria in Section 15 of this chapter.
746

747 (L) A requirement that all applications, reports, and other
748 information submitted to the administrator contain certifications as required in Section 6 (f) (xv)
749 of this chapter, and be signed by a person who meets the requirements to sign permit
750 applications found in Section 6 (f) (xiv), or for routine reports, a duly authorized representative;
751

752 (M) A requirement that the permittee give advance notice to the
753 administrator as soon as possible of any planned physical alteration or additions, other than
754 authorized operation and maintenance, to the permitted facility and receive authorization prior
755 to implementing the proposed alteration or addition.
756

757 (N) A requirement that any modification which may result in a
758 violation of a permit condition shall be reported to the administrator, and any modification that
759 will result in a violation of a permit condition shall be reported to the administrator through the
760 submission of a new or amended permit application.
761

762 (O) A requirement that any transfer of a permit must first be
763 approved by the administrator, and that no transfer will be approved if the facility is not in
764 compliance with the existing permit unless the proposed permittee agrees to bring the facility
765 into compliance.
766

767 (P) A requirement that monitoring results shall be reported at the
768 intervals specified elsewhere in the permit.
769

770 (Q) A requirement that reports of compliance or non-compliance
771 with, or any progress reports on interim and final requirements contained in any compliance

772 schedule, if one is required by the administrator, shall be submitted no later than thirty (30) days
773 following each schedule date.

774

775 (R) A requirement that confirmed noncompliance resulting in the
776 migration of injected fluid into any zone outside of the permitted receiver must be orally
777 reported to the administrator within 24 hours, and a written submission shall be provided within
778 five (5) days of the time the permittee becomes aware of the excursion. The written submission
779 shall contain:

780

781 (I) A description of the noncompliance and its cause.

782

783 (II) The period of noncompliance, including exact dates
784 and times, and, if the noncompliance has not been controlled, the anticipated time it is expected
785 to continue; and

786

787 (III) Steps taken or planned to reduce, eliminate, and
788 prevent reoccurrence of the noncompliance.

789

790 (S) A requirement that the permittee report all instances of
791 noncompliance not already required to be reported under paragraphs (h) (iii) (P) through (R) of
792 this section, at the time monitoring reports are submitted. The reports shall contain the
793 information listed in paragraph (h) (iii) (R) of this section.

794

795 (T) A requirement that in the situation where the permittee
796 becomes aware that it failed to submit any relevant facts in a permit application, or submitted
797 incorrect information in a permit application or in any report to the administrator, the permittee
798 shall promptly submit such facts or information.

799

800 (U) A requirement that the injection facility meet construction
801 requirements outlined in Section 10 of this chapter, and that the permittee submit notice of
802 completion of construction to the administrator and allow for inspection of the facility upon
803 completion of construction, prior to commencing any injection activity.

804

805 (V) A requirement that the permittee notify the administrator at
806 such times as the permit requires before conversion or abandonment of the facility.

807

808 (W) A requirement that an abandonment report, detailing the
809 compliance abandonment procedures outlined in the original permit application, or describing
810 any deviations from the original plan, be submitted as soon as practicable after abandonment,
811 and is complete.

812

813 (X) A requirement that injection may not commence until
814 construction is complete.

815

816 (Y) In addition to the conditions required of all permits, the
817 administrator may establish, on a case-by-case basis, conditions as required for monitoring,
818 schedules of compliance, and such additional conditions as are necessary to prevent the
819 migration of fluids into underground sources of drinking water.

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Section 7. Permit Processing Procedures.

(a) For Class I wells the following are applicable:

(i) The applicant shall file seven (7) copies of the permit application with the Water Quality Division.

(ii) Within sixty (60) days of submission of the application, the administrator shall make an initial determination of completeness. An application shall be determined complete when the administrator receives an application and any supplemental information necessary to determine compliance with these regulations.

(iii) An incomplete application will be processed in the following manner:

(A) For an extremely incomplete application, additional information shall be requested in detail or the application will be returned to the applicant. Incomplete permit applications will result in permit denial.

(B) If an application is denied because of incompleteness necessitating a request for additional information, the applicant shall have a maximum of six (6) months to comply with the requests. If the applicant fails to provide the requested information within that period, the entire incomplete application shall be returned.

(C) Resubmittal of information by an applicant on an incomplete application will begin the process described in subsection (a)(ii) of this section.

(iv) During any sixty (60) day review period where an application is determined complete, the administrator shall take one of the following actions:

(A) Prepare a draft permit for issuance or denial, prepare a fact sheet on the proposed operation, and provide public notice pursuant to Section 21; or

(B) Provide the applicant notice that the permit is deficient and state the deficiencies in the application.

(v) Determinations of deficiency by the Department are appealable by the applicant to the Environmental Quality Council. Requests for appeal must be in writing, state the reasons for appeal, and be made to both the Director and the Chairman of the Environmental Quality Council. A deficient application is considered a permit denial but is not subject to the public notice requirements of Section 22 unless a hearing is requested by the applicant. Resubmittal of information for a deficient application will start the sixty (60) day review period again.

(vi) Denials of permit applications will be pursuant to procedures outlined in paragraph (d) of this section.

870 (vii) All draft permits for Class I wells require public notice pursuant to
871 Section 21 of this chapter.

872
873 (b) For Class V wells that require an Individual Permit, the following are
874 applicable:

875
876 (i) The applicant shall submit five (5) copies of the permit application to
877 the division.

878
879 (A) Within 60 days of submission of the application, the
880 administrator shall make an initial determination of completeness. An application shall be
881 determined complete when the administrator receives an application and any supplemental
882 information necessary to determine compliance with these regulations.

883
884 (ii) Resubmittal of information by an applicant on an incomplete
885 application will begin the process described in paragraph (b)(i)(A) of this section.

886
887 (iii) During any 60 day review period where an application is determined
888 complete, the administrator shall prepare a draft permit for issuance or denial, prepare a fact
889 sheet on the proposed operation, and provide public notice pursuant to Section 21.

890
891 (iv) A denial of the application by the department is appealable by the
892 applicant to the Environmental Quality Council in accordance with the Rules of Practice and
893 Procedure. Requests for appeal must be in writing, state the reasons for appeal, and be made to
894 both the director and the chairman of the Environmental Quality Council.

895
896 (c) For Class V wells that require a General Permit, the following are applicable:

897
898 (i) In order to be covered by a general permit, an operator must submit all
899 information required in Section 9 (c) (i), (ii), and (iii), plus any additional information required
900 to be submitted or reported in the issued general permit. The submittal requesting coverage by a
901 general permit shall be signed by a person meeting the same signatory requirements of Section 6
902 (f) (xiv) and shall be certified in accordance with Section 6 (f) (xv). Facilities will be covered
903 by general permits as soon as the department has issued a written statement of acceptance to
904 allow the construction and operation of the facility under the general permit. The department
905 will issue an authorization accepting the operation for coverage under the general permit or
906 denying coverage under the general permit, within 60 days of the date when the operator
907 requested coverage. Requests for coverage under a general permit, which do not meet the
908 requirements for general permit pursuant to this chapter, may be denied by the administrator.

909
910 (ii) If a general permit has been issued by the department, an operator of a
911 facility must register the facility with the department and sign a statement agreeing to be bound
912 by the conditions of that permit. Failure to register for general permit coverage, when available,
913 is the same as operation of a facility without a permit, unless an individual permit has been
914 obtained.

915
916 (iii) Once issued, general permits must remain the same for all persons
917 covered by the permit. A general permit may be modified in accordance with Section 7 (d)
918 (vii). Any such modification must cover all persons covered by the permit.

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(d) Permit modification, denial, revocation, termination and transfer.

(i) Permits may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee or licensee) or upon the administrator's initiative. However, permits may only be modified, revoked and reissued, or terminated for the reasons specified in this section. All requests shall be in writing and shall contain facts or reasons supporting the request.

(ii) If the Administrator decides the request is not justified, he or she shall send the requester a brief written response giving the reason for the decision. A request for modification, revocation and reissuance, or termination shall be considered denied if the Administrator takes no action within 60 days after receiving the written request. Denials of requests for modification, revocation and reissuance, or termination are not subject to public notice and comment. Denials by the administrator may be appealed for hearing to the Environmental Quality Council by a letter briefly setting forth the relevant facts.

(iii) If the administrator tentatively decides to modify or revoke and reissue a permit, a draft permit incorporating the proposed changes shall be prepared. The administrator may request additional information and, in the case of a modified permit, may require the submission of an updated application. In the case of revoked and reissued permits, the administrator shall require the submission of a new application.

(iv) In a permit modification under Section 7 (d) (vii) of this chapter, only those conditions to be modified shall be reopened when a new draft permit is prepared. All other aspects of the existing permit shall remain in effect for the duration of the unmodified permit and the modified permit shall expire on the date when the original permit would have expired. When a permit is revoked and reissued under this section, the entire permit is reopened as if the permit has expired and is being reissued. When the entire permit is reopened, the modified permit shall be issued for no more than ten (10) years. During any revocation and reissuance proceeding, the permittee shall comply with all conditions of the existing permit until a new final permit is issued.

(v) Proposed permit modifications, revocations or terminations shall be developed as a draft permit and are subject to the public notice and hearing requirements outlined in Section 21.

(vi) For Class I wells the administrator **shall** modify a permit or license when:

(A) Any material or substantial alterations or additions to the facility occur after permitting or licensing, which justify the application of permit conditions that are different or absent in the existing permit; or

(B) Any modification in the operation of the facility is capable of causing or increasing pollution in excess of applicable standards or permit conditions.

966 (C) Information warranting modification is discovered after the
967 operation has begun that would have justified the application of different permit conditions at
968 the time of permit issuance;

969
970 (D) Regulations or standards upon which the permit or license was
971 based have changed by promulgation of amended standards or regulations or by judicial
972 decision after the permit was issued;

973
974 (E) Cause exists for termination, as described in this section, but
975 the department determines that modification is appropriate; or

976
977 (F) Modification is necessary to comply with applicable statutes,
978 standards or regulations.

979
980 (vii) For Class V wells the administrator may modify a permit when:

981
982 (A) Any material or substantial alterations or additions to the
983 facility occur after permitting or licensing, which justify the application of permit conditions
984 that are different or absent in the existing permit;

985
986 (B) Any modification in the operation of the facility is capable of
987 causing or increasing pollution in excess of applicable standards or permit conditions;

988
989 (C) Information warranting modification is discovered after the
990 operation has begun that would have justified the application of different permit conditions at
991 the time of permit issuance;

992
993 (D) Regulations or standards upon which the permit was based
994 have changed by promulgation of amended standards or regulations, or by judicial decision after
995 the permit was issued;

996
997 (E) Cause exists for termination, as described in this section, but
998 the department determines that modification is appropriate; or

999
1000 (F) Modification is necessary to comply with applicable statutes,
1001 standards or regulations.

1002
1003 (viii) Minor modifications of permits may occur with the consent of the
1004 permittee without following the public notice requirements. Minor modifications will become
1005 final twenty (20) days from the date of receipt of such notice. For the purposes of this chapter,
1006 minor modifications may only:

1007
1008 (A) Correct typographical errors;

1009
1010 (B) Require more frequent monitoring or reporting by the
1011 permittee;

1012

1013 (C) Change an interim compliance date in a schedule of
1014 compliance, provided the new date is not more than 120 days after the date specified in the
1015 existing permit and does not interfere with attainment of the final compliance date requirement;

1016
1017 (D) Allow for a change in ownership or operational control of a
1018 facility where the administrator determines that no other change in the permit is necessary,
1019 provided that a written agreement containing a specific date for transfer of permit responsibility,
1020 coverage, and liability between the current and new permittees have been submitted to the
1021 administrator;

1022
1023 (E) Change quantities or types of fluids injected that are within the
1024 capacity of the facility as permitted and, in the judgment of the administrator, would not
1025 interfere with the operation of the facility or its ability to meet conditions described in the
1026 permit and would not change its classification;

1027
1028 (F) Change construction requirements approved by the
1029 administrator pursuant to department rules and regulations provided that any such alteration
1030 shall comply with the requirements of this chapter; or

1031
1032 (G) Amend an abandonment plan.

1033
1034 (ix) For a Class I well the administrator **may** deny a permit for any of the
1035 following reasons:

1036
1037 (A) The application is incomplete; or

1038
1039 (B) Other justifiable reasons necessary to carry out the provisions
1040 of the Wyoming Environmental Quality Act.

1041
1042 (C) If the applicant has been and continues to be in violation of the
1043 provisions of the Wyoming Environmental Quality Act.

1044
1045 (x) For Class I wells the administrator **shall** deny a permit for any of the
1046 following reasons:

1047
1048 (A) The project, if constructed and/or operated, will cause violation
1049 of applicable state surface or groundwater standards;

1050
1051 (B) The application contains a proposed construction or operation
1052 which does not meet the requirements of this chapter; or

1053
1054 (C) The application does not provide documentation to comply
1055 with financial responsibility requirements of Section 19.

1056
1057 (D) The administrator shall deny any permit for which the U.S.
1058 Environmental Protection Agency has denied an aquifer exemption.

1059

1060 (E) When the department intends to deny a permit for any reason
1061 other than an incomplete or deficient application, a draft permit shall be prepared and public
1062 notice issued pursuant to Section 21.
1063

1064 (xi) For Class V wells the director **may** deny an individual permit for any of
1065 the following reasons:

1066 (A) The application is incomplete;
1067

1068 (B) The project, if constructed and/or operated, will cause violation
1069 of applicable state surface or groundwater standards;
1070

1071 (C) The application contains a proposed construction or operation
1072 which does not meet the requirements of this chapter;
1073

1074 (D) The permitted facility would be in conflict with or is in conflict
1075 with a state approved local wellhead protection plan, state approved local source water
1076 protection plan, or state approved water quality management plan; or
1077

1078 (E) Other justifiable reasons necessary to carry out the provisions
1079 of the Wyoming Environmental Quality Act.
1080

1081 (F) If the director intends to deny an individual permit for any
1082 reason other than an incomplete or deficient application, a draft permit shall be prepared and
1083 public notice issued pursuant to Section 21 of this chapter.
1084

1085 (xii) The administrator may revoke and reissue or terminate a permit for any
1086 of the following reasons:

1087 (A) Noncompliance with terms and conditions of the permit;
1088

1089 (B) Failure in the application or during the issuance process to
1090 disclose fully all relevant facts, or misrepresenting any relevant facts at any time; or
1091

1092 (C) A determination that the activity endangers human health or the
1093 environment and can only be regulated to acceptable levels by a permit modification or
1094 termination.
1095

1096 (xiii) The administrator may modify a permit or license to resolve issues that
1097 could lead to the revocation or consider any of the reasons in the preceding paragraph as
1098 sufficient justification to terminate a permit or license. The administrator as part of any
1099 notification of intent to terminate a permit or license shall order the permittee or licensee to
1100 proceed with reclamation on a reasonable time period.
1101

1102 (xiv) Permits for Class I wells will be automatically terminated after closure
1103 and release of the financial responsibility requirements of Section 19 by the department.
1104

1105 (xv) Transfer of a permit is allowed only upon approval by the
1106 administrator. When a permit transfer occurs pursuant to this section, the permit rights of the
1107 previous permittee will automatically terminate.
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(A) The proposed permit holder shall apply in writing as though that person was the original applicant for the permit and shall further agree to be bound by all of the terms and conditions of the permit.

(B) Transfer will not be allowed if the permittee is in noncompliance with any term and conditions of the permit, unless the transferee agrees to bring the facility back into compliance with the permit.

(C) When a permit transfer occurs, the administrator may modify a permit pursuant to this section. The administrator shall provide public notice pursuant to Section 21 for any modification other than a minor modification defined by this section.

(D) The potential transferee shall file a statement of qualifications to hold a permit with the administrator.

Section 8. Records and Reports.

(a) Monitoring reports required by the permit shall be submitted to the administrator.

(b) Monitoring results shall be reported in the annual reports unless otherwise specified.

(c) The permittee shall submit a written report to the administrator of all remedial work concerning the failure of equipment or operational procedures which resulted in a violation of a permit condition, at the completion of the remedial work.

(d) For any aborted or curtailed operation, in lieu of an annual report, a complete report shall be submitted within thirty (30) days of complete termination of the discharge or associated activity.

(e) Routine periodic reports required by the permit shall be submitted to the administrator within thirty (30) days following the end of the period covered in the report. Reports shall include, if applicable, the following information:

(i) An accounting of the total volume of fluid injected for the period covered by the report, the year to date, and the life of the well to date.

(ii) An analysis of the physical, chemical and other relevant characteristics of the injected fluid.

(iii) A complete description of any event that triggered any alarm or shutdown the well, and the response taken.

(iv) A complete description of any event where maximum annular or injection pressures, as specified in the permit, were exceeded.

1157 (v) The average, maximum and minimum injection pressures for each
1158 month.

1159
1160 (vi) Any well workover.
1161

1162 (f) Quarterly and annual reports for hazardous waste wells shall also include a
1163 description of any change in the volume of fluid in the casing/tubing annulus of the well, and an
1164 explanation of the temperature/volume relationships covering the fluid. Any addition or
1165 withdrawal of fluids from the casing/tubing annulus shall be noted.
1166

1167 (g) The results of any mechanical integrity test, or any other testing done on a well,
1168 shall be submitted to the administrator within thirty (30) days or with the next quarterly report,
1169 whichever comes later, following the completion of the test.
1170

1171 (h) The permittee shall retain all monitoring records required by the permit for a
1172 period of three (3) years following facility closure.
1173

1174 **Section 9. Individual Permits for Class V Facilities.**
1175

1176 (a) The operator shall submit an application and obtain a permit prior to the
1177 construction, installation, modification or operation of any facility in the following subclasses:
1178 5A3; 5B3; 5B5; 5C1; 5C2; 5C3; 5D1; 5D3; 5D4; 5E3, 5E4 and 5F2 unless the facility is
1179 covered by a general permit. In addition, any facility not authorized under Sections 10 and 11,
1180 and operators directed by the administrator to obtain an individual permit, shall obtain an
1181 individual permit under this section.
1182

1183 (b) The operator is responsible to make application for and obtain a permit. Each
1184 application must be submitted with all supporting data required in this chapter.
1185

1186 (c) A complete application for a Class V facility individual permit shall include:
1187

1188 (i) A brief description of the nature of the business and the activities to be
1189 conducted that require the applicant to obtain a permit under this chapter.
1190

1191 (ii) The name, address and telephone number of the operator, and the
1192 operator's ownership status and status as a federal, state, private, public or other entity.
1193

1194 (iii) The name address and telephone number of the facility. Additionally,
1195 the location of the facility shall be identified by section, township, range and county.
1196

1197 (iv) A calculation of the area of review including:
1198

1199 (A) A calculation to determine the maximum area affected by the
1200 injected waste for all Class V facilities constructed or modified after the effective date of these
1201 regulations. This calculation determines the total amount of void space around and down
1202 gradient from the point of injection and uses accepted groundwater theory to determine the
1203 extent of any affected groundwater around the facility.
1204

1205 (B) A Class V area of review shall never be less than the area of
1206 potentially impacted groundwater.
1207

1208 (C) All areas of review shall be legally described by township,
1209 range and section to the nearest ten (10) acres as described under the general land survey
1210 system.
1211

1212 (v) Information about the proposed facility including:
1213

1214 (A) A description of the substances proposed to be discharged,
1215 including type, source, and chemical, physical, radiological and toxic characteristics; and
1216

1217 (B) Construction and engineering details in accordance with
1218 Section 13 of this chapter and Chapter 11 Water Quality Rules and Regulations.
1219

1220 (vi) Information, including the name, description, depth, geologic structure,
1221 faulting, fracturing, lithology, hydrology, and fluid pressure of the receiver and any relevant
1222 confining zones. The fracture pressure of the receiver shall be submitted only if the injection is
1223 under pressure into a confined aquifer.
1224

1225 (vii) Water quality information including background water quality data
1226 which will facilitate the classification of any groundwaters which may be affected by the
1227 proposed discharge. This must include information necessary for the division to classify the
1228 receiver and any secondarily affected aquifers under Chapter 8, Wyoming Water Quality Rules
1229 and Regulations.
1230

1231 (viii) A topographic and other pertinent maps, extending at least one (1) mile
1232 beyond the property boundaries of the facility, but never less than the area of review, depicting:
1233

1234 (A) The facility and each of its intake and discharge structures;
1235

1236 (B) Each well, drywell or subsurface fluid distribution system
1237 where fluids from the facility are injected underground;
1238

1239 (C) Other wells, springs, and surface water bodies, and drinking
1240 water wells listed in public records or otherwise known to the applicant within the area of
1241 review; and
1242

1243 (D) Bedrock and surficial geology, geologic structure, and
1244
1245 hydrogeology in the area.
1246

1247 (ix) A list of other relevant permits, whether federal or state, that the facility
1248 has been required to obtain, such as construction permits. This includes a statement as to
1249 whether or not the facility is within a state approved water quality management plan area, a state
1250 approved wellhead protection area or a state approved source water protection area.
1251

1252 (x) Detailed plans for monitoring the volume and chemistry of the
1253 discharge, and water quality of selected water wells within the area of review in accordance
1254 with Section 15 of this chapter.

1255
1256 (xi) All applications for permits, reports, or information to be submitted to
1257 the administrator shall be signed by a responsible officer as described in Section 6(f)(xiv) and
1258 the application shall contain the certification contained in Section 6(f)(xv) of this chapter.

1259
1260 (xii) All data used to complete permit applications shall be kept by the
1261 applicant for a minimum of three (3) years from the date of signing.

1262

1263 **Section 10. General Permits for Class V Facilities.**

1264

1265 (a) The department may develop and issue general permits pursuant to these
1266 regulations which cover Class V facilities for the following subclasses: 5A1, 5A2, 5B1, 5C4,
1267 5C5, 5C6, 5D1, 5D2, 5E1, 5E3, and 5E5. The administrator may issue general permits in other
1268 categories as the need arises. 5E3 facilities which were permitted as small wastewater systems
1269 prior to April 14, 1998 are permitted by rule under Section 8(c)(v) and are not covered by this
1270 section. Facilities in these subclasses which have already been issued individual permits under
1271 Chapter 9 or Chapter 16, Water Quality Rules and Regulations may continue under these
1272 permits until they are terminated, revoked and reissued, or canceled at the request of the
1273 operator. Coverage shall not be extended to any facility if such a facility would be in violation
1274 of any state approved source water protection area. Facilities in these subclasses not presently
1275 covered by an individual permit will be authorized by permit by rule until the general permit for
1276 the specific subclass is issued. The operator of a facility listed in this section shall have two (2)
1277 years after the date of issuance of the general permit to:

1278

1279 (i) Obtain coverage under the issued general permit;

1280

1281 (ii) Submit an application and receive an individual permit under this
1282 chapter.

1283 (iii) Continue to be covered by a permit issued pursuant to Chapter 9 of
1284 these regulations.

1285

1286 (iv) Abandon the facility in accordance with Section 18.

1287

1288 (b) General permits shall also include:

1289

1290 (i) The permit conditions required in Section 6(h)(iii).

1291

1292 (ii) A requirement to submit information necessary for the department to
1293 make an assessment of the vulnerability of the environment and public health to the injection
1294 from the Class V well. Such information may include the depth to the groundwater table at the
1295 disposal field, groundwater quality or existing available information on the lithology, geology,
1296 hydrogeology and the location of the following items within 1/4 mile of the Class V facility:

1297

1298 (A) All water supply wells and the uses of each respective well;

1299

1300 (B) All property boundaries and land uses;

1301
1302 (C) All surface water bodies or springs; and
1303
1304 (D) All known sources of groundwater contamination or pollution.
1305
1306 (E) All state approved source water protection areas, wellhead
1307 protection areas, 201 service areas, or water quality management plan areas.
1308
1309 (iii) Depth below the ground surface for the point of injection and for the
1310 well screening in all wells within the area of review;
1311
1312 (iv) A requirement for facilities constructed after April 14, 1998 that the
1313 operator certifies the facility will meet the design, construction, and operational performance
1314 requirements in Section 13 for the specific subclass of facility.
1315
1316 (v) A requirement that the operator submit the disposal capacity of the
1317 facility in gallons per day as calculated using Tables 1 and 2, Water Quality Rules and
1318 Regulations Chapter 25. Some facilities may be required to monitor the volume of injectate
1319 actually disposed of, or the volume of water used in the area served by the Class V facility.
1320
1321 (c) The administrator may require any operator covered by a general permit to
1322 obtain an individual permit for the facility when a review of the information submitted under
1323 this section indicates that the general permit would not be protective of groundwater in that
1324 specific case. Any operator covered by a general permit may at any time apply for and obtain
1325 an individual permit for the same facility. Once issued, an individual permit will replace
1326 coverage by the general permit for that facility.
1327
1328 (d) General permits will contain the subclass of injection facility covered, the
1329 geographic area covered, the general nature of the fluids to be discharged, and the location of
1330 the receiver where the discharge will be allowed. General permits will follow the public notice
1331 requirements of Section 22 of this chapter. During each five (5) year review of a general
1332 permit, a public notice shall be issued by the department stating that a five (5) year review has
1333 been done, listing the facilities covered by a general permit, and stating where the public may
1334 obtain a copy of the permit.
1335
1336 (e) Operators of new injection facilities who believe that their facility may be
1337 covered by a general permit in class 5C6 facilities may apply for coverage under the general
1338 permit for that subclass. If not accepted for coverage under this general permit, the operator
1339 shall apply for an individual permit under subclass 5C3.
1340
1341 (f) Operators of new injection facilities who believe that their facility may be
1342 covered by a general permit in class 5E5 facilities may apply for coverage under the general
1343 permit for that subclass. If not accepted for coverage under this general permit, the operator
1344 shall apply for an individual permit under subclass 5E3.
1345
1346 (g) In order to obtain coverage under the general permit all operators of class 5C6
1347 and 5E5 shall submit detailed construction drawings and an abbreviated groundwater study
1348 showing the approximate depth to groundwater and a list of water wells within one half mile of
1349 the facility.

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(h) General permits may be written to require the operator to monitor the water quality of the injected fluid and to submit the information to the department. Existing facilities under this section may be required to monitor injectate quality on a one time basis, on a quarterly basis, a semi-annual basis or annual basis depending on the ability of the facility to cause adverse environmental damage or affect human health.

(i) General permits for Class 5C5 coal bed methane injection facilities shall require that:

(i) Each operator provide background information showing that the class of use under Chapter 8 for each injection zone will not be violated by the injection of coal bed methane produced water.

(ii) A valid pressure falloff curve be recorded for each well within one (1) year of the start of injection into that well.

(iii) The pressure of injection be continuously recorded and that the pressure of injection be limited to no more than the fracture pressure of the receiving formation. This requirement can be met by assuming that the fracture gradient of the receiver is .70 psi/foot of depth and using the depth of the topmost perforation in making the calculation.

Section 11. Permit by Rule for Class V Facilities.

The types of Class V facilities listed in this section represent minimal threats to pollute groundwater. The referenced facilities which meet the requirements of this section are permitted by rule. A permit by rule requires the owner or operator to submit information contained in this section before construction, installation or modification of a facility and to meet the performance standards contained in this section and in Section 13 of this Chapter. No facility shall be located within a state approved local wellhead protection area, state approved source water protection area or a state approved water quality management area which is in conflict with any of those plans.

(a) A facility permitted by rule under this section shall meet the following conditions:

(i) In addition to the information listed in Section 9 (c) (i), (ii) and (iii) of this chapter, the operator shall submit the following inventory information to the department prior to construction for facilities constructed after the effective date of these regulations and within one (1) year of the effective date of these regulations for existing facilities: (Facilities which are already registered with the Underground Injection Control Program, or which were issued a permit under Chapters 3, 9 or 16, need not send a new registration, but may be asked for updated information from time to time.)

(A) The location of the facility, either a complete legal description or latitude and longitude preferably within a (ten) 10 meter accuracy.

(B) Type and general description of the quality of the injected fluid.

1399
1400 (C) The disposal capacity of the facility in gallons per day.
1401
1402 (D) Depth of injection zone.
1403
1404 (E) Whether or not the facility is operating, temporarily abandoned,
1405 or permanently abandoned.
1406 (ii) The facility shall be designed, constructed and operated to protect
1407 groundwater standards contained in Chapter 8, Water Quality Rules and Regulations and
1408 performance standards found in this section and in Section 13 of this chapter.
1409
1410 (iii) Chemical, bacteriological, radiological additives, hazardous substances
1411 or toxic substances additives shall not be mixed in the injected fluid at any time during use of
1412 the water, prior to injection or during injection.
1413
1414 (iv) Any violation of the requirements of these regulations by a Class V
1415 facility operator permitted by rule shall be reported to the department by telephone within
1416 twenty-four (24) hours of the time when the operator becomes aware of the violation. A written
1417 report shall be filed by the operator with the department within seven (7) days detailing steps
1418 which have been taken and will be taken to eliminate the violation.
1419
1420 (b) All facilities, referenced in this section, which do not meet the requirements of
1421 subsection (a) shall obtain an individual permit under this chapter. For facilities constructed or
1422 modified after the effective date of these regulations requiring an individual permit, the owner
1423 or operator shall obtain the permit prior to any construction.
1424
1425 (c) The following classes of facilities are permitted by rule under this section:
1426
1427 (i) 5B2 facilities, except any facility which injects wastewater or contains
1428 polluted groundwater or surface water in concentrations above the receiver use standards
1429 contained in Chapter 8, Water Quality Rules and Regulations.
1430
1431 (ii) After the effective date of these regulations, coal bed methane operators
1432 cannot be covered by 5B2 aquifer recharge rule authorizations. All coal bed methane disposal
1433 systems must be covered by a general permit or an individual permit under this chapter if they
1434 inject into an Underground Source of Drinking Water, or a Class II permit issued by the
1435 Wyoming Oil and Gas Conservation Commission if they inject into a Class VI aquifer.
1436
1437 (iii) 5B4 facilities, provided that the water injected will not cause a
1438 groundwater standards violation under Chapter 8, Water Quality Rules and Regulations.
1439
1440 (iv) 5B6 and 5B7 facilities;
1441
1442 (v) 5D5 facilities, except those facilities receiving water polluted above the
1443 receiving groundwater class of use standards contained in Chapter 8, Water Quality Rules and
1444 Regulations and facilities injecting swimming pool wastes into a Class I groundwater.
1445
1446 (vi) 5E3 facilities which were originally permitted under a small wastewater
1447 system permit issued by the Department of Environmental Quality or a local government

1448 delegated the authority to issue small wastewater system permits, located within any five (5)
1449 acres of land where the cumulative maximum peak daily wastewater flow injected from other
1450 small wastewater system permitted facilities under the same ownership would exceed 2,000
1451 gallons per day.

1452
1453 (vii) 5F1 facilities, provided that information contained in Section 13 (m) of
1454 this chapter is submitted.

1455
1456 (d) A permit by rule where the operator has provided the necessary information
1457 shall be valid until the facility is properly closed pursuant to these regulations or until a permit
1458 has been issued or denied under this chapter.

1459
1460 (e) The administrator may request information from the owner or operator of a well
1461 or facility permitted by rule to determine whether the facility may be causing a violation of
1462 groundwater use standards in Chapter 8, Water Quality Rules and Regulations, the construction
1463 standards found in this chapter and in Chapter 11, Water Quality Rules and Regulations, or any
1464 other requirements of this chapter. Such information may include, but is not limited to:

1465
1466 (i) Analysis of injected fluids and periodic submission of reports of such
1467 monitoring.

1468
1469 (ii) Groundwater monitoring and periodic submission of reports of such
1470 monitoring.

1471
1472 (iii) Description of receiving strata.

1473
1474 (iv) Well locations and down gradient use of groundwater.

1475
1476 (f) Any request for information under this section shall be made in writing and
1477 include a brief statement of the reasons for requesting the information. An owner or operator
1478 shall submit the information within the time frames provided in the request for information.

1479
1480 (g) The administrator may require any operator permitted by rule to obtain an
1481 individual permit for the facility when a review of the information submitted under paragraph
1482 (e) of this section indicates that the permit by rule would not be protective of groundwater in
1483 that specific case.

1484
1485 **Section 12. Construction Standards for Class I Wells.**

1486
1487 (a) All existing and new Class I wells shall be constructed to prevent the movement
1488 of fluids into any underground source of drinking water, permit the use of testing devices and
1489 workover tools, and permit continuous monitoring of injection tubing and long string casing, as
1490 required under Sections 6 (h)(i) and 6 (h)(ii) of this chapter.

1491
1492 (b) All well materials shall be compatible with the wastes that may be contacted.
1493 The applicant shall submit data necessary to document compatibility.

1494

1495 (c) Casing and cement used in the construction of each newly drilled well shall be
1496 designed for the life expectancy of the well. The applicant shall provide all information
1497 required to make a determination based on these factors:
1498

- 1499 (i) Depth to the injection zone.
- 1500
- 1501 (ii) Injection pressure, external pressure, internal pressure, and axial
1502 loading.
- 1503
- 1504 (iii) Hole size.
- 1505 (iv) Size and grade of all casing strings (wall thickness, diameter, nominal
1506 weight, length of joints, joint specifications and construction material).
- 1507
- 1508 (v) Corrosiveness of injected fluid, formation fluids, and temperatures.
- 1509
- 1510 (vi) Lithology of injection and confining intervals.
- 1511
- 1512 (vii) Type or grade of cement.
- 1513
- 1514 (d) Construction requirements for Class I hazardous waste wells.
- 1515
- 1516 (i) For casing and cementing requirements, the applicant shall provide all
1517 information necessary to make a determination of adequacy based on quantity and chemical
1518 composition of injected fluids.
- 1519
- 1520 (ii) One surface casing string shall, at a minimum, extend into the
1521 confining zone below the lowest Underground Source of Drinking Water and be cemented by
1522 circulating cement from the base of the casing to the surface, using a minimum of one-hundred
1523 twenty percent (120%) of the calculated annular volume. The administrator may require more
1524 than one-hundred twenty percent (120%) when the geology or other circumstances warrant a
1525 greater percentage.
- 1526
- 1527 (iii) At least one long string casing, using a sufficient number of centralizers,
1528 shall extend to the receiver and shall be cemented by circulating cement to the surface in one or
1529 more stages:
- 1530
- 1531 (A) Of sufficient quantity and quality to withstand the maximum
1532 operating pressure.
- 1533
- 1534 (B) In a quantity no less than one hundred twenty percent (120%)
1535 of the calculated volume necessary to fill the annular space. The administrator may require
1536 more than one hundred twenty percent (120%) when the geology or other circumstances warrant
1537 a greater percentage.
- 1538
- 1539 (iv) Circulation of cement may be accomplished by staging. The
1540 administrator may approve an alternative method of cementing in cases where the cement
1541 cannot be recirculated to the surface, provided the operator can demonstrate by logs that the
1542 cement is continuous and does not allow fluid movement behind the casing.
- 1543

1544 (v) Casings, including any casing connections, must be rated to have
1545 sufficient structural strength to withstand, for the life the well, the maximum burst and collapse
1546 pressures which may be experienced during the construction, operation, and closure of the well.
1547 Casings shall also be rated to withstand the maximum tensile stress which may be experienced
1548 at any point along the entire length of the casing during construction, operation, and closure of
1549 the well.

1550
1551 (vi) At a minimum, cement and cement additives shall be of sufficient
1552 quantity and quality to maintain mechanical integrity over the design life of the well.

1553
1554 (vii) For tubing and packer, the applicant shall provide all information
1555 necessary to make a determination of adequacy based on these factors:

- 1556
1557 (A) Depth of setting.
1558
1559 (B) Characteristics of the injection fluid, including chemical
1560 content, corrosiveness, temperature, and density.
1561
1562 (C) Injection pressure.
1563
1564 (D) Annular pressure.
1565
1566 (E) Rate (intermittent or continuous), temperature, and volume of
1567 injected fluid.
1568
1569 (F) Size of casing; and
1570
1571 (G) Tubing tensile, burst, and collapse strengths.

1572
1573 (viii) During the drilling and construction of a Class I hazardous waste well,
1574 appropriate logs and tests shall be run to determine or verify the depth, thickness, porosity,
1575 permeability, and rock type of, and the salinity of any entrained fluids in all relevant geologic
1576 units to assure compliance with the performance standards of Section 16 of this chapter, and to
1577 compile baseline data against which future measurements may be compared. A descriptive
1578 report interpreting results of such logs and tests shall be prepared by the operator and submitted
1579 to the administrator. At a minimum, such logs shall include:

1580
1581 (A) Deviation checks made during drilling of all Class I hazardous
1582 waste wells. Such checks shall be done at sufficiently frequent intervals to determine the
1583 location of the borehole.

1584
1585 (B) Such other logs and tests as may be needed after taking into
1586 account the availability of similar data in the area of the drilling site, the construction plan and
1587 the need for additional information that may arise as construction of the well progresses. At a
1588 minimum, the following logs shall be required:

1589
1590 (I) When installing the surface casing: resistivity,
1591 spontaneous potential, and caliper logs shall be run before the installation of the casing. A

1592 cement bond log and variable density log and temperature log are required after the surface
1593 casing is installed and before the well is deepened.

1594
1595 (II) When installing the long string casing: resistivity,
1596 spontaneous potential, porosity, caliper, gamma ray and fracture finder logs are required before
1597 the casing is installed. After the casing is installed and cemented, a cement bond log and
1598 variable density log are required before the well is completed.

1599
1600 (III) The administrator may allow the use of an alternative
1601 to the logs described above, when, in the administrator's opinion, the alternative will provide
1602 equivalent or better information.

1603 (C) A mechanical integrity test as described in Section 6(h)(i) of
1604 this chapter.

1605
1606 (D) Whole core or sidewall cores of the confining zone and
1607 receiver and formation fluid samples from the receiver shall be taken. The administrator may
1608 accept cores from nearby wells if the operator can demonstrate, to the administrator's
1609 satisfaction, that core retrieval is not possible, and the other cores are representative of the
1610 conditions in the well. The administrator may require the operator to core other formations in
1611 the borehole.

1612
1613 (ix) The fluid temperature, pH, conductivity, pressure, and static fluid level
1614 of the discharge zone shall be recorded during construction.

1615
1616 (x) At a minimum, the following information about the injection and
1617 confining zones shall be calculated or determined during construction:

1618
1619 (A) The physical and chemical characteristics of the rock itself; and

1620
1621 (B) Physical and chemical characteristics of the formation fluids.

1622
1623 (C) Upon completion of construction, but still prior to operation,
1624 the operator shall conduct either pump tests or injectivity tests to verify the hydrogeologic
1625 characteristics of the discharge zone.

1626
1627 (e) Fluid seals are not allowed in place of a packer in any Class I well.

1628
1629 **Section 13. Construction and Operation Standards for Class V Wells.**

1630
1631 (a) All Class V facilities must meet or exceed the design standards of these
1632 regulations including Part B of Chapter 11 and Chapter 26, Water Quality Rules and
1633 Regulations.

1634
1635 (b) All Class V facilities shall be constructed to permit the use of testing devices,
1636 and allow monitoring of injected fluid quality. Class V facilities shall be constructed to provide
1637 for metering of the injectate volume if the individual or general permit requires such metering.

1638
1639 (c) All heating and cooling facilities (5A1, 5A2 and 5A3) shall include:

1640

- 1641 (i) Provision for the use of non-toxic circulating medium in closed loop
1642 systems or an operating system which cannot be made to operate with fluid leaking.
1643
- 1644 (ii) Provision for operations without the use of corrosion inhibitors,
1645 biocides, or other toxic additives in open loop systems.
1646
- 1647 (iii) Provisions to control the total dissolved solids of waters injected into
1648 open loop systems to the class of use standard.
1649
- 1650 (iv) Provisions for automatic shutdown of the system in the event of a fluid
1651 loss from a closed loop system or a loss of any product to an open loop system.
1652
- 1653 (v) Provisions to ensure that injected water does not come to the surface or
1654 flood any subsurface structure in the immediate vicinity of the injection system.
1655
- 1656 (vi) Provisions to ensure that known groundwater contamination is not
1657 spread by the direct injection of contaminated water or by movement of contamination from one
1658 zone to another caused indirectly by the injection.
1659
- 1660 (d) All mining, sand and backfill facilities (5B1) shall include:
1661
- 1662 (i) Provision for insuring mechanical integrity of any well designed to
1663 remain in service for more than 60 days.
1664
- 1665 (ii) Provision for controlling the type of material injected and to insure that
1666 no hazardous waste is injected.
1667
- 1668 (iii) Provision for leak detection in all surface piping.
1669
- 1670 (iv) Provision for insuring that the backfill remains within the permitted
1671 area of injection.
1672
- 1673 (v) Provision to insure that the injection does not cause a groundwater
1674 standards violation for the class of use of the receiver.
1675
- 1676 (e) All beneficial use injection facilities (5B2, 5B3, 5B4, 5B5, 5B6, and 5B7) shall
1677 include:
1678
- 1679 (i) Plans to insure that contaminants do not enter the injection stream.
1680
- 1681 (ii) Information to show that the injection will accomplish the desired goal
1682 stated in the application.
1683
- 1684 (iii) Target restoration values for the groundwater in the affected area being
1685 remediated for 5B5 facilities.
1686
- 1687 (f) All commercial and industrial Class V facilities (5C1, 5C2, 5C3 and 5C4) shall:
1688

- 1689 (i) Include a pre-treatment plan to insure that toxic materials (substances)
1690 are not discharged to the groundwater at concentrations higher than the class of use standards
1691 found in Chapter 8, Wyoming Water Quality Rules and Regulations or any primary drinking
1692 water standard found in 40 CFR 141 (as of June 6, 2001), whichever is more stringent;
1693
- 1694 (ii) Conform to applicable construction standards found in Chapter 25,
1695 Wyoming Water Quality Rules and Regulations; and
1696
- 1697 (iii) Include, at a minimum, annual sampling of the waste injected as part of
1698 the monitoring plan for the facility.
1699
- 1700 (g) When a 5C3 facility receiving slaughter house wastes can demonstrate that no
1701 violations of groundwater standards will occur, the facility shall be:
1702
- 1703 (i) Designed for the following minimum disposal capacities:
1704
- 1705 (A) 300 gallons per day for plant cleanup plus.
1706
1707 (B) 25 gallons per head of cattle slaughter capacity.
1708
1709 (C) 40 gallons per head of hog slaughter capacity.
1710
1711 (D) 35 gallons per head of sheep slaughter capacity.
1712
1713 (E) Appropriate capacity for any other species slaughtered on a per
1714 head basis.
1715
- 1716 (ii) Designed to prevent the disposal of blood and viscera into the septic
1717 system except as a small incidental portion of the total flow. Blood and viscera shall be sent to
1718 a rendering plant or other approved disposal or recycling system.
1719
- 1720 (iii) A grease trap shall be provided ahead of the septic system with a total
1721 capacity equal to one half of the total required capacity of the septic tank.
1722
- 1723 (h) All drainage facilities (those with the code number 5D on Appendix C) shall
1724 include:
1725
- 1726 (i) A plan to preclude the inadvertent introduction of contaminants into the
1727 wastewater stream.
1728
- 1729 (ii) An operations and maintenance manual detailing maintenance required,
1730 reporting requirements for known spills affecting the facility, and steps to be taken to prevent
1731 the introduction of contaminants in the event of a spill within the area served by the facility.
1732
- 1733 (iii) Maps showing the area where runoff will be transported to the drainage
1734 facility.
1735
- 1736 (i) All agricultural drainage facilities (5D1) injecting surface runoff from animal
1737 waste piles, feedlots, or dairy operations for which a demonstration can be made that the

1738 groundwater standards can be met, shall be designed for treatment in a septic tank, lagoon, or
1739 other treatment technology prior to injection. The following requirements apply to these
1740 systems:

1741
1742 (i) The treatment facility shall be sized for the strength and solids content
1743 of the wastewater to be treated.

1744
1745 (ii) The flow capacity requirements shall include all runoff from operations
1746 within the collection area and all runoff from precipitation up to and including a 25 year, 24
1747 hour design storm.

1748
1749 (iii) The flow capacity requirements for drainage from a fully enclosed
1750 dairy or feeding operation shall be as follows:

1751 (A) 20 gallons per day per animal up to 50 pounds.

1752 (B) 100 gallons per day per animal up to 500 pounds.

1753 (C) 200 gallons per day per animal over 500 pounds.

1754
1755
1756 (iv) The subsurface fluid distribution system shall be designed in
1757 accordance with general design requirements found in Chapter 25.

1758 (j) All sewage disposal (5E) facilities shall:

1759 (i) Conform to applicable construction standards found in Chapter 25,
1760 Wyoming Water Quality Rules and Regulations;

1761 (ii) Comply with applicable sections of Chapter 11, Parts B and C, Water
1762 Quality Rules and Regulations for all piping systems or storage facilities feeding existing or
1763 Class V facilities constructed after the effective date of these regulations; and

1764 (iii) Be designed for the maximum daily peak flow determined from Tables
1765 1 and 2 of Chapter 25, Water Quality Rules and Regulations. In addition, whenever multiple
1766 points of discharge under one owner within any five (5) acres of land have a design capacity
1767 under Chapter 25 to inject more than a total of 2,000 gallons per day of domestic sewage, they
1768 shall be permitted under this chapter in the same manner that they would be permitted if all the
1769 waste were delivered to a single point of discharge.

1770 (k) All aquaculture return flow facilities (5E1) shall include pretreatment in a
1771 lagoon, septic tank, or oxidation ditch sized for the strength and volume of the wastes to be
1772 disposed of.

1773 (l) All domestic wastewater treatment plant disposal facilities (5E4) shall also
1774 include:

1775 (i) Provisions for filtering of the waste and disinfection of the injectate.

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- 1786 (ii) An environmental monitoring program, including pre-discharge,
1787 operational monitoring, and post discharge monitoring.
1788
- 1789 (iii) Monitoring of the injectate on at least a weekly basis for nitrate as N,
1790 ammonia as N, and coliform bacteria.
1791
- 1792 (iv) Design to prevent groundwater standards violations as defined by
1793 Chapter 8, Water Quality Rules and Regulations.
1794
- 1795 (v) The points of compliance shall be at down gradient monitor wells
1796 installed on land owned by the same utility that operates the treatment plant and injection
1797 facilities whenever the point of injection is not the point of compliance.
1798
- 1799 (vi) Requirements for the submission, approval and conformance with an
1800 operational and maintenance manual.
1801
- 1802 (m) All cathodic protection facilities (5F1) shall include:
1803
- 1804 (i) A seal of sodium bentonite or sodium bentonite grout is required from
1805 the surface to a minimum depth of three (3) feet. A second sodium bentonite or sodium
1806 bentonite grout seal is required for a minimum thickness of three (3) feet, just above the top of
1807 the coke breeze. After the sodium bentonite has been placed in the hole, it shall be hydrated to
1808 insure a proper seal. The remainder of the hole between these seals may be backfilled with
1809 cuttings. The above seals may be placed directly in the hole or may be placed outside of a
1810 surface pipe of sufficient length to reach down to the anodes. If a surface pipe is used, no seals
1811 are required inside the pipe except during final abandonment.
1812
- 1813 (ii) All aquifers encountered while drilling shall be isolated from one
1814 another using a bentonite seal of at least two (2) feet in vertical dimension.
1815
- 1816 (iii) The coke breeze shall be a high quality product containing a minimum
1817 of leachable metals or organic pollutants. The coke breeze shall not discharge any pollutant
1818 which will cause a groundwater standard violation.
1819
- 1820 (iv) Surface access to the anode shall be kept sealed and locked at all times
1821 when the anode is not actually being serviced.
1822
- 1823 (v) Each separate aquifer penetrated shall require a separate breather pipe.
1824 Each aquifer shall remain in hydrologic isolation from each other if they were isolated prior to
1825 installation.
1826
- 1827 (vi) If it becomes necessary to wet any anode installed under this section,
1828 only water from a public water supply or water meeting all of the standards for Class I
1829 groundwater of the state shall be used unless the division is first supplied with an analyses of the
1830 water for approval.
1831
- 1832 (vii) Each 5F1 facility shall be marked in the field with a sign showing the
1833 name, address, and telephone number of the operator who installed the system. Upon
1834 abandonment, such markers shall remain in place.

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(viii) A 5F1 facility shall not be installed within 200 feet of any pipeline, wellhead, storage tank, mud pit or other potential source of pollution unless the operator's surface rights prevent this requirement from being met.

(n) Except for beneficial use facilities, Class V facilities shall not be located within 200 feet of any active public water supply well, regardless of whether or not the well is completed in the same aquifer. This minimum distance may increase or the existence of a Class V facility may be prohibited within a state approved wellhead protection area, source water protection area or water quality management plan area.

(o) Class 5C6 and 5E5 facilities shall meet the construction standards and separation distances appropriate for the design flow as shown in Chapter 25.

(p) Class 5C5 coal bed methane injection facilities shall:

(i) Provide for metering of water injected into each well.

(ii) Be constructed to insure that the water injected reaches the intended receiver and only the intended receiver. The intended receiver shall be identified by geologic formation and/or member name as well as the depth of that receiver below ground surface.

(iii) Provide for disinfection of the water injected if analysis shows that coliform bacteria, sulfate reducing bacteria or iron fixing bacteria are present in the water as pumped from the coal seam. Treatment methods must be methods that would be appropriate for treating water in a public water supply system.

(iv) Provide for injection at a pressure of less than the fracture pressure of the receiver.

(v) Provide for monitoring of the quality of the injected water on a periodic basis.

(vi) Provide notification of the intent to obtain coverage under the general permit to all surface owners, mineral owners or water rights owners, oil and gas owners and the owners of coal leases within one-half mile of the proposed point of injection.

(vii) Provide for pressure testing of the casing before injection and at least once every five (5) years thereafter. The casing shall be pressure tested up to an indicated surface pressure of 700 psi and held for 15 minutes. A passing result is indicated if the casing still has 690 psi at the end of the 15 minute shut in time.

Section 14. Siting conditions for Class I Wells.

(a) All Class I wells shall be situated such that they inject into a formation that is beneath the lowermost Underground Source of Drinking Water within one-quarter (1/4) mile of the well or within two (2) miles for Class I hazardous waste injection wells, and the discharge zone has sufficient permeability, porosity, thickness, and extends over a sufficient area to prevent migration of fluids into any underground source of drinking water.

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(b) Class I wells shall be limited to areas that are determined by the administrator to be geologically suitable for the prevention of migration of fluids into underground source of drinking waters. In determining geological suitability, the administrator shall consider the following information submitted by the applicant:

(i) An analysis of the structural and stratigraphic geology, hydrogeology, and seismicity of the region.

(ii) An analysis of the local geology and hydrogeology of the well site, including, at a minimum, detailed information regarding the stratigraphy, structure, and rock properties, aquifer hydrodynamics, and mineral resources.

(iii) A determination that the geology of the area can be described confidently, and, for hazardous waste wells only, that the waste fate and transport can be accurately predicted through the use of models.

(c) The operator shall demonstrate to the satisfaction of the administrator that:

(i) The confining zone is free from faults or fractures over an area sufficient to prevent the migration of fluids into a underground source of drinking water, and contains at least one formation of sufficient thickness and characteristics capable of preventing vertical propagation of fractures; and

(ii) The confining zone is separated from the base of the lowermost underground source of drinking water by at least one (1) sequence of permeable and less permeable strata that will provide an added layer of protection in the event of fluid movement through an unlocated borehole or fault.

(iii) Within the area of review, the piezometric surface of the fluid in the receiver is less than the piezometric surface of the lowermost underground source of drinking water considering density effects, injection pressures, and any significant pumping of the overlying aquifer; or

(iv) There are no underground sources of drinking waters present.

(d) The administrator may approve a site which does not meet the above requirements, if the operator can demonstrate that because of the site's geology, nature of the waste, or other considerations, it would not cause endangerment to any underground source of drinking waters.

Section 15. Environmental Monitoring Program.

(a) The monitoring program shall be adequate to ensure knowledge of migration and behavior of the discharge in the receiver.

(i) Monitoring may be required for any circumstance where groundwaters of the state could be affected.

1933 (ii) The extent and design of a monitoring system shall be sufficient to deal
1934 with the pollution potential of the proposed discharge.
1935
1936 (iii) Before construction or installation of a Class I or V facility, a
1937 monitoring program, when required, shall be adequate to establish baseline conditions of the
1938 receiver.
1939
1940 (b) The monitoring program shall consist of any or all of the following:
1941
1942 (i) Pre-discharge or pre-operational monitoring.
1943
1944 (ii) Operational monitoring.
1945
1946 (iii) Post-discharge or post-operational monitoring.
1947
1948 (iv) Record keeping and reporting.
1949
1950 (v) Such additional requirements established by the administrator to meet
1951 the purposes of the Wyoming Environmental Quality Act and these regulations.
1952
1953 (c) Each monitoring program shall include maps and cross-sections, where
1954 appropriate, showing the location, lithology, and screening interval of each monitoring site.
1955
1956 (d) The operator is responsible for properly installing, operating, maintaining and
1957 removing all necessary monitoring equipment.
1958
1959 (e) The operator shall develop and follow a written waste analysis plan that
1960 describes the procedures to be carried out to obtain detailed chemical and physical analyses of a
1961 representative sample of the waste, including quality assurance procedures to be used. Once
1962 approved by the department, the operator shall not deviate from the plan without filing an
1963 amended plan and obtaining department approval for that amended plan. At a minimum, any
1964 plan shall include:
1965
1966 (i) The parameters for which the waste will be analyzed, the rationale for
1967 the selection of these parameters, and the test methods to be used to test for these parameters.
1968
1969 (ii) The sampling method that will be used to obtain a representative
1970 sample of the waste.
1971
1972 (iii) The operator shall repeat the analysis of the injected wastes in the
1973 manner and on the schedule described in the waste analysis plan, and when process or operating
1974 changes occur that may significantly alter the characteristics process, or operating changes occur
1975 that may significantly alter the characteristics of the waste stream.
1976
1977 (A) The operator shall conduct continuous or periodic monitoring
1978 of selected parameters as required by the administrator.
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1980 (B) The operator shall ensure that the plan remains accurate and the
1981 analyses remain representative.

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(f) Requirements for Class I Wells:

(i) At a minimum, the permittee shall monitor the pressure in the injection zone annually, including at a minimum, a shutdown of the well for a time sufficient to conduct a valid observation of the pressure falloff curve.

(ii) When prescribing a monitoring system, the administrator may also require:

(A) Continuous monitoring for pressure changes in the first aquifer overlying the confining zone. When such a well is installed, the operator shall, on a quarterly basis, sample the aquifer and analyze for constituents specified by the administrator.

(B) The use of indirect, geophysical techniques to determine the position of the waste front, the water quality in a formation designated by the administrator, or to provide other site specific data.

(C) Periodic monitoring of the groundwater quality in the first aquifer overlying the receiver.

(D) Periodic monitoring of the groundwater quality in the lowermost underground source of drinking water; and

(E) Any additional monitoring necessary to determine whether fluids are moving into or between any aquifers penetrated by the well.

(F) The administrator may require seismicity monitoring when he has reason to believe that the injection activity may have the capacity to cause seismic disturbances.

(iii) Testing and monitoring requirements for all Class I hazardous waste wells shall include:

(A) Submission of information by the applicant demonstrating that the waste stream and its anticipated reaction products will not alter the permeability, thickness, or other relevant characteristics of the confining or discharge zones such that they would no longer meet the requirements specified when the area of review was calculated.

(B) Submission of information by the applicant demonstrating that the waste will be compatible with the well materials with which the waste is expected to come into contact and a description of the methodology used to make that determination. Compatibility for purposes of this requirement is established if contact with injected fluids will not cause the well materials to fail to satisfy any design requirement imposed under Section 12 of this chapter.

(C) The administrator shall require continuous corrosion monitoring of the construction materials in the well for all wells where the pH of the injection fluid is less than two (2) or greater than eleven (11), and may require such monitoring of other wastes. This monitoring may be conducted by placing samples of the well construction

2031 materials in contact with the waste stream or routing the waste stream through a loop
2032 constructed of the same materials used in the well, or by using an alternative method approved
2033 by the administrator.

2034

2035 (D) If a corrosion monitoring program is required, the test shall use
2036 identical materials to those used in the construction of the well, and such materials shall be
2037 continuously exposed to the operating pressures, temperatures, and flow rates of the injection
2038 operation as measured at the well head. The operator shall monitor the materials for loss of
2039 mass, thickness, pitting, and other signs of corrosion on a quarterly basis to ensure that the well
2040 components meet the minimum standards for material strength and performance set forth in
2041 Section 12 of this chapter.

2042

2043 (iv) In addition to the above-mentioned requirements, operators of Class I
2044 hazardous waste wells shall also conduct mechanical integrity testing as follows:

2045

2046 (A) The long string casing, injection tubing, and annular seals shall
2047 be tested by means of an approved pressure test with liquid or gas on an annual basis and
2048 whenever there has been a well workover.

2049

2050 (B) The bottom-hole cement shall be tested by means of an
2051 approved radioactive tracer survey annually.

2052

2053 (C) An approved temperature, noise, or other approved log shall be
2054 run at least once every five (5) years to test for movement of fluid along the borehole. The
2055 administrator may require such tests whenever the well is worked over.

2056

2057 (D) Casing inspection logs shall be run at least once every five (5)
2058 years, unless the administrator waives this requirement due to well construction or other factors
2059 which limit the test's reliability.

2060

2061 (E) Any other test approved by the administrator may also be used.
2062 Procedures for approval of unauthorized mechanical integrity tests are outlined in Section
2063 6(h)(i)(B) of this chapter.

2064

2065 (F) The administrator shall be given the opportunity to witness all
2066 logging and drill stem testing done by the operator at any time during the permitting of any well
2067 under this chapter. The operator shall submit a schedule of such planned logging and testing to
2068 the administrator at least thirty (30) days prior to the first test.

2069

2070 (g) Requirements for Class V Wells:

2071

2072 (i) All Class V permits shall contain a point of compliance. The point of
2073 compliance shall be the point of injection or specific monitor wells located down gradient of the
2074 injection facilities.

2075

2076 (A) For facilities where the point of compliance is the point of
2077 injection, the fluid to be injected shall be limited to the class of use standards for the receiver as
2078 found in Chapter 8 of these regulations or any primary drinking water standard found in 40 CFR
2079 141, (as of June 6, 2001) whichever is more stringent. The permittee may be required to

2080 maintain monitor wells in the vicinity of the discharge for the purpose of monitoring flow
2081 direction and monitoring groundwater quality in the event of non-compliance with the permit.
2082

2083 (B) For facilities where the point of compliance is at one or more
2084 down gradient monitor wells, the department shall establish permit limitations at the monitor
2085 well(s) consistent with the class of use of the receiver or any secondarily affected aquifer or
2086 surface water. Where necessary to protect existing or future uses, permit limitations may be
2087 established at the point of compliance which are more stringent than the class of use standard.
2088

2089 (C) Facilities where subsurface treatment is anticipated may be
2090 required to monitor the injected fluid at the point of injection. Permit limits may be established
2091 at the point of injection which exceeds the class of use standard for the affected aquifer,
2092 provided that a demonstration is made showing that a class of use standards violation will not
2093 occur at a point of compliance downgradient from the point of injection. Permit limits of this
2094 nature are intended to provide early warning of possible non-compliance at the point of
2095 compliance.
2096

2097 (h) Procedures and methods for sample collection and analyses shall be
2098 implemented by the permittee to ensure that the samples are representative of the groundwater,
2099 water, or wastes being sampled.
2100

2101 (i) Sample collection of groundwater shall be of such frequency and of such
2102 variety (season, time, location, depth, etc.) to properly describe the groundwater, and shall be
2103 accomplished by the methods and procedures described in the U.S. Environmental Protection
2104 Agency manual RCRA Groundwater Monitoring Technical Enforcement Guidance Document,
2105 September, 1986, unless alternate methods and procedures are approved by the administrator.
2106

2107 (j) Analysis of all samples shall be accomplished pursuant to Chapter 8, Water
2108 Quality Rules and Regulations, Sections 7 and 8.
2109

2110 **Section 16. Quality Assurance and Quality Control for Sample Collection and**
2111 **Analysis.**
2112

2113 (a) Procedures and methods for sample collection and analyses shall be
2114 implemented by the permittee to ensure that the samples are representative of the groundwater,
2115 water, or wastes being sampled.
2116

2117 (b) Sample collection of groundwater shall be of such frequency and of such
2118 variety (season, time, location, depth, etc.) to properly describe the groundwater, and shall be
2119 accomplished by the methods and procedures described in the U.S. Environmental Protection
2120 Agency manual RCRA Groundwater Monitoring Technical Enforcement Guidance Document,
2121 September, 1986, unless alternate methods and procedures are approved by the administrator.
2122

2123 (c) Analysis of all samples shall be accomplished pursuant to Chapter 8, Water
2124 Quality Rules and Regulations, Sections 7 and 8.
2125

2126 **Section 17. Closure of Hazardous Waste Wells.**
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2128 (a) The operator of a Class I hazardous waste well shall prepare, maintain, and
2129 comply with a plan for closure of the well and post-closure care of the well that meets the
2130 standards for well closure required in paragraph (d) of this section and post-closure care
2131 required in paragraph (e) of this section and is acceptable to the administrator. The obligation to
2132 implement the closure and post-closure plan survives the termination of a permit or the
2133 cessation of injection activities. The requirement to maintain and implement an approved plan is
2134 directly enforceable regardless of whether the requirement is a condition of the permit.

2135
2136 (i) The operator shall submit the plan as part of the permit application,
2137 and, upon approval by the administrator, the plan shall be incorporated as a condition of any
2138 permit issued.

2139
2140 (ii) The operator shall submit any proposed significant revision to the
2141 method of closure reflected in the plan for approval by the administrator no later than the date
2142 on which notice of closure is required under paragraph (b) of this section.

2143
2144 (iii) The plan shall ensure financial responsibility as required in Section 19
2145 of this chapter.

2146
2147 (iv) The closure plan shall include the following information:

2148 (A) The type and number of plugs to be used.

2149 (B) The placement of each plug including the elevation of the top
2150 and bottom of each plug.

2151 (C) The type, grade, and quantity of material to be used in
2152 plugging.

2153 (D) The method of placement of the plugs.

2154 (E) Any proposed test or measure to be made.

2155 (F) The amount, size, and location (by depth) of casing and any
2156 other materials to be left in the well;

2157 (G) The method and location where casing is to be parted, if
2158 applicable.

2159 (H) The procedure to be used to meet the requirements of
2160 paragraph (d)(5) of this section;

2161 (I) The estimated cost of closure.

2162 (J) Any proposed test or measure to be made.

2163
2164 (v) Post-closure plans shall include the following information:
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2177 (A) The pressure in the injection zone before injection began.
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2179 (B) The anticipated pressure in the injection zone at the time of
2180 closure.
2181
2182 (C) The predicted time until pressure in the injection zone decays
2183 to the point that the well's cone of influence no longer intersects the base of the lowermost
2184 Underground Source Drinking Water.
2185 (D) Predicted position of the waste front at closure.
2186
2187 (E) The status of any required cleanups; and
2188
2189 (F) The estimated cost of proposed post-closure care.
2190
2191 (vi) The administrator may modify a closure plan in accordance with the
2192 procedures outlined in Section 7 of this chapter governing modification of permits.
2193
2194 (vii) An operator of a Class I hazardous waste injection well who ceases
2195 injection temporarily, may keep the well open provided:
2196
2197 (A) The operator receives authorization from the administrator.
2198
2199 (B) The operator has described actions or procedures, satisfactory
2200 to the administrator, that the operator will take to ensure that the well will not endanger Under-
2201 ground Source of Drinking Waters during the period of temporary disuse. These actions and
2202 procedures shall include compliance with the technical requirements applicable to active
2203 injection wells unless waived by the administrator.
2204
2205 (viii) The operator of a well that has ceased operations for more than two
2206 years shall notify the administrator at least thirty (30) days prior to resuming operation of the
2207 well.
2208
2209 (b) The operator shall notify the administrator at least sixty (60) days prior to
2210 closure of a well. The administrator may allow a closure period of less than sixty (60) days.
2211
2212 (c) Within sixty (60) days after closure or at the time of the next quarterly report,
2213 whichever is less, except if the next quarterly report is due within fifteen (15) days, in which
2214 case the sixty (60) day requirement will be used, the operator shall submit a closure report to the
2215 administrator.
2216
2217 (i) Such report shall contain a certification by the operator and the person
2218 who performed the closure, if different from the operator, of the accuracy of the report, and:
2219
2220 (A) A statement that the well was closed in accordance with the
2221 closure plan previously submitted and approved by the administrator.
2222
2223 (B) Where actual closure differed from the plan previously
2224 submitted, a written statement specifying the differences between the previous plan and the
2225 actual closure.

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(d) Standards for well closure.

(i) Prior to well closure, the owner or operator shall observe and record the pressure decay for a time specified by the administrator, who shall then analyze the pressure decay and the transient pressure observations conducted to determine whether the injection activity has conformed with predicted values.

(ii) Prior to well closure, appropriate mechanical integrity testing shall be conducted to ensure the integrity of that portion of the long string casing and cement that will be left in the ground after closure. Testing methods shall be similar to the mechanical integrity tests required during the operating life of the well.

(iii) Prior to well closure, the well shall be flushed with a buffer fluid.

(iv) Upon closure, a Class I hazardous waste well shall be plugged with cement in a manner that will not allow the movement of fluids into or between any underground source of drinking water.

(v) Placement of the cement plugs shall be accomplished by circulating cement to the bottom of the well using a working string. The working string shall be removed as the cement is pumped. The cement used shall be of a variety such that the working string can be withdrawn while still allowing the well to be filled with cement.

(vi) Each plug used shall be appropriately tagged and tested for seal and stability before closure is completed.

(vii) The well to be closed 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 described by the administrator, prior to the placement of the cement plugs.

(e) Post-closure care.

(i) The operator shall continue and complete any required cleanup action.

(ii) The operator shall continue to conduct any groundwater monitoring required under the permit until pressure in the injection zone decays to the point that the well's cone of influence no longer intersects the base of the lowermost Underground Source of Drinking Water. The administrator may extend the period of post-closure monitoring if he or she determines that the well may endanger an Underground Source of Drinking Water.

(iii) The operator shall submit a survey plat to the local zoning authority designated by the administrator, indicating the location of the well relative to permanently surveyed benchmarks. A copy of the plat shall be submitted to the Regional administrator of the U.S. EPA Region 8, the Wyoming State Engineer's Office, and to the Wyoming Oil and Gas Conservation Commission.

(iv) The operator shall retain for a minimum of three (3) years following well closure, records reflecting the nature, composition and volume of all injected fluids. The

2275 administrator shall require the operator to deliver the records to the administrator at the
2276 conclusion of this retention period.

2277

2278 (f) Each owner of a Class I hazardous waste well, and the owner of the surface or
2279 subsurface property on or in which a Class I hazardous waste well is located, must record a
2280 notation on the deed to the facility property or on some other instrument which is normally
2281 examined during title search that will in perpetuity provide any potential purchaser of the
2282 property the following information:

2283 (i) The fact that the land in question has been used to manage hazardous
2284 waste.

2285

2286 (ii) The name of the State agency or local authority with which the plat was
2287 filed, as well as the address of the Environmental Protection Agency Region 8 to which it was
2288 submitted.

2289

2290 (iii) The type and volume of waste injected, the injection interval or
2291 intervals into which it was injected, and the period over which injection occurred.

2292

2293 **Section 18. Abandonment of Class V Facilities.**

2294

2295 (a) After the effective date of these regulations, Class V facilities may be
2296 abandoned in place if the following conditions are met and if it can be demonstrated to the
2297 satisfaction of the administrator that:

2298

2299 (i) No hazardous waste has ever been discharged through the facility.

2300

2301 (ii) No radioactive waste has ever been discharged through the facility.

2302

2303 (iii) All piping allowing for the discharge has either been removed or the
2304 ends of the piping have been plugged in such a way that the plug is permanent and will not
2305 allow for a discharge.

2306

2307 (iv) All accumulated sludges are removed from any septic tanks, holding
2308 tanks, lift stations, or other waste handling structures prior to abandonment.

2309

2310 (b) Facilities which cannot demonstrate compliance with subsection (a) (i) or (a)
2311 (ii) of this section, may be abandoned in place if:

2312

2313 (i) Tests are run on sludges accumulated in the septic tanks, holding tanks,
2314 lift stations, or other waste handling structures which shows that none of these materials contain
2315 characteristic hazardous waste or radioactive waste.

2316

2317 (ii) Monitoring of the groundwater in the immediate area of the facility
2318 shows that there are no toxic materials (substances) present in the groundwater at levels higher
2319 than class of use standards, which are present as a result of the injection.

2320

2321 (iii) Some other method is determined to be acceptable to the administrator
2322 which demonstrates compliance with Chapter 8 of these regulations and prevents the movement
2323 of fluid containing any contaminant into an underground source of drinking water, if the

2324 presence of that contaminant may cause a violation of any primary drinking water standard
2325 found in 40 CFR 141 (as of June 6, 2001).

2326

2327 (c) Facilities which cannot make the demonstrations required under either
2328 subsection (a) or (b) of this section shall be excavated to the point where contamination is no
2329 longer visible in the soil. At that point, samples shall be taken of the soil for all hazardous
2330 constituents which may have been discharged through the system. Materials excavated shall be
2331 removed from the site for disposal under approval of the Solid and Hazardous Waste
2332 Management Division.

2333

2334 (d) Cathodic protection (5F1) facilities will be considered to have made the
2335 demonstrations required under subsections (a) and (b) if no waste has been disposed of into the
2336 facility. After they have fulfilled their useful purpose, they shall be abandoned by filling all
2337 breather pipes with an impervious material and removing all surface installations down to a
2338 depth of three (3) feet. All anodes where the construction included a surface casing shall also
2339 have the surface casing cut off three (3) feet below grade and a plug or cap shall be installed on
2340 the surface casing. It is not necessary to remove the coke breeze, anodes, and seals during
2341 abandonment. The administrator may approve other alternatives for abandonment if they
2342 provide adequate environmental protection.

2343

2344 (e) Prior to abandoning any class 5C4 automotive waste disposal facility, the
2345 operator shall provide thirty (30) days notice to the administrator.

2346

2347 **Section 19. Financial responsibility.**

2348

2349 (a) The operator of any Class I well shall demonstrate and maintain financial
2350 responsibility and resources to close, plug, abandon and maintain post-closure care for the
2351 underground injection operation in a manner prescribed by the administrator. The permittee
2352 shall show evidence of such financial responsibility to the administrator by the submission of a
2353 surety bond, or other adequate assurance such as financial statements or other materials
2354 acceptable to the administrator.

2355

2356 (b) The amount of the funds available shall be no less than the amount identified as
2357 the estimated cost of plugging, abandoning, and post-closure care.

2358

2359 (c) The obligation to maintain financial responsibility survives the termination of a
2360 permit or the cessation of injection. The requirements to maintain financial responsibility is
2361 enforceable regardless of whether the requirement is a condition of the permit.

2362

2363 (d) After plugging operations are completed, the amount of the financial surety
2364 required may be reduced by the administrator to the estimated cost of post-closure care.

2365

2366 (e) The owner or operator of a well injecting hazardous waste must comply with
2367 the financial responsibility requirements of 40 CRF 144 Subpart F.

2368

2369 **Section 20. Prohibitions.**

2370

2371 (a) In addition to the requirements in W.S. 35-11-301 (a), no person shall:

2372

2373 (i) Conduct any authorized injection activity in a manner that results in a
2374 violation of any permit condition or representations made in the application, the request for
2375 coverage under the general permit, individual permit, or permit by rule. A permit condition
2376 supersedes any application content.
2377
2378 (ii) Construct, install, modify or improve an authorized injection facility
2379 except in compliance with the permit requirements.
2380 (b) All Class IV wells are prohibited.
2381
2382 (c) Requirements for Class I Wells:
2383
2384 (i) No person shall conduct any authorized injection activity in a manner
2385 that results in a movement of fluids out of the receiver, including, but not limited to:
2386
2387 (A) No zone or interval other than that represented as the discharge
2388 zone in the permit shall be used as a receiver for the discharge.
2389
2390 (B) No uncased hole may be used as a conduit for the discharge,
2391 excepting that portion of a hole in the discharge zone.
2392
2393 (C) No annular space between the wall of the hole and casing in the
2394 hole may be used as a conduit for the discharge, excepting in that portion of a hole in the
2395 discharge zone.
2396
2397 (ii) No solvent wastes which are listed hazardous waste numbers F001,
2398 F002, F003, F004, or F005 under 40 CFR 261.31 shall be injected underground in any Class I
2399 well unless those wastes are waste solvent mixtures that do not exceed or are treated to not
2400 exceed the standards listed in Appendix A.
2401
2402 (iii) No dioxin containing wastes which are listed hazardous waste number
2403 F020, F021, F022, F023, F026, F027 or F028 under 40 CFR 261.31 shall be injected
2404 underground in any well unless those wastes do not exceed, or are treated to not exceed the
2405 standards listed in Appendix B.
2406
2407 (iv) Treatment to meet appendix A or B limitations shall be accomplished
2408 according to a state hazardous waste treatment permit issued by the department. Dilution is
2409 prohibited as a substitute for treatment of wastes listed in subsections paragraphs (ii) and (iii)
2410 above.
2411
2412 (v) No person shall inject any hazardous waste which has been banned
2413 from land disposal pursuant to 40 CFR 268.41 or department regulations, as applicable, unless:
2414
2415 (A) The hazardous waste has first been treated to a concentration of
2416 less than the levels specified in 40 CFR 268.41 or 40 CFR 268 Appendix I, or department
2417 regulations, as applicable.
2418
2419 (B) An exemption petition has been submitted and approved by the
2420 U.S. Environmental Protection Agency under 40 CFR 148.20, or department regulations, as

2421 applicable. After approval of such a petition, the operator is required to comply with all
2422 conditions contained as part of the granting of the petition.
2423
2424 (d) Requirements for Class V Wells:
2425
2426 (i) No person shall discharge to any zone except the authorized discharge
2427 zone as described in the permit.
2428
2429 (ii) The construction of any Class 5C4 facility after the effective date of
2430 these regulations is prohibited.
2431
2432 (iii) No person shall inject any hazardous waste which has been banned
2433 from land disposal pursuant to Chapter 1, Wyoming Hazardous Waste Rules and Regulations
2434 unless the disposal conforms to that chapter.
2435
2436 (iv) No drainage facility, subclass 5D1 through 5D5 shall be constructed so
2437 as to directly receive any waste other than natural precipitation or natural groundwater unless
2438 permitted under an individual permit.
2439
2440 (v) No heating and cooling facility, subclass 5A1 through 5A3, shall be
2441 constructed so as to receive any waste other than cooling water. No corrosion inhibitors, scale
2442 inhibitors, biocides, antifreeze agents, salts, or refrigerants shall be added to the water prior to
2443 injection.
2444
2445 (vi) No abandoned drinking water well shall be used as a disposal well
2446 unless it can be demonstrated that the waste being disposed of will leave the class of use of the
2447 affected groundwater unchanged. The class of use referred to is determined under Water
2448 Quality Rules and Regulations, Chapter 8 Quality Standards for Wyoming Ground Waters.
2449
2450 (vii) No wastewater produced by electric power generation from geothermal
2451 fluids shall be disposed of in any Class V injection facility. Such wells are Class I injection
2452 wells and are covered by regulations in this chapter.
2453
2454 (viii) No wastewater produced by recovery of brines and extraction of
2455 halogens shall be disposed of in any Class V injection facility. Such wells are Class I injection
2456 wells and are covered by regulations in this chapter.
2457
2458 (ix) No person shall construct and/or operate any cesspool after April 14,
2459 1998. No Class V facility which receives domestic sewage shall be constructed and/or operated
2460 after April 14, 1998 unless the waste is first treated in a septic tank, or other pre-treatment
2461 device. Prior to closure of any cesspool, the operator shall notify the administrator thirty (30)
2462 days in advance.
2463
2464 (x) The operation of any Class V septic system with liquid waste visible on
2465 the ground surface shall be considered a failure of the system and a violation of these
2466 regulations.
2467
2468 (xi) An operator of a facility which is authorized by rule is prohibited from
2469 injection into the facility:

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(A) Upon failure to submit inventory information prior to construction for facilities constructed after April 14, 1999.

(B) Upon failure to comply with a request for information under Section 11 (e) of this chapter.

(xii) Pumping domestic sewage out of any Class V facility for any use other than disposal to an approved facility is prohibited.

Section 21. Public Participation, Public Notice and Public Hearing Requirements.

(a) Public notice is not required for minor modifications or for a permit denial where the application is determined incomplete or deficient in accordance with Section 7 unless the permittee or applicant requests a hearing before the council pursuant to this section.

(b) The administrator shall give public notice for any of the following actions:

(i) The administrator has prepared a draft permit which is intended for issuance, denial or reissuance.

(ii) The administrator intends to modify a permit.

(iii) The administrator intends to revoke or terminate a permit.

(iv) Any hearing held as a result of a request for hearing on above actions or department actions appealable to the council.

(c) Public notice is not required for any facility permitted by rule or for any facility covered under general permit. The department shall issue one public notice creating the general permit and then notice at each subsequent five (5) year review.

(d) The administrator shall include a thirty (30) day public comment period for any action on items (b)(i), (ii) or (iii) or thirty (30) days notice before any hearing date as part of the public notice. When two notices are required, they may be given at the same time.

(e) Public notice shall be given by:

(i) Mailing a copy of the notice to the following persons:

(A) The applicant, by certified or registered mail. For general permits this includes all persons registered as operators of facilities which the department believes will be covered by the general permit.

(B) The U.S. Environmental Protection Agency.

(C) Wyoming Game and Fish Department.

2519 (D) Wyoming State Engineer.
2520
2521 (E) State Historical Preservation Officer.
2522
2523 (F) Wyoming Oil and Gas Conservation.
2524
2525 (G) Land Quality Division.
2526
2527 (H) Persons on the mailing list developed by including those who
2528 request in writing to be on the list and soliciting persons for "area lists" from participants in
2529 proceedings in that area.
2530
2531 (I) Any unit of local government having jurisdiction over the area
2532 where the facility is proposed to be located.
2533
2534 (ii) Publication of the notice in a newspaper of general circulation in the
2535 location of the facility or operation.
2536
2537 (iii) At the discretion of the administrator, any other method reasonably
2538 expected to give actual notice of the action in question to the persons potentially affected by it,
2539 including press releases or any other forum or medium to elicit public participation.
2540
2541 (f) All public notices issued under this chapter shall contain the following
2542 minimum information:
2543
2544 (i) Name and address of the department.
2545
2546 (ii) Name and address of permittee or permit applicant, and, if
2547 different, of the facility or activity regulated by the permit. For general permits, this includes a
2548 list of existing facilities and the location of each facility which will be covered by the general
2549 permit. If new facilities may be covered under a general permit as they are constructed, then that
2550 fact will also be stated.
2551
2552 (iii) A brief description of the business conducted at the facility or
2553 activity described in the permit application or the draft permit. For general permits a generic
2554 statement of the type of facility to be covered is all that is required.
2555
2556 (iv) Name, address and telephone number of a person from whom
2557 interested persons may obtain further information, including copies of the draft permit, as the
2558 case may be, statement of basis or fact sheet, and the application.
2559
2560 (v) A brief description of comment procedures, procedures to
2561 request a hearing, and other procedures which the public may use to participate in the final
2562 permit decision.
2563
2564 (vi) Any additional information considered necessary and proper.
2565
2566 (g) In addition to the information required in (f) of this section, any notice for
2567 public hearing shall contain the following:

2568
2569 (i) Reference to the date of previous public notices relating to the permit.
2570
2571 (ii) Date, time and place of hearing.
2572
2573 (iii) A brief description of the nature and purpose of the hearing, including
2574 applicable rules and procedures.
2575
2576 (h) The department shall provide an opportunity for the applicant, permittee, or any
2577 interested person to submit written comments regarding any aspect of a permit including, but
2578 not limited to, permit issuance, denial, modification, revocation and reissuance, termination, or
2579 transfer and/or to request a public hearing.
2580
2581 (i) All information received on or with the permit application shall be made
2582 available to the public for inspection and copying except such information as has been
2583 determined to constitute trade secrets or confidential information pursuant to W.S. 35-11-1101.
2584 The department shall provide facilities for inspection and copying of all non-confidential
2585 documents. Copying shall be at the expense of the person requesting copies.
2586
2587 (j) During the public comment period, any interested person may submit written
2588 comments on the draft permit and may request a public hearing. Requests for public hearings
2589 on permit applications or modifications must be made in writing to the administrator and shall
2590 state the reasons for the request. Requests for public hearings on permit issuance, denial,
2591 revocation, termination, or any other department action appealable to the Council, shall be made
2592 in writing to the chairman of the council and the department and state the grounds for the
2593 request.
2594
2595 (i) Requests for public hearings based on contested issues may be filed at
2596 any stage of the permitting process; and
2597
2598 (ii) After notice is given for public comment, requests for public hearings
2599 must be filed within thirty (30) days after the last publication of the public notice.
2600
2601 (k) The administrator shall hold a hearing whenever the administrator finds, on the
2602 basis of requests, a significant degree of public interest in a draft permit. The administrator has
2603 the discretion to hold a hearing whenever such a hearing may clarify issues involved in a permit
2604 decision.
2605
2606 (l) The Council shall hold hearings pursuant to the Wyoming Department of
2607 Environmental Quality Rules of Practice and Procedure.
2608
2609 (m) Public hearings will be held in the geographic area wherein the proposed
2610 discharge is located, or as nearby as reasonable. Public hearings will be held pursuant to the
2611 Wyoming Department of Environmental Quality Rules of Practice and Procedure.
2612
2613 (n) The public comment period shall automatically extend to the close of any
2614 public hearing. The administrator may also extend the comment period by so stating at the
2615 public hearing.
2616

2617 (o) The director shall render a decision on the draft permit within thirty (30) days
2618 after the completion of the comment period if no hearing is requested. If a hearing is held, the
2619 director shall make a decision on any department hearing as soon as practicable after receipt of
2620 the transcript or after the expiration of the time set to receive written comments.

2621

2622 (p) At the time a final decision is issued, the department shall respond, in writing,
2623 to those comments received during the public comment period or comments received during the
2624 allotted time for a hearing held by the department. This response shall:

2625

2626 (i) Specify any changes that have been made to the permit.

2627

2628 (ii) Briefly describe and respond to all comments voicing a legitimate
2629 regulatory concern that is within the authority of the department to regulate.

2630

2631 (q) The response to comments shall also be available to the public.

2632

2633 (r) Requests for a contested case hearing on a permit issuance, denial, revocation,
2634 termination, or any other final department action appealable to the Council, shall be made in
2635 writing to the chairman of the Environmental Quality Council and the director and state the
2636 grounds for the request pursuant to the Wyoming Department of Environmental Quality Rules
2637 of Practice and Procedure.

2638

2639 **Section 22. Class I Permits Issued Before the Effective Date of These**
2640 **Regulations.**

2641

2642 Any Class I well permitted before the effective date of these regulations shall be
2643 reviewed pursuant to Section 6(h).

2644

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APPENDIX A

| Parameter | Maximum Allowable Concentration |
|---------------------------------------|---------------------------------|
| Acetone | .05 mg/L |
| N-Butyl alcohol | 5.00 mg/L |
| Carbon disulfide | 1.05 mg/L |
| Carbon tetrachloride | .05 mg/L |
| Chlorobenzene | .05 mg/L |
| Cresols and cresylic acid | .75 mg/L |
| Cyclohexanone | .125 mg/L |
| 1,2-Dichlorobenzene | .65 mg/L |
| Ethyl acetate | .05 mg/L |
| Ethyl benzene | .05 mg/L |
| Ethyl ether | .05 mg/L |
| Isobutanol | 5.00 mg/L |
| Methanol | .25 mg/L |
| Methylene chloride | .20 mg/L |
| Methyl ethyl ketone | .05 mg/L |
| Methyl isobutyl ketone | .05 mg/L |
| Nitrobenzene | .66 mg/L |
| Pyridine | .33 mg/L |
| Tetrachloroethylene | .05 mg/L |
| Toluene | .33 mg/L |
| 1,1,1-Trichloroethane | .41 mg/L |
| 1,2,2-Trichloro-1,2,2 Trifluoroethane | .96 mg/L |
| Trichloroethylene | .062 mg/L |
| Trichlorofluoromethane | .05 mg/L |
| Xylene | .05 mg/L |
| Polychlorinated biphenols | 500.00 mg/L |

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APPENDIX B

| Parameter | Maximum Allowable Concentration |
|---|---------------------------------|
| HxCDD-All hexachlorodibenzo-p-dioxins | 1 ppb |
| HxCDF-All hexachlorodibenzofurans | 1 ppb |
| PeCDD- All pentachlorodibenzo-p-dioxins | 1 ppb |
| PeCDF-All pentachlorodibenzofurans | 1 ppb |
| TCDD-All tetrachlorodibenzo-p-dioxins | 1 ppb |
| TCDF-All tetrachlorodibenzofurans | 1 ppb |
| 2,4,5 Trichlorophenol | 50 ppb |
| 2,4,6 Trichlorophenol | 50 ppb |
| 2,3,4,6 Tetrachlorophenol | 100 ppb |
| Pentachlorophenol | 10 ppb |

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**APPENDIX C
SUBCLASSES OF CLASS V FACILITIES**

| SUBCLASS | DESCRIPTION |
|--|--|
| HEATING AND COOLING FACILITIES | |
| 5A1 | Direct Heat ReInjection Facilities - Reinject geothermal fluids used to provide direct heat for large buildings, developments or aquiculture facilities. |
| 5A2 | Heat Pump/Air Conditioner Return Flow Facilities - Reinject groundwater used to heat or cool a building in a ground based heat pump system, or used to inject heat only using a closed loop heat pump system |
| 5A3 | Cooling Water Return Flow Facilities - Receive non-contact cooling water from industrial processes, both open and closed loop processes. |
| BENEFICIAL USE INJECTION FACILITIES | |
| 5B1 | Mining, Sand or Backfill Facilities - Used to inject a fluid mixture of sand, cement, fly ash used as a pozzalin, or mill tailings into mined out portions of underground mines. |
| 5B2 | Aquifer Recharge Facilities - Receive water specifically for storage of water underground. Must be coupled with the ability to withdraw stored water at a later date for beneficial use. Coal bed methane operators cannot dispose of their produced water in class 5B2 injection wells after the effective date of these rules. |
| 5B3 | Saline Water Intrusion Barrier Facilities - Receive fresh water to prevent the continued migration of saline water into a fresh water aquifer. Includes projects installed to control contaminant plumes by injection of clean water. |
| 5B4 | Subsidence Control Facilities - Receive fresh water for the purpose of controlling subsidence caused by an overdraft of water, oil or natural gas. |
| 5B5 | Facilities which inject fluids and are used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality. All 5B5 facilities are covered under Article 16 of the Environmental Quality Act |

| SUBCLASS | DESCRIPTION |
|----------|--|
| 5B6 | Department Controlled Facilities - Facilities which inject fluids and are used to prevent, control or remediate pollution, remediate subsiding mine sites, or produce other beneficial results which are owned or controlled by the Department of Environmental Quality. These facilities include but are not limited to, facilities under the supervision of Water Quality Division's Underground Storage Tank Program, facilities under the control and direction of the Abandoned Mined Lands Program, and facilities under the supervision of the Solid and Hazardous Waste Management Division. Control may be exercised through ownership, operation, or by administrative orders, stipulated settlements, consent decrees or other legal methods which result in control of a facility by the department. |
| 5B7 | Air sparging facilities - Facilities used to inject only air for the purpose of either encouraging microbial breakdown of hydrocarbons or removing of volatile chemicals by vapor extraction. |

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|---|
| COMMERCIAL AND INDUSTRIAL FACILITIES |
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|-----|--|
| 5C1 | Air Scrubber Waste Disposal Facilities - Inject wastes from air scrubbers used to remove sulphur, fly ash, or other contaminants. |
| 5C2 | Water Treatment Brine Disposal Facilities - Receive brine from water softening or other water treatment. |
| 5C3 | Industrial Process Water and Waste Disposal Facilities - Receive wastes generated by industrial and commercial processes. Examples include but are not limited to wastes from car washing, taxidermy, metal plating, printing, silk screening, refining, slaughter houses, and chemical manufacturing companies. |
| 5C4 | Automotive Waste Disposal Facilities - Inject waste from floor drains or sinks where repair work is done on machinery of any description. |
| 5C5 | Coal Bed Methane Injection Facilities - Inject groundwater produced in the process of coal bed methane extraction into a receiving aquifer containing water of the same or lower class of use. |
| 5C6 | Small Commercial Disposal Systems - Inject wastewater which is of similar quality to domestic sewage which does not technically meet the definition of domestic sewage, in quantities of less than 2,000 gallons per day. |

| SUBCLASS | DESCRIPTION |
|-----------------------------------|--|
| DRAINAGE FACILITIES | |
| 5D1 | Agricultural Drainage Facilities - Receive irrigation tailwaters, other field drainage, animal yard, feedlot, or dairy runoff, and other agricultural wastewater. |
| 5D2 | Storm Water Drainage Facilities - Receive storm water runoff from paved areas, including parking lots, streets, residential subdivisions, building roofs, highways, etc. |
| 5D3 | Improved Sinkholes - Receive storm water runoff from developments located in karst topographic areas. |
| 5D4 | Industrial Drainage Facilities - Receive storm runoff from areas susceptible to spills, leaks, and other chemical discharges. |
| 5D5 | Special Drainage Facilities - Receive water from sources other than direct precipitation. Examples of this type include landslide control drainage facilities, potable water tank overflow drainage facilities, swimming pool drainage facilities, and lake level control drainage facilities. |
| SEWAGE DISPOSAL FACILITIES | |
| 5E1 | Aquaculture Return Flow Facilities - Receive injectate from aquaculture operations. |
| 5E2 | Untreated Domestic sewage Disposal Facilities - Receive untreated domestic sewage from single or multiple sources. Does not include subsurface fluid distribution systems with septic tanks ahead of the subsurface fluid distribution system. Includes all cesspools, regardless of capacity. |
| 5E3 | Domestic Subsurface Fluid Distribution Systems - Receive more than 2,000 gallons per day of domestic sewage with only primary treatment such as effluent from a septic tank. In addition, any facility injecting domestic sewage within any five (5) acres of land is a class 5E3 facility whenever multiple 5E facilities under one owner inject a cumulative maximum peak design flow of more than 2,000 gallons per day of domestic sewage. |
| 5E4 | Domestic Wastewater Treatment Plant Disposal Facilities - Dispose of treated domestic waste after treatment to at least secondary treatment standards. |

SUBCLASS
5E5

DESCRIPTION
Small Domestic Subsurface Fluid Distribution Systems -
Receive less than 2,000 gallons per day as an average of a
typical week, of domestic sewage with only primary treatment
in a septic tank. These systems are designed to accept more
than 2,000 gallons per day at a peak and are not small
wastewater systems. No class 5E5 system has a required design
capacity in excess of 5,000 gallons per day.

| |
|----------------------------------|
| MISCELLANEOUS CLASS V FACILITIES |
|----------------------------------|

5F1

Cathodic Protection Facilities -Facilities constructed with coke
breeze and dust control oil for use as a permanent anode in a
cathodic protection system for a fluid conveyor system or fluid
containment system composed of metallic material.

5F2

All other facilities that inject fluids into or above an
underground source of drinking water which do not fall into
Classes I, II, III, or IV injection facilities.

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**APPENDIX D
 TYPES OF PERMITS REQUIRED
 TIMING OF COMPLIANCE**

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|------|--|-------------------|--|
| 5A1 | Direct Heat Reinjection Facilities | General Permit | 2 years after date of general permit |
| 5A2 | Heat Pump/Air Conditioner Return Flow Facilities | General Permit | 2 years after date of general permit |
| 5A3 | Cooling Water Return Flow Facilities | Individual Permit | April 14, 2000 |
| 5B1 | Mining, Sand or Backfill Facilities | General Permit | 2 years after date of general permit |
| 5B2 | Aquifer Recharge Facilities | Permit by Rule | register by April 14, 1999 |
| 5B3 | Saline Water Intrusion Barrier Facilities | Individual Permit | April 14, 2000 |
| 5B4 | Subsidence Control Facilities | Permit by Rule | register by April 14, 1999 |
| 5B5 | Facilities used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality | General Permit | 2 years after the date of the general permit |
| 5B6 | Department Controlled Facilities | Permit by Rule | Register by April 14 1999 |
| 5B7 | Air Sparging Facilities | Permit by Rule | Register by April 14 1999 |
| 5C1 | Air Scrubber Waste Disposal Facilities | Individual Permit | April 14, 2000 |
| 5C2 | Water Treatment Brine Disposal Facilities | Individual Permit | April 14, 2000 |
| 5C3 | Industrial Process Water and Waste | Individual Permit | April 14, 2000 |

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|------|--|-------------------|--|
| 5C4 | Existing Automotive Waste Disposal Facilities | General Permit | 2 years after date of general permit |
| 5C4 | New Automotive Waste Disposal Facilities | Ban | April 14, 1998 |
| 5C5 | Coal Bed Methane Injection Facilities | General Permit | Within 6 months of the date of issue for the general permit for existing facilities, and before injection for all new facilities |
| 5C6 | Small Commercial Disposal Systems | General Permit | 2 years after the date of the general permit |
| 5D1 | Agricultural Drainage Facilities | General Permit | 2 years after the date of the general permit |
| 5D2 | Storm Water Drainage Facilities | General Permit | 2 years after the date of the general permit |
| 5D3 | Improved Sinkholes | Individual Permit | April 14, 2000 |
| 5D4 | Industrial Drainage Facilities | Individual Permit | April 14, 2000 |
| 5D5 | Special Drainage Facilities | Permit by Rule | Register by April 14, 1999 |
| 5E1 | Aquaculture Return Flow Facilities | General Permit | 2 years after date of general permit |
| 5E2 | Existing Untreated Domestic sewage Disposal Facilities (Cesspools) | Ban | April 14, 1998 |
| 5E3 | Existing Domestic Subsurface Fluid Distribution Systems | General Permit | 2 years after date of general permit |
| 5E3 | Existing Domestic Subsurface Fluid Distribution Systems - Permitted as a small wastewater facility | Permit by Rule | register by April 14, 1999 |
| 5E4 | New Domestic Wastewater Treatment Plant Disposal Facilities | Individual Permit | April 14, 2000 |
| 5E5 | Small Domestic Subsurface Fluid Distribution Systems | General Permit | 2 years after the date of the general permit |

| TYPE | DESCRIPTION | TYPE OF PERMIT | WHEN REQUIRED |
|------|---|-------------------|----------------------------|
| 5F1 | Cathodic Protection Facilities | Permit by Rule | register by April 14, 1999 |
| 5F2 | All other facilities that inject fluids into or above an underground source of drinking water which do not fall into Classes I, II, III, or IV injection facilities | Individual Permit | April 14, 2000 |

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CHAPTER 27

UNDERGROUND INJECTION CONTROL PROGRAM
CLASS I AND V WELLS

Section 1. Authority.

(from Chapter 13, Section 1 and Chapter 16, Section 1) These regulations are promulgated pursuant to W.S. 35-11-101 through 1413, specifically 302, and no person shall cause, threaten or allow violations of any provision contained herein. (from Chapter 16, Section 1) These regulations fulfill Wyoming state obligations under Section 1422 of the Federal Safe Drinking Water Act and Federal Underground Injection Control regulations found in 40 CFR 124 and 40 CFR 144-148 (both as of December 7, 1999).

Section 2. Definitions.

(from Chapter 13, Section 2 and Chapter 16, Section 2) The following definitions supplement those definitions contained in Section 35-11-103 of the Wyoming Environmental Quality Act.

(from Chapter 13, Section 2(a) and Chapter 16, Section 2(a)) (a) "Aquifer" means a zone, stratum or group of strata that can store and transmit water in sufficient quantities for a specific use.

(from Chapter 13, Section 2(b) and Chapter 16, Section 2(b)) (b) "Area of review" means the area for which information and analyses shall be submitted as part of an underground injection control permit application, and reviewed for issuance of a permit. (from Chapter 16, Section 2) The area of review must include all portions of an aquifer which will be affected in a measurable way within ten (10) years of the granting of a permit, assuming that the permit is complied with.

(from Chapter 13, Section 2(c) and Chapter 16, Section 2(c)) (c) "Background" means the constituents or parameters and the concentrations or measurements which describe water quality and water quality variability prior to the subsurface discharge.

(from Chapter 13, Section 2(d)) (d) "Bore/casing annulus" means the space between the well bore and the well casing.

(from Chapter 13, Section 2(e)) (e) "Casing/tubing annulus" means the space between the well casing and the tubing.

(from Chapter 13, Section 2(f)) (f) "Cementing" means to seal the annular space around the outside of a casing string using a specially formulated Portland cement mixture or other hydraulic cement mixture to hold the casing in place and prevent any movement of fluid in this annular space. Cementing also includes operations to seal the well at the time of abandonment.

(from Chapter 16, Section 2(d)) (g) "Cesspool" means a drywell that receives solely untreated domestic sewage, and which sometimes has an open bottom and/or perforated sides.

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(from Chapter 13, Section 2(g)) (h) "Class I well" means a well used to inject hazardous or non-hazardous industrial, commercial or municipal waste beneath the lowermost formation containing, within one- quarter (1/4) mile of the well bore, an underground source of drinking water.

(from Chapter 13, Section 2(h)) (i) "Class II well" means a well regulated by the Wyoming Oil and Gas Conservation Commission, other than a Class II commercial disposal well, which injects fluids:

(from Chapter 13, Section 2(h)(i)) (i) Which are brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production. Non-hazardous gas plant wastes may be disposed of in a class II well pending Environmental Protection Agency co-approval.

((from Chapter 13, Section 2(h)(ii)) (ii) For enhanced recovery of oil or natural gas.

(from Chapter 13, Section 2(h)(iii)) (iii) For storage of hydrocarbons which are liquid at standard temperature and pressure.

(from Chapter 13, Section 2(i)) (j) "Class III well" means a well used for in situ mining which injects for extraction of minerals, or products, or recovers recovery fluids, minerals or products, including a well used in:

(from Chapter 13, Section 2(i)(i)) (i) Mining of sulfur by the Frasch process.

(from Chapter 13, Section 2(i)(ii)) (ii) In situ mining of uranium or other metals; this category includes in situ production from ore bodies ~~which~~ that have not been conventionally mined by means of an open pit or underground excavation.

(from Chapter 13, Section 2(i)(iii)) (iii) In situ mining of salts, trona, or potash.

(from Chapter 13, Section 2(i)(iv)) (iv) Underground coal gasification operations.

(from Chapter 13, Section 2(i)(v)) (v) Solution mining of open pits or underground excavations used for the production of minerals, such as stopes leaching.

(from Chapter 13, Section 2(i)(vi)) (vi) Fossil fuel recovery including coal, lignite, oil shale, and tar sands.

(from Chapter 13, Section 2(i)(vii)) (vii) Experimental technologies, such as pilot scale in situ mining wells in previously unmined areas.

(from Chapter 13, Section 2(j)) (k) "Class IV well" means a well used to dispose of hazardous waste or radioactive waste into or above a formation which contains, within one- quarter (1/4) mile of the well bore, an underground source of drinking water. Class IV wells are prohibited by this Chapter.

98
 99 (from Chapter 13, Section 2(j)) Except that a well is not class IV if it is used to
 100 inject contaminated groundwater that has been treated and re injected into the same formation
 101 from which it is drawn for the purpose of aquifer remediation where the ultimate cleanup
 102 criteria is protective of groundwater standards of these regulations. ~~These wells are regulated as~~
 103 ~~a class V well, type 5X26 under these regulations.~~

104
 105 (from Chapter 13, Section 2(k)) ~~(k) — "Class V well" means any included in Classes~~
 106 ~~I, II, III, or IV.~~

107
 108 (from Chapter 16, Section 2(e)) (l) "Class V facility" means any property which
 109 contains an injection well, drywell, or subsurface fluid distribution system which is not defined
 110 as a Class I, II, III, or IV well in Chapter 13, Water Quality Rules and Regulations this chapter.
 111 (from Chapter 16, Section 2(e)) The Class V facility includes all systems of collection,
 112 treatment, and control which are associated with the subsurface disposal. Appendix A-C of this
 113 chapter contains a list of Class V facilities.

114
 115 (from Chapter 13, Section 2(l)) (m) "Cone of influence" means that area around a
 116 well within which increased discharge zone pressures caused by the injection would be
 117 sufficient to force fluids into an under- ground source of drinking water.

118
 119 (from Chapter 13, Section 2(m)) (n) "Confining zone" means the zone in the well
 120 designated in the permit application to provide hydrologic separation between the receiver and
 121 any underground source of drinking water.

122
 123 (from Chapter 16, Section 2(f)) (o) "Domestic sewage" means liquids or solid
 124 wastes obtained from humans and domestic activities including wastewater from activities such
 125 as showers, toilets, human wash basins, food preparation, clothes washing, and dishwashers.

126
 127 (from Chapter 13, Section 2(n) and from Chapter 16, Section 2(g)) (p) "Draft permit"
 128 means a document indicating the tentative decision by the department to issue or deny, modify,
 129 revoke (from Chapter 16, Section 2(g))and reissue, or terminate a permit (from Chapter 13,
 130 Section 2(n))or license . (from Chapter 16, Section 2(g)) A notice of intent to terminate a
 131 permit and a notice of intent to deny a permit are types of draft permits. (from Chapter 13,
 132 Section 2(n) and from Chapter 16, Section 2(g))A denial of a request for modification,
 133 revocation and reissuance, or termination is not a draft permit. A draft permit for issuance shall
 134 contain all conditions and content, compliance schedules and monitoring requirements required
 135 by this (from Chapter 13, Section 2(n)) Chapter chapter.

136
 137 (from Chapter 16, Section 2(h)) (q) "Drywell" means a well, other than an
 138 improved sinkhole or subsurface distribution system, completed above the water table so that its
 139 bottom and sides are typically dry, except when receiving fluids.

140
 141 (from Chapter 13, Section 2(o) and Chapter 16, Section 2(i)) (r) "Duly authorized
 142 representative" means a specific individual or a position having responsibility for the overall
 143 operation of the regulated facility or activity. The authorization shall be made in writing by a
 144 responsible corporate officer and shall be submitted to the administrator.

145

146 (from Chapter 13, Section 2(p)) (s) "Endangerment" means exposure to actions or
147 activities which could pollute groundwaters of the State.

148
149 (from Chapter 13, Section 2(q) and Chapter 16, Section 2(j)) (t) "Fact sheet" means a
150 document briefly setting forth the principal facts and the significant factual, legal,
151 methodological, and policy questions considered in preparing the draft permit. Fact sheets for
152 Class I wells are incorporated into the public notice.

153
154 (from Chapter 13, Section 2(r) and Chapter 16, Section 2(k)) (u) "Fluid" means any
155 material which flows or moves, whether semisolid, liquid, sludge, gas or any other form or state.

156
157 (from Chapter 16, Section 2(l)) (v) "General permit" means a permit issued to a
158 class of operators, all of which inject similar types of fluids for similar purposes. General
159 permits require less information to be submitted by the applicant than individual permits and do
160 not require public notice for a facility to be included under the authorization of a general permit.

161
162 (from Chapter 13, Section 2(s) and Chapter 16, Section 2(m)) (w) "Groundwater"
163 means subsurface water that fills available openings in rock or soil materials such that they may
164 be considered water saturated under hydrostatic pressure.

165
166 (from Chapter 13, Section 2(t) and Chapter 16, Section 2(n)) (x) "Groundwaters of the
167 state" are all bodies of underground water which are wholly or partially within the boundaries of
168 the state.

169
170 ~~(from Chapter 16, Section 2(o)) "Hazardous waste" means a hazardous waste as defined~~
171 ~~in Chapter 2, Section 1 (e), Wyoming Hazardous Waste Rules and Regulations.~~

172
173 (from Chapter 13, Section 2(u)) (y) "Hazardous waste" means a hazardous waste
174 as defined in 40 CFR 261.3.

175
176 (from Chapter 16, Section 2(p)) (z) "Improved sinkhole" means a naturally
177 occurring karst depression which has been modified by man for the purpose of directing and
178 emplacing fluids into the subsurface.

179
180 (from Chapter 16, Section 2(q)) (aa) "Individual permit" means a permit issued for
181 a specific facility operated by an individual operator, company, municipality, or agency. An
182 individual permit may be established as an area permit and include multiple points of discharge
183 that are all operated by the same person.

184
185 (from Chapter 16, Section 2(r)) (bb) "Injectate" means the wastewater being
186 disposed of through any underground injection facility after it has received whatever
187 pretreatment is done.

188
189 (from Chapter 13, Section 2(v) and Chapter 16, Section 2(s)) (cc) "Lithology" means the
190 description of rocks on the basis of their physical and chemical characteristics.

191
192 (from Chapter 13, Section 2(w)) (dd) "Long string casing" means a casing which is
193 continuous from at least the top of the injection interval to the surface and which is cemented in
194 place.

195
 196 (from Chapter 13, Section 2(x)) (ee) "Log" means to make a written record
 197 progressively describing the strata and geologic and hydrologic character thereof to include
 198 electrical, radioactivity, radioactive tracer, temperature, cement bond and similar surveys, a
 199 lithologic description of all cores, and test data.
 200

201 (from Chapter 13, Section 2(z)) (ff) "Mechanical integrity" means the sound and
 202 unimpaired condition of all components of the well or facility or system for control of a
 203 subsurface discharge and associated activities.
 204

205 (from Chapter 13, Section 2(aa) and Chapter 16, Section 2(u)) (gg) "Permit"
 206 means a Wyoming Underground Injection Control permit, unless otherwise specified.
 207

208 (from Chapter 16, Section 2(u)) (hh) "Permit by rule" means an authorization
 209 included in these rules which does not require either an individual permit or a general permit. A
 210 facility which is permitted by rule must meet the requirements found in this chapter, but is not
 211 required to apply for and obtain a permit to construct and operate the facility.
 212

213 (from Chapter 13, Section 2(bb) and Chapter 16, Section 2(v)) (ii) "Permittee"
 214 means the named permit holder.
 215

216 (from Chapter 16, Section 2(w)) (jj) "Point of compliance" means a point at which
 217 the permittee shall meet class of use standards for the receiver.
 218

219 (from Chapter 16, Section 2(x)) (kk) "Point of injection" means the last accessible
 220 sampling point prior to waste fluids being released into the subsurface environment through a
 221 Class V injection well. For example the 'point of injection' of a Class V septic system might be
 222 the distribution box - the last accessible sampling point before the waste fluids drain into the
 223 underlying soils. For a dry well, it is likely to be the well bore itself.
 224

225 (from Chapter 16, Section 2(y)) (ll) "Public hearing" means a non-adversary
 226 hearing held by the administrator or director of the department. The hearing is conducted
 227 pursuant to Chapter 3 of the Wyoming Department of Environmental Quality Rules of Practice
 228 and Procedure.
 229

230 (from Chapter 13, Section 2(y) and Chapter 16, Section 2(z)) (mm) "Radioactive
 231 waste" means any waste ~~which~~ that contains radioactive material in concentrations ~~which~~ that
 232 exceed those listed in 10 CFR Part 20, Appendix B, Table II, Column 2 (from Chapter 16,
 233 Section 2(z)) as of December 22, 1993.
 234

235 (from Chapter 13, Section 2(cc) and Chapter 16, Section 2(aa)) (nn) "Receiver"
 236 means any zone, interval, formation or unit in the subsurface into which fluids and pollutants
 237 are discharged.
 238

239 (from Chapter 13, Section 2(dd) and Chapter 16, Section 2(bb)) (oo) "Responsible
 240 corporate officer" means a president, secretary, treasurer, or vice president of the corporation in
 241 charge of a principal business function, or any other person who performs similar policy- or
 242 decision-making functions for the corporation.
 243

244 (from Chapter 16, Section 2(cc)) (pp) "Secondarily affected aquifer" means any
 245 aquifer affected by migration of fluids from an injection facility, when the aquifer is not directly
 246 discharged into.

247
 248 (from Chapter 16, Section 2(dd)) (qq) "Septic system" means a facility that is used
 249 solely to emplace domestic sewage below the surface and is comprised of a septic tank and
 250 subsurface fluid distribution system.

251
 252 (from Chapter 16, Section 2(ee)) (rr) "Source water protection area" means the area
 253 delineated for the protection of ground and surface water sources for a public water supply
 254 under a department approved plan developed pursuant to Section 1453 of the Safe Drinking
 255 Water Act.

256
 257 (from Chapter 13, Section 2(ee)) (ss) "Subsurface discharge" means a discharge into
 258 a receiver.

259
 260 (from Chapter 16, Section 2(ff)) (tt) "Subsurface fluid distribution system" means
 261 an assemblage of perforated pipes or drain tiles used to distribute fluids below the surface of the
 262 ground. Subsurface fluid distribution systems include but are not limited to drain fields, leach
 263 fields, mounded leach fields, leach lines, bed type distribution systems, and gravel-less chamber
 264 type distribution systems.

265
 266 (from Chapter 13, Section 2(ff) and Chapter 16, Section 2(hh)) (uu) "Underground
 267 source of drinking water" means those aquifers or portions thereof (from Chapter 16, Section
 268 2(hh)) which have a total dissolved solids content of less than 10,000 mg/L, ~~(from Chapter 13,~~
 269 ~~Section 2(ff) that have been~~ and are classified (from Chapter 13, Section 2(ff) and Chapter 16,
 270 Section 2(hh)) as either Class I, II, III, IV (a), or Special (A), pursuant to Chapter 8, Quality
 271 Standards for Wyoming Groundwaters, Water Quality Rules and Regulations.

272
 273 ~~(from Chapter 16, Section 2(gg)) "Vadose Zone" means the unsaturated zone in the~~
 274 ~~earth, between the land surface and the top of the first saturated aquifer. The vadose zone~~
 275 ~~contains water at less than saturated conditions.~~

276
 277 (from Chapter 9, Section 2(gg)) (vv) "Vadose Zone" means the unsaturated zone in the
 278 earth, between the land surface and the top of the first saturated aquifer which is not a perched
 279 water aquifer. The vadose zone characteristically contains liquid water under less than
 280 atmospheric pressure, and water vapor and air or other gases at atmospheric pressure. Perched
 281 water bodies exist within the vadose zone.

282
 283 (from Chapter 16, Section 2(ii)) (ww) "Water quality management area" means the
 284 area delineated for the protection of water quality under a department approved plan developed
 285 under Sections 303, 208 and/or 201 of the Federal Clean Water Act, as amended.

286
 287 ~~(from Chapter 16, Section 2(jj)) "Well" means a bored, drilled, or driven shaft; a hole~~
 288 ~~dug whose depth is greater than the largest surface dimension; an improved sinkhole; or a~~
 289 ~~subsurface fluid distribution system.~~

290

291 (from Chapter 13, Section 2(gg)) (xx) "Well" means an opening, excavation, shaft or
292 hole in the ground allowing or used for an underground injection or for the purpose of extracting
293 a fluid, mineral, product or pollutant from the subsurface or for monitoring.

294
295 (from Chapter 16, Section 2(kk)) (yy) "Wellhead protection area" means the area
296 delineated for the protection of a public water supply utilizing a groundwater source under a
297 department approved plan developed pursuant to Section 1428 of the federal Safe Drinking
298 Water Act.

299
300 (from Chapter 13, Section 2(hh)) (zz) "Workover" means to pull the tubing, packer,
301 or any downhole hardware from the well and inspect, replace, or refurbish it prior to placing that
302 hardware back in service, or to enter the hole with any drilling tool.

303
304 **Section 3. Applicability.**

305
306 (from Chapter 13, Section 3)These regulations shall apply to all Class I, Class IV, commercial
307 oil field waste disposal wells and those gas plant waste wells not regulated by the Wyoming Oil
308 and Gas Conservation Commission. In addition, (from Chapter 16, Section 3)) these regulations
309 shall apply to any discharge to the subsurface, including the vadose zone, for all of the types of
310 discharges listed in Appendix A C of this chapter.

311
312 **Section 4. Timing of Compliance with These Regulations for Class V Wells.**

313
314 ((from Chapter 16, Section 4) Any Class V permit issued under Chapters 9 or 16, Water Quality
315 Rules and Regulations, prior to the effective date of these regulations shall remain in effect until
316 replaced by an individual permit, a general permit or permit by rule pursuant to this chapter.
317 Existing individual permits issued under Chapters 9 or 16 will be reviewed on a five (5) year
318 basis pursuant to Section 6 (c) of this chapter. Any individual permit issued pursuant to
319 Chapters 9 or 16 prior to the effective date of these regulations fulfills all of the requirements to
320 obtain a permit under this chapter.

321
322 ((from Chapter 16, Section 4(a)) (a) All operators of existing systems which are
323 required to obtain an individual permit under these regulations shall obtain a permit by April 14,
324 2000.

325
326 ((from Chapter 16, Section 4(b)) (b) General permits

327
328 ((from Chapter 16, Section 4(b(i)) (i) Within two (2) years of the effective
329 date of the general permit, all operators of existing facilities which require coverage shall:

330
331 ((from Chapter 16, Section 4(b)(i)(A)) (A) Apply for coverage
332 under the general permit.

333
334 ((from Chapter 16, Section 4(b)(i)(B)) (B) Apply for an
335 individual permit for the facility.

336
337 ((from Chapter 16, Section 4(b)(i)(C)) (C) Retain an existing
338 permit issued under Chapter 9.

339

340 ((from Chapter 16, Section 4(b)(i)(D)) (D) Cease discharging
341 fluids to the subsurface.

342
343 ((from Chapter 16, Section 44(b)(ii)) (ii) All operators of facilities which are
344 required to be covered by a general permit which are constructed after the effective date of these
345 regulations shall apply for and obtain coverage prior to the construction of the facility.

346
347 ((from Chapter 16, Section 44(b)(iii)) (iii) Facilities will be covered by
348 general permits as soon as the department has issued a written statement of acceptance to
349 construct and operate the facility under the general permit. The department will issue a
350 statement either accepting the operation for coverage under a general permit, or denying
351 coverage under a general permit within 60 days of the date when the operator has requested
352 coverage.

353
354 ((from Chapter 16, Section 4(c)) (c) Permit by rule

355
356 ((from Chapter 16, Section 4(c)(i)) (i) All operators of existing facilities
357 permitted by rule shall submit inventory information to the department within one (1) year of
358 the effective date of this chapter.

359
360 ((from Chapter 16, Section 4(c)(ii)) (ii) All operators of facilities permitted by
361 rule which are to be constructed after the effective date of these regulations shall submit
362 inventory information to the department prior to constructing the facility.

363
364 **Section 5. Control of Class I well subsurface discharges; permit required;**
365 **aquifer exemptions.**

366
367 (from Chapter 13, Section 4(a)) (a) Class I wells shall be allowed only pursuant to
368 the Wyoming Environmental Quality Act, Chapter ~~VIII~~ 8, Wyoming Water Quality Rules and
369 Regulations, and this chapter.

370
371 (from Chapter 13, Section 4(b)) (b) Discharges into or construction of Class I wells
372 are prohibited unless a permit has been obtained from the Department of Environmental Quality
373 through the Water Quality Division.

374
375 (from Chapter 13, Section 4(c)) (c) Injections from Class I wells shall be restricted
376 to those receivers defined as Class VI groundwaters by the department pursuant to Chapter ~~VIII~~
377 8, Quality Standards for Wyoming Groundwaters, Water Quality Rules and Regulations and
378 receivers which have obtained an aquifer exemption pursuant to this section.

379
380 (from Chapter 13, Section 4(d)) (d) Permits may be issued for individual wells or
381 on an area basis except Class I hazardous waste wells, which shall have individual permits.

382
383 (from Chapter 13, Section 4(e)) (e) The procedure for obtaining an aquifer
384 exemption from the U.S. Environmental Protection Agency shall be as follows:

385
386 (from Chapter 13, Section 4(e)(i)) (i) Water Quality Division shall submit
387 one complete copy of the application, the Draft Permit, and the public notice to the U.S.
388 Environmental Protection Agency, Region ~~VIII~~ 8. This submission shall be made so that EPA

389 receives the complete application at least twenty (20) days prior to the scheduled start of the
390 public comment period.

391
392 (from Chapter 13, Section 4(e)(ii)) (ii) When the aquifer exemption request is
393 for an aquifer containing 3,000 mg/+L or more of total dissolved solids, the following
394 procedure shall be used: Within forty five (45) days of EPA receipt of a complete aquifer
395 exemption request, EPA shall provide the department a written interim determination of
396 intention to issue or deny the aquifer exemption pending receipt and review of the results of the
397 public participation process conducted by the department. The interim response will become
398 final if there are no comments relating to the aquifer exemption request during the comment or
399 hearing process. If comments are received during the public comment or hearing process, the
400 interim response will become final if not modified by EPA in writing within thirty (30) days of
401 receipt of all comments.

402
403 (from Chapter 13, Section 4(e)(iii)) (iii) An aquifer exemption request for an
404 aquifer containing less than 3,000 mg/+L of total dissolved solids requires the aquifer
405 exemption request to be processed as a program revision pursuant to 40 CFR 145.32.

406 **Section 6. Permits and Permit Applications.**

407
408
409 (from Chapter 13, Section 5(a)) (a) It is the operator's responsibility to make
410 application for and obtain a permit in accordance with these regulations. Each application must
411 be submitted with all supporting data.

412
413 (from Chapter 13, Section 9(a) and Chapter 16, Section 5(a)(vi)) (b) All permits
414 issued under this chapter, (from Chapter 16, Section 5(a)(vi)) whether individual permits, or
415 general permits, (from Chapter 13, Section 9(a) and Chapter 16, Section 5(a)(vi)) shall be for no
416 more than ten (10) years duration.

417
418 (from Chapter 13, Section 9(b) and Chapter 16, Section 5(a)(vii)) (c) Each permit
419 shall be reviewed by the department at least once every five (5) years for continued validity of
420 all permit conditions and contents. (from Chapter 16, Section 5(a)(vii)) Permits that do not
421 satisfy the requirements of these regulations are subject to modification, revocation and
422 reissuance, or termination pursuant to this chapter.

423
424 ~~(from Chapter 13, Section 9(c)) Permits that do not satisfy the review criteria are subject~~
425 ~~to modification, revocation and reissuance, or termination pursuant to Section 8 of this chapter.~~

426 (from Chapter 16, Section 5(a)(viii)) (d) Sections of permit applications filed under this
427 chapter which represent engineering work shall be sealed, signed, and dated by a licensed
428 professional engineer as required by Wyoming Statutes, Title 33, Chapter 29.

429 (from Chapter 16, Section 5(a)(ix)) (e) Sections of permit applications filed under this
430 chapter which represent geologic work shall be sealed, signed, and dated by a licensed
431 professional geologist as required by Wyoming Statutes, Title 33, Chapter 41.

432

433 (from Chapter 13, Section 5(b)) (f) A complete application for a Class I well shall
 434 include:

435
 436 (from Chapter 13, Section 5(b)(i)) (i) A brief description of the nature of the
 437 business and the activities to be conducted that require the applicant to obtain a permit under
 438 this chapter.

439
 440 (from Chapter 13, Section 5(b)(ii)) (ii) The name, address and telephone
 441 number of the operator, and the operator's ownership status and status as a Federal, State,
 442 private, public or other entity.

443
 444 (from Chapter 13, Section 5(b)(iii)) (iii) The name address and telephone
 445 number of the facility. Additionally, the location of the facility shall be identified by section,
 446 township, range and county, and whether or not it is located on Indian lands.

447
 448 (from Chapter 13, Section 5(b)(iv)) (iv) A calculation of the area of review,
 449 which requires the calculation of the cone of influence and the area of the ultimate limit of
 450 emplaced waste.

451
 452 (from Chapter 13, Section 5(b)(iv)(A)) (A) The formula for
 453 determining the cone of influence is:

$$r = \left(\frac{2.25 KHt}{S10^x} \right)^{\frac{1}{2}}$$

$$\text{Where: } x = \left(\frac{W}{G} - B \right) \left(\frac{4PKH}{2.3Q} \right)$$

454
 455
 456
 457
 458
 459
 460 r = Radius of the cone of influence of an injection well (feet)

461 K = Hydraulic conductivity of the injection zone (feet/day)

462 H = Thickness of the injection zone (feet)

463 t = Time of injection (days)

464 S = Storage coefficient (dimensionless)

465 Q = Injection rate (cubic feet/day)

466 B = Original hydrostatic head of injection zone (feet) measured from the base of the
 467 injection zone

468 W = Hydrostatic head of underground source of drinking water (feet) measured from
 469 the base of the injection zone

470 G = Specific gravity of fluid in the injection zone (dimensionless)

471 P = 3.142 (dimensionless)

472
 473 (from Chapter 13, Section 5(b)(iv)(B)) (B) A volume calculation to

474 determine the maximum area that the injected waste could occupy shall be submitted on all new
475 Class I wells. This calculation determines the total amount of void space around the well and
476 assumes that the injected fluid completely displaces the formation water.

477
478 (from Chapter 13, Section 5(b)(iv)(C)) (C) A Class I non-hazardous
479 waste well's area of review shall never be less than one-quarter (1/4) mile, the cone of influence,
480 or the area of emplaced waste, whichever is greatest.

481
482 (from Chapter 13, Section 5(b)(iv)(D)) (D) A Class I hazardous waste
483 well's area of review shall never be less than two (2) miles, the cone of influence, or the area of
484 emplaced waste, whichever is greatest.

485
486 (from Chapter 13, Section 5(b)(iv)(E)) (E) All Areas of Review
487 shall be legally described by township, range and section to the nearest quarter quarter of a
488 section.

489
490 (from Chapter 13, Section 5(b)(v)) (v) Information about the proposed
491 facility, including:

492
493 (from Chapter 13, Section 5(b)(v)(A)) (A) A description of the
494 substances proposed to be discharged, including type, source, and chemical, physical,
495 radiological and toxic characteristics; and

496
497 (from Chapter 13, Section 5(b)(v)(B)) (B) Construction and
498 engineering details in accordance with Section ~~11~~ 12 of this chapter.

499
500 (from Chapter 13, Section 5(b)(vi)) (vi) Information, including the name,
501 description, depth and geology of the receiver and confining zone and the hydrology, fluid
502 chemistry, fluid pressure, temperature, fracture pressure and the total dissolved solids (TDS) in
503 the receiver.

504
505 (from Chapter 13, Section 5(b)(vii)) (vii) Water quality information,
506 including ~~back-ground~~ background water quality data, which will facilitate the classification of
507 any groundwaters which may be affected by the proposed discharge. This must include
508 information necessary for the Water Quality Division to classify the receiver as class VI under
509 Chapter ~~VIII~~-8 Section 4(d)(9) of the Wyoming Water Quality Rules and Regulations.

510
511 (from Chapter 13, Section 5(b)(viii)) (viii) A topographic and other
512 pertinent maps, extending at least one (1) mile beyond the property boundaries of the facility,
513 but never less than the area of review, depicting:

514
515 (from Chapter 13, Section 5(b)(viii)(A)) (A) The facility and each
516 of its intake and discharge structures;

517
518 (from Chapter 13, Section 5(b)(viii)(B)) (B) Each of its hazardous
519 waste treatment, storage, or disposal facilities;

520
521 (from Chapter 13, Section 5(b)(viii)(C)) (C) Each well where fluids
522 from the facility are injected underground;

523
524 (from Chapter 13, Section 5(b)(viii)(D)) (D) Other wells, springs,
525 and surface water bodies, and drinking water wells listed in public records or otherwise known
526 to the applicant within a minimum one-quarter (1/4) mile of the facility property boundary, or
527 further, as the administrator may determine is necessary; and

528
529 (from Chapter 13, Section 5(b)(viii)(E)) (E) General geology and
530 hydrogeology in the area.

531
532 (from Chapter 13, Section 5(b)(ix)) (ix) A list of other relevant permits,
533 whether federal or state, that the facility has been required to obtain, such as construction
534 permits.

535
536 (from Chapter 13, Section 5(b)(x)) (x) A listing of all wells that penetrate the
537 confining zone and are within the area of review, and records of plugging or completion,
538 sufficient to satisfy the administrator as to the adequacy of the plugging or completion.

539
540 (from Chapter 13, Section 5(b)(x)(A)) (A) For those wells that the
541 administrator determines have not been adequately plugged, completed, or abandoned, or for
542 wells which lack supporting information, the applicant shall also submit a plan to prevent
543 movement of fluids into Underground Source of Drinking Waters through these wells, and this
544 plan, after approval or modification by the administrator, shall be incorporated as a permit
545 condition.

546
547 (from Chapter 13, Section 5(b)(xi)) (xi) Detailed plans for:

548
549 (from Chapter 13, Section 5(b)(xi)(A)) (A) Monitoring volume
550 and chemistry of the discharge, and water quality of water wells within the area of review;

551
552 (from Chapter 13, Section 5(b)(xi)(B)) (B) Monitoring injection
553 and annular pressures in the well, to minimize the potential for fracturing of the confining zone
554 and below the receiver; and

555
556 (from Chapter 13, Section 5(b)(xi)(C)) (C) Corrective action to
557 cope with alarms, shut-downs, malfunctions or well failures, so as to prevent endangerment of
558 groundwater.

559
560 (from Chapter 13, Section 5(b)(xii)) (xii) Information sufficient to
561 demonstrate mechanical integrity of the well, and compatibility between the proposed discharge
562 and the well material.

563
564 (from Chapter 13, Section 5(b)(xiii)) (xiii) Information sufficient to
565 demonstrate compliance with Sections 12, 14, 15, 16, 17 and 19 of this chapter.

566
567 (from Chapter 13, Section 5(b)(xiv)) (xiv) All applications for permits
568 shall be signed by a responsible officer as follows:

569
570 (from Chapter 13, Section 5(b)(xiv)(A) and Chapter 16, Section
571 6(c)(xi)(A)) (A) For a corporation - by a responsible corporate officer. For the purpose

572 of this section, a responsible corporate officer means:

573

574 (from Chapter 13, Section 5(b)(xiv)(A)(1) and and Chapter 16,
575 Section 6(c)(xi)(A)(i)) (1) A President, Secretary, Treasurer, or Vice President of the
576 corporation in charge of a principal business function, or any other person who performs similar
577 policy or decision making functions for the corporation; or

578

579 (from Chapter 13, Section 5(b)(xiv)(A)(2) and and Chapter 16,
580 Section 6(c)(xi)(A)(ii)) (2) The manager of one or more manufacturing, production, or
581 operating facilities employing more than 250 persons or having gross annual sales or
582 expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign
583 documents has been assigned or delegated to the manager in accordance with corporate
584 procedures.

585

586 (from Chapter 13, Section 5(b)(xiv)(B) and Chapter 16, Section
587 6(c)(xi)(B)) (B) For a partnership or sole proprietorship -- by a general partner or the proprietor,
588 respectively;

589

590 (from Chapter 13, Section 5(b)(xiv)(C) and Chapter 16, Section
591 6(c)(xi)(C)) (C) For a municipality, state, federal or other public agency -- by either the
592 principal executive officer or ranking elected official.

593

594 (from Chapter 13, Section 5(b)(xv) and Chapter 16, Section 6(c)(xii)) (xv)
595 The application shall contain the following certification by the person signing the
596 application:

597

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

605

606 (from Chapter 13, Section 5(b)(xvi)) (xvi) All relevant data used to
607 complete permit applications shall be kept for a minimum of three (3) years from the date of
608 signing.

609

610 (g) For Class V facilities the following are applicable:

611

612 (i) ~~Permits required.~~ (from Chapter 16, Section 5(a)) A permit is required.

613

614 (from Chapter 16, Section 5(a)(i)) (ii) Construction, installation,
615 modifications or operation of Class V facilities shall be allowed only in accordance with these
616 regulations.

617

618 (from Chapter 16, Section 5(a)(ii)) (iii) Discharges into, or construction of,
619 any Class V facility are prohibited unless permitted pursuant to this chapter.

620

621 (from Chapter 16, Section 5(a)(iii)) (iv) Every facility shall be covered by one
622 of the three types of permitting systems: individual; general; or permit by rule. The following
623 sections of these regulations describe the permitting method for and subclasses of facilities. The
624 owner or operator of a facility that can be covered by a general permit or authorized under
625 permit by rule may apply for and be permitted by an individual permit if the owner or operator
626 desires. Operators who do not meet the requirements for a general permit or permit by rule
627 must obtain an individual permit prior to installation or construction of the Class V facility.

628
629 (from Chapter 16, Section 5(a)(iv)) (v) Permits may be issued for individual
630 facilities or they may be issued on an area basis for multiple points of discharge operated by the
631 same person.

632
633 (from Chapter 16, Section 5(a)(v)) (vi) A separate permit to construct is not
634 required under Chapter 3, Water Quality Rules and Regulations for any Class V facility.
635 Requirements of the Chapter 3 permit to construct will be included in the underground injection
636 control permit issued under this chapter.

637
638 (h) Permit conditions and contents.

639
640 (from Chapter 13, Section 9(d)) (i) ~~All permits~~ All Class I permits issued
641 under this chapter shall contain the following conditions:

642
643 (from Chapter 13, Section 9(d)(ii)) (A) A requirement that the
644 injection pressure shall be limited to the fracture pressure of the receiver, except as necessary
645 during well stimulation, and, within one (1) year of the issuance of the permit, the operator shall
646 conduct a step-rate injection test to determine the actual fracture pressure of the receiver.

647
648 (from Chapter 13, Section 9(d)(vii)) (B) A requirement that mechanical
649 integrity shall be maintained continuously and be reviewed at least every five (5) years. The test
650 used to determine mechanical integrity shall be a two-part test approved by the administrator,
651 who shall approve only those tests that have been approved first by the U.S. Environmental
652 Protection Agency's Office of Drinking Water.

653
654 (from Chapter 13, Section 9(d)(vii)(A)) (I) Part one of the
655 mechanical integrity test shall demonstrate the absence of leaks through the packer, tubing,
656 casing, and well head.

657
658 (from Chapter 13, Section 9(d)(vii)(B)) (II) Part two of the
659 mechanical integrity test shall demonstrate the absence of fluid movement behind the casing.

660
661 (from Chapter 13, Section 9(d)(vii)(C)) (III) Proposed
662 mechanical integrity tests that have not yet been approved shall be submitted to the
663 administrator who shall forward the information to the U.S. Environmental Protection Agency's
664 Office of Drinking Water along with a request for approval, if, in the administrator's opinion, it
665 will adequately determine mechanical integrity of the well system. A previously unauthorized
666 mechanical integrity test submitted for approval shall include:

667
668 (from Chapter 13, Section 9(d)(vii)(C)(I)) (1.) The
669 proposed method for demonstrating the lack of significant leaks in the well;

670
671 (from Chapter 13, Section 9(d)(vii)(C)(II)) (2.) The
672 proposed method for showing the absence of significant fluid movement; and

673
674 (from Chapter 13, Section 9(d)(vii)(C)(III)) (3.) Any
675 technical data supporting the use of this test.

676
677 (from Chapter 13, Section 9(d)(viii)) (C) A Class I well that cannot
678 demonstrate mechanical integrity shall be shut down until such time as the mechanical integrity
679 has been restored.

680
681 (from Chapter 13, Section 9(d)(xxv)) (D) A requirement that the
682 packer be set within five-hundred (500) feet of the top of the receiver, unless the administrator
683 allows some other specific interval to be used to set the packer, but always within the zone
684 covered by excellent cement bond as shown by the cement bond log.

685
686 (from Chapter 13, Section 10) (ii) ~~Special permit conditions for~~
687 ~~hazardous waste wells~~ Special conditions for Class I hazardous waste wells.

688
689 (from Chapter 13, Section 10) (A) All Class I hazardous waste
690 wells permitted under this chapter shall be subject to the special permit conditions listed ~~in this~~
691 ~~section~~ below in addition to the conditions applicable to all Class I well permits in ~~Section 9 of~~
692 this chapter.

693
694 (from Chapter 13, Section 10(a)) (B) All hazardous waste injection
695 permits issued under this chapter shall include the following conditions:

696
697 (from Chapter 13, Section 10(a)(i)) (I) A requirement that the
698 operator shall maintain a casing/tubing annulus pressure that exceeds the operating injection
699 pressure, unless the administrator determines that such a requirement might harm the integrity
700 of the well. The fluid used in the casing/tubing annulus shall be noncorrosive, and shall contain
701 a corrosion inhibitor.

702
703 (from Chapter 13, Section 10(a)(ii)) (II) A requirement that the
704 operator shall follow special procedures when wastes have the potential to react with the
705 injection formation or to generate gases either during or after injection. These procedures may
706 take the form of special permit conditions that limit the temperature or pH of the injected waste
707 and require the operator to follow procedures necessary to assure that pressure imbalances
708 which might cause a backflow or blowout do not occur.

709
710 (from Chapter 13, Section 10(a)(iii)) (III) A requirement
711 that the operator shall install, maintain, and use continuous recording devices to monitor the
712 injection pressure, flow rate, temperature, of injected fluids and pressure on the casing/tubing
713 annulus, and shall install and use automatic alarm and shut-off systems designed to shut down
714 the well when pressures, flow rates, and other parameters approved by the administrator exceed
715 the range specified in the permit.

716
717 (from Chapter 13, Section 10(a)(iv)) (IV) A requirement
718 that the operator have a trained operator onsite at all times the well is operating.

719
720 (from Chapter 13, Section 10(a)(v)) (V) A requirement that if
721 an automatic alarm or shutdown is triggered, the operator shall immediately investigate and
722 identify as early as possible, the cause of the alarm or shutdown. If, upon such investigation, or
723 if required monitoring indicates, that the well is lacking in mechanical integrity, the operator
724 shall:

725
726 (from Chapter 13, Section 10(a)(v)(A)) (1.) Cease
727 all injections of waste fluids immediately.

728
729 (from Chapter 13, Section 10(a)(v)(B)) (2.) Take
730 all necessary steps to determine the presence or absence of a leak.

731
732 (from Chapter 13, Section 10(a)(v)(C)) (3.) Notify
733 the administrator within twenty-four (24) hours after the alarm or shutdown, using procedures
734 and criteria listed in paragraph ~~20 of Section 9(d)(xx) in this chapter.~~ (h)(iii)(Q) of this section.

735
736 (from Chapter 13, Section 10(a)(v)(D)) (4.) The
737 operator shall restore and demonstrate, to the satisfaction of the administrator, mechanical
738 integrity prior to resuming injection activities.

739
740 (from Chapter 13, Section 10(a)(vi)) (VI) A requirement
741 that whenever the operator obtains evidence that there may have been a release of injected
742 wastes into an unauthorized zone, regardless of whether or not an automatic alarm or shutdown
743 was triggered, the operator shall:

744
745 (from Chapter 13, Section 10(a)(vi)(A)) (1.)
746 Immediately cease all injection activities.

747
748 (from Chapter 13, Section 10(a)(vi)(B)) (2.) Notify
749 the administrator pursuant to the procedures outlined in paragraph ~~20 of Section 9 in this~~
750 ~~chapter.~~ (h)(iii)(Q) of this section. In addition to the information required by paragraph ~~20~~
751 (h)(iii)(Q) of this section, the operator shall also include, as part of the written submission, a
752 proposed remedial action plan, designed to minimize the adverse impact of the unauthorized
753 release.

754
755 (from Chapter 13, Section 10(a)(vi)(C)) (3.)
756 Comply with the requirements of any remedial action plan approved by the
757 administrator.

758
759 (from Chapter 13, Section 10(a)(vi)(D)) (4.) Where
760 the unauthorized release is into a Class I aquifer, as classified under Chapter ~~VIII~~ 8, Quality
761 Standards for Wyoming Groundwaters, Water Quality Rules and Regulations, which is
762 currently serving as a water supply, the operator shall place a notice, describing the
763 unauthorized release and the actions taken, in a newspaper of general circulation in the locality
764 of the release.

765
766 (from Chapter 13, Section 10(a)(vi)(E)) (5.) The
767 administrator may allow the operator to resume injection prior to completion of cleanup

768 operations if the operator demonstrates, to the satisfaction of the administrator, that the injection
769 activity will not endanger any Underground Source of Drinking Waters.

770
771 (from Chapter 13, Section 10(a)(vii)) (VII) A requirement
772 that the operator notify the administrator and obtain his approval prior to conducting any well
773 workover.

774
775 (from Chapter 13, Section 10(a)(viii)) (VIII) A requirement
776 that the operator comply with the following federal regulations contained in 40 CFR 264 or
777 applicable state hazardous waste regulations:

778
779 (from Chapter 13, Section 10(a)(viii)(A)) (1.)
780 Identification numbers.

781
782 (from Chapter 13, Section 10(a)(viii)(B)) (2.)
783 Recordkeeping and reporting for manifested wastes.

784
785 (from Chapter 13, Section 10(a)(viii)(C)) (3.) Manifest
786 discrepancies.

787
788 (from Chapter 13, Section 10(a)(viii)(D)) (4.)
789 Operating record requirements.

790
791 (from Chapter 13, Section 10(a)(viii)(E)) (5.) Annual
792 reporting requirements and unmanifested waste reports.

793
794 (from Chapter 13, Section 10(a)(viii)(F)) (6.) Personnel
795 training requirements.

796
797 (from Chapter 13, Section 10(a)(ix)) (IX) When
798 abandonment is completed, the operator must submit to the administrator certification by the
799 operator and certification by an independent registered professional engineer that the facility has
800 been closed in accordance with the specifications detailed in the closure plan in Section ~~16~~ 17 of
801 this chapter.

802
803 (from Chapter 16, Section 5(c)(i)) (iii) All individual and general permits
804 issued under this chapter shall contain the following conditions:

805
806 (from Chapter 13, Section 9(d)(i) and Chapter 16, Section 5(c)(i)(A))
807 (A) A requirement that the permittee comply with all conditions of the permit and any
808 permit noncompliance constitutes a violation of these regulations and is grounds for
809 enforcement action, permit termination, revocation, or modification.

810
811 (from Chapter 13, Section 9(d)(iii) and Chapter 16, Section 5(c)(i)(B))
812 (B) A requirement that if the permittee wishes to continue injection activity after the
813 expiration of the permit, the permittee must apply to the administrator for, and obtain, a new
814 permit.

815
816 (from Chapter 13, Section 9(d)(iv) and Chapter 16, Section 5(c)(i)(C))

817 (C) A stipulation that it shall not be a defense for a permittee in an enforcement action that
818 it would have been necessary to halt or reduce the permitted activity in order to maintain
819 compliance with the conditions of this permit.

820
821 (from Chapter 13, Section 9(d)(v) and Chapter 16, Section 5(c)(i)(D))

822 (D) A requirement that the permittee shall take all reasonable steps to minimize or correct
823 any adverse impact on the environment resulting from noncompliance with this permit.

824
825 (from Chapter 13, Section 9(d)(v) and Chapter 16, Section 5(c)(i)(E))

826 (E) A requirement that the permittee properly operate and maintain all facilities and systems
827 of treatment and control which are installed or used by the permittee to achieve compliance with
828 the conditions of this permit. Proper operation and maintenance includes effective performance,
829 adequate funding and operator staffing and training, and adequate laboratory and process
830 controls including appropriate quality assurance procedures. This provision requires the
831 operation of back-up or auxiliary facilities or similar systems only when necessary to achieve
832 compliance with the conditions of the permit.

833
834 (from Chapter 13, Section 9(d)(ix) and Chapter 16, Section 5(c)(i)(F))

835 (F) A stipulation that the filing of a request by the permittee, or at the instigation of the
836 administrator, for a permit modification, revocation, termination, or notification of planned
837 changes or anticipated non-compliance, shall not stay any permit condition.

838
839 (from Chapter 13, Section 9(d)(x) and Chapter 16, Section 5(c)(i)(G))

840 (G) A stipulation that this permit does not convey any property rights of any sort, or any
841 exclusive privilege.

842
843 (from Chapter 13, Section 9(d)(xi) and Chapter 16, Section 5(c)(i)(H))

844 (H) A stipulation that the permittee shall furnish to the administrator, within a specified
845 time, any information which the administrator may request to determine whether cause exists
846 for modifying, revoking and reissuing, or terminating the permit, or to determine compliance
847 with the permit. The permittee shall also furnish to the administrator, upon request, copies of
848 records required to be kept by the permit.

849
850 (from Chapter 13, Section 9(d)(xii) and Chapter 16, Section 5(c)(i)(I))

851 (I) A requirement that the permittee shall allow the administrator, or an authorized
852 representative of the administrator, upon the presentation of credentials, during normal working
853 hours, to enter the premises where a regulated facility is located, or where records are kept
854 under the conditions of this permit, and inspect the discharge and related facilities, review and
855 copy reports and records required by the permit, collect fluid samples for analysis, measure and
856 record water levels, and perform any other function authorized by law or regulation.

857
858 (from Chapter 13, Section 9(d)(xiii) and Chapter 16, Section 5(c)(i)(J) (J)

859 A requirement that the permittee furnish any information necessary to establish a
860 monitoring program pursuant to ~~(from Chapter 13, Section 9(d)(xiii)) Section 13 (from Chapter~~
861 ~~16, Section 5(c)(i)(J)) Section 11~~ Section 15 of this chapter.

862
863 (from Chapter 13, Section 9(d)(xiv) and Chapter 16, Section 5(c)(i)(K))

864 (K) A requirement that all samples and measurements taken for the purpose of monitoring
865 shall be representative of the monitored activity, and records of all monitoring information be

866 retained by the permittee. The monitoring information to be retained shall be that information
 867 stipulated in the monitoring program established pursuant to the criteria in ~~(from Chapter 13,~~
 868 ~~Section 9(d)(xiv)) Section 13, ~~(From Chapter 16, Section 5(c)(i)(K)) Section 11~~ Section 15 of~~
 869 this chapter;

870
 871 (from Chapter 13, Section 9(d)(xv) and Chapter 16, Section 5(c)(i)(L))
 872 (L) A requirement that all applications, reports, and other information submitted to the
 873 administrator contain certifications as required in ~~(from Chapter 13, Section 9(d)(xiii)) Section 5~~
 874 ~~(e)(14) Section ~~(from Chapter 16, Section 5(c)(L))~~ 6 (e)(xi) 6 (f) (xv) (from Chapter 13, Section~~
 875 ~~9(d)(xv) and Chapter 16, Section 5(c)(i)(L)) of this chapter, and be signed by ~~(from Chapter 13,~~~~
 876 ~~Section 9(d)(xiii)) either a responsible corporate officer or a duly authorized representative.~~
 877 (From Chapter 16, Section 5(c)(i)(L)) a person who meets the requirements to sign permit
 878 applications found in ~~(from Chapter 16, Section 5(c)(i)(L)) Section 6 (e)(xii) of this chapter~~
 879 Section 6 (f) (xiv), or for routine reports, a duly authorized representative;

880
 881 (from Chapter 13, Section 9(d)(xvi) and Chapter 16, Section 5(c)(i)
 882 (M) (M) A requirement that the permittee give advance notice to the administrator as
 883 soon as possible of any planned physical alteration or additions, other than authorized operation
 884 and maintenance, to the permitted facility and receive authorization prior to implementing the
 885 proposed alteration or addition;

886
 887 (from Chapter 13, Section 9(d)(xvii) and Chapter 16, Section
 888 5(c)(i)(N)) (N) A requirement that any modification which may result in a violation of a permit
 889 condition shall be reported to the administrator, and any modification that will result in a
 890 violation of a permit condition shall be reported to the administrator through the submission of a
 891 new or amended permit application;

892
 893 (from Chapter 13, Section 9(d)(xviii) and Chapter 16, Section
 894 5(c)(i)(O)) (O) A requirement that any transfer of a permit must first be approved by the
 895 administrator, and that no transfer will be approved if the facility is not in compliance with the
 896 existing permit unless the proposed permittee agrees to bring the facility into compliance;

897
 898 (from Chapter 13, Section 9(d)(xix) and Chapter 16, Section 5(c)(i)(P))
 899 (P) A requirement that monitoring results shall be reported at the intervals specified
 900 elsewhere in the permit;

901
 902 (from Chapter 13, Section 9(d)(xx) and Chapter 16, Section 5(c)(i)(Q))
 903 (Q) A requirement that reports of compliance or non-compliance with, or any progress
 904 reports on interim and final requirements contained in any compliance schedule, if one is
 905 required by the administrator, shall be submitted no later than thirty (30) days following each
 906 schedule date;

907
 908 (from Chapter 13, Section 9(d)(xxi) and Chapter 16, Section 5(c)(i)(R))
 909 (R) A requirement that confirmed noncompliance resulting in the migration of injected fluid
 910 into any zone outside of the permitted receiver must be orally reported to the administrator
 911 within ~~(from Chapter 13, Section 9(d)(xxi)) twenty-four~~ 24 hours, and a written submission shall
 912 be provided within five (5) days of the time the permittee becomes aware of the excursion. The
 913 written submission shall contain:

914

915 (from Chapter 13, Section 9(d)(xxi) and Chapter 16,
916 Section(5)(c)(i)(R)(I)) (I) A description of the noncompliance and its cause.
917
918 (from Chapter 13, Section 9(d)(xxi) and Chapter 16,
919 Section(5)(c)(i)(R)(II)) (II) The period of noncompliance, including exact dates and times,
920 and, if the noncompliance has not been controlled, the anticipated time it is expected to
921 continue; and
922
923 (from Chapter 13, Section 9(d)(xxi) and Chapter 16,
924 Section(5)(c)(i)(R)(III)) (III) Steps taken or planned to reduce, eliminate, and prevent
925 reoccurrence of the noncompliance.
926
927 (from Chapter 13, Section 9(d)(xxii) and Chapter 16, Section 5(c)(i)(S))
928 (S) A requirement that the permittee report all instances of noncompliance not already
929 required to be reported under paragraphs ~~(from Chapter 13, Section 9(d)(xxii)) xix, xx and xxi~~
930 ~~(from Chapter 16, Section 5(c)(i)(S) (e) (i) (P) through (R))~~ (h) (iii) (P) through (R) of this
931 section, at the time monitoring reports are submitted. The reports shall contain the information
932 listed in paragraph ~~(from Chapter 13, Section 9(d)(xxii)) xxi(A) through (C)~~ (from Chapter 16,
933 Section 5(c)(i)(S) (c) (i) (R) (h) (iii) (R) of this section.
934
935 (from Chapter 13, Section 9(d)(xxiii) and Chapter 16, Section
936 5(c)(i)(T) (T) A requirement that ~~(from Chapter 13, Section 9(d)(xxiii)),~~ in the situation
937 where the permittee becomes aware that it failed to submit any relevant facts in a permit
938 application, or submitted incorrect information in a permit application or in any report to the
939 administrator, the permittee shall promptly submit such facts or information.
940
941 (from Chapter 13, Section 9(d)(xxiv) and Chapter 16, Section
942 5(c)(i)(U) (U) A requirement that the injection ~~(from Chapter 13, Section 9(d)(xxiv)) well~~
943 facility meet construction requirements outlined in ~~(from Chapter 13, Section 9(d)(xxiv))~~
944 ~~Section 11~~ Section 10 of this chapter, and that the permittee submit notice of completion of
945 construction to the administrator and allow for inspection of the facility upon completion of
946 construction, prior to commencing any injection activity.
947
948 (from Chapter 13, Section 9(d)(xxvi)) and Chapter 16, Section
949 5(c)(i)(V) (V) A requirement that the permittee notify the administrator at such times as the
950 permit requires before conversion or abandonment of the ~~(from Chapter 13, Section 9(d)(xxvi))~~
951 well facility.
952
953 (W) ~~(from Chapter 13, Section 9(d)(xxvii)) A requirement that a~~
954 ~~plugging and abandoning report~~ (from Chapter 16, Section 5(c)(i)(W)) A requirement that an
955 abandonment report, (from Chapter 13, Section 9(d)(xxvii) and Chapter 16, Section 5(c)(i)(W))
956 detailing the compliance abandonment procedures outlined ~~the original~~ in the original permit
957 application, or describing any deviations from the original plan, be submitted as soon as
958 practicable after ~~(from Chapter 13, Section 9(d)(xxvii)) plugging and abandonment.~~ (from
959 Chapter 16, Section 5(c)(i)(W)) abandonment, and is complete.
960
961
962 ~~(from Chapter 13, Section 9(d)(xxix))—Injection into a well may not~~
963 ~~commence until construction is complete.~~

964
965 (from Chapter 16, Section 5(c)(i)(X)) (X) A requirement that injection may not
966 commence until construction is complete.

967
968 (from Chapter 13, Section 9(e) and Chapter 16, Section 5(c)(ii)) (Y) In
969 addition to the conditions required of all permits, the administrator may establish, on a case-by-
970 case basis, conditions as required for monitoring, schedules of compliance, and such additional
971 conditions as are necessary to prevent the migration of fluids into underground sources of
972 drinking water.

973
974
975
976 **Section 7. Permit Processing Procedures.**

977
978 (a) For Class I wells the following are applicable:

979
980 (from Chapter 13, Section 6(a) (i) The applicant shall file seven (7)
981 copies of the permit application with the Water Quality Division.

982
983 (from Chapter 13, Section 6(b) (ii) Within sixty (60) days of submission
984 of the application, the administrator shall make an initial determination of completeness. An
985 application shall be determined complete when the administrator receives an application and
986 any supplemental information necessary to determine compliance with these regulations.

987
988 (from Chapter 13, Section 6(c) (iii) An incomplete application will be
989 processed in the following manner:

990
991 (from Chapter 13, Section 6(c)(i)) (A) For an extremely incomplete
992 application, additional information shall be requested in detail or the application will be returned
993 to the applicant. Incomplete permit applications will result in permit denial.

994
995 (from Chapter 13, Section 6(c)(ii)) (B) If an application is denied
996 because of incompleteness necessitating a request for additional information, the applicant shall
997 have a maximum of six (6) months to comply with the requests. If the applicant fails to provide
998 the requested information within that period, the entire incomplete application shall be returned.

999
1000 (from Chapter 13, Section 6(c)(iii)) (C) Resubmittal of information by
1001 an applicant on an incomplete application will begin the process described in subsection ~~(b)~~
1002 (a)(ii) of this section.

1003
1004 (from Chapter 13, Section 6(d) (iv) During any sixty (60) day review
1005 period where an application is determined complete, the administrator shall take one of the
1006 following actions:

1007
1008 (from Chapter 13, Section 6(d)(i)) (A) Prepare a draft permit for
1009 issuance or denial, prepare a fact sheet on the proposed operation, and provide public notice
1010 pursuant to Section ~~19~~ 21; or

1011

1012 (from Chapter 13, Section 6(d)(ii) (B) Provide the applicant notice
1013 that the permit is deficient and state the deficiencies in the application.

1014
1015 (from Chapter 13, Section 6(e) (v) Determinations of deficiency by the
1016 Department are appealable by the applicant to the Environmental Quality Council. Requests for
1017 appeal must be in writing, state the reasons for appeal, and be made to both the Director and the
1018 Chairman of the Environmental Quality Council. A deficient application is considered a permit
1019 denial but is not subject to the public notice requirements of Section ~~19~~ 22 unless a hearing is
1020 requested by the applicant. Resubmittal of information for a deficient application will start the
1021 sixty (60) day review period again.

1022
1023 (from Chapter 13, Section 6(f) (vi) Denials of permit applications will be
1024 pursuant to procedures outlined in ~~Section 19 of this chapter~~ paragraph (d) of this section.

1025
1026 (from Chapter 13, Section 6(g) (vii) All draft permits for Class I wells
1027 require public notice pursuant to Section ~~19~~ 21 of this chapter.

1028
1029 (b) For Class V wells that require an Individual Permit, the following are
1030 applicable:

1031
1032 (from Chapter 16, Section 6(e) (i) The applicant shall submit five (5)
1033 copies of the permit application to the division.

1034
1035 (from Chapter 16, Section 6(f) (A) Within 60 days of submission
1036 of the application, the administrator shall make an initial determination of completeness. An
1037 application shall be determined complete when the administrator receives an application and
1038 any supplemental information necessary to determine compliance with these regulations.

1039
1040 (from Chapter 16, Section 6(g) (ii) Resubmittal of information by an
1041 applicant on an incomplete application will begin the process described in paragraph ~~(f)~~
1042 (b)(i)(A) of this section.

1043
1044 (from Chapter 16, Section 6(h) (iii) During any 60 day review period
1045 where an application is determined complete, the administrator shall prepare a draft permit for
1046 issuance or denial, prepare a fact sheet on the proposed operation, and provide public notice
1047 pursuant to Section ~~13~~ 21.

1048
1049 (from Chapter 16, Section 6(i) (iv) A denial of the application by the
1050 department is appealable by the applicant to the Environmental Quality Council in accordance
1051 with the Rules of Practice and Procedure. Requests for appeal must be in writing, state the
1052 reasons for appeal, and be made to both the director and the chairman of the Environmental
1053 Quality Council.

1054
1055 (c) For Class V wells that require a General Permit, the following are applicable:

1056
1057 (from Chapter 16, Section 6(c) (i) In order to be covered by a general
1058 permit, an operator must submit all information required in Section ~~6(e)(i)(ii), and (iii)~~ 9 (c) (i),
1059 (ii), and (iii), plus any additional information required to be submitted or reported in the issued
1060 general permit. The submittal requesting coverage by a general permit shall be signed by a

1061 person meeting the same signatory requirements of Section ~~6 (e)(xi)~~ 6 (f) (xiv) and shall be
 1062 certified in accordance with Section ~~6 (e)(xii)~~ 6 (f) (xv). Facilities will be covered by general
 1063 permits as soon as the department has issued a written statement of acceptance to allow the
 1064 construction and operation of the facility under the general permit. The department will issue an
 1065 authorization accepting the operation for coverage under the general permit or denying coverage
 1066 under the general permit, within 60 days of the date when the operator requested coverage.
 1067 Requests for coverage under a general permit, which do not meet the requirements for general
 1068 permit pursuant to this chapter, may be denied by the administrator.

1069
 1070 (from Chapter 16, Section 6(b)) (ii) If a general permit has been issued by
 1071 the department, an operator of a facility must register the facility with the department and sign a
 1072 statement agreeing to be bound by the conditions of that permit. Failure to register for general
 1073 permit coverage, when available, is the same as operation of a facility without a permit, unless
 1074 an individual permit has been obtained.

1075
 1076 (from Chapter 16, Section 6(d)) (iii) Once issued, general permits must
 1077 remain the same for all persons covered by the permit. A general permit may be modified in
 1078 accordance with Section ~~5 (b) (iv)~~ 7 (d) (vii). Any such modification must cover all persons
 1079 covered by the permit.

1080
 1081 (from Chapter 13, Section 8) (d) Permit modification, denial, revocation, termination
 1082 and transfer.

1083
 1084 (from Chapter 13, Section 8(a) and Chapter 16(b)(iii)) (i) Permits may be
 1085 modified, revoked and reissued, or terminated either at the request of any interested person
 1086 (including the permittee or (from Chapter 13, Section 8(a)) licensee) (from Chapter 13, Section
 1087 8(a) and Chapter 16(b)(iii)) or upon the administrator's initiative. However, permits may only be
 1088 modified, revoked and reissued, or terminated for the reasons specified in ~~(from Chapter 13,~~
 1089 ~~Section 8(a)) Section 5 (b) (vi) of this chapter~~ this section. All requests shall be in writing and
 1090 shall contain facts or reasons supporting the request.

1091
 1092 ~~(from Chapter 16, Section 5(b)(iii) If the administrator decides the petition is~~
 1093 ~~not justified, the petitioner shall be sent a brief written response giving the reason for the~~
 1094 ~~decision. — A request for modification, revocation and reissuance, or termination shall be~~
 1095 ~~considered denied if the administrator takes no action within 60 days after receiving the written~~
 1096 ~~request. Denials of requests for modification, revocation and reissuance, or termination are not~~
 1097 ~~subject to public notice and comment. Denials by the administrator may be appealed for hearing~~
 1098 ~~to the Environmental Quality Council by a letter briefly setting forth the relevant facts.~~

1099
 1100 (from Chapter 13, Section 8(b)) (ii) If the administrator decides the request
 1101 is not justified, he or she shall send the requester a brief written response giving the reason for
 1102 the decision. A request for modification, revocation and reissuance, or termination shall be
 1103 considered denied if the administrator takes no action within 60 days after receiving the written
 1104 request. Denials of requests for modification, revocation and reissuance, or termination are not
 1105 subject to public notice and comment. Denials by the administrator may be appealed for hearing
 1106 to the Environmental Quality Council by a letter briefly setting forth the relevant facts.

1107
 1108 ~~(from Chapter 13, Section 8(g)) If the administrator tentatively decides to~~
 1109 ~~modify or revoke and reissue a permit, he or she shall prepare a draft permit or license~~

1110 ~~incorporating the proposed changes. The administrator may request additional information and,~~
1111 ~~in the case of a modified permit, may require the submission of an updated application. In the~~
1112 ~~case of revoked and reissued permits, the administrator shall require the submission of a new~~
1113 ~~application.~~

1114
1115 (from Chapter 16, Section 5(b)(vii)) (iii) If the administrator tentatively decides
1116 to modify or revoke and reissue a permit, a draft permit incorporating the proposed changes
1117 shall be prepared. The administrator may request additional information and, in the case of a
1118 modified permit, may require the submission of an updated application. In the case of revoked
1119 and reissued permits, the administrator shall require the submission of a new application.

1120
1121 ~~(from Chapter 13, Section 8, (h)) In a permit modification under this section,~~
1122 ~~only those conditions to be modified shall be reopened when a new draft permit or license is~~
1123 ~~prepared. All other aspects of the existing permit shall remain in effect for the duration of the~~
1124 ~~unmodified permit. When a permit is revoked and reissued under this section, the entire permit~~
1125 ~~is reopened just as if the permit has expired and was being reissued. During any revocation and~~
1126 ~~reissuance proceeding the permittee shall comply with all conditions of the existing permit until~~
1127 ~~a new final permit is issued.~~

1128
1129 (from Chapter 16, Section 5(b)(viii)) (iv) In a permit modification under
1130 ~~Section 5 (b)(iv)~~ Section 7 (d) (vii) of this chapter, only those conditions to be modified shall be
1131 reopened when a new draft permit is prepared. All other aspects of the existing permit shall
1132 remain in effect for the duration of the unmodified permit and the modified permit shall expire
1133 on the date when the original permit would have expired. When a permit is revoked and
1134 reissued under this section, the entire permit is reopened as if the permit has expired and is
1135 being reissued. When the entire permit is reopened, the modified permit shall be issued for no
1136 more than ten (10) years. During any revocation and reissuance proceeding, the permittee shall
1137 comply with all conditions of the existing permit until a new final permit is issued.

1138
1139 (v) Proposed permit (from Chapter 16, Section 5(b)(ix) ~~Permit~~
1140 modifications, revocations or terminations shall be developed as a draft permit and are subject
1141 to the public notice and hearing requirements outlined in Section ~~13-21~~.

1142
1143 (from Chapter 13, Section 8(c)) (vi) For Class I wells ~~The~~ the administrator
1144 shall modify a permit or license when:

1145
1146 (from Chapter 13, Section 8(c)(i)) (A) Any material or substantial
1147 alterations or additions to the facility occur after permitting or licensing, which justify the
1148 application of permit conditions that are different or absent in the existing permit; or

1149
1150 (from Chapter 13, Section 8(c)(ii)) (B) Any modification in the
1151 operation of the facility is capable of causing or increasing pollution in excess of applicable
1152 standards or permit conditions.

1153
1154 (from Chapter 13, Section 8(c)(iii)) (C) Information warranting
1155 modification is discovered after the operation has begun that would have justified the
1156 application of different permit conditions at the time of permit issuance;

1157

1158 (from Chapter 13, Section 8(c)(iv)) (D) Regulations or standards upon
1159 which the permit or license was based have changed by promulgation of amended standards or
1160 regulations or by judicial decision after the permit was issued;

1161

1162 (from Chapter 13, Section 8(c)(v)) (E) Cause exists for termination,
1163 as described in this section, but the department determines that modification is appropriate; or

1164

1165 (from Chapter 13, Section 8(c)(vi)) (F) Modification is necessary to
1166 comply with applicable statutes, standards or regulations.

1167

1168 (vii) For Class V wells (from Chapter 16, Section 5(b)(iv)) ~~The~~ the
1169 administrator may modify a permit when:

1170

1171 (from Chapter 16, Section 5(b)(iv)(A)) (A) Any material or
1172 substantial alterations or additions to the facility occur after permitting or licensing, which
1173 justify the application of permit conditions that are different or absent in the existing permit;

1174

1175 (from Chapter 16, Section 5(b)(iv)(B)) (B) Any modification in
1176 the operation of the facility is capable of causing or increasing pollution in excess of applicable
1177 standards or permit conditions;

1178

1179 (from Chapter 16, Section 5(b)(iv)(C)) (C) Information
1180 warranting modification is discovered after the operation has begun that would have justified
1181 the application of different permit conditions at the time of permit issuance;

1182

1183 (from Chapter 16, Section 5(b)(iv)) (D) Regulations or standards upon
1184 which the permit was based have changed by promulgation of amended standards or
1185 regulations, or by judicial decision after the permit was issued;

1186

1187 (from Chapter 16, Section 5(b)(iv)) (E) Cause exists for termination,
1188 as described in this section, but the department determines that modification is appropriate; or

1189

1190 (from Chapter 16, Section 5(b)(iv)) (F) Modification is necessary to
1191 comply with applicable statutes, standards or regulations.

1192

1193 (from Chapter 13, Section 8(d) and Chapter 16, Section 5(b)(v)) (viii) Minor
1194 modifications of permits may occur with the consent of the permittee without following the
1195 public notice requirements. Minor modifications will become final 20 days from the date of
1196 receipt of such notice. For the purposes of this chapter, minor modifications may only:

1197

1198 (from Chapter 13, Section 8(d)(i) and Chapter 16, Section 5(b)(v)(A))
1199 (A) Correct typographical errors;

1200

1201 (from Chapter 13, Section 8(d)(ii) and Chapter 16, Section 5(b)(v)(B))
1202 (B) Require more frequent monitoring or reporting by the permittee;

1203

1204 (from Chapter 13, Section 8(d)(iii) and Chapter 16, Section 5(b)(v)(C))
1205 (C) Change an interim compliance date in a schedule of compliance, provided the new date

1206 is not more than 120 days after the date specified in the existing permit and does not interfere
1207 with attainment of the final compliance date requirement;

1208
1209 (from Chapter 13, Section 8(d)(iv) and Chapter 16, Section 5(b)(v)(D))

1210 (D) Allow for a change in ownership or operational control of a facility where the
1211 administrator determines that no other change in the permit is necessary, provided that a written
1212 agreement containing a specific date for transfer of permit responsibility, coverage, and liability
1213 between the current and new permittees have been submitted to the administrator;

1214
1215 (from Chapter 13, Section 8(d)(v) and Chapter 16, Section 5(b)(v)(E))

1216 (E) Change quantities or types of fluids injected ~~which~~ that are within the capacity of the
1217 facility as permitted and, in the judgment of the administrator, would not interfere with the
1218 operation of the facility or its ability to meet conditions described in the permit and would not
1219 change its classification;

1220
1221 (from Chapter 13, Section 8(d)(vi) and Chapter 16, Section 5(b)(v)(F))

1222 (F) Change construction requirements approved by the administrator pursuant to
1223 department rules and regulations provided that any such alteration shall comply with the
1224 requirements of this chapter; or

1225
1226 (from Chapter 13, Section 8(d)(vii) and Chapter 16, Section 5(b)(v)(G))

1227 (G) Amend an abandonment plan.

1228
1229 (ix) For a Class I well ~~The~~ (from Chapter 13, Section 7(a)) the administrator
1230 may deny a permit for any of the following reasons:

1231
1232 (from Chapter 13, Section 7(a)(i)) (A) The application is incomplete;

1233 or

1234
1235 (from Chapter 13, Section 7(a)(ii)) (B) Other justifiable reasons
1236 necessary to carry out the provisions of the Wyoming Environmental Quality Act.

1237
1238 (from Chapter 13, Section 7(a)(iii)) (C) If the applicant has been and
1239 continues to be in violation of the provisions of the ~~Environmental Quality Act~~ Wyoming
1240 Environmental Quality Act.

1241
1242 (x) For Class I wells (from Chapter 13, Section 7(b)) ~~The~~ the administrator
1243 shall deny a permit for any of the following reasons:

1244
1245 (from Chapter 13, Section 7(b)(i)) (A) The project, if constructed
1246 and/or operated, will cause violation of applicable state surface or groundwater standards;

1247
1248 (from Chapter 13, Section 7(b)(ii)) (B) The application contains a
1249 proposed construction or operation which does not meet the requirements of this chapter; or

1250
1251 (from Chapter 13, Section 7(b)(iii)) (C) The application does not
1252 provide documentation to comply with financial responsibility requirements of Section ~~17~~ 19.
1253

1254 (from Chapter 13, Section 7(c)) (D) The administrator shall deny
1255 any permit for which the U.S. Environmental Protection Agency has denied an aquifer
1256 exemption.

1257
1258 (from Chapter 13, Section 7(d)) (E) When the department intends
1259 to deny a permit for any reason other than an incomplete or deficient application, a draft permit
1260 shall be prepared and public notice issued pursuant to Section ~~19~~ 21.

1261
1262 ~~(from Chapter 16, Section 5(b) Permit processing procedures applicable to all~~
1263 ~~Class V facilities, individual and general permits.~~

1264
1265 (xi) For Class V wells (from Chapter 16, Section 5(b)(i)) ~~The~~ the director
1266 may deny an individual permit for any of the following reasons:

1267
1268 (from Chapter 16, Section 5(b)(i)(A)) (A) The application is
1269 incomplete;

1270
1271 (from Chapter 16, Section 5(b)(i)(B)) (B) The project, if
1272 constructed and/or operated, will cause violation of applicable state surface or groundwater
1273 standards;

1274
1275 (from Chapter 16, Section 5(b)(i)(C)) (C) The application
1276 contains a proposed construction or operation which does not meet the requirements of this
1277 chapter;

1278
1279 (from Chapter 16, Section 5(b)(i)(D)) (D) The permitted facility
1280 would be in conflict with or is in conflict with a state approved local wellhead protection plan,
1281 state approved local source water protection plan, or state approved water quality management
1282 plan; or

1283
1284 (from Chapter 16, Section 5(b)(i)(E)) (E) Other justifiable
1285 reasons necessary to carry out the provisions of the ~~Environmental Quality Act~~ Wyoming
1286 Environmental Quality Act.

1287
1288 (from Chapter 16, Section 5(b)(ii)) (F) If the director intends to deny
1289 an individual permit for any reason other than an incomplete or deficient application, a draft
1290 permit shall be prepared and public notice issued pursuant to Section ~~13~~ 21 of this chapter.

1291
1292 ~~(from Chapter 13, Section 8(e)) The administrator may revoke a permit for the~~
1293 ~~following reasons:~~

1294
1295 (from Chapter 16, Section 5(b)(vi)) (xii)The administrator may revoke and
1296 reissue or terminate a permit for any of the following reasons:

1297
1298 (from Chapter 13, Section 8(e)(i) and Chapter 16, Section 5(b)(vi)(A))
1299 (A) Noncompliance with terms and conditions of the permit;

1300

1301 (from Chapter 13, Section 8(e)(ii) and Chapter 16, Section 5(b)(vi)(B))
1302 (B) Failure in the application or during the issuance process to disclose fully all relevant
1303 facts, or misrepresenting any relevant facts at any time; or

1304
1305 (from Chapter 13, Section 8(e)(iii) and Chapter 16, Section 5(b)(vi)(C))
1306 (C) A determination that the activity endangers human health or the environment and can
1307 only be regulated to acceptable levels by a permit modification or termination.

1308
1309 ~~(from Chapter 16, Section 5(b)(vii) — The administrator may modify a~~
1310 ~~permit to resolve issues that could lead to the revocation of the permit under Section 5 (b) (vi) of~~
1311 ~~this chapter. The administrator, as part of any notification of intent to terminate a permit, shall~~
1312 ~~order the permittee to proceed with reclamation on a reasonable time period.~~

1313
1314 (from Chapter 13, Section 8(f)) (xiii) The administrator may modify a
1315 permit or license to resolve issues that could lead to the revocation or consider any of the
1316 reasons in the preceding paragraph as sufficient justification to terminate a permit or license.
1317 The administrator as part of any notification of intent to terminate a permit or license shall order
1318 the permittee or licensee to proceed with reclamation on a reasonable time period.

1319
1320 (from Chapter 13, Section 8(i)) (xiv) ~~Permits will be~~ Permits for Class I
1321 wells will be automatically terminated after closure and release of the financial responsibility
1322 requirements of Section ~~17~~ 19 by the department.

1323
1324 (from Chapter 13, Section 8(k) and Chapter 16, Section 5(b)(x)) (xv)
1325 Transfer of a permit is allowed only upon approval by the administrator. (from chapter
1326 16, Section 5(b)(x)) When a permit transfer occurs pursuant to this section, the permit rights of
1327 the previous permittee will automatically terminate.

1328
1329 ~~(from Chapter 13, Section 8(k)(i)) — The permit holder shall apply in~~
1330 ~~writing as though he was the original applicant for the permit and shall further agree to be~~
1331 ~~bound by all of the terms and conditions of the permit and provide the necessary bonds;~~

1332
1333 (from Chapter 16, Section 5(b)(x)(A)) (A) The proposed permit
1334 holder shall apply in writing as though that person was the original applicant for the permit and
1335 shall further agree to be bound by all of the terms and conditions of the permit.

1336
1337 (from Chapter 13, Section 8(k)(iii) and Chapter 16, Section 5(b)(x)(B))
1338 (B) Transfer will not be allowed if the permittee is in noncompliance with any term and
1339 conditions of the permit, unless the transferee agrees to bring the facility back into compliance
1340 with the permit.

1341
1342 ~~(from Chapter 13, Section 8(j)) — When a permit transfer occurs~~
1343 ~~pursuant to this section, the past permit will automatically terminate.~~

1344
1345 (from Chapter 13, section 8(k)(iv)) (C) When a permit transfer occurs,
1346 the administrator may modify a permit pursuant to this section. The administrator shall provide
1347 public notice pursuant to Section ~~19~~ 21 for any modification other than a minor modification
1348 defined by this section.

1349

1350 (from Chapter 13, Section 8(k(iv)) (D) The potential transferee shall
1351 file a statement of qualifications to hold a permit with the administrator.

1352
1353 ~~(from Chapter 13, Section 8(l)) Proposed modifications, revocations~~
1354 ~~or terminations are subject to the public notice and hearing requirements outlined in Section 19~~
1355 ~~of this chapter.~~

1356
1357 **Section 8. Records and Reports.**

1358
1359 ~~(from Chapter 16, Section 5(d)) Records and reports required for general and individual~~
1360 ~~permits.~~

1361 (from Chapter 13, Section 15(a)) (a) Monitoring reports required by the permit shall
1362 be submitted to the administrator.

1363
1364 (from Chapter 13, Section 9(d)(xxviii)) (b) Monitoring results shall be reported in
1365 the annual reports unless otherwise specified.

1366
1367 (from Chapter 13, Section 15(b) and Chapter 16, Section 5(d)(i)) (c) The permittee
1368 shall submit a written report to the administrator of all remedial work concerning the failure of
1369 equipment or operational procedures which resulted in a violation of a permit condition, at the
1370 completion of the remedial work.

1371
1372 (from Chapter 13, Section 15(d) and Chapter 16, Section 5(d)(iii)) (d) For any
1373 aborted or curtailed operation, in lieu of an annual report, a complete report shall be submitted
1374 within thirty (30) days of complete termination of the discharge or associated activity.

1375
1376 (from Chapter 13, Section 15 (c) and Chapter 16, Section 5(d)(ii)) (e) ~~(from Chapter~~
1377 13, Section 15(c)) Quarterly and annual reports (Chapter 16, Section 5(d)(ii)) Routine periodic
1378 reports (from Chapter 13, Section 15 (c) and Chapter 16, Section 5(d)(ii)) required by the permit
1379 shall be submitted to the administrator within thirty (30) days following the end of the period
1380 covered in the report. ~~(from Chapter 13, Section 15 (d))Reports shall include the following~~
1381 information: (Chapter 16, Section 5(d)(ii))Reports shall include, if applicable, the following
1382 information:

1383
1384 (from Chapter 13, Section 15 (c)(iv) and Chapter 16, Section 5(d)(ii)(A)) (i)
1385 ~~(from Chapter 16, Section 5(d)(ii)(A)) If the permit requires, an~~ An accounting
1386 of the total volume of fluid injected for the period covered by the report, the year to date, and
1387 (from Chapter 13, Section 15 (c)(iv)) the life of the well to date.

1388
1389 (from Chapter 13, Section 15 (c)(v) and Chapter 16, Section 5(d)(i)(B)) (ii)
1390 An analysis of the physical, chemical and other relevant characteristics of the
1391 injected fluid.

1392
1393 (from Chapter 13, Section 15 (c)(iii)) (iii) A complete description of any
1394 event that triggered any alarm or shutdown the well, and the response taken.

1395
1396 (from Chapter 13, Section 15 (c)(ii)) (iv) A complete description of any
1397 event where maximum annular or injection pressures, as specified in the permit, were exceeded.

1398

1399 (from Chapter 13, Section 15 (c)(i)) (v) The average, maximum and
1400 minimum injection pressures for each month.

1401
1402 (from Chapter 13, Section 15 (c)(vi)) (vi) Any well workover.

1403
1404 (from Chapter 13, Section 15(e) (f) Quarterly and annual reports for hazardous
1405 waste wells shall also include a description of any change in the volume of fluid in the
1406 casing/tubing annulus of the well, and an explanation of the temperature/volume relationships
1407 covering the fluid. Any addition or withdrawal of fluids from the casing/tubing annulus shall be
1408 noted.

1409
1410 (from Chapter 13, Section 15 (f) (g) The results of any mechanical integrity test, or
1411 any other testing done on a well, shall be submitted to the administrator within thirty (30) days
1412 or with the next quarterly report, whichever comes later, following the completion of the test.

1413
1414 (from Chapter 13, Section 15(g) and Chapter 16, Section 5(d)(iv)) (h) The permittee
1415 shall retain all monitoring records required by the permit for a period of three (3) years
1416 following ~~(from Chapter 13, Section 15(g) well closure, at which time the operator shall deliver~~
1417 ~~the records to the administrator.~~ facility closure.

1418
1419 **Section 9. Individual Permits for Class V Facilities.**

1420
1421 (from Chapter 16, Section 6(a) (a) The operator shall submit an application and
1422 obtain a permit prior to the construction, installation, modification or operation of any facility in
1423 the following subclasses: 5A3; 5B3; 5B5; 5C1; 5C2; 5C3; 5D1; 5D3; 5D4; 5E3, 5E4 and 5F2
1424 unless the facility is covered by a general permit. In addition, any facility not authorized under
1425 Sections 10 and 11, and operators directed by the administrator to obtain an individual permit,
1426 shall obtain an individual permit under this section.

1427
1428 (from Chapter 16, Section 6(b) (b) The operator is responsible to make application
1429 for and obtain a permit. Each application must be submitted with all supporting data required in
1430 this chapter.

1431
1432 (from Chapter 16, Section 6(c) (c) A complete application for a Class V facility
1433 individual permit shall include:

1434
1435 (from Chapter 16, Section 6(c)(i)) (i) A brief description of the nature of the
1436 business and the activities to be conducted that require the applicant to obtain a permit under
1437 this chapter.

1438
1439 (from Chapter 16, Section 6(c)(ii)) (ii) The name, address and telephone
1440 number of the operator, and the operator's ownership status and status as a federal, state, private,
1441 public or other entity.

1442
1443 (from Chapter 16, Section 6(c)(iii)) (iii) The name address and telephone
1444 number of the facility. Additionally, the location of the facility shall be identified by section,
1445 township, range and county.

1446

1447 (from Chapter 16, Section 6(c)(iv)) (iv) A calculation of the area of review to
1448 ~~include~~ including:

1449 (from Chapter 16, Section 6(c)(iv)(A)) (A) A calculation to
1451 determine the maximum area affected by the injected waste for all Class V facilities constructed
1452 or modified after the effective date of these regulations. This calculation determines the total
1453 amount of void space around and down gradient from the point of injection and uses accepted
1454 groundwater theory to determine the extent of any affected groundwater around the facility.

1455 (from Chapter 16, Section 6(c)(iv)(B)) (B) A Class V area of
1456 review shall never be less than the area of potentially impacted groundwater.

1457 (from Chapter 16, Section 6(c)(iv)(C)) (C) All areas of review
1459 shall be legally described by township, range and section to the nearest ten (10) acres as
1460 described under the general land survey system.

1461 (from Chapter 16, Section 6(c)(v)) (v) Information about the proposed facility
1462 including:

1463 (from Chapter 16, Section 6(c)(v)(A)) (A) A description of the
1464 substances proposed to be discharged, including type, source, and chemical, physical,
1465 radiological and toxic characteristics; and

1466 (from Chapter 16, Section 6(c)(v)(B)) (B) Construction and
1467 engineering details in accordance with Section ~~10~~ 13 of this chapter and Chapter 11 Water
1468 Quality Rules and Regulations.

1469 (from Chapter 16, Section 6(c)(vi)) (vi) Information, including the name,
1470 description, depth, geologic structure, faulting, fracturing, lithology, hydrology, and fluid
1471 pressure of the receiver and any relevant confining zones. The fracture pressure of the receiver
1472 shall be submitted only if the injection is under pressure into a confined aquifer.

1473 (from Chapter 16, Section 6(c)(vii)) (vii) Water quality information including
1474 background water quality data which will facilitate the classification of any groundwaters which
1475 may be affected by the proposed discharge. This must include information necessary for the
1476 division to classify the receiver and any secondarily affected aquifers under Chapter 8,
1477 Wyoming Water Quality Rules and Regulations.

1478 (from Chapter 16, Section 6(c)(viii)) (viii) A topographic and other
1479 pertinent maps, extending at least one (1) mile beyond the property boundaries of the facility,
1480 but never less than the area of review, depicting:

1481 (from Chapter 16, Section 6(c)(viii)(A)) (A) The facility and each
1482 of its intake and discharge structures;

1483 (from Chapter 16, Section 6(c)(viii)(B)) (B) Each well, drywell or
1484 subsurface fluid distribution system where fluids from the facility are injected underground;

1485

1495 (from Chapter 16, Section 6(c)(viii)(C)) (C) Other wells, springs,
1496 and surface water bodies, and drinking water wells listed in public records or otherwise known
1497 to the applicant within the area of review; and

1498
1499 (from Chapter 16, Section 6(c)(viii)(D)) (D) Bedrock and surficial
1500 geology, geologic structure, and hydrogeology in the area.

1501
1502 (from Chapter 16, Section 6(c)(ix)) (ix) A list of other relevant permits,
1503 whether federal or state, that the facility has been required to obtain, such as construction
1504 permits. This includes a statement as to whether or not the facility is within a state approved
1505 water quality management plan area, a state approved wellhead protection area or a state
1506 approved source water protection area.

1507
1508 (from Chapter 16, Section 6(c)(x)) (x) Detailed plans for monitoring the
1509 volume and chemistry of the discharge, and water quality of selected water wells within the area
1510 of review in accordance with Section 15 of this chapter.

1511
1512 (from Chapter 16, Section 6(c)(xi)) (xi) All applications for permits, reports, or
1513 information to be submitted to the ~~Administrator~~ administrator shall be signed by a responsible
1514 officer as follows (new language) described in Section 6(f)(xiv) and the application shall
1515 contain the certification contained in Section 6(f)(xv) of this chapter.

1516
1517 (from Chapter 16, Section 6(d)) (xii) All data used to complete permit
1518 applications shall be kept by the applicant for a minimum of three (3) years from the date of
1519 signing.

1520
1521 **Section 10. General Permits for Class V Facilities.**

1522
1523 (from Chapter 16, Section 7(a)) (a) The department may develop and issue general
1524 permits pursuant to these regulations which cover Class V facilities for the following
1525 subclasses: 5A1, 5A2, 5B1, 5C4, 5C5, 5C6, 5D1, 5D2, 5E1, 5E3, and 5E5. The administrator
1526 may issue general permits in other categories as the need arises. 5E3 facilities which were
1527 permitted as small wastewater systems prior to April 14, 1998 are permitted by rule under
1528 Section 8 (c) (v) and are not covered by this section. Facilities in these subclasses which have
1529 already been issued individual permits under Chapter 9 or Chapter 16, Water Quality Rules and
1530 Regulations may continue under these permits until they are terminated, revoked and reissued,
1531 or canceled at the request of the operator. Coverage shall not be extended to any facility if such
1532 a facility would be in violation of any state approved source water protection area. Facilities in
1533 these subclasses not presently covered by an individual permit will be authorized by permit by
1534 rule until the general permit for the specific subclass is issued. The operator of a facility listed
1535 in this section shall have two (2) years after the date of issuance of the general permit to:

1536
1537 (from Chapter 16, Section 7(a)(i)) (i) Obtain coverage under the issued
1538 general permit;

1539
1540 (from Chapter 16, Section 7(a)(ii)) (ii) Submit an application and receive an
1541 individual permit under this chapter.

1542

1543 (from Chapter 16, Section 7(a)(iii)) (iii) Continue to be covered by a permit
1544 issued pursuant to Chapter 9 of these regulations.

1545
1546 (from Chapter 16, Section 7(a) (iv) Abandon the facility in accordance
1547 with Section ~~12~~ 18.

1548
1549 (from Chapter 16, Section 7(e) (b) General permits shall also include:

1550
1551 (from Chapter 16, Section 7(e)(i) (i) The permit conditions required in
1552 Section ~~5(e)(i)~~ 6(h)(iii).

1553
1554 (from Chapter 16, Section 7(e)(ii) (ii) A requirement to submit information
1555 necessary for the department to make an assessment of the vulnerability of the environment and
1556 public health to the injection from the Class V well. Such information may include the depth to
1557 the groundwater table at the disposal field, groundwater quality or existing available
1558 information on the lithology, geology, hydrogeology and the location of the following items
1559 within 1/4 mile of the Class V facility:

1560
1561 (from Chapter 16, Section 7(e)(ii)(A)) (A) All water supply wells
1562 and the uses of each respective well;

1563
1564 (from Chapter 16, Section 7(e) (ii)(B)) (B) All property
1565 boundaries and land uses;

1566
1567 (from Chapter 16, Section 7(e) (ii)(C)) (C) All surface water
1568 bodies or springs; and

1569
1570 (from Chapter 16, Section 7(e) (ii)(D)) (D) All known sources of
1571 groundwater contamination or pollution.

1572
1573 (from Chapter 16, Section 7(e) (ii)(E)) (E) All state approved
1574 source water protection areas, wellhead protection areas, 201 service areas, or water quality
1575 management plan areas.

1576
1577 (from Chapter 16, Section 7(e)(iii) (iii) Depth below the ground surface for the
1578 point of injection and for the well screening in all wells within the area of review;

1579
1580 (from Chapter 16, Section 7(e)(iv) (iv) A requirement for facilities
1581 constructed after April 14, 1998 that the operator certifies the facility will meet the design,
1582 construction, and operational performance requirements in Section ~~10~~ 13 for the specific
1583 subclass of facility.

1584
1585 (from Chapter 16, Section 7(e)(v) (v) A requirement that the operator submit
1586 the disposal capacity of the facility in gallons per day as calculated using ~~Table 1, Chapter 25~~
1587 Tables 1 and 2, Water Quality Rules and Regulations Chapter 25. Some facilities may be
1588 required to monitor the volume of injectate actually disposed of, or the volume of water used in
1589 the area served by the Class V facility.

1590

1591 (from Chapter 16, Section 7(f)) (c) The administrator may require any operator
1592 covered by a general permit to obtain an individual permit for the facility when a review of the
1593 information submitted under this section indicates that the general permit would not be
1594 protective of groundwater in that specific case. Any operator covered by a general permit may
1595 at any time apply for and obtain an individual permit for the same facility. Once issued, an
1596 individual permit will replace coverage by the general permit for that facility.

1597
1598 (from Chapter 16, Section 7(g)) (d) General permits will contain the subclass of
1599 injection facility covered, the geographic area covered, the general nature of the fluids to be
1600 discharged, and the location of the receiver where the discharge will be allowed. General
1601 permits will follow the public notice requirements of Section ~~13~~ 22 of this chapter. During each
1602 five (5) year review of a general permit, a public notice shall be issued by the department stating
1603 that a five (5) year review has been done, listing the facilities covered by a general permit, and
1604 stating where the public may obtain a copy of the permit.

1605
1606 (from Chapter 16, Section 7(h)) (e) Operators of new injection facilities who
1607 believe that their facility may be covered by a general permit in class 5C6 facilities may apply
1608 for coverage under the general permit for that subclass. If not accepted for coverage under this
1609 general permit, the operator shall apply for an individual permit under subclass 5C3.

1610
1611 (from Chapter 16, Section 7(i)) (f) Operators of new injection facilities who
1612 believe that their facility may be covered by a general permit in class 5E5 facilities may apply
1613 for coverage under the general permit for that subclass. If not accepted for coverage under this
1614 general permit, the operator shall apply for an individual permit under subclass 5E3.

1615
1616 (from Chapter 16, Section 7(j)) (g) In order to obtain coverage under the general
1617 permit all operators of class 5C6 and 5E5 shall submit detailed construction drawings and an
1618 abbreviated groundwater study showing the approximate depth to groundwater and a list of
1619 water wells within one half mile of the facility.

1620
1621 (from Chapter 16, Section 7(k)) (h) General permits may be written to require the
1622 operator to monitor the water quality of the injected fluid and to submit the information to the
1623 department. Existing facilities under this section may be required to monitor injectate quality on
1624 a one time basis, on a quarterly basis, a semi-annual basis or annual basis depending on the
1625 ability of the facility to cause adverse environmental damage or affect human health.

1626
1627 (from Chapter 16, Section 7(l)) (i) General permits for Class 5C5 coal bed
1628 methane injection facilities shall require that:

1629
1630 (from Chapter 16, Section 7(l)(i)) (i) Each operator provide background
1631 information showing that the class of use under Chapter 8 for each injection zone will not be
1632 violated by the injection of coal bed methane produced water.

1633
1634 (from Chapter 16, Section 7(l)(ii)) (ii) A valid pressure falloff curve be
1635 recorded for each well within one (1) year of the start of injection into that well.

1636
1637 (from Chapter 16, Section 7(l)(iii)) (iii) The pressure of injection be
1638 continuously recorded and that the pressure of injection be limited to no more than the fracture
1639 pressure of the receiving formation. This requirement can be met by assuming that the fracture

1640 gradient of the receiver is .70 psi/foot of depth and using the depth of the topmost perforation in
1641 making the calculation.

1642

1643 **Section 11. Permit by Rule for Class V Facilities.**

1644

1645 (from Chapter 16, Section 8) The types of Class V facilities listed in this section represent
1646 minimal threats to pollute groundwater. The referenced facilities which meet the requirements
1647 of this section are permitted by rule. A permit by rule requires the owner or operator to submit
1648 information contained in this section before construction, installation or modification of a
1649 facility and to meet the performance standards contained in this section and in Section ~~10~~ 13 of
1650 this Chapter. No facility shall be located within a state approved local wellhead protection area,
1651 state approved source water protection area or a state approved water quality management area
1652 which is in conflict with any of those plans.

1653

1654 (from Chapter 16, Section 8(a)) (a) A facility permitted by rule under this section
1655 shall meet the following conditions:

1656

1657 (from Chapter 16, Section 8(a)(i)) (i) In addition to the information listed in
1658 ~~Section 6 (e)(i), (ii) and (iii)~~ Section 9 (c) (i), (ii) and (iii) of this chapter, the operator shall
1659 submit the following inventory information to the department prior to construction for facilities
1660 constructed after the effective date of these regulations and within one (1) year of the effective
1661 date of these regulations for existing facilities: (Facilities which are already registered with the
1662 Underground Injection Control Program, or which were issued a permit under Chapters 3, 9 or
1663 16, need not send a new registration, but may be asked for updated information from time to
1664 time.)

1665

1666 (from Chapter 16, Section 8(a)(i)(A)) (A) The location of the
1667 facility, either a complete legal description or latitude and longitude preferably within a (ten) 10
1668 meter accuracy.

1669

1670 (from Chapter 16, Section 8(a)(i)(B)) (B) Type and general
1671 description of the quality of the injected fluid.

1672

1673 (from Chapter 16, Section 8(a)(i)(C)) (C) The disposal capacity
1674 of the facility in gallons per day.

1675

1676 (from Chapter 16, Section 8(a)(i)(D)) (D) Depth of injection
1677 zone.

1678

1679 (from Chapter 16, Section 8(a)(i)(E)) (E) Whether or not the
1680 facility is operating, temporarily abandoned, or permanently abandoned.

1681

1682 (from Chapter 16, Section 8(a)(ii)) (ii) The facility shall be designed,
1683 constructed and operated to protect groundwater standards contained in Chapter 8, Water
1684 Quality Rules and Regulations and performance standards found in this section and in Section
1685 ~~10~~ 13 of this chapter.

1686

1687 (from Chapter 16, Section 8(a)(iii)) (iii) Chemical, bacteriological, radiological
1688 additives, hazardous substances or toxic substances additives shall not be mixed in the injected
1689 fluid at any time during use of the water, prior to injection or during injection.

1691 (from Chapter 16, Section 8(a)(iv)) (iv) Any violation of the requirements of
1692 these regulations by a Class V facility operator permitted by rule shall be reported to the
1693 department by telephone within twenty-four (24) hours of the time when the operator becomes
1694 aware of the violation. A written report shall be filed by the operator with the department
1695 within seven (7) days detailing steps which have been taken and will be taken to eliminate the
1696 violation.

1697
1698 (from Chapter 16, Section 8(b)) (b) All facilities, referenced in this section, which
1699 do not meet the requirements of subsection (a) shall obtain an individual permit under this
1700 chapter. For facilities constructed or modified after the effective date of these regulations
1701 requiring an individual permit, the owner or operator shall obtain the permit prior to any
1702 construction.

1703
1704 (from Chapter 16, Section 8(c)) (c) The following classes of facilities are
1705 permitted by rule under this section:

1706
1707 (from Chapter 16, Section 8(c)(i)) (i) 5B2 facilities, except any facility
1708 which injects wastewater or contains polluted groundwater or surface water in concentrations
1709 above the receiver use standards contained in Chapter 8, Water Quality Rules and Regulations.

1710
1711 (from Chapter 16, Section 8(c)(ii)) (ii) After the effective date of these
1712 regulations, coal bed methane operators cannot be covered by 5B2 aquifer recharge rule
1713 authorizations. All coal bed methane disposal systems must be covered by a general permit or
1714 an individual permit under this chapter if they inject into an Underground Source of Drinking
1715 Water, or a Class II permit issued by the Wyoming Oil and Gas Conservation Commission if
1716 they inject into a Class VI aquifer.

1717
1718 (from Chapter 16, Section 8(c)(iii)) (iii) 5B4 facilities, provided that the water
1719 injected will not cause a groundwater standards violation under Chapter 8, Water Quality Rules
1720 and Regulations.

1721
1722 (from Chapter 16, Section 8(c)(iv)) (iv) 5B6 and 5B7 facilities;

1723
1724 (from Chapter 16, Section 8(c)(v)) (v) 5D5 facilities, except those facilities
1725 receiving water polluted above the receiving groundwater class of use standards contained in
1726 Chapter 8, Water Quality Rules and Regulations and facilities injecting swimming pool wastes
1727 into a Class I groundwater.

1728
1729 (from Chapter 16, Section 8(c)(vi)) (vi) 5E3 facilities which were originally
1730 permitted under a small wastewater system permit issued by the Department of Environmental
1731 Quality or a local government delegated the authority to issue small wastewater system permits,
1732 located within any five (5) acres of land where the cumulative maximum peak daily wastewater
1733 flow injected from other small wastewater system permitted facilities under the same ownership
1734 would exceed 2,000 gallons per day.

1735

1736 (from Chapter 16, Section 8(c)(vii)) (vii) 5F1 facilities, provided that
1737 information contained in Section ~~10~~ 13 (m) of this chapter is submitted.

1738
1739 (from Chapter 16, Section 8(d)) (d) A permit by rule where the operator has
1740 provided the necessary information shall be valid until the facility is properly closed pursuant to
1741 these regulations or until a permit has been issued or denied under this chapter.

1742
1743 (from Chapter 16, Section 8(e)) (e) The administrator may request information
1744 from the owner or operator of a well or facility permitted by rule to determine whether the
1745 facility may be causing a violation of groundwater use standards in Chapter 8, Water Quality
1746 Rules and Regulations, the construction standards found in this chapter and in Chapter 11,
1747 Water Quality Rules and Regulations, or any other requirements of this chapter. Such
1748 information may include, but is not limited to:

1749
1750 (from Chapter 16, Section 8(e)(i)) (i) Analysis of injected fluids and periodic
1751 submission of reports of such monitoring.

1752
1753 (from Chapter 16, Section 8(e)(ii)) (ii) Groundwater monitoring and periodic
1754 submission of reports of such monitoring.

1755
1756 (from Chapter 16, Section 8(e)(iii)) (iii) Description of receiving strata.

1757
1758 (from Chapter 16, Section 8(e)(iv)) (iv) Well locations and down gradient use
1759 of groundwater.

1760
1761 (from Chapter 16, Section 8(f)) (f) Any request for information under this section
1762 shall be made in writing and include a brief statement of the reasons for requesting the
1763 information. An owner or operator shall submit the information within the time frames
1764 provided in the request for information.

1765
1766 (from Chapter 16, Section 8(g)) (g) The administrator may require any operator
1767 permitted by rule to obtain an individual permit for the facility when a review of the information
1768 submitted under ~~Section 8 (e) of this chapter~~ paragraph (e) of this section indicates that the
1769 permit by rule would not be protective of groundwater in that specific case.

1770
1771 **Section 12. Construction Standards for Class I Wells.**

1772
1773 (from Chapter 13, Section 11(a)) (a) All existing and new Class I wells shall be
1774 constructed to prevent the movement of fluids into any underground source of drinking water,
1775 permit the use of testing devices and workover tools, and permit continuous monitoring of
1776 injection tubing and long string casing, as required under Sections ~~9 and 10~~ 6 (h)(i) and 6 (h)(ii)
1777 of this chapter.

1778
1779 (from Chapter 13, Section 11(b)) (b) All well materials shall be compatible with the
1780 wastes that may be contacted. The applicant shall submit data necessary to document
1781 compatibility.

1782

1783 (from Chapter 13, Section 11(c)) (c) Casing and cement used in the construction of
1784 each newly drilled well shall be designed for the life expectancy of the well. The applicant shall
1785 provide all information required to make a determination based on these factors:

1786
1787 (from Chapter 13, Section 11(c)(i)) (i) Depth to the injection zone.

1788
1789 (from Chapter 13, Section 11(c)(ii)) (ii) Injection pressure, external pressure,
1790 internal pressure, and axial loading.

1791
1792 (from Chapter 13, Section 11(c)(iii)) (iii) Hole size.

1793
1794 (from Chapter 13, Section 11(c)(iv)) (iv) Size and grade of all casing
1795 strings (wall thickness, diameter, nominal weight, length of joints, joint specifications and
1796 construction material).

1797
1798 (from Chapter 13, Section 11(c)(v)) (v) Corrosiveness of injected
1799 fluid, formation fluids, and temperatures.

1800
1801 (from Chapter 13, Section 11(c)(vi)) (vi) Lithology of injection and
1802 confining intervals.

1803
1804 (from Chapter 13, Section 11(c)(vii)) (vii) Type or grade of cement.

1805
1806 (from Chapter 13, Section 11(d)) (d) Construction requirements for Class I
1807 hazardous waste wells.

1808
1809 (from Chapter 13, Section 11(d)(i)) (i) For casing and cementing
1810 requirements, the applicant shall provide all information necessary to make a determination of
1811 adequacy based on quantity and chemical composition of injected fluids.

1812
1813 (from Chapter 13, Section 11(d)(i)) (ii) One surface casing string shall, at a
1814 minimum, extend into the confining zone below the lowest Underground Source of Drinking
1815 Water and be cemented by circulating cement from the base of the casing to the surface, using a
1816 minimum of one-hundred twenty percent (120%) of the calculated annular volume. The
1817 administrator may require more than one- hundred twenty percent (120%) when the geology or
1818 other circumstances warrant a greater percentage.

1819
1820 (from Chapter 13, Section 11(d)(iii)) (iii) At least one long string casing, using
1821 a sufficient number of centralizers, shall extend to the receiver and shall be cemented by
1822 circulating cement to the surface in one or more stages:

1823
1824 (from Chapter 13, Section 11(d)(iii)(A)) (A) Of sufficient quantity
1825 and quality to withstand the maximum operating pressure.

1826
1827 (from Chapter 13, Section 11(d)(iii)(B)) (B) In a quantity no less
1828 than one hundred twenty percent (120%) of the calculated volume necessary to fill the annular
1829 space. The administrator may require more than one hundred twenty percent (120%) when the
1830 geology or other circumstances warrant a greater percentage.

1831

1832 (from Chapter 13, Section 11(d)(iv)) (iv) Circulation of cement may be
1833 accomplished by staging. The administrator may approve an alternative method of cementing in
1834 cases where the cement cannot be recirculated to the surface, provided the operator can
1835 demonstrate by logs that the cement is continuous and does not allow fluid movement behind
1836 the casing.

1837
1838 (from Chapter 13, Section 11(d)(v)) (v) Casings, including any casing
1839 connections, must be rated to have sufficient structural strength to withstand, for the life the
1840 well, the maximum burst and collapse pressures which may be experienced during the
1841 construction, operation, and closure of the well. Casings shall also be rated to withstand the
1842 maximum tensile stress which may be experienced at any point along the entire length of the
1843 casing during construction, operation, and closure of the well.

1844
1845 (from Chapter 13, Section 11(d)(vi)) (vi) At a minimum, cement and cement
1846 additives shall be of sufficient quantity and quality to maintain mechanical integrity over the
1847 design life of the well.

1848
1849 (from Chapter 13, Section 11(d)(vii)) (vii) For tubing and packer, the
1850 applicant shall provide all information necessary to make a determination of adequacy based on
1851 these factors:

1852
1853 (from Chapter 13, Section 11(d)(vii)(A)) (A) Depth of setting.

1854
1855 (from Chapter 13, Section 11(d)(vii)(B)) (B) Characteristics of the
1856 injection fluid, including chemical content, corrosiveness, temperature, and density.

1857
1858 (from Chapter 13, Section 11(d)(vii)(C)) (C) Injection pressure.

1859
1860 (from Chapter 13, Section 11(d)(vii)(D)) (D) Annular pressure.

1861
1862 (from Chapter 13, Section 11(d)(vii)(E)) (E) Rate (intermittent or
1863 continuous), temperature, and volume of injected fluid.

1864
1865 (from Chapter 13, Section 11(d)(vii)(F)) (F) Size of casing; and

1866
1867 (from Chapter 13, Section 11(d)(vii)(G)) (G) Tubing tensile, burst,
1868 and collapse strengths.

1869
1870 (from Chapter 13, Section 11(d)(viii)) (viii) During the drilling and
1871 construction of a Class I hazardous waste well, appropriate logs and tests shall be run to
1872 determine or verify the depth, thickness, porosity, permeability, and rock type of, and the
1873 salinity of any entrained fluids in all relevant geologic units to assure compliance with the
1874 performance standards of Section 14 16 of this chapter, and to compile baseline data against
1875 which future measurements may be compared. A descriptive report interpreting results of such
1876 logs and tests shall be prepared by the operator and submitted to the administrator. At a
1877 minimum, such logs shall include:

1878

1879 (from Chapter 13, Section 11(d)(viii)(A)) (A) Deviation checks
1880 made during drilling of all Class I hazardous waste wells. Such checks shall be done at
1881 sufficiently frequent intervals to determine the location of the borehole.

1882
1883 (from Chapter 13, Section 11(d)(viii)(B)) (B) Such other logs and
1884 tests as may be needed after taking into account the availability of similar data in the area of the
1885 drilling site, the construction plan and the need for additional information that may arise as
1886 construction of the well progresses. At a minimum, the following logs shall be required:

1887
1888 (from Chapter 13, Section 11(d)(viii)(B)(I)) (I) When
1889 installing the surface casing: resistivity, spontaneous potential, and caliper logs shall be run
1890 before the installation of the casing. A cement bond log and variable density log and
1891 temperature log are required after the surface casing is installed and before the well is deepened.

1892
1893 (from Chapter 13, Section 11(d)(viii)(B)(II)) (II) When
1894 installing the long string casing: resistivity, spontaneous potential, porosity, caliper, gamma ray
1895 and fracture finder logs are required before the casing is installed. After the casing is installed
1896 and cemented, a cement bond log and variable density log are required before the well is
1897 completed.

1898
1899 (from Chapter 13, Section 11(d)(viii)(B)(III)) (III) The
1900 administrator may allow the use of an alternative to the logs described above, when, in the
1901 administrator's opinion, the alternative will provide equivalent or better information.

1902
1903 (from Chapter 13, Section 11(d)(viii)(C)) (C) A mechanical integrity
1904 test as described in Section 9 6(h)(i) of this chapter.

1905
1906 (from Chapter 13, Section 11(d)(viii)(D)) (D) Whole core or
1907 sidewall cores of the confining zone and receiver and formation fluid samples from the receiver
1908 shall be taken. The administrator may accept cores from nearby wells if the operator can
1909 demonstrate, to the administrator's satisfaction, that core retrieval is not possible, and the other
1910 cores are representative of the conditions in the well. The administrator may require the
1911 operator to core other formations in the borehole.

1912
1913 (from Chapter 13, Section 11(d)(ix)) (ix) The fluid temperature, pH,
1914 conductivity, pressure, and static fluid level of the discharge zone shall be recorded during
1915 construction.

1916
1917 (from Chapter 13, Section 11(d)(x)) (x) At a minimum, the following
1918 information about the injection and confining zones shall be calculated or determined during
1919 construction:

1920
1921 (from Chapter 13, Section 11(d)(x)(A)) (A) The physical and
1922 chemical characteristics of the rock itself; and

1923
1924 (from Chapter 13, Section 11(d)(x)(B)) (B) Physical and chemical
1925 characteristics of the formation fluids.

1926

1927 (from Chapter 13, Section 11(d)(x)(C)) (C) Upon completion of
1928 construction, but still prior to operation, the operator shall conduct either pump tests or
1929 injectivity tests to verify the hydrogeologic characteristics of the discharge zone.

1930
1931 (from Chapter 13, Section 11(e)) (e) Fluid seals are not allowed in place of a packer
1932 in any Class I well.

1933
1934 **Section 13. Construction and Operation Standards for Class V Wells.**

1935
1936 (from Chapter 16, Section 10)(a) (a) All Class V facilities must meet or exceed the
1937 design standards of these regulations including Part B of Chapter 11 and Chapter 26, Water
1938 Quality Rules and Regulations.

1939
1940 (from Chapter 16, Section 10)(b)) (b) All Class V facilities shall be constructed to
1941 permit the use of testing devices, and allow monitoring of injected fluid quality. Class V
1942 facilities shall be constructed to provide for metering of the injectate volume if the individual or
1943 general permit requires such metering.

1944
1945 (from Chapter 16, Section 10)(c)) (c) All heating and cooling facilities (5A1, 5A2
1946 and 5A3) shall include:

1947
1948 (from Chapter 16, Section 10)(c)(i)) (i) Provision for the use of non-toxic
1949 circulating medium in closed loop systems or an operating system which cannot be made to
1950 operate with fluid leaking.

1951
1952 (from Chapter 16, Section 10)(c)(ii)) (ii) Provision for operations without the
1953 use of corrosion inhibitors, biocides, or other toxic additives in open loop systems.

1954
1955 (from Chapter 16, Section 10)(c)(iii)) (iii) Provisions to control the total
1956 dissolved solids of waters injected into open loop systems to the class of use standard.

1957
1958 (from Chapter 16, Section 10)(c)(iv)) (iv) Provisions for automatic
1959 shutdown of the system in the event of a fluid loss from a closed loop system or a loss of any
1960 product to an open loop system.

1961
1962 (from Chapter 16, Section 10)(c)(v)) (v) Provisions to ensure that injected water
1963 does not come to the surface or flood any subsurface structure in the immediate vicinity of the
1964 injection system.

1965
1966 (from Chapter 16, Section 10)(c)(vi)) (vi) Provisions to ensure that
1967 known groundwater contamination is not spread by the direct injection of contaminated water or
1968 by movement of contamination from one zone to another caused indirectly by the injection.

1969
1970 (from Chapter 16, Section 10)(d)) (d) All mining, sand and backfill facilities (5B1)
1971 shall include:

1972
1973 (from Chapter 16, Section 10)(d)(i)) (i) Provision for insuring
1974 mechanical integrity of any well designed to remain in service for more than 60 days.

1975

1976 (from Chapter 16, Section 10)(d)(ii) (ii) Provision for controlling the
1977 type of material injected and to insure that no hazardous waste is injected.
1978
1979 (from Chapter 16, Section 10)(d)(iii) (iii) Provision for leak detection in
1980 all surface piping.
1981
1982 (from Chapter 16, Section 10)(d)(iv) (iv) Provision for insuring that the
1983 backfill remains within the permitted area of injection.
1984
1985 (from Chapter 16, Section 10)(d)(v) (v) Provision to insure that the
1986 injection does not cause a groundwater standards violation for the class of use of the receiver.
1987
1988 (from Chapter 16, Section 10)(e) (e) All beneficial use injection facilities (5B2,
1989 5B3, 5B4, 5B5, 5B6, and 5B7) shall include:
1990
1991 (from Chapter 16, Section 10)(e)(i) (i) Plans to insure that
1992 contaminants do not enter the injection stream.
1993
1994 (from Chapter 16, Section 10)(e)(ii) (ii) Information to show that the
1995 injection will accomplish the desired goal stated in the application.
1996
1997 (from Chapter 16, Section 10)(e)(iii) (iii) Target restoration values for
1998 the groundwater in the affected area being remediated for 5B5 facilities.
1999
2000 (from Chapter 16, Section 10)(f) (f) All commercial and industrial Class V
2001 facilities (5C1, 5C2, 5C3 and 5C4) shall:
2002
2003 (from Chapter 16, Section 10)(f)(i) (i) Include a pre-treatment plan to insure
2004 that toxic materials (substances) are not discharged to the groundwater at concentrations higher
2005 than the class of use standards found in Chapter 8, Wyoming Water Quality Rules and
2006 Regulations or any primary drinking water standard found in 40 CFR 141 (as of June 6, 2001),
2007 whichever is more stringent;
2008
2009 (from Chapter 16, Section 10)(f)(ii) (ii) Conform to applicable construction
2010 standards found in Chapter 25, Wyoming Water Quality Rules and Regulations; and
2011
2012 (from Chapter 16, Section 10)(f)(iii) (iii) Include, at a minimum, annual
2013 sampling of the waste injected as part of the monitoring plan for the facility.
2014
2015 (from Chapter 16, Section 10)(g) (g) When a 5C3 facility receiving slaughter house
2016 wastes can demonstrate that no violations of groundwater standards will occur, the facility shall
2017 be:
2018
2019 (from Chapter 16, Section 10)(g)(i) (i) Designed for the following minimum
2020 disposal capacities:
2021
2022 (from Chapter 16, Section 10)(g)(i)(A) (A) 300 gallons per day
2023 for plant cleanup plus.
2024

2025 (from Chapter 16, Section 10)(g)(i)(B)) (B) 25 gallons per head of
2026 cattle slaughter capacity.

2027
2028 (from Chapter 16, Section 10)(g)(i)(C)) (C) 40 gallons per head of
2029 hog slaughter capacity.

2030
2031 (from Chapter 16, Section 10)(g)(i)(D)) (D) 35 gallons per head of
2032 sheep slaughter capacity.

2033
2034 (from Chapter 16, Section 10)(g)(i)(E)) (E) Appropriate capacity
2035 for any other species slaughtered on a per head basis.

2036
2037 (from Chapter 16, Section 10)(g)(ii) (ii) Designed to prevent the
2038 disposal of blood and viscera into the septic system except as a small incidental portion of the
2039 total flow. Blood and viscera shall be sent to a rendering plant or other approved disposal or
2040 recycling system.

2041
2042 (from Chapter 16, Section 10)(g)(iii) (iii) A grease trap shall be provided
2043 ahead of the septic system with a total capacity equal to one half of the total required capacity of
2044 the septic tank.

2045
2046 (from Chapter 16, Section 10)(h)) (h) All drainage facilities (those with the code
2047 number 5D on Appendix A C) shall include:

2048
2049 (from Chapter 16, Section 10)(h)(i) (i) A plan to preclude the inadvertent
2050 introduction of contaminants into the wastewater stream.

2051
2052 (from Chapter 16, Section 10)(h)(ii) (ii) An operations and maintenance
2053 manual detailing maintenance required, reporting requirements for known spills affecting the
2054 facility, and steps to be taken to prevent the introduction of contaminants in the event of a spill
2055 within the area served by the facility.

2056
2057 (from Chapter 16, Section 10)(h)(iii) (iii) Maps showing the area where
2058 runoff will be transported to the drainage facility.

2059
2060 (from Chapter 16, Section 10)(i) (i) All agricultural drainage facilities (5D1)
2061 injecting surface runoff from animal waste piles, feedlots, or dairy operations for which a
2062 demonstration can be made that the groundwater standards can be met, shall be designed for
2063 treatment in a septic tank, lagoon, or other treatment technology prior to injection. The
2064 following requirements apply to these systems:

2065
2066 (from Chapter 16, Section 10)(i)(i) (i) The treatment facility shall be sized for
2067 the strength and solids content of the wastewater to be treated.

2068
2069 (from Chapter 16, Section 10)(i)(ii) (ii) The flow capacity requirements shall
2070 include all runoff from operations within the collection area and all runoff from precipitation up
2071 to and including a 25 year, 24 hour design storm.

2072

2073 (from Chapter 16, Section 10)(i)(iii) (iii) The flow capacity
2074 requirements for drainage from a fully enclosed dairy or feeding operation shall be as follows:
2075
2076 (from Chapter 16, Section 10)(i)(iii)(A) (A) 20 gallons per day per
2077 animal up to 50 pounds.
2078
2079 (from Chapter 16, Section 10)(i)(iii)(B) (B) 100 gallons per day
2080 per animal up to 500 pounds.
2081
2082 (from Chapter 16, Section 10)(i)(iii)(C) (C) 200 gallons per day
2083 per animal over 500 pounds.
2084
2085 (from Chapter 16, Section 10)(i)(iv) (iv) The subsurface fluid
2086 distribution system shall be designed in accordance with general design requirements found in
2087 Chapter 25.
2088
2089 (from Chapter 16, Section 10)(j) (j) All sewage disposal (5E) facilities shall:
2090
2091 (from Chapter 16, Section 10)(j)(i) (i) Conform to applicable construction
2092 standards found in Chapter 25, Wyoming Water Quality Rules and Regulations;
2093
2094 (from Chapter 16, Section 10)(j)(ii) (ii) Comply with applicable sections of
2095 Chapter 11, Parts B and C, Water Quality Rules and Regulations for all piping systems or
2096 storage facilities feeding existing or Class V facilities constructed after the effective date of
2097 these regulations; and
2098
2099 (from Chapter 16, Section 10)(j)(iii) (iii) Be designed for the maximum
2100 daily peak flow determined from ~~Table 1~~ Tables 1 and 2 of Chapter 25, Water Quality Rules
2101 and Regulations. In addition, whenever multiple points of discharge under one owner within
2102 any five (5) acres of land have a design capacity under Chapter 25 to inject more than a total of
2103 2,000 gallons per day of domestic sewage, they shall be permitted under this chapter in the same
2104 manner that they would be permitted if all the waste were delivered to a single point of
2105 discharge.
2106
2107 (from Chapter 16, Section 10)(k) (k) All ~~aquiculture~~ aquaculture return flow
2108 facilities (5E1) shall include pretreatment in a lagoon, septic tank, or oxidation ditch sized for
2109 the strength and volume of the wastes to be disposed of.
2110
2111 (from Chapter 16, Section 10)(l) (l) All domestic wastewater treatment plant
2112 disposal facilities (5E4) shall also include:
2113
2114 (from Chapter 16, Section 10)(l)(i) (i) Provisions for filtering of the waste
2115 and disinfection of the injectate.
2116
2117 (from Chapter 16, Section 10)(l)(ii) (ii) An environmental monitoring
2118 program, including pre-discharge, operational monitoring, and post discharge monitoring.
2119
2120 (from Chapter 16, Section 10)(l)(iii) (iii) Monitoring of the injectate on
2121 at least a weekly basis for ~~N~~nitrate as N, ~~A~~ammonia as N, and coliform bacteria.

2122
2123 (from Chapter 16, Section 10)(l)(iv)) (iv) Design to prevent groundwater
2124 standards violations as defined by Chapter 8, Water Quality Rules and Regulations.

2125
2126 (from Chapter 16, Section 10)(l)(v)) (v) The points of compliance shall be at
2127 down gradient monitor wells installed on land owned by the same utility that operates the
2128 treatment plant and injection facilities whenever the point of injection is not the point of
2129 compliance.

2130
2131 (from Chapter 16, Section 10)(l)(vi)) (vi) Requirements for the
2132 submission, approval and conformance with an operational and maintenance manual.

2133
2134 (from Chapter 16, Section 10)(m)) (m) All cathodic protection facilities (5F1) shall
2135 include:

2136
2137 (from Chapter 16, Section 10)(m)(i)) (i) A seal of sodium bentonite or sodium
2138 bentonite grout is required from the surface to a minimum depth of three (3) feet. A second
2139 sodium bentonite or sodium bentonite grout seal is required for a minimum thickness of three
2140 (3) feet, just above the top of the coke breeze. After the sodium bentonite has been placed in the
2141 hole, it shall be hydrated to insure a proper seal. The remainder of the hole between these seals
2142 may be backfilled with cuttings. The above seals may be placed directly in the hole or may be
2143 placed outside of a surface pipe of sufficient length to reach down to the anodes. If a surface
2144 pipe is used, no seals are required inside the pipe except during final abandonment.

2145
2146 (from Chapter 16, Section 10)(m)(ii)) (ii) All aquifers encountered while
2147 drilling shall be isolated from one another using a bentonite seal of at least two (2) feet in
2148 vertical dimension.

2149
2150 (from Chapter 16, Section 10)(m)(iii)) (iii) The coke breeze shall be a
2151 high quality product containing a minimum of leachable metals or organic pollutants. The coke
2152 breeze shall not discharge any pollutant which will cause a groundwater standard violation.

2153
2154 (from Chapter 16, Section 10)(m)(iv)) (iv) Surface access to the anode
2155 shall be kept sealed and locked at all times when the anode is not actually being serviced.

2156
2157 (from Chapter 16, Section 10)(m)(v)) (v) Each separate aquifer
2158 penetrated shall require a separate breather pipe. Each aquifer shall remain in hydrologic
2159 isolation from each other if they were isolated prior to installation.

2160
2161 (from Chapter 16, Section 10)(m)(vi)) (vi) If it becomes necessary to wet
2162 any anode installed under this section, only water from a public water supply or water meeting
2163 all of the standards for Class I groundwater of the state shall be used unless the division is first
2164 supplied with an analyses of the water for approval.

2165
2166 (from Chapter 16, Section 10)(m)(vii)) (vii) Each 5F1 facility shall be
2167 marked in the field with a sign showing the name, address, and telephone number of the
2168 operator who installed the system. Upon abandonment, such markers shall remain in place.

2169

2170 (from Chapter 16, Section 10)(m)(viii)) (viii) A 5F1 facility shall not be
2171 installed within 200 feet of any pipeline, wellhead, storage tank, mud pit or other potential
2172 source of pollution unless the operator's surface rights prevent this requirement from being met.
2173

2174 (from Chapter 16, Section 10)(n)) (n) Except for beneficial use facilities, Class V
2175 facilities shall not be located within 200 feet of any active public water supply well, regardless
2176 of whether or not the well is completed in the same aquifer. This minimum distance may
2177 increase or the existence of a Class V facility may be prohibited within a state approved
2178 wellhead protection area, source water protection area or water quality management plan area.
2179

2180 (from Chapter 16, Section 10)(o)) (o) Class 5C6 and 5E5 facilities shall meet the
2181 construction standards and separation distances appropriate for the design flow as shown in
2182 Chapter 25.
2183

2184 (from Chapter 16, Section 10)(p)) (p) Class 5C5 coal bed methane injection facilities
2185 shall:
2186

2187 (from Chapter 16, Section 10)(p)(i)) (i) Provide for metering of water injected
2188 into each well.
2189

2190 (from Chapter 16, Section 10)(p)(ii)) (ii) Be constructed to insure that the water
2191 injected reaches the intended receiver and only the intended receiver. The intended receiver
2192 shall be identified by geologic formation and/or member name as well as the depth of that
2193 receiver below ground surface.
2194

2195 (from Chapter 16, Section 10)(p)(iii)) (iii) Provide for disinfection of the
2196 water injected if analysis shows that coliform bacteria, sulfate reducing bacteria or iron fixing
2197 bacteria are present in the water as pumped from the coal seam. Treatment methods must be
2198 methods that would be appropriate for treating water in a public water supply system.
2199

2200 (from Chapter 16, Section 10)(p)(iv)) (iv) Provide for injection at a
2201 pressure of less than the fracture pressure of the receiver.
2202

2203 (from Chapter 16, Section 10)(p)(v)) (v) Provide for monitoring of the quality
2204 of the injected water on a periodic basis.
2205

2206 (from Chapter 16, Section 10)(p)(vi)) (vi) Provide notification of the
2207 intent to obtain coverage under the general permit to all surface owners, mineral owners or
2208 water rights owners, oil and gas owners and the owners of coal leases within one-half mile of
2209 the proposed point of injection.
2210

2211 (from Chapter 16, Section 10)(p)(vii)) (vii) Provide for pressure testing of
2212 the casing before injection and at least once every five (5) years thereafter. The casing shall be
2213 pressure tested up to an indicated surface pressure of 700 psi and held for 15 minutes. A
2214 passing result is indicated if the casing still has 690 psi at the end of the 15 minute shut in time.
2215

2216 **Section 14. Siting conditions for Class I Wells.**

2217
 2218 (from Chapter 13, Section 12(a)) (a) All Class I wells shall be situated such that
 2219 they inject into a formation that is beneath the lowermost Under- ground Source of Drinking
 2220 Water within one-quarter (1/4) mile of the well or within two (2) miles for Class I hazardous
 2221 waste injection wells, and the discharge zone has sufficient permeability, porosity, thickness,
 2222 and extends over a sufficient area to prevent migration of fluids into any underground source of
 2223 drinking water.

2224
 2225 (from Chapter 13, Section 12(b)) (b) Class I wells shall be limited to areas that are
 2226 determined by the administrator to be geologically suitable for the prevention of migration of
 2227 fluids into underground source of drinking waters. In determining geological suitability, the
 2228 administrator shall consider the following information submitted by the applicant:

2229
 2230 (from Chapter 13, Section 12(b)(i)) (i) An analysis of the structural and ~~strati-~~
 2231 graphic stratigraphic geology, hydrogeology, and ~~the~~ seismicity of the region.

2232
 2233 (from Chapter 13, Section 12(b)(ii)) (ii) An analysis of the local geology and
 2234 ~~hydro-geology~~ hydrogeology of the well site, including, at a minimum, detailed information
 2235 regarding the stratigraphy, structure, and rock properties, aquifer hydrodynamics, and mineral
 2236 resources.

2237
 2238 (from Chapter 13, Section 12(b)(iii)) (iii) A determination that the
 2239 geology of the area can be described confidently, and, for hazardous waste wells only, that the
 2240 waste fate and transport can be accurately predicted through the use of models.

2241
 2242 (from Chapter 13, Section 12(c)) (c) The operator shall demonstrate to the
 2243 satisfaction of the administrator that:

2244
 2245 (from Chapter 13, Section 12(c)(i)) (i) The confining zone is free from faults
 2246 or fractures over an area sufficient to prevent the migration of fluids into a underground source
 2247 of drinking water, and contains at least one formation of sufficient thickness and characteristics
 2248 capable of preventing vertical propagation of fractures; and

2249
 2250 (from Chapter 13, Section 12(c)(ii)) (ii) The confining zone is separated from
 2251 the base of the lowermost underground source of drinking water by at least one (1) sequence of
 2252 permeable and less permeable strata that will provide an added layer of protection in the event
 2253 of fluid movement through an unlocated borehole or fault.

2254
 2255 (from Chapter 13, Section 12(c)(iii)) (iii) Within the area of review, the
 2256 piezometric surface of the fluid in the receiver is less than the piezometric surface of the
 2257 lowermost underground source of drinking water considering density effects, injection
 2258 pressures, and any significant pumping of the overlying aquifer; or

2259
 2260 (from Chapter 13, Section 12(c)(iv)) (iv) There are no underground sources of
 2261 drinking waters present.

2262
 2263 (from Chapter 13, Section 12(d)) (d) The administrator may approve a site which
 2264 does not meet the above requirements, if the operator can demonstrate that because of the site's

2265 geology, nature of the waste, or other considerations, it would not cause endangerment to any
2266 underground source of drinking waters.

2267

2268 **Section 15. Environmental Monitoring Program.**

2269

2270 ~~(from Chapter 13, Section 13(a)) (a) A monitoring program shall be required for all~~
2271 ~~Class I wells that will be adequate to establish baseline data and ensure knowledge of migration~~
2272 ~~and behavior of the discharge.~~

2273

2274 (from Chapter 16, Section 11)(a) (a) The monitoring program shall be adequate to
2275 ensure knowledge of migration and behavior of the discharge in the receiver.

2276

2277 (from Chapter 13, Section 13(a)(i) and Chapter 16, Section 11)(a)(i) (i)
2278 Monitoring may be required for any circumstance where groundwaters of the state
2279 could be affected ~~(from Chapter 16, Section 11)(a)(i)) by a Class V facility.~~

2280

2281 (from Chapter 13, Section 13(a)(ii) and Chapter 16, Section 11)(a) (ii) The
2282 extent and design of a monitoring system shall be sufficient to deal with the pollution potential
2283 of the proposed discharge.

2284

2285 (from Chapter 16, Section 11)(a)(iii) (iii) Before construction or
2286 installation of a (new) Class I (from Chapter 16, Section 11)(a)(iii) or V facility, a monitoring
2287 program, when required, shall be adequate to establish baseline conditions of the receiver.

2288

2289 (from Chapter 13, Section 13(b) and Chapter 16, Section 11)(b) (b) The
2290 monitoring program shall consist of any or all of the following:

2291

2292 (from from Chapter 13, Section 13(b)(i) and Chapter 16, Section 11)(b)(i) (i)
2293 Pre-discharge or pre-operational monitoring.

2294

2295 (from Chapter 13, Section 13(b)(ii) and from Chapter 16, Section 11)(b)(ii) (ii)
2296 Operational monitoring.

2297

2298 (from from Chapter 13, Section 13(b)(iii) and Chapter 16, Section 11)(b)(iii)
2299 (iii) Post-discharge or post-operational monitoring.

2300

2301 (from from Chapter 13, Section 13(b)(iv) and Chapter 16, Section 11)(b)(iv)
2302 (iv) Record keeping and reporting.

2303

2304 (from from Chapter 13, Section 13(b)(v) and Chapter 16, Section 11)(b)(v) (v)
2305 Such additional requirements established by the administrator to meet the
2306 purposes of the ~~(from Chapter 16, Section 11)(b)(v)) Environmental Quality Act Wyoming~~
2307 Environmental Quality Act and these regulations.

2308

2309 (from Chapter 13, Section 13(c) and Chapter 16, Section 11)(c) (c) Each
2310 monitoring program shall include maps and cross-sections, where appropriate, showing the
2311 location, lithology, and screening interval of each monitoring site.

2312

2313 (from Chapter 13, Section 13(d) Chapter 16, Section 11)(d) (d) The operator is
2314 responsible for properly installing, operating, maintaining and removing all necessary
2315 monitoring equipment.

2316
2317 (from Chapter 13, Section 13(g) and Chapter 16, Section 11)(e) (e) The operator
2318 shall develop and follow ~~(from Chapter 13, Section 13(g) an approved~~ a written waste analysis
2319 plan that describes the procedures to be carried out to obtain detailed chemical and physical
2320 analyses of a representative sample of the waste, including quality assurance procedures to be
2321 used. (from Chapter 16, Section 11)(e) Once approved by the department, the operator shall
2322 not deviate from the plan without filing an amended plan and obtaining department approval for
2323 that amended plan. (from Chapter 13, Section 13(g) and Chapter 16, Section 11)(e) At a
2324 minimum, any plan shall include:

2325
2326 (from Chapter 13, Section 13(g)(i) and Chapter 16, Section 11)(e) (i) The
2327 parameters for which the waste will be analyzed, the rationale for the selection of these
2328 parameters, and the test methods to be used to test for these parameters. ~~(from Chapter 13,~~
2329 Section 13(g)(i)) and

2330
2331 (from Chapter 13, Section 13(g)(ii) and Chapter 16, Section 11)(e) (ii) The
2332 sampling method that will be used to obtain a representative sample of the waste.

2333
2334 (from Chapter 13, Section 13 (h) and Chapter 16, Section 11)(e) (iii) The
2335 operator shall repeat the analysis of the injected wastes in the manner and on the schedule
2336 described in the waste analysis plan, ~~(from Chapter 16, Section 11)(e) or when operating~~
2337 ~~changes occur that may significantly alter the characteristics of the waste stream.~~ (from Chapter
2338 13, Section 13 (h) and when process or operating changes occur that may significantly alter the
2339 characteristics process, or operating changes occur that may significantly alter the
2340 characteristics of the waste stream.

2341
2342 (from Chapter 13, Section 13(i) (A) The operator shall conduct
2343 continuous or periodic monitoring of selected parameters as required by the administrator.

2344
2345 (from Chapter 13, Section 13(j) (B) The operator shall ~~assure~~
2346 ensure that the plan remains accurate and the analyses remain representative.

2347
2348 (f) Requirements for Class I Wells:

2349
2350 (from Chapter 13, Section 13(e) (i) At a minimum, the permittee shall
2351 monitor the pressure in the injection zone annually, including at a minimum, a shutdown of the
2352 well for a time sufficient to conduct a valid observation of the pressure falloff curve.

2353
2354 (from Chapter 13, Section 13(f) (ii) When prescribing a monitoring
2355 system, the administrator may also require:

2356
2357 (from Chapter 13, Section 13(f)(i) (A) Continuous monitoring for
2358 pressure changes in the first aquifer overlying the confining zone. When such a well is installed,
2359 the operator shall, on a quarterly basis, sample the aquifer and analyze for constituents specified
2360 by the administrator.

2361

2362 (from Chapter 13, Section 13(f)(ii)) (B) The use of indirect,
2363 geophysical techniques to determine the position of the waste front, the water quality in a
2364 formation designated by the administrator, or to provide other site specific data.
2365
2366 (from Chapter 13, Section 13(f)(iii)) (C) Periodic monitoring of the
2367 groundwater quality in the first aquifer overlying the receiver.
2368
2369 (from Chapter 13, Section 13(f)(iv)) (D) Periodic monitoring of the
2370 groundwater quality in the lowermost underground source of drinking water; and
2371
2372 (from Chapter 13, Section 13(f)(v)) (E) Any additional monitoring
2373 necessary to determine whether fluids are moving into or between any aquifers penetrated by
2374 the well.
2375
2376 (from Chapter 13, Section 13(f)(vi)) (F) The administrator may require
2377 seismicity monitoring when he has reason to believe that the injection activity may have the
2378 capacity to cause seismic disturbances.
2379
2380 (from Chapter 13, Section 13(k) (iii)) Testing and monitoring requirements
2381 for all Class I hazardous waste wells shall include:
2382
2383 (from Chapter 13, Section 13(k)(i)) (A) Submission of information by
2384 the applicant demonstrating that the waste stream and its anticipated reaction products will not
2385 alter the permeability, thickness, or other relevant characteristics of the confining or ~~dis-charge~~
2386 discharge zones such that they would no longer meet the requirements specified when the area
2387 of review was calculated.
2388
2389 (from Chapter 13, Section 13(k)(ii)) (B) Submission of information by
2390 the applicant demonstrating that the waste will be compatible with the well materials with which
2391 the waste is expected to come into contact and a description of the methodology used to make
2392 that determination. Compatibility for purposes of this requirement is established if contact with
2393 injected fluids will not cause the well materials to fail to satisfy any design requirement imposed
2394 under Section ~~H~~ 12 of this chapter.
2395
2396 (from Chapter 13, Section 13(k)(iii)) (C) The administrator shall require
2397 continuous corrosion monitoring of the construction materials in the well for all wells where the
2398 pH of the injection fluid is less than two (2) or greater than eleven (11), and may require such
2399 monitoring of other wastes. This monitoring may be conducted by placing samples of the well
2400 construction materials in contact with the waste stream or routing the waste stream through a
2401 loop constructed of the same materials used in the well, or by using an alternative method
2402 approved by the administrator.
2403
2404 (from Chapter 13, Section 13(k)(iv)) (D) If a corrosion monitoring
2405 program is required, the test shall use identical materials to those used in the construction of the
2406 well, and such materials shall be continuously exposed to the operating pressures, temperatures,
2407 and flow rates of the injection operation as measured at the well head. The operator shall
2408 monitor the materials for loss of mass, thickness, pitting, and other signs of corrosion on a
2409 quarterly basis to ensure that the well components meet the minimum standards for material
2410 strength and performance set forth in Section ~~H~~ 12 of this chapter.

2411
 2412 (from Chapter 13, Section 13(l)) (iv) In addition to the above-mentioned
 2413 requirements, operators of Class I hazardous waste wells shall also conduct mechanical integrity
 2414 testing as follows:

2415
 2416 (from Chapter 13, Section 13(l)(i)) (A) The long string casing,
 2417 injection tubing, and annular seals shall be tested by means of an approved pressure test with
 2418 liquid or gas on an annual basis and whenever there has been a well workover.

2419
 2420 (from Chapter 13, Section 13(l)(ii)) (B) The bottom-hole cement shall
 2421 be tested by means of an approved radioactive tracer survey annually.

2422
 2423 (from Chapter 13, Section 13(l)(iii)) (C) An approved temperature,
 2424 noise, or other approved log shall be run at least once every five (5) years to test for movement
 2425 of fluid along the borehole. The administrator may require such tests whenever the well is
 2426 worked over.

2427
 2428 (from Chapter 13, Section 13(l)(iv)) (D) Casing inspection logs shall be
 2429 run at least once every five (5) years, unless the administrator waives this requirement due to
 2430 well construction or other ~~factor's~~ factors which limit the test's reliability.

2431
 2432 (from Chapter 13, Section 13(l)(v)) (E) Any other test approved by the
 2433 administrator may also be used. Procedures for approval of unauthorized mechanical integrity
 2434 tests are outlined in Section ~~9-(d)-(7)~~ 6(h)(i)(B) of this chapter.

2435
 2436 (from Chapter 13, Section 13(l)(vi)) (F) The administrator shall be
 2437 given the opportunity to witness all logging and drill stem testing done by the operator at any
 2438 time during the permitting of any well under this chapter. The operator shall submit a schedule
 2439 of such planned logging and testing to the administrator at least thirty (30) days prior to the first
 2440 test.

2441
 2442 (g) Requirements for Class V Wells:

2443
 2444 (from Chapter 16, Section 11(f)) (i) All Class V permits shall contain a
 2445 point of compliance. The point of compliance shall be the point of injection or specific monitor
 2446 wells located down gradient of the injection facilities.

2447
 2448 (from Chapter 16, Section 11(f)(i)) (A) For facilities where the point
 2449 of compliance is the point of injection, the fluid to be injected shall be limited to the class of use
 2450 standards for the receiver as found in Chapter 8 of these regulations or any primary drinking
 2451 water standard found in 40 CFR 141, (as of June 6, 2001) whichever is more stringent. The
 2452 permittee may be required to maintain monitor wells in the vicinity of the discharge for the
 2453 purpose of monitoring flow direction and monitoring groundwater quality in the event of non-
 2454 compliance with the permit.

2455
 2456 (from Chapter 16, Section 11(f)(ii)) (B) For facilities where the point
 2457 of compliance is at one or more down gradient monitor wells, the department shall establish
 2458 permit limitations at the monitor well(s) consistent with the class of use of the receiver or any
 2459 secondarily affected aquifer or surface water. Where necessary to protect existing or future uses,

2460 permit limitations may be established at the point of compliance which are more stringent than
2461 the class of use standard.

2462
2463 (from Chapter 16, Section 11(f)(iii)) (C) Facilities where subsurface
2464 treatment is anticipated may be required to monitor the injected fluid at the point of injection.
2465 Permit limits may be established at the point of injection which exceeds the class of use
2466 standard for the affected aquifer, provided that a demonstration is made showing that a class of
2467 use standards violation will not occur at a point of compliance downgradient from the point of
2468 injection. Permit limits of this nature are intended to provide early warning of possible non-
2469 compliance at the point of compliance.

2470
2471 (from Chapter 16, Section 11(g)) (h) Procedures and methods for sample collection
2472 and analyses shall be implemented by the permittee to ensure that the samples are representative
2473 of the groundwater, water, or wastes being sampled.

2474
2475 (from Chapter 16, Section 11(h)) (i) Sample collection of groundwater shall be of
2476 such frequency and of such variety (season, time, location, depth, etc.) to properly describe the
2477 groundwater, and shall be accomplished by the methods and procedures described in the U.S.
2478 Environmental Protection Agency manual RCRA Groundwater Monitoring Technical
2479 Enforcement Guidance Document, September, 1986, unless alternate methods and procedures
2480 are approved by the administrator.

2481
2482 (from Chapter 16, Section 11(i)) (j) Analysis of all samples shall be accomplished
2483 pursuant to Chapter 8, Water Quality Rules and Regulations, Sections 7 and 8.

2484
2485 **Section 16. Quality Assurance and Quality Control for Sample Collection and**
2486 **Analysis.**

2487
2488 (from Chapter 13, Section 14 (a)) (a) Procedures and methods for sample collection
2489 and analyses shall be implemented by the permittee to ensure that the samples are representative
2490 of the groundwater, water, or wastes being sampled.

2491
2492 (from Chapter 13, Section 14(b)) (b) Sample collection of groundwater shall be of
2493 such frequency and of such variety (season, time, location, depth, etc.,) to properly describe the
2494 groundwater, and shall be accomplished by the methods and procedures described in the U.S.
2495 Environmental Protection Agency manual RCRA Groundwater Monitoring Technical
2496 Enforcement Guidance Document, September, 1986, unless alternate methods and procedures
2497 are approved by the administrator.

2498
2499 (from Chapter 13, Section 14(c)) (c) Analysis of all samples shall be accomplished
2500 pursuant to Chapter 8, Water Quality Rules and Regulations, Sections 7 and 8.

2501
2502 **Section 17. Closure of Hazardous Waste Wells.**

2503
2504 (from Chapter 13, Section 16(a)) (a) The operator of a Class I hazardous waste well
2505 shall prepare, maintain, and comply with a plan for closure of the well and post-closure care of
2506 the well that meets the standards for well closure required in paragraph (d) of this section and
2507 post-closure care required in paragraph (e) of this section and is acceptable to the administrator.
2508 The obligation to implement the closure and post-closure plan survives the termination of a

2509 permit or the cessation of injection activities. The requirement to maintain and implement an
2510 approved plan is directly enforceable regardless of whether the requirement is a condition of the
2511 permit.

2512
2513 (from Chapter 13, Section 16(a)(i)) (i) The operator shall submit the plan as
2514 part of the permit application, and, upon approval by the administrator, the plan shall be
2515 incorporated as a condition of any permit issued.

2516
2517 (from Chapter 13, Section 16(a)(ii)) (ii) The operator shall submit any
2518 proposed significant revision to the method of closure reflected in the plan for approval by the
2519 administrator no later than the date on which notice of closure is required under paragraph (b) of
2520 this section.

2521
2522 (from Chapter 13, Section 16(a)(iii)) (iii) The plan shall ~~assure~~ ensure
2523 financial responsibility as required in Section ~~17~~ 19 of this chapter.

2524
2525 (from Chapter 13, Section 16(a)(iv)) (iv) The closure plan shall include the
2526 following information:

2527
2528 (from Chapter 13, Section 16(a)(iv)(A)) (A) The type and number
2529 of plugs to be used.

2530
2531 (from Chapter 13, Section 16(a)(iv)(B)) (B) The placement of each
2532 plug including the elevation of the top and bottom of each plug.

2533
2534 (from Chapter 13, Section 16(a)(iv)(C)) (C) The type, ~~and~~ grade,
2535 and quantity of material to be used in plugging.

2536
2537 (from Chapter 13, Section 16(a)(iv)(D)) (D) The method of
2538 placement of the plugs.

2539
2540 (from Chapter 13, Section 16(a)(iv)(E)) (E) Any proposed test or
2541 measure to be made.

2542
2543 (from Chapter 13, Section 16(a)(iv)(F)) (F) The amount, size, and
2544 location (by depth) of casing and any other materials to be left in the well;

2545
2546 (from Chapter 13, Section 16(a)(iv)(G)) (G) The method and
2547 location where casing is to be parted, if applicable.

2548
2549 (from Chapter 13, Section 16(a)(iv)(H)) (H) The procedure to be
2550 used to meet the requirements of paragraph (d)(5) of this section;

2551
2552 (from Chapter 13, Section 16(a)(iv)(I)) (I) The estimated cost of
2553 closure.

2554
2555 (from Chapter 13, Section 16(a)(iv)(J)) (J) Any proposed test or
2556 measure to be made.

2557

2558 (from Chapter 13, Section 16(a)(v)) (v) Post-closure plans shall include the
2559 following information:
2560
2561 (from Chapter 13, Section 16(a)(v)(A)) (A) The pressure in the
2562 injection zone before injection began.
2563
2564 (from Chapter 13, Section 16(a)(v)(B)) (B) The anticipated
2565 pressure in the injection zone at the time of closure.
2566
2567 (from Chapter 13, Section 16(a)(v)(A)) (C) The predicted time
2568 until pressure in the injection zone decays to the point that the well's cone of influence no longer
2569 intersects the base of the lowermost Underground Source Drinking Water.
2570
2571 (from Chapter 13, Section 16(a)(v)(A)) (D) Predicted position of
2572 the waste front at closure.
2573
2574 (from Chapter 13, Section 16(a)(v)(A)) (E) The status of any
2575 required cleanups; and
2576
2577 (from Chapter 13, Section 16(a)(v)(A)) (F) The estimated cost of
2578 proposed post-closure care.
2579
2580 (from Chapter 13, Section 16(a)(vi)) (vi)The administrator may modify a
2581 closure plan in accordance with the procedures outlined in Section 8 7 of this chapter governing
2582 modification of permits.
2583
2584 (from Chapter 13, Section 16(a)(vii)) (vii) An operator of a Class I
2585 hazardous waste injection well who ceases injection temporarily, may keep the well open
2586 provided:
2587
2588 (from Chapter 13, Section 16(a)(vii)(A)) (A) ~~He~~ The operator
2589 receives authorization from the administrator.
2590
2591 (from Chapter 13, Section 16(a)(vii)(A)) (B) ~~He~~ The operator has
2592 described actions or procedures, satisfactory to the administrator, that the operator will take to
2593 ensure that the well will not endanger Under- ground Source of Drinking Waters during the
2594 period of temporary disuse. These actions and procedures shall include compliance with the
2595 technical requirements applicable to active injection wells unless waived by the administrator.
2596
2597 (from Chapter 13, Section 16(a)(viii)) (viii) The operator of a well that has
2598 ceased operations for more than two years shall notify the administrator at least thirty (30) days
2599 prior to resuming operation of the well.
2600
2601 (from Chapter 13, Section 16(b)) (b) The operator shall notify the administrator at
2602 least sixty (60) days prior to closure of a well. The administrator may allow a closure period of
2603 less than sixty (60) days.
2604
2605 (from Chapter 13, Section 16(c)) (c) Within sixty (60) days after closure or at the
2606 time of the next quarterly report, whichever is less, except if the next quarterly report is due

2607 within fifteen (15) days, in which case the sixty (60) day requirement will be used, the operator
2608 shall submit a closure report to the administrator.

2609 (from Chapter 13, Section 16(c)(i)) (i) Such report shall contain a certification
2610 by the operator and the person who performed the closure, if different from the operator, of the
2611 accuracy of the report, and:

2612 (from Chapter 13, Section 16(c)(i)(A)) (A) A statement that the
2613 well was closed in accordance with the closure plan previously submitted and approved by the
2614 administrator.

2615 (from Chapter 13, Section 16(c)(i)(B)) (B) Where actual closure
2616 differed from the plan previously submitted, a written statement specifying the differences
2617 between the previous plan and the actual closure.

2618 (from Chapter 13, Section 16(d)) (d) Standards for well closure.

2619 (from Chapter 13, Section 16(d)(i)) (i) Prior to well closure, the owner or
2620 operator shall observe and record the pressure decay for a time specified by the administrator,
2621 who shall then analyze the pressure decay and the transient pressure observations conducted to
2622 determine whether the injection activity has conformed with predicted values.

2623 (from Chapter 13, Section 16(d)(i)) (ii) Prior to well closure, appropriate
2624 mechanical integrity testing shall be conducted to ensure the integrity of that portion of the long
2625 string casing and cement that will be left in the ground after closure. Testing methods shall be
2626 similar to the mechanical integrity tests required during the operating life of the well.

2627 (from Chapter 13, Section 16(d)(iii)) (iii) Prior to well closure, the well
2628 shall be flushed with a buffer fluid.

2629 (from Chapter 13, Section 16(d)(iv)) (iv) Upon closure, a Class I hazardous
2630 waste well shall be plugged with cement in a manner that will not allow the movement of fluids
2631 into or between any underground source of drinking water.

2632 (from Chapter 13, Section 16(d)(v)) (v) Placement of the cement plugs shall be
2633 accomplished by circulating cement to the bottom of the well using a working string. The
2634 working string shall be removed as the cement is pumped. The cement used shall be of a
2635 variety such that the working string can be withdrawn while still allowing the well to be filled
2636 with cement.

2637 (from Chapter 13, Section 16(d)(vi)) (vi) Each plug used shall be appropriately
2638 tagged and tested for seal and stability before closure is completed.

2639 (from Chapter 13, Section 16(d)(vii)) (vii) The well to be closed shall be
2640 in a state of static equilibrium with the mud weight equalized top to bottom, either by
2641 circulating the mud in the well at least once or by a comparable method described by the
2642 administrator, prior to the placement of the cement plugs.

2653

2655 (from Chapter 13, Section 16(e)) (e) Post-closure care.

2656

2657 (from Chapter 13, Section 16(e)(i)) (i) The operator shall continue and
2658 complete any required cleanup action.

2659

2660 (from Chapter 13, Section 16(e)(i)) (ii) The operator shall continue to conduct
2661 any groundwater monitoring required under the permit until pressure in the injection zone
2662 decays to the point that the well's cone of influence no longer intersects the base of the
2663 lowermost Underground Source of Drinking Water. The administrator may extend the period of
2664 post-closure monitoring if he or she determines that the well may endanger an Underground
2665 Source of Drinking Water.

2666

2667 (from Chapter 13, Section 16(e)(i)) (iii) The operator shall submit a survey plat
2668 to the local zoning authority designated by the administrator, indicating the location of the well
2669 relative to permanently surveyed benchmarks. A copy of the plat shall be submitted to the
2670 Regional administrator of the U.S. EPA Region VIII 8, the Wyoming State Engineer's Office,
2671 and to the Wyoming Oil and Gas Conservation Commission.

2672

2673 (from Chapter 13, Section 16(e)(i)) (iv) The operator shall retain for a
2674 minimum of three (3) years following well closure, records reflecting the nature, composition
2675 and volume of all injected fluids. The administrator shall require the operator to deliver the
2676 records to the administrator at the conclusion of this retention period.

2677

2678 (from Chapter 13, Section 16(f)) (f) Each owner of a Class I hazardous waste well,
2679 and the owner of the surface or subsurface property on or in which a Class I hazardous waste
2680 well is located, must record a notation on the deed to the facility property or on some other
2681 instrument which is normally examined during title search that will in perpetuity provide any
2682 potential purchaser of the property the following information:

2683

2684 (from Chapter 13, Section 16(f)(i)) (i) The fact that the land in question has
2685 been used to manage hazardous waste.

2686

2687 (from Chapter 13, Section 16(f)(ii)) (ii) The name of the State agency or local
2688 authority with which the plat was filed, as well as the address of the Environmental Protection
2689 Agency Region VIII 8 to which it was submitted.

2690

2691 (from Chapter 13, Section 16(f)(iii)) (iii) The type and volume of waste injected,
2692 the injection interval or intervals into which it was injected, and the period over which injection
2693 occurred.

2694

2695 **Section 18. Abandonment of Class V Facilities.**

2696

2697 ((from Chapter 16, Section 12(a)) (a) After the effective date of these regulations,
2698 Class V facilities may be abandoned in place if the following conditions are met and if it can be
2699 demonstrated to the satisfaction of the administrator that:

2700

2701 ((from Chapter 16, Section 12(a)(i)) (i) No hazardous waste has ever been
2702 discharged through the facility.

2703

2704 ((from Chapter 16, Section 12(a)(ii)) (ii) No radioactive waste has ever been
 2705 discharged through the facility.

2706

2707 ((from Chapter 16, Section 12(a)(iii)) (iii) All piping allowing for the
 2708 discharge has either been removed or the ends of the piping have been plugged in such a way
 2709 that the plug is permanent and will not allow for a discharge.

2710

2711 ((from Chapter 16, Section 12(a)(iv)) (iv) All accumulated sludges are
 2712 removed from any septic tanks, holding tanks, lift stations, or other waste handling structures
 2713 prior to abandonment.

2714

2715 ((from Chapter 16, Section 12(b)) (b) Facilities which cannot demonstrate
 2716 compliance with subsection (a) (i) or (a) (ii) of this section, may be abandoned in place if:

2717

2718 ((from Chapter 16, Section 12(b)(i)) (i) Tests are run on sludges accumulated
 2719 in the septic tanks, holding tanks, lift stations, or other waste handling structures which shows
 2720 that none of these materials contain characteristic hazardous waste or radioactive waste.

2721

2722 ((from Chapter 16, Section 12(b)(ii)) (ii) Monitoring of the groundwater in the
 2723 immediate area of the facility shows that there are no toxic materials (substances) present in the
 2724 groundwater at levels higher than class of use standards, which are present as a result of the
 2725 injection.

2726

2727 ((from Chapter 16, Section 12(b)(iii)) (iii) Some other method is
 2728 determined to be acceptable to the administrator which demonstrates compliance with Chapter 8
 2729 of these regulations and prevents the movement of fluid containing any contaminant into an
 2730 underground source of drinking water, if the
 2731 presence of that contaminant may cause a violation of any primary drinking water standard
 2732 found in 40 CFR 141 (as of June 6, 2001).

2733

2734 ((from Chapter 16, Section 12(c)) (c) Facilities which cannot make the
 2735 demonstrations required under either subsection (a) or (b) of this section shall be excavated to
 2736 the point where contamination is no longer visible in the soil. At that point, samples shall be
 2737 taken of the soil for all hazardous constituents which may have been discharged through the
 2738 system. Materials excavated shall be removed from the site for disposal under approval of the
 2739 Solid and Hazardous Waste Management Division.

2740

2741 ((from Chapter 16, Section 12(d)) (d) Cathodic protection (5F1) facilities will be
 2742 considered to have made the demonstrations required under subsections (a) and (b) if no waste
 2743 has been disposed of into the facility. After they have fulfilled their useful purpose, they shall
 2744 be abandoned by filling all breather pipes with an impervious material and removing all surface
 2745 installations down to a depth of three (3) feet. All anodes where the construction included a
 2746 surface casing shall also have the surface casing cut off three (3) feet below grade and a plug or
 2747 cap shall be installed on the surface casing. It is not necessary to remove the coke breeze,
 2748 anodes, and seals during abandonment. The administrator may approve other alternatives for
 2749 abandonment if they provide adequate environmental protection.

2750

2751 ((from Chapter 16, Section 12(e)) (e) Prior to abandoning any class 5C4 automotive
 2752 waste disposal facility, the operator shall provide ~~30~~ thirty (30) days notice to the administrator.

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Section 19. Financial responsibility.

(from Chapter 13, Section 17(a)) (a) The operator of any Class I well shall demonstrate and maintain financial responsibility and resources to close, plug, abandon and maintain post-closure care for the underground injection operation in a manner prescribed by the administrator. The permittee shall show evidence of such financial responsibility to the administrator by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the administrator.

from Chapter 13, Section 17(b)) (b) The amount of the funds available shall be no less than the amount identified as the estimated cost of plugging, abandoning, and post-closure care.

from Chapter 13, Section 17(c)) (c) The obligation to maintain financial responsibility survives the termination of a permit or the cessation of injection. The requirements to maintain financial responsibility is enforceable regardless of whether the requirement is a condition of the permit.

from Chapter 13, Section 17(d)) (d) After plugging operations are completed, the amount of the financial surety required may be reduced by the administrator to the estimated cost of post-closure care.

from Chapter 13, Section 17(e)) (e) The owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of 40 CRF 144 Subpart F.

Section 20. Prohibitions.

~~(from Chapter 13, Section 18(a)) (a) No person, except when authorized by a permit issued pursuant to the Wyoming Environmental Quality Act and this chapter, shall:~~

~~(from Chapter 13, Section 18(a)(i)) (i) Cause, threaten or allow the discharge of any pollution or wastes into any groundwaters of the State;~~

~~(from Chapter 13, Section 18(a)(ii)) (ii) Alter the physical, chemical, radiological, biological or bacteriological properties of the waters of the state; or~~

~~(from Chapter 13, Section 18(a)(iii)) Construct, install, or operate any discharge system capable of causing or contributing to pollution of groundwaters of the State.~~

(from Chapter 16, Section 9 (a)) (a) In addition to the requirements in W.S. 35-11-301 (a), no person shall:

(from Chapter 13, Section 18(b)(i) and Chapter 16, Section 9 (a)(i)) (i) Conduct any authorized injection activity in a manner that results in a violation of any permit condition or representations made in the application, the request for coverage under the general permit, individual permit, or permit by rule. A permit condition supersedes any application content.

2800 (From Chapter 13, Section 18(b)(iii) and Chapter 16, Section 9 (a)(iii)) (ii)
2801 Construct, install, modify or improve an authorized injection facility except in compliance with
2802 the permit requirements.

2803
2804 (from Chapter 13, Section 18(c)) (b) All Class IV wells are prohibited.

2805
2806 (c) Requirements for Class I Wells:

2807
2808 ~~(from Chapter 13, Section 18(b)) No person shall:~~

2809
2810 (from Chapter 13, Section 18(b)(ii)) (i) No person shall (from Chapter 13,
2811 Section 18, (b)(ii)) conduct any authorized injection activity in a manner that results in a
2812 movement of fluids out of the receiver, including, but not limited to:

2813
2814 (from Chapter 13, Section 18(b)(ii)) (A) No zone or interval other than
2815 that represented as the discharge zone in the permit shall be used as a receiver for the discharge.

2816
2817 (from Chapter 13, Section 18(b)(ii)) (B) No uncased hole may be used
2818 as a conduit for the discharge, excepting that portion of a hole in the discharge zone.

2819
2820 (from Chapter 13, Section 18(b)(ii)) (C) No annular space between the
2821 wall of the hole and casing in the hole may be used as a conduit for the discharge, excepting in
2822 that portion of a hole in the discharge zone.

2823
2824 (from Chapter 13, Section 18(d)) (ii) No solvent wastes which are listed
2825 hazardous waste numbers F001, F002, F003, F004, or F005 under 40 CFR 261.31 shall be
2826 injected underground in any Class I well unless those wastes are waste solvent mixtures that do
2827 not exceed or are treated to not exceed the standards listed in Appendix A.

2828
2829 (from Chapter 13, Section 18(e)) (iii) No dioxin containing wastes which are
2830 listed hazardous waste number F020, F021, F022, F023, F026, F027 or F028 under 40 CFR
2831 261.31 shall be injected underground in any well unless those wastes do not exceed, or are
2832 treated to not exceed the standards listed in Appendix B.

2833
2834 (from Chapter 13, Section 18(f)) (iv) Treatment to meet appendix A or B
2835 limitations shall be accomplished according to a state hazardous waste treatment permit issued
2836 by the department. Dilution is prohibited as a substitute for treatment of wastes listed in
2837 ~~subsections (d) and (e) paragraphs (ii) and (iii) above.~~

2838
2839 (from Chapter 13, Section 18(d)) (v) No person shall inject any hazardous
2840 waste which has been banned from land disposal pursuant to 40 CFR 268.41 or department
2841 regulations, as applicable, unless:

2842
2843 (A) The hazardous waste has first been treated to a concentration of
2844 less than the levels specified in 40 CFR 268.41 or 40 CFR 268 Appendix I, or department
2845 regulations, as applicable.

2846
2847 (B) An exemption petition has been submitted and approved by the
2848 U.S. Environmental Protection Agency under 40 CFR 148.20, or department regulations, as

2849 applicable. After approval of such a petition, the operator is required to comply with all
2850 conditions contained as part of the granting of the petition.

2851
2852 (d) Requirements for Class V Wells:

2853
2854 (from Chapter 16, Section 9(a)(ii)) (i) No person shall ~~Discharge~~ discharge to
2855 any zone except the authorized discharge zone as described in the permit.

2856
2857 (from Chapter 16, Section 9(b)) (ii) The construction of any Class 5C4
2858 facility after the effective date of these regulations is prohibited.

2859
2860 (from Chapter 16, Section 9(c)) (iii) No person shall inject any hazardous
2861 waste which has been banned from land disposal pursuant to ~~Chapter 13~~ Chapter 1, Wyoming
2862 Hazardous Waste Rules and Regulations unless the disposal conforms to that chapter.

2863
2864 (from Chapter 16, Section 9(d)) (iv) No drainage facility, subclass 5D1
2865 through 5D5 shall be constructed so as to directly receive any waste other than natural
2866 precipitation or natural groundwater unless permitted under an individual permit.

2867
2868 (from Chapter 16, Section 9(e)) (v) No heating and cooling facility,
2869 subclass 5A1 through 5A3, shall be constructed so as to receive any waste other than cooling
2870 water. No corrosion inhibitors, scale inhibitors, biocides, antifreeze agents, salts, or refrigerants
2871 shall be added to the water prior to injection.

2872
2873 (from Chapter 16, Section 9(f)) (vi) No abandoned drinking water well
2874 shall be used as a disposal well unless it can be demonstrated that the waste being disposed of
2875 will leave the class of use of the affected groundwater unchanged. The class of use referred to is
2876 determined under Water Quality Rules and Regulations, Chapter 8 Quality Standards for
2877 Wyoming Ground Waters.

2878
2879 (from Chapter 16, Section 9(g)) (vii) No wastewater produced by electric
2880 power generation from geothermal fluids shall be disposed of in any Class V injection facility.
2881 Such wells are Class I injection wells and are covered by ~~Chapter 13, Water Quality Rules and~~
2882 ~~Regulations~~ regulations in this chapter.

2883
2884 (from Chapter 16, Section 9(h)) (viii) No wastewater produced by recovery
2885 of brines and extraction of halogens shall be disposed of in any Class V injection facility. Such
2886 wells are Class I injection wells and are covered by ~~Chapter 13, Water Quality Rules and~~
2887 ~~Regulations~~ regulations in this chapter.

2888
2889 (from Chapter 16, Section 9(i)) (ix) No person shall construct and/or
2890 operate any cesspool after April 14, 1998. No Class V facility which receives domestic sewage
2891 shall be constructed and/or operated after April 14, 1998 unless the waste is first treated in a
2892 septic tank, or other pre-treatment device. Prior to closure of any cesspool, the operator shall
2893 notify the administrator thirty (30) days in advance.

2894
2895 (from Chapter 16, Section 9(j)) (x) The operation of any Class V septic
2896 system with liquid waste visible on the ground surface shall be considered a failure of the
2897 system and a violation of these regulations.

2898
2899 (from Chapter 16, Section 9(k) (xi) An operator of a facility which is
2900 authorized by rule is prohibited from injection into the facility:

2901
2902 (from Chapter 16, Section 9(k)(i) (A) Upon failure to submit
2903 inventory information prior to construction for facilities constructed after April 14, 1999.

2904
2905 (from Chapter 16, Section 9(k)(ii) (B) Upon failure to comply with a
2906 request for information under Section 8 11 (e) of this chapter.

2907
2908 (from Chapter 16, Section 9(l) (xii) Pumping domestic sewage out of any
2909 Class V facility for any use other than disposal to an approved facility is prohibited.

2910
2911 **Section 21. Public Participation, Public Notice and Public Hearing**
2912 **Requirements.**

2913
2914 ~~(from Chapter 16, Section 13(a)) Public notice is not required for minor~~
2915 ~~modifications as described by Section 5 (b) (v) of this chapter or for a permit denial where the~~
2916 ~~application is determined incomplete.~~

2917
2918 (from Chapter 13, Section 19(a) (a) Public notice is not required for minor
2919 modifications or for a permit denial where the application is determined incomplete or deficient
2920 in accordance with Section 6-7 unless the permittee or applicant requests a hearing before the
2921 council pursuant to this section.

2922
2923 (from Chapter 13, Section 19(b) (b) The administrator shall give public notice for
2924 any of the following actions:

2925
2926 ~~(from Chapter 16, Section 13(c)) The administrator shall give public notice if a~~
2927 ~~draft permit has been prepared or a hearing has been scheduled.~~

2928
2929 (from Chapter 13, Section 19(b)(i) (i) The administrator has prepared a draft
2930 permit which is intended for issuance, denial or reissuance.

2931
2932 (from Chapter 13, Section 19(b)(ii) (ii) The administrator intends to modify a
2933 permit.

2934
2935 (from Chapter 13, Section 19(b)(iii) (iii) The administrator intends to
2936 revoke or terminate a permit.

2937
2938 (from Chapter 13, Section 19(b)(iv) (iv) Any hearing held as a result of
2939 a request for hearing on above actions or department actions appealable to the council.

2940
2941 (from Chapter 16, Section 13(b) (c) Public notice is not required for any facility
2942 permitted by rule or for any facility covered under general permit. The department shall issue
2943 one public notice creating the general permit and then notice at each subsequent five (5) year
2944 review.

2945

2946 ~~(from Chapter 16, Section 13(d) Public notice of the preparation of a draft permit shall~~
2947 ~~allow at least 30 days for public comment. Public notice of a public hearing shall be given at~~
2948 ~~least 30 days before the hearing. Public notice of the hearing may be given at the same time as~~
2949 ~~public notice of the draft permit and the two notices may be combined.~~

2950
2951 (from Chapter 13, Section 19(c)) (d) The administrator shall include a thirty (30)
2952 day public comment period for any action on items ~~(a)~~ (b)(i), (ii) or (iii) or thirty (30) days
2953 notice before any hearing date as part of the public notice. When two notices are required, they
2954 may be given at the same time.

2955
2956 ~~(from Chapter 13, Section 19(d)) Public notice shall be given by the following~~
2957 ~~methods:~~

2958
2959 (from Chapter 16, Section 13(e)) (e) Public notice shall be given by:

2960
2961 (from Chapter 13, Section 19(d)(i) and Chapter 16, Section 13(e)(i)) (i) ~~By~~
2962 Mailing a copy of the notice to the following persons:

2963
2964 (from Chapter 13, Section 19(d)(i) and Chapter 16, Section 13(e)(i)(A))
2965 (A) The applicant, by certified or registered mail. (from Chapter 16, Section 13(e)(i)(A))
2966 For general permits this includes all persons registered as operators of facilities which the
2967 department believes will be covered by the general permit.

2968
2969 (from Chapter 13, Section 19(d)(i)(B) and Chapter 16, Section
2970 13(e)(i)(B)) (B) The U.S. Environmental Protection Agency.

2971
2972 (from Chapter 13, Section 19(d)(i)(D) and Chapter 16, Section
2973 13(e)(i)(C)) (C) Wyoming Game and Fish Department.

2974
2975 (from Chapter 13, Section 19(d)(i)(E) and Chapter 16, Section
2976 13(e)(i)(D)) (D) Wyoming State Engineer.

2977
2978 (from Chapter 13, Section 19(d)(i)(G) and Chapter 16, Section
2979 13(e)(i)(E)) (E) State Historical Preservation Officer.

2980
2981 (from Chapter 13, Section 19(d)(i)(C)) (F) Wyoming Oil and Gas
2982 Conservation.

2983
2984 (from Chapter 13, Section 19(d)(i)(F)) (G) Land Quality
2985 Division.

2986
2987 (from Chapter 13, Section 19(d)(i) and Chapter 16, Section 13(e)(i)(F))
2988 (H) Persons on the mailing list developed by including those who request in writing to be on
2989 the list and soliciting persons for "area lists" from participants in proceedings in that area.

2990
2991 (from Chapter 13, Section 19(d)(i) and Chapter 16, Section 13(e)(i)(G))
2992 (I) Any unit of local government having jurisdiction over the area where the facility is
2993 proposed to be located.

2994

2995 (from Chapter 13, Section 19(d)(ii) and Chapter 16, Section 13(e)(ii)) (ii)
2996 Publication of a-the notice in a newspaper of general circulation in the location of the
2997 facility or operation. and

2998
2999 ~~(from Chapter 13, Section 19(d)(iii))—At the discretion of the administrator,~~
3000 ~~posting in a post office, public place of the nearest municipality or near the entrance to the~~
3001 ~~facility.~~

3002 (from Chapter 16, Section 13(e)(iii)) (iii) At the discretion of the
3003 administrator, any other method reasonably expected to give actual notice of the action in
3004 question to the persons potentially affected by it, including press releases or any other forum or
3005 medium to elicit public participation.

3006
3007 (from Chapter 13, Section 19(e) and Chapter 16, Section 13(f)) (f) All public
3008 notices issued under this chapter shall contain the following minimum information:

3009
3010 (from Chapter 13, Section 19(e)(i) and Chapter 16, Section 13(f)(i)) (i)
3011 Name, and address of the department.

3012
3013 (from Chapter 13, Section 19(e)(ii) and Chapter 16, Section 13(f)(ii))
3014 (ii) Name and address of permittee or permit applicant, and, if different, of the facility or
3015 activity regulated by the permit. (From Chapter 16, Section 13(f)(ii)) For general permits, this
3016 includes a list of existing facilities and the location of each facility which will be covered by the
3017 general permit. If new facilities may be covered under a general permit as they are constructed,
3018 then that fact will also be stated.

3019
3020 (from Chapter 13, Section 19(d)(iii) and Chapter 16, Section 13(f)(iii))
3021 (iii) A brief description of the business conducted at the facility or activity described in the
3022 permit application or the draft permit. (from Chapter 16, Section 13(f)(iii)) For general permits
3023 a generic statement of the type of facility to be covered is all that is required.

3024
3025 (from Chapter 13, Section 19(d)(iv) and Chapter 16, Section 13(f)(iv))
3026 (iv) Name, address and telephone number of a person from whom interested persons may
3027 obtain further information, including copies of the draft permit, as the case may be, statement of
3028 basis or fact sheet, and the application.

3029
3030 (from Chapter 13, Section 19(d)(ii) and Chapter 16, Section 13(f)(v))
3031 (v) A brief description of comment procedures, procedures to request a hearing, and other
3032 procedures which the public may use to participate in the final permit decision. and

3033
3034 (from Chapter 13, Section 19(d)(vi) and Chapter 16, Section 13(f)(vi))
3035 (vi) Any additional information considered necessary and proper.

3036
3037 (from Chapter 13, Section 19(f) and Chapter 16, Section 13(g)) (g) In addition to
3038 the information required in (e)-(from Chapter 16, Section 13(g) (f) (from Chapter 13, Section
3039 19(f) and Chapter 16, Section 13(g)) of this section, any notice for public hearing shall contain
3040 the following:

3041
3042 (from Chapter 13, Section 19(f) and Chapter 16, Section 13(g)(i)) (i)
3043 Reference to the date of previous public notices relating to the permit.

3044
3045 (from Chapter 13, Section 19(f) and Chapter 16, Section 13(g)(ii)) (ii) Date,
3046 time and place of hearing. ~~and~~

3047
3048 (from Chapter 13, Section 19(f) and Chapter 16, Section 13(g)(iii)) (iii) A
3049 brief description of the nature and purpose of the hearing, including applicable rules and
3050 procedures.

3051
3052 (from Chapter 13, Section 19(g) and Chapter 16, Section 13(H)) (h) The
3053 department shall provide an opportunity for the applicant, permittee, or any interested person to
3054 submit written comments regarding any aspect of a permit including, but not limited to, permit
3055 issuance, denial, modification, revocation and reissuance, termination, or transfer and/or to
3056 request a public hearing.

3057
3058 (from Chapter 13, Section 19(h) and Chapter 16, Section 13(i)) (i) All
3059 information received on or with the permit application shall be made available to the public for
3060 inspection and copying except such information as has been determined to constitute trade
3061 secrets or confidential information pursuant to W.S. 35-11-1101. (from Chapter 13, Section
3062 19(h)) The department shall provide facilities for inspection and copying of all non-confidential
3063 documents. Copying shall be at the expense of the person requesting copies.

3064
3065 (from Chapter 16, Section 13(j) (j) During the public comment period, any
3066 interested person may submit written comments on the draft permit and may request a public
3067 hearing. (from Chapter 13, Section 19(i) and Chapter 16, Section 13(j)) Requests for public
3068 hearings on permit applications or modifications must be made in writing to the administrator
3069 and shall state the reasons for the request. Requests for public hearings on permit issuance,
3070 denial, revocation, termination, or any other department action appealable to the Council, shall
3071 be made in writing to the chairman of the council and the department and state the grounds for
3072 the request.

3073
3074 (from Chapter 13, Section 19(i)(i)) (i) Requests for public hearings based on
3075 contested issues may be filed at any stage of the permitting process; and

3076
3077 (from Chapter 13, Section 19(i)(ii)) (ii) After notice is given for public
3078 comment, requests for public hearings must be filed within thirty (30) days after the last
3079 publication of the public notice.

3080
3081 ~~(from Chapter 13, Section 19(j)) ——— The administrator shall render a~~
3082 ~~decision on the action within thirty (30) days after the completion of the comment period if no~~
3083 ~~hearing is requested.~~

3084
3085 (from Chapter 13, Section 19(k) and Chapter 16, Section 13(k)) (k) The
3086 administrator shall hold a hearing whenever ~~from Chapter 13, Section 19(k) he~~ the administrator
3087 finds, on the basis of requests, a significant degree of public interest in a draft permit. ~~from~~
3088 ~~Chapter 13, Section 19(k). The administrator may hold a hearing at his or her discretion~~ The
3089 administrator has the discretion to hold a hearing whenever such a hearing may clarify issues
3090 involved in a permit decision.

3091

3092 (from Chapter 13, Section 19(l)) (l) The Council shall hold hearings pursuant to the
3093 ~~department~~ Wyoming Department of Environmental Quality Rules of Practice and Procedure.

3094
3095 (from Chapter 13, Section 19(m)) (m) Public hearings will be held in the geographic
3096 area wherein the proposed discharge is located, or as nearby as reasonable. Public hearings will
3097 be held pursuant to the ~~department~~ Wyoming Department of Environmental Quality Rules of
3098 Practice and Procedure.

3099
3100 (from Chapter 16, Section 13(l)) (n) The public comment period shall automatically
3101 extend to the close of any public hearing. The administrator may also extend the comment
3102 period by so stating at the public hearing.

3103
3104 ~~(from Chapter 13, Section 19(n)) The director shall make a decision on any depart-~~
3105 ~~ment hearing as soon as practicable after receipt of the office transcript or after the expiration of~~
3106 ~~the time set to receive written comments.~~

3107
3108 (from Chapter 16, Section 13(m)) (o) The director shall render a decision on the draft
3109 permit within thirty (30) days after the completion of the comment period if no hearing is
3110 requested. If a hearing is held, the director shall make a decision on any department hearing as
3111 soon as practicable after receipt of the transcript or after the expiration of the time set to receive
3112 written comments.

3113
3114 (from Chapter 13, Section 19(o) and Chapter 16, Section 13(n)) (p) At the time a
3115 final decision is issued, the department shall respond, in writing, to those comments received
3116 during the public comment period or comments received during the allotted time for a hearing
3117 held by the department. This response shall:

3118
3119 (from Chapter 13, Section 19(o)(i) and and Chapter 16, Section 13(n)(i)) (i)
3120 Specify any changes that have been made to the permit. ~~and~~

3121
3122 (from Chapter 13, Section 19(o)(ii) and and Chapter 16, Section 13(n)(ii)) (ii)
3123 Briefly describe and respond to all comments voicing a legitimate regulatory concern
3124 that is within the authority of the department to regulate.

3125
3126 (from Chapter 13, Section 19(m) and Chapter 16, Section 13(o)) (q) The response
3127 to comments shall also be available to the public.

3128
3129 ~~(from Chapter 13, Section 19(q)) All comments received on contested issues before the~~
3130 ~~council will be responded to in accordance with department Rules of Practice and Procedures.~~

3131
3132 (from Chapter 16, Section 13(p)) (r) Requests for a contested case hearing on a
3133 permit issuance, denial, revocation, termination, or any other final department action appealable
3134 to the Council, shall be made in writing to the chairman of the Environmental Quality Council
3135 and the director and state the grounds for the request pursuant to the Wyoming Department of
3136 Environmental Quality Rules of Practice and Procedure.

3137
3138 **Section 22. Class I Permits Issued Before the Effective Date of These**
3139 **Regulations.**

3140
3141 (from Chapter 13, Section 20) Any Class I well permitted before the effective date of these
3142 regulations shall be reviewed pursuant to Section ~~9(b) and (e)~~ 6(h).
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(from Chapter 13, Appendix A) APPENDIX A

| <u>PARAMETER</u> | <u>MAXIMUM ALLOWABLE CONCENTRATION</u> | |
|--|--|--------|
| <u>ACETONE</u> | .05 | mg/4 L |
| <u>N-BUTYL ALCOHOL</u> | 5.00 | mg/4 L |
| <u>CARBON DISULFIDE</u> | 1.05 | mg/4 L |
| <u>CARBON TETRACHLORIDE</u> | .05 | mg/4 L |
| <u>CHLOROBENZENE</u> | .05 | mg/4 L |
| <u>CRESOLS AND CRESYLIC ACID</u> | .75 | mg/4 L |
| <u>CYCLOHEXANONE</u> | .125 | mg/4 L |
| <u>1,2-DICHLOROBENZENE</u> | .65 | mg/4 L |
| <u>ETHYL ACETATE</u> | .05 | mg/4 L |
| <u>ETHYL BENZENE</u> | .05 | mg/4 L |
| <u>ETHYL ETHER</u> | .05 | mg/4 L |
| <u>ISOBUTANOL</u> | 5.00 | mg/4 L |
| <u>METHANOL</u> | .25 | mg/4 L |
| <u>METHYLENE CHLORIDE</u> | .20 | mg/4 L |
| <u>METHYL ETHYL KETONE</u> | .05 | mg/4 L |
| <u>METHYL ISOBUTYL KETONE</u> | .05 | mg/4 L |
| <u>NITROBENZENE</u> | .66 | mg/4 L |
| <u>PYRIDINE</u> | .33 | mg/4 L |
| <u>TETRACHLOROETHYLENE</u> | .05 | mg/4 L |
| <u>TOLUENE</u> | .33 | mg/4 L |
| <u>1,1,1-TRICHLOROETHANE</u> | .41 | mg/4 L |
| <u>1,1,2-TRICHLORO-1,2,2 TRIFLUOROETHANE</u> | .96 | mg/4 L |
| <u>TRICHLOROETHYLENE</u> | .062 | mg/4 L |
| <u>TRICHLOROFLUOROMETHANE</u> | .05 | mg/4 L |
| <u>XYLENE</u> | .05 | mg/4 L |
| <u>POLYCHLORINATED BIPHENOLS</u> | 500.00 | mg/4 L |

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(from Chapter 13, Appendix B) APPENDIX B

| <u>PARAMETER</u> | <u>MAXIMUM ALLOWABLE CONCENTRATION</u> |
|--|--|
| <u>HXCDD-ALL HEXACHLORODIBENZO-P-DIOXINS</u> | <u>1</u> PPB ppb |
| <u>HXCDF-ALL HEXACHLORODIBENZOFURANS</u> | <u>1</u> PPB ppb |
| <u>PECDD- ALL PENTACHLORODIBENZO-P-DIOXINS</u> | <u>1</u> PPB ppb |
| <u>PECDF-ALL PENTACHLORODIBENZOFURANS</u> | <u>1</u> PPB ppb |
| <u>TCDD-ALL TETRACHLORODIBENZO-P-DIOXINS</u> | <u>1</u> PPB ppb |
| <u>TCDF-ALL TETRACHLORODIBENZOFURANS</u> | <u>1</u> PPB ppb |
| <u>2,4,5 TRICHLOROPHENOL</u> | <u>50</u> PPB ppb |
| <u>2,4,6 TRICHLOROPHENOL</u> | <u>50</u> PPB ppb |
| <u>2,3,4,6 TETRACHLOROPHENOL</u> | <u>100</u> PPB ppb |
| <u>PENTACHLOROPHENOL</u> | <u>10</u> PPB ppb |

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(from Chapter 16, Appendix A) APPENDIX C
SUBCLASSES OF CLASS V FACILITIES

| <u>SUBCLASS</u> | <u>DESCRIPTION</u> |
|--|---|
| <u>HEATING AND COOLING FACILITIES</u> | |
| <u>5A1</u> | <u>Direct Heat ReInjection Facilities - Reinject geothermal fluids used to provide direct heat for large buildings, developments or aquiculture facilities.</u> |
| <u>5A2</u> | <u>Heat Pump/Air Conditioner Return Flow Facilities - Reinject groundwater used to heat or cool a building in a ground based heat pump system, or used to inject heat only using a closed loop heat pump system</u> |
| <u>5A3</u> | <u>Cooling Water Return Flow Facilities - Receive non-contact cooling water from industrial processes, both open and closed loop processes.</u> |
| <u>BENEFICIAL USE INJECTION FACILITIES</u> | |
| <u>5B1</u> | <u>Mining, Sand or Backfill Facilities - Used to inject a fluid mixture of sand, cement, fly ash used as a pozzalin, or mill tailings into mined out portions of underground mines.</u> |
| <u>5B2</u> | <u>Aquifer Recharge Facilities - Receive water specifically for storage of water underground. Must be coupled with the ability to withdraw stored water at a later date for beneficial use. Coal bed methane operators cannot dispose of their produced water in class 5B2 injection wells after the effective date of these rules.</u> |
| <u>5B3</u> | <u>Saline Water Intrusion Barrier Facilities - Receive fresh water to prevent the continued migration of saline water into a fresh water aquifer. Includes projects installed to control contaminant plumes by injection of clean water.</u> |
| <u>5B4</u> | <u>Subsidence Control Facilities - Receive fresh water for the purpose of controlling subsidence caused by an overdraft of water, oil or natural gas.</u> |
| <u>5B5</u> | <u>Facilities which inject fluids and are used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality. All 5B5 facilities are covered under Article 16 of the Environmental Quality Act</u> |

| <u>SUBCLASS</u> | <u>DESCRIPTION</u> |
|-----------------|---|
| <u>5B6</u> | <u>Department Controlled Facilities - Facilities which inject fluids and are used to prevent, control or remediate pollution, remediate subsiding mine sites, or produce other beneficial results which are owned or controlled by the Department of Environmental Quality. These facilities include but are not limited to, facilities under the supervision of Water Quality Division's Underground Storage Tank Program, facilities under the control and direction of the Abandoned Mined Lands Program, and facilities under the supervision of the Solid and Hazardous Waste Management Division. Control may be exercised through ownership, operation, or by administrative orders, stipulated settlements, consent decrees or other legal methods which result in control of a facility by the department.</u> |
| <u>5B7</u> | <u>Air sparging facilities - Facilities used to inject only air for the purpose of either encouraging microbial breakdown of hydrocarbons or removing of volatile chemicals by vapor extraction.</u> |

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|---|
| <u>COMMERCIAL AND INDUSTRIAL FACILITIES</u> |
|---|

| | |
|------------|---|
| <u>5C1</u> | <u>Air Scrubber Waste Disposal Facilities - Inject wastes from air scrubbers used to remove sulphur, fly ash, or other contaminants.</u> |
| <u>5C2</u> | <u>Water Treatment Brine Disposal Facilities - Receive brine from water softening or other water treatment.</u> |
| <u>5C3</u> | <u>Industrial Process Water and Waste Disposal Facilities - Receive wastes generated by industrial and commercial processes. Examples include but are not limited to wastes from car washing, taxidermy, metal plating, printing, silk screening, refining, slaughter houses, and chemical manufacturing companies.</u> |
| <u>5C4</u> | <u>Automotive Waste Disposal Facilities - Inject waste from floor drains or sinks where repair work is done on machinery of any description.</u> |
| <u>5C5</u> | <u>Coal Bed Methane Injection Facilities - Inject groundwater produced in the process of coal bed methane extraction into a receiving aquifer containing water of the same or lower class of use.</u> |
| <u>5C6</u> | <u>Small Commercial Disposal Systems - Inject wastewater which is of similar quality to domestic sewage which does not technically meet the definition of domestic sewage, in quantities of less than 2,000 gallons per day.</u> |

| <u>SUBCLASS</u> | <u>DESCRIPTION</u> |
|--|---|
| <u>DRAINAGE FACILITIES</u> | |
| <u>5D1</u> | <u>Agricultural Drainage Facilities - Receive irrigation tailwaters, other field drainage, animal yard, feedlot, or dairy runoff, and other agricultural wastewater.</u> |
| <u>5D2</u> | <u>Storm Water Drainage Facilities - Receive storm water runoff from paved areas, including parking lots, streets, residential subdivisions, building roofs, highways, etc.</u> |
| <u>5D3</u> | <u>Improved Sinkholes - Receive storm water runoff from developments located in karst topographic areas.</u> |
| <u>5D4</u> | <u>Industrial Drainage Facilities - Receive storm runoff from areas susceptible to spills, leaks, and other chemical discharges.</u> |
| <u>5D5</u> | <u>Special Drainage Facilities - Receive water from sources other than direct precipitation. Examples of this type include landslide control drainage facilities, potable water tank overflow drainage facilities, swimming pool drainage facilities, and lake level control drainage facilities.</u> |
| <u>SEWAGE DISPOSAL FACILITIES</u> | |
| <u>5E1</u> | <u>Aquaculture Return Flow Facilities - Receive injectate from aquaculture operations.</u> |
| <u>5E2</u> | <u>Untreated Domestic sewage Disposal Facilities - Receive untreated domestic sewage from single or multiple sources. Does not include subsurface fluid distribution systems with septic tanks ahead of the subsurface fluid distribution system. Includes all cesspools, regardless of capacity.</u> |
| <u>5E3</u> | <u>Domestic Subsurface Fluid Distribution Systems - Receive more than 2,000 gallons per day of domestic sewage with only primary treatment such as effluent from a septic tank. In addition, any facility injecting domestic sewage within any five (5) acres of land is a class 5E3 facility whenever multiple 5E facilities under one owner inject a cumulative maximum peak design flow of more than 2,000 gallons per day of domestic sewage.</u> |
| <u>5E4</u> | <u>Domestic Wastewater Treatment Plant Disposal Facilities - Dispose of treated domestic waste after treatment to at least secondary treatment standards.</u> |

SUBCLASS
5E5

DESCRIPTION
Small Domestic Subsurface Fluid Distribution Systems -
Receive less than 2,000 gallons per day as an average of a
typical week, of domestic sewage with only primary treatment
in a septic tank. These systems are designed to accept more
than 2,000 gallons per day at a peak and are not small
wastewater systems. No class 5E5 system has a required design
capacity in excess of 5,000 gallons per day.

MISCELLANEOUS CLASS V FACILITIES

5F1

Cathodic Protection Facilities -Facilities constructed with coke
breeze and dust control oil for use as a permanent anode in a
cathodic protection system for a fluid conveyor system or fluid
containment system composed of metallic material.

5F2

All other facilities that inject fluids into or above an
underground source of drinking water which do not fall into
Classes I, II, III, or IV injection facilities.

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(from Chapter 16, Appendix B) APPENDIX D
TYPES OF PERMITS REQUIRED
TIMING OF COMPLIANCE

| <u>TYPE</u> | <u>DESCRIPTION</u> | <u>TYPE OF PERMIT</u> | <u>WHEN REQUIRED</u> |
|-------------|---|--------------------------|---|
| <u>5A1</u> | <u>Direct Heat Reinjection Facilities</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5A2</u> | <u>Heat Pump/Air Conditioner Return Flow Facilities</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5A3</u> | <u>Cooling Water Return Flow Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5B1</u> | <u>Mining, Sand or Backfill Facilities</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5B2</u> | <u>Aquifer Recharge Facilities</u> | <u>Permit by Rule</u> | <u>register by April 14, 1999</u> |
| <u>5B3</u> | <u>Saline Water Intrusion Barrier Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5B4</u> | <u>Subsidence Control Facilities</u> | <u>Permit by Rule</u> | <u>register by April 14, 1999</u> |
| <u>5B5</u> | <u>Facilities used to prevent, control or remediate aquifer pollution, which are not owned or controlled by the Department of Environmental Quality</u> | <u>General Permit</u> | <u>2 years after the date of the general permit</u> |
| <u>5B6</u> | <u>Department Controlled Facilities</u> | <u>Permit by Rule</u> | <u>Register by April 14 1999</u> |
| <u>5B7</u> | <u>Air Sparging Facilities</u> | <u>Permit by Rule</u> | <u>Register by April 14 1999</u> |
| <u>5C1</u> | <u>Air Scrubber Waste Disposal Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5C2</u> | <u>Water Treatment Brine Disposal Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5C3</u> | <u>Industrial Process Water and Waste</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>TYPE</u> | <u>DESCRIPTION</u> | <u>TYPE OF PERMIT</u> | <u>WHEN REQUIRED</u> |

| | | | |
|------------|---|--------------------------|---|
| <u>5C4</u> | <u>Existing Automotive Waste Disposal Facilities</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5C4</u> | <u>New Automotive Waste Disposal Facilities</u> | <u>Ban</u> | <u>April 14, 1998</u> |
| <u>5C5</u> | <u>Coal Bed Methane Injection Facilities</u> | <u>General Permit</u> | <u>Within 6 months of the date of issue for the general permit for existing facilities, and before injection for all new facilities</u> |
| <u>5C6</u> | <u>Small Commercial Disposal Systems</u> | <u>General Permit</u> | <u>2 years after the date of the general permit</u> |
| <u>5D1</u> | <u>Agricultural Drainage Facilities</u> | <u>General Permit</u> | <u>2 years after the date of the general permit</u> |
| <u>5D2</u> | <u>Storm Water Drainage Facilities</u> | <u>General Permit</u> | <u>2 years after the date of the general permit</u> |
| <u>5D3</u> | <u>Improved Sinkholes</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5D4</u> | <u>Industrial Drainage Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5D5</u> | <u>Special Drainage Facilities</u> | <u>Permit by Rule</u> | <u>Register by April 14, 1999</u> |
| <u>5E1</u> | <u>Aquaculture Return Flow Facilities</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5E2</u> | <u>Existing Untreated Domestic sewage Disposal Facilities (Cesspools)</u> | <u>Ban</u> | <u>April 14, 1998</u> |
| <u>5E3</u> | <u>Existing Domestic Subsurface Fluid Distribution Systems</u> | <u>General Permit</u> | <u>2 years after date of general permit</u> |
| <u>5E3</u> | <u>Existing Domestic Subsurface Fluid Distribution Systems - Permitted as a small wastewater facility</u> | <u>Permit by Rule</u> | <u>register by April 14, 1999</u> |
| <u>5E4</u> | <u>New Domestic Wastewater Treatment Plant Disposal Facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |
| <u>5E5</u> | <u>Small Domestic Subsurface Fluid Distribution Systems</u> | <u>General Permit</u> | <u>2 years after the date of the general permit</u> |

| <u>TYPE</u> | <u>DESCRIPTION</u> | <u>TYPE OF PERMIT</u> | <u>WHEN REQUIRED</u> |
|-------------|--------------------|-----------------------|----------------------|
|-------------|--------------------|-----------------------|----------------------|

| | | | |
|------------|--|--------------------------|-----------------------------------|
| <u>5F1</u> | <u>Cathodic Protection Facilities</u> | <u>Permit by Rule</u> | <u>register by April 14, 1999</u> |
| <u>5F2</u> | <u>All other facilities that inject fluids into or above an underground source of drinking water which do not fall into Classes I, II, III, or IV injection facilities</u> | <u>Individual Permit</u> | <u>April 14, 2000</u> |

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