



DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY DIVISION

PERMIT APPLICATION FORM
UNDERGROUND INJECTION CONTROL (UIC) CLASS V WELL

Mail To:
WDEQ/WQD
ATTN: UIC Program
122 W. 25th St. - 4W
Cheyenne, WY 82002
(307)-777-7781

DEQ/WQD
Application No.
Date received
Agency Use Only

You may obtain a username and password to apply for an on-line UIC permit at the following site: https://gem.trihydro.com. You will be required to scan and upload the entire document at the end of the on-line permitting process. Mail one complete hard copy of the application with original signatures and supporting documentation to the address above.

PLEASE PRINT OR TYPE

1. This application is being made for a class V injection facility permit. Class V permits can only be issued for non-hazardous wastes. All facilities which have not previously been issued a permit under Chapter 9 or 16 are new facilities. This application is for a:

New Permit: [] Modified Permit: []

2. Name of Facility: _____.

Location: T__N, R__W, Section ____, ___1/4, ___1/4, ___1/4 which is located in _____ County, Wyoming. This facility is located _____ feet from the North Line and _____ from the East line of Section _____. OR (bearing and distance) from the _____ corner of Section _____. OR Latitude: _____ E _____, _____ North and Longitude: _____ E _____, _____ West, preferable within a (ten) 10 meter accuracy. (Only one location descriptor is required).

Mailing Address: _____.

Street address where records will be kept: _____.

Telephone Number: () _____ - _____.

Name and title of responsible individual, address and telephone number if different from above: _____.

Telephone Number: () _____ - _____.

3. Name and address of the operator on site: _____
_____.

Telephone Number: () _____-_____.

4. Description of the facility under Chapter 16, Appendix A:

- HEATING AND COOLING FACILITY (5A1, 5A2, AND 5A3)
(5A1 AND 5A2 facilities may be covered by a General permit.)
- BENEFICIAL USE FACILITY (5B1, 5B2, 5B3, 5B4, 5B5, 5B6, AND 5B7)
(5B1 facilities may be covered by a General permit; 5B2, 5B4, 5B6, and 5B7 may be rule-authorized.)
- COMMERCIAL AND INDUSTRIAL FACILITIES (5C1, 5C2, 5C3, 5C4 AND 5C5)
(Existing 5C4 facilities may be covered by a General permit; all new 5C4 facilities are banned by Chapter 16)
- DRAINAGE FACILITIES (5D1, 5D2, 5D3, 5D4, 5D5)
(Existing 5D2 facilities may be covered by a General permit; 5D5 facilities may be rule-authorized.)
- SEWAGE DISPOSAL FACILITIES (5E1, 5E2, 5E3 AND 5E4)
(All new sewage disposal facilities require an individual permit. Certain types of existing systems may be covered by a General permit.)
- MISCELLANEOUS FACILITIES (5F1 AND 5F2)
(5F1 facilities may be rule authorized; all 5F2 facilities require an individual permit.)

5. Area Permits. More than one facility may be included in one application. If this is the case, include all information from Section 2, and Attachments A, E, G, H, I, and J for each facility. Area permits will only be issued when the waste is similar for all points of injection and when a common injection plant serves all facilities. For a system to be covered by an area permit, the receiver must be the same for all points of injection, and the owners and operators for all facilities must be the same. Provide the name of each facility covered by this application. All 5E3 facilities which deliver more than 2,000 gallons per day through multiple points of discharge within any 5 acre area, and which are under a common ownership must be covered by a UIC permit under Chapter 16.

6. Owner of the Surface Rights where facility is located: _____

Telephone Number: () _____ - _____.

Copies of the access agreement between above owners and the operator if the operator is not the owner shall be attached. This requirement may be met by having the owner of the property write a letter stating that he consents to the construction covered by this application.

7. Ownership Status:

Federal State Private Public or other entity

8. **CERTIFICATION OF THE OPERATOR OF THE FACILITY:**

“I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.”

Printed name of person signing

Title

Signature of Applicant

Date signed

9. **CERTIFICATION OF ENGINEER:**

The Engineering Designs, Plans and Specifications which are included in this application were all done by me or by someone working directly for me. I have reviewed these Designs, Plans and Specifications and certify that they are all done according to the highest standards of Professional Engineering.

Printed Name of Professional Engineer

P.E. Number

(SEAL)

Signature of Professional Engineer

Date Signed

10. **CERTIFICATION OF GEOLOGIST:**

The Geologic Interpretations, Cross Sections, and Hydrologic Studies which are included in this application were all done by me or by someone working directly for me. I have reviewed this work and certify that they are all done according to the highest standards of Professional Geology.

Printed Name of Professional Geologist

P.G. Number

(SEAL)

Signature of Professional Geologist

Date Signed

ATTACHMENTS REQUIRED

1. 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
2. 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.
 - (D) For permits with a design injection capacity of 10,000 gallons per day or less, an area of review which includes the quarter quarter section (40 acre tract) where the facility is located and all of the adjacent quarter quarter sections may be used. This will yield a total area of review of nine quarter quarters or a total of 360 acres with the injection facility near its center.
 - (E) For permits of greater than 10,000 gallons per day capacity, a radius of volumetric fillup may be used to establish the area of review. The simplest formula which is allowable assumes that the injectate completely displaces all formation water in a circle around the point of injection. Other formulas may be used. The simplest formula is:

$$R = \sqrt{\frac{Qt}{\pi Hp}}$$

Where:	R	=	Radius of volumetric fillup (feet)
	H	=	Thickness of the injection zone (feet)
	t	=	Time of injection (days)
	Q	=	Injection rate (cubic feet per day)
	π	=	3.14
	P	=	porosity expressed as a pure decimal

- (F) If the methods shown in (D) and (E) above are used: the area of review for a facility of less than 10,000 gallons per day is the area determined by (D) above; for a facility of greater than 10,000 gallons per day, it is the greatest of the two values determined in (D) and (E) above.
- (G) All areas of review should be justified to the General Land Office survey. In other words, if you use a radius, the area of review should be a square or rectangle of at least that radial distance to the nearest side from the well. The area of review can therefore be described by section, township, and range. The application should include the following table:

Township _____ North, _____ Range _____ West, 6th P.M

Section : _____ : _____

Section : _____ : _____

Section : _____ : _____

Section : _____ : _____

(enter subparts of each section following the section number)

3. 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 including, but not limited to the following:

(1) If the injection is to be done through a well:

- a. For new wells, show proposed bit sizes, casing strings, cementing plans, and wellhead to be installed.
- b. For existing wells, show everything from #1 above and include a detailed history of the drilling. A copy of the daily drilling record is required if available.
- c. Show a detailed diagram on an 8½" x 11" format that shows all hole sizes, casing strings, cemented portion outside each casing string if any, receiver, and usable aquifers on this diagram.
- d. Include the lithology and any geophysical logs which may have been run on the well. (Complete copies, not portions).

(2) If the injection is to be done through a septic tank and drainfield: Show the construction details of the drainfield including the depth to the top of the drainfield, the depth to the bottom of the drainfield, the size and location of the drainfield, the details of all piping to be installed, and the depth to static groundwater level. Detail should be sufficient to show compliance with all applicable sections found in Chapters 11 and 16, Water Quality Rules and Regulations.

4. 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.

5. Water quality information including background water quality data to 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.

6. 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.
7. A list of other relevant permits, whether federal or state, that the facility has been required to obtain, such as WYPDES and Water Quality Division construction permits. This includes a statement as to whether or not the facility is within a water quality management plan area, a wellhead protection area or a source water protection area.
8. 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 Chapter 16.
 - (A) The applicant shall submit a plan for the analysis of injected fluids (i.e. Waste Analysis Plan) with sufficient frequency to yield representative data of their characteristics. WQD will review this plan in light of the information supplied under Attachment F above and may include more or fewer parameters than proposed into the final permit.
 - (B) The type, number, and location of wells within the area of review to be used to monitor any migration of fluids into underground sources of drinking water or otherwise usable water. Include the parameters to be measured and frequency of monitoring, as well as the quality assurance procedures to be followed.
9. A tabulation of data on all wells within the area of review which penetrate into the proposed receiver. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, water quality and use, and other relative data.
10. Operating Data
 - (A) The maximum discharge (injection) pressure is atmospheric pressure at the top of any drainfield. For wells, provide the average and maximum injection pressure to be used. Provide average and maximum daily discharge (injection) rate and the dates operation will begin and end.
 - (B) Any proposed stimulation program including any steps to be taken to clean out perforations.
 - (C) Injection procedure.

- (D) Schematic drawing of surface equipment including storage tanks, pumps, filters, meters, valves, and recording devices. Include any wellhead monitoring devices and control valves.
- (E) Show all plumbing to be connected to this system including any surge ponds, oil/water separators, sediment traps, septic tanks, and all drains connected to the system.
- (F) Waste treatment systems will be reviewed for compliance with all applicable sections of Chapter 11 as well as Chapter 16. This requires that a design report be submitted as required by Section 6 of Chapter 11.

11. Location maps The following maps will be helpful in meeting the requirements of Chapter 16:

- (A) At a suggested scale of 1" = 2000', and a suggested 8-1/2" x 11" format:

Map 1: U.S.G.S. topographic base map (if available) showing the area of review and the injection facility. This becomes the base map for all other maps.

Map 2: Surface ownership, including a tabulation of the names and addresses of all owners of record within the area of review.

Map 3: Water rights - Surface bodies of water, springs, water wells, residences and roads, all man-made diversions, intake structures, waste treatment and disposal facilities. This map should be accompanied by a tabulation of all owners of groundwater rights within the area of review.

Map 4: Geology - Surface outcrop pattern, structural specific marker beds, dip information.

- (B) At a scale of 1"=100' 1"=200' 1"=400' or 1"=500':

Map 5: Plat of the location of this facility within the lot and subdivision where it is located if located within any recognized subdivision. This map should show all points of injection and all water wells within a 400 foot radius from the point of injection.

- (C) For all maps, only information of public record is required. Sources of information include the Wyoming State Engineer's Office, the Oil and Gas Conservation Commission, various geological papers and reports, the General Land Office and the County Courthouse.

12. Facility Abandonment: The applicant shall propose specific methods to be used to plug the well or remove the drainfield at the end of its useful life in conformance with Chapter 16, Section 12.

KDF/bb/8-1009