



Texas Commission on Environmental Quality

PERMIT APPLICATION TO DISPOSE OF WASTE IN A CLASS I INJECTION WELL

INSTRUCTIONS

1. A person (individual, corporation or other legal entity) who disposes of waste by Class I well injection regulated by the Texas Commission on Environmental Quality (TCEQ), must obtain a permit pursuant to the Texas Water Code (TWC), Chapter 27, and the Texas Health and Safety Code (THSC), Chapter 361. If the operator of the disposal well is not the owner, then the operator shall be the applicant for a permit. The applicant is referred to Title 30 of the Texas Administrative Code (TAC) Chapters 1-100, 281, 305 and 331 for technical and procedural regulations. Following is the website URL for Title 30 Texas Administrative Code: [http://info.sos.state.tx.us/pls/pub/readtac\\$ext.ViewTAC?tac_view=3&ti=30&pt=1](http://info.sos.state.tx.us/pls/pub/readtac$ext.ViewTAC?tac_view=3&ti=30&pt=1)
2. A person may not commence operation of a Class I waste injection well, continue using an injection well, begin the drilling of an injection well, or convert an existing well into a Class I injection well, until the Commission has issued an injection well permit and financial assurance requirements have been met.
3. The application should be delivered to the following mailing address or physical address:

Mailing address: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ATTN UIC PERMITS TEAM MAIL CODE 233
RADIOACTIVE MATERIALS DIVISION
P O BOX 13087
AUSTIN TX 78711-3087

Physical address: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
ATTN UIC PERMITS TEAM MAIL CODE 233
RADIOACTIVE MATERIALS DIVISION
12100 PARK 35 CIR BLDG F
AUSTIN TX 78753

Submit one original application and two copies of the application. If the injection well is or will be located in a groundwater conservation district, the TCEQ is required to send a copy of the application to the district. If this is applicable to your facility, submit a third copy of the application to the TCEQ in a box suitable for shipping with a postage paid shipping label addressed to the groundwater conservation district. The TCEQ will ship the application to the groundwater conservation district. To determine if the injection well is or will be located in a groundwater conservation district refer to the following link: <http://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/gcdmap.pdf>. To obtain a point of contact and mailing address for the district refer to the following link: <http://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/gcd/gcdcontactlist.pdf>.

Additionally, for new, renewal, major amendment and minor amendment applications, provide a CD or DVD with a copy of the application text formatted in Microsoft Office Word 2007 or a totally compatible format.

Telephone inquiries:

- (512) 239-6065 - Technical - Underground Injection Control
- (512) 239-0600 - Legal - Environmental Law Division
- (512) 239-0300 - Fees - Financial Administration Division
- (512) 239-6832 - Registration Review and Reporting Section
- (512) 239-2334 - Surface Facility - Industrial and Hazardous Waste Permits Section
- (512) 239-6260 - Financial Assurance - Financial Assurance Section

Parts I through IV of the application consist mainly of nontechnical information, as follows: Part I, General Information; Part II, Information Required to Provide Notice; Part III, Railroad Commission Letter; and Part IV, Financial Assurance. Parts V through XIV comprise the Technical Report which addresses aspects of geology, hydrology, well construction, well operation, reservoir mechanics, wastes and waste management.

Applications for more than one well at a site may combine the information into one document. Part I should be filled out for each well (unique permit number and well location) and placed at the beginning of the document. The remainder of the document may apply to all wells, with individual wells being addressed where appropriate.

Information submitted should be organized and labeled consistent with the organization of this form. For example, the discussion of regional geology should be labeled as Part V.A. The application should be organized in three-ring binders not to exceed three inches in thickness. All pages should be numbered and placed in the binders. Once the application is submitted, any revised text, tables, figures or maps should be clearly marked as revisions and dated. Any new pages, tables, figures, maps or well logs should be clearly marked as additions and numbered or labeled appropriately for insertion into the application.

For a new permit application or renewal application, submit:

- a. an original complete application, plus two (2) full paper copies;
- b. if located in a groundwater conservation district, a third copy of the application in a shippable box with a postage paid shipping label addressed to the groundwater conservation district;
- c. a CD or DVD with a copy of the application text; and
- d. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

For a major amendment application [30 TAC §305.62(c)(1)], submit:

- a. an original application, plus two (2) paper copies;
- b. if located in a groundwater conservation district, a third copy of the application in a shippable box with a postage paid shipping label addressed to the groundwater conservation district;
- c. the application must include Part I, the Signature Page and Part II plus any other portion of the application that changes as a result of the major amendment;
- d. if any portion of application Parts V through XIV are revised, include the Technical Report Signature Page;
- e. a CD or DVD with a copy of the application text; and
- f. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

For a minor amendment application [30 TAC §305.62(c)(2)], submit:

- a. an original application, plus two (2) paper copies;
- b. the application must include Part I.A. through N., the Signature Page, and Part II plus any other portion of the application that changes as a result of the minor amendment;
- c. if any portion of application Parts V through XIV are revised, include the Technical Report Signature Page;
- d. a CD or DVD with a copy of the application text; and
- e. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

For a minor modification application [30 TAC § 305.72], submit:

- a. an original application, plus two (2) paper copies;
- b. the application must include Part I.A. through M. and the Signature Page plus any other portion of the application that changes as a result of the minor modification;
- c. if any portion of application Parts V through XIV are revised, include the Technical Report Signature Page; and
- d. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

For a transfer application [30 TAC § 305.64], submit:

- a. an original application, plus two (2) paper copies;
- b. the application must include Part I.A. through M., the Signature Page, Part II and Part IV;
- c. the date of the proposed transfer;
- d. if the permittee is filing the application, the name and address of the transferee;
- e. if the transferee is filing the application, a sworn statement that the application is made with the full knowledge and consent of the permittee; and
- f. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

For an endorsement application [30 TAC § 50.45], submit:

- a. an original application, plus two (2) paper copies;
- b. the application must include Part I.A. through M. and the Signature Page plus any other portion of the application that changes as a result of the endorsement; and
- c. a check for payment of permit application fees transmitted directly to the TCEQ Financial Administration Division with a photostatic copy of the check included in the original application.

4. Part III of the application requires a letter from the Railroad Commission of Texas, stating that drilling the disposal well and injecting industrial or municipal waste into the subsurface stratum will not endanger or injure any known oil or gas resources, that must be submitted with initial and renewal applications, and with permit amendment applications for injection into subsurface formations not addressed by the current Railroad Commission letter for the injection well. Refer to 30 TAC §305.49 and Texas Water Code §27.49. An application will not be considered administratively complete, nor will technical review begin, until the letter is received or until a copy is provided of the applicant's cover letter to the Railroad Commission requesting this evaluation. An applicant should submit a cover letter, copy of the general information of the application form, discussion of local geology and hydrology (including maps and cross-sections), oil and gas production information, Area of Review information (including a map and well records) and any other information necessary for the Railroad Commission to make a determination to the following address:

ENVIRONMENTAL SERVICES
OIL & GAS DIVISION
RAILROAD COMMISSION OF TEXAS
P O DRAWER 12967
AUSTIN TX 78711-3087

Telephone Inquiries: (512) 463-6810 - Environmental Services

5. An application that involves the disposal of a defined waste containing radioactive materials shall be accompanied by a letter or other instrument in writing stating either that the applicant has a license governing the disposal of radioactive materials or that the applicant does not need a license. [30 TAC §305.52]
6. Signatures on Application: Refer to 30 TAC §305.44, "Signatories to Applications." The application must be signed by the applicant and be verified before a notary public. If another person signs on behalf of the applicant, this person's title or relationship to the applicant should be shown. In all cases, the person signing the form should be authorized to do so by the applicant. The Commission may require a person signing on behalf of an applicant to provide proof of authorization. An application submitted for a corporation must be signed by (or the signatory must be authorized by) a principal executive officer of at least the level of vice president; or for a partnership or sole proprietorship, by a general partner or the proprietor, respectively. For a municipal, state, federal, or other public facility, the application must be signed by either a principal executive officer or ranking elected official. In compliance with 30 TAC §305.44(c), for hazardous solid waste permit applications, the owner and operator of a facility must sign the application.

Please note that the version date in the footer of the application pages should be the same as the date that the signature page is signed.

7. An application will not be processed until all information required to properly consider the application has been obtained. When an application is severely lacking in detail and/or the applicant fails to submit additionally requested information in a timely manner, the application will not be considered to be "filed in accordance with the rules and regulations of the Commission" and may be returned. [30 TAC §281.18] When an application is returned, one copy will be retained to comply with state records laws. [Texas Government Code §441.187]

8. Fees and Costs
 - a.

Type of Application	Application Fee¹	Rule Citation 30 TAC	Notice Fee 30 TAC §305.53(b)
New Class I Nonhazardous	\$100 per well	§305.53(a)(1)	\$50 per application
New Class I Hazardous	\$2000 per well	§305.53(a)(1)	\$50 per application
Amendment Class I Nonhazardous	\$100 per well	§305.53(a)(1)	\$50 per application
Amendment Class I Hazardous	\$2000 per well	§305.53(a)(1)	\$50 per application
Renewal Class I Nonhazardous	\$100 per well	§305.53(a)(1)	\$50 + \$15 per application
Renewal Class I Hazardous	\$2000 per well	§305.53(a)(1)	\$50 + \$15 per application

Transfer of Permit ²	\$100 per well	§305.64(b)(4)	\$50 per application
Minor Modification	\$100 per well	§305.53(a)	None [30 TAC §305.72(b)]
Endorsement ³	\$100 per well	§305.53(a)	None [30 TAC §50.45(a)]

¹Each Nonhazardous or hazardous waste injection well permit requires a separate application.

²Change of ownership of a permitted facility.

³For changing the permittee's name or correction of errors subject to 30 TAC §50.45.

- b. The applicant for a permit is required to bear the cost of publication of notice of the application in a newspaper [30 TAC §39.651(d)(1)] and by radio broadcast. [30 TAC §39.651(d)(5)]
- c. Payment of fees and costs should be made at the time the application is submitted. Send payment to:

FINANCIAL ADMINISTRATION DIVISION
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
MAIL CODE 214
P O BOX 13088
AUSTIN TX 78711-3088

Send with the payment a copy of page 1 of the application form (one copy per injection well); write "New Well" on the page if this is an initial application.

9. Designation of Material as Confidential

The designation of material as confidential is frequently carried to excess. The Commission has a responsibility to provide a copy of each application to other review agencies and to interested persons upon request and to safeguard confidential material from becoming public knowledge. Thus, the Commission requests that the applicant (1) be prudent in the designation of material as confidential and (2) submit this material only when it might be essential to the staff in their development of a recommendation.

The Commission suggests that the applicant **NOT** submit confidential information as part of the permit application. However, if this cannot be avoided, the confidential information should be described in non-confidential terms throughout the application, submitted as a document or binder, and conspicuously marked "CONFIDENTIAL."

Reasons of confidentiality include the concept of trade secrecy and other related legal concepts that give a business the right to preserve confidentiality of business information to obtain or retain advantages from its right in the information. This includes exemptions from disclosure under 5 United States Code (USC) 552b(c)(4)(relating to Open Meetings), 18 USC 1905 (relating to Disclosure of Confidential Information Generally), and special rules cited in Title 40 Code of Federal Regulations (CFR) §2.305 (relating to Special rules governing certain information obtained under the Solid Waste Disposal Act, as amended.) Trade secrets and confidential information are also exempt from disclosure as public records under state law in certain circumstances under Texas Government Code §552.110 (relating to Certain Commercial Information), Texas Health and Safety Code §361.037 (relating to Access to Hazardous Waste Records), 30 TAC §1.5 (relating to Records of the Agency), and 30 TAC §305.50(a)(4)(E) (relating to Additional Requirements for an Application for a Hazardous or Industrial Solid Waste Permit and for a Post-Closure Order).

The Commission is not required to consider any record concerning the composition or characteristics of hazardous solid waste being processed, stored, disposed of, or otherwise handled to be confidential. [THSC §361.037]

Information that deals with the existence, absence or levels of contaminants in drinking water will not be considered confidential. 30 TAC §1.5(d)(5).

If confidential information is not submitted, and this causes the application to be incomplete, the permit will not be issued, amended, or modified.

10. The applicant is referred to the guidance document *Construction Guidance for Class I Injection Wells* (website http://www.tceq.texas.gov/assets/public/permitting/waste/uic/construction_guidance.pdf) for assistance in designing, drilling and completion of any new Class I injection wells. Proposals for conversion wells should meet the same health and environmental safety standards as any newly constructed well.
11. All engineering and geoscience plans, specifications, calculations, analyses, reports and other related engineering and geoscience documents must be prepared, sealed, signed, and dated by a Texas professional engineer (P.E.) or a Texas professional geoscientist (P.G.), as appropriate. Please refer to the Texas Engineering Practice Act (Occupations Code Chapter 1001), the rules Concerning the Practice of Engineering and Professional Engineering Licensure (22 TAC Part 6 Chapter 131), the Geoscience Practice Act (Occupations Code Chapter 1002), and the Rules For Geoscientist Licensure And The Practice Of Geoscience (22 TAC Part 39 Chapters 850 and 851). P.E. and P.G. Board rules (22 TAC §131.166 and 22 TAC §851.156) require that all engineering and geoscience pages be sealed, signed and dated unless contained in a bound document, in which case only the original title sheet needs to be sealed. If a single seal is used on a bound document, there must be a note near the seal clearly stating which pages of the document the seal covers. All engineering and geoscience plans and drawings must be individually sealed, signed and dated. If there are subsequent revisions to pages covered by the engineering or geoscience seal, each revised page must be individually sealed. An engineer or geoscientist may not seal a document in a field outside their area of expertise. If more than one P.E. or P.G.'s work is contained in a document, each engineer's or geoscientist's seal is required on the document, and the limits of their work must be clearly indicated. The website address for the Texas Board of Professional Engineers is <http://www.tbpe.state.tx.us/>; the Texas Board of Professional Geoscientists website is <http://www.tbpg.state.tx.us/>.
12. Information taken from sources such as publications and public documents should be checked for accuracy and completeness and be properly referenced.
13. The applicant may wish to consider copyrighting the application.
14. Applicants requesting a permit for a nonhazardous waste commercial Class I injection well, but who are not required to have a Resource Conservation and Recovery Act (RCRA) permit for the surface facility, must submit form TCEQ-0024, "Application for a Permit to Store, Process or Dispose of Industrial Nonhazardous Solid Waste," to the Waste Permits Division, Industrial and Hazardous Waste Permits Section, Mail Code 130 at the TCEQ address. That application will be processed concurrently with this UIC application.
15. Applicants requesting a permit for a nonhazardous noncommercial injection well must have the pre-injection units authorized by a permit issued by the Commission or registered in accordance with 30 TAC §331.17, Pre-Injection Units Registration. [30 TAC §331.7(d)] Refer to Parts I.K and XII of this application. The option of registration does not apply to pre-injection units for Class I injection wells used for the disposal of byproduct material as that term is defined in Chapter 336 of this title (relating to Radioactive Substance Rules). The latter pre-injection units must be included in the permit application.
16. Applicants requesting a permit for a hazardous waste Class I injection well permit, but who are not required to have a RCRA permit for any other unit at the facility, must meet the requirements for a RCRA Permit by Rule. They should submit a permit application supplement form TCEQ-0756, "Releases From Solid Waste Units and Corrective Action at a Hazardous Waste Injection Well Facility With No Resource Conservation and Recovery Act (RCRA) Permit for Other Units." See Part IX.C of this application.

17. Applicants who wish to apply for a salt cavern waste disposal permit should submit form TCEQ-0356, "Technical Report - Supplemental Information for Salt Cavern Disposal Wells and Associated Caverns," instead of this form TCEQ-0623, to the Waste Permits Division, Industrial and Hazardous Waste Permits Section.
18. UIC program information and an electronic copy of this form are available on the TCEQ website at http://www.tceq.texas.gov/permitting/waste_permits/uic_permits/UIC_Guidance_Class_1.html.

PROCEDURAL INFORMATION

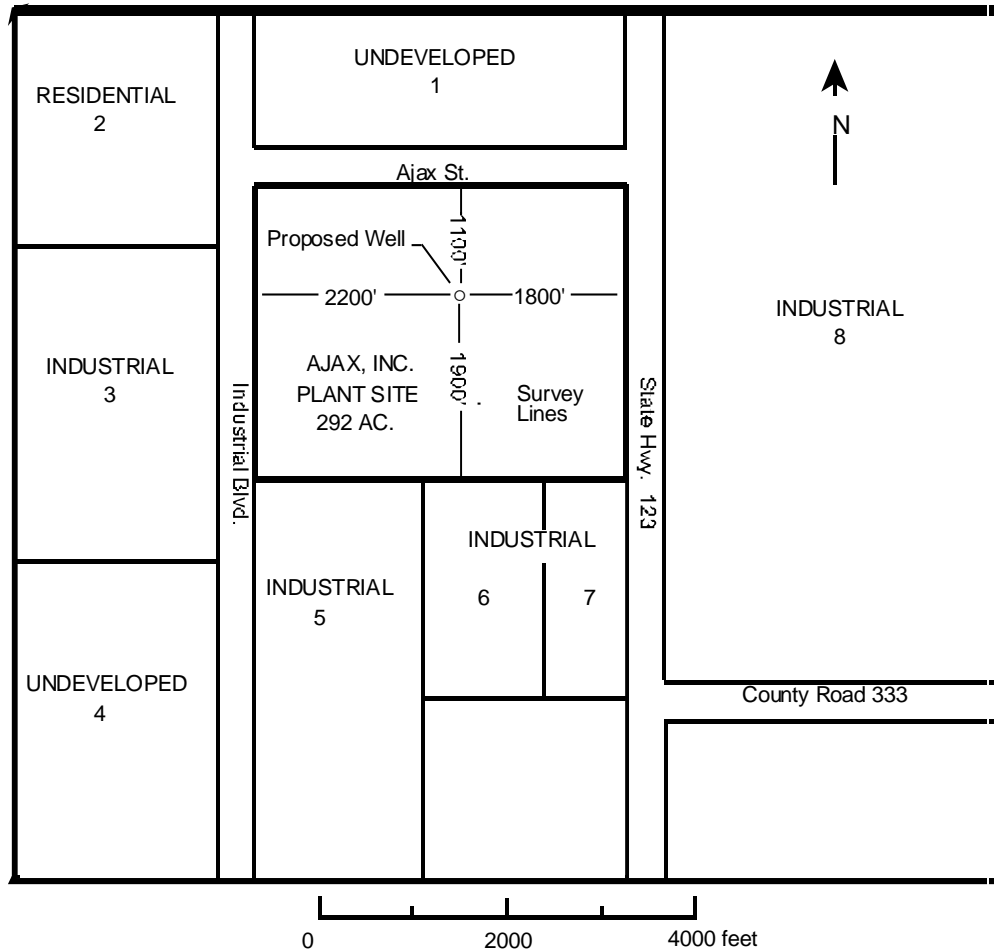
1. Upon receipt of the application for an injection well, the Industrial and Hazardous Waste Permits Section staff date stamps the application, makes sure that the application fees have been submitted, and forwards the application to the Permits Administrative Review Team. The Permits Administrative Review Team reviews the application for completeness. The applicant may be contacted for clarification or additional information at any time during the administrative review.

Within 30 days of the date that the application is determined to be administratively complete, the Chief Clerk mails Notice of Receipt of Application and Intent to Obtain Permit to the applicant, to potentially affected persons, and to others. 30 TAC §39.413 and §39.651(c) describe the mailed notice procedures for this first notice. The applicant is responsible for newspaper publication of notice of the application. The applicant must also place a copy of the administratively complete application in a public place. See 30 TAC §39.405(g) for a description of these procedures.

2. The UIC Permits Team staff begins a technical review as soon as the application is administratively complete. The applicant may be contacted for clarification or additional information at any time during the technical review. Once the technical review is completed, the Executive Director makes a preliminary decision to issue a permit or recommend denial of the permit. The preliminary decision and draft permit are filed with the Chief Clerk. The Chief Clerk mails the preliminary decision concurrently with the Notice of Application and Preliminary Decision. The applicant is responsible for newspaper publication of the Notice of Application and Preliminary Decision. See 30 TAC §39.419 and §39.651(d) for a description of the procedures for the second notice.
3. Public comments must be filed with the Chief Clerk within the time period specified in the notice. The public comment period extends 30 days (nonhazardous waste permits) or 45 days (hazardous waste permits) after the last publication of the Notice of Application and Preliminary Decision, except as provided in 30 TAC §55.152. If comments are received, the Executive Director prepares a response to comments and files the response to comments with the Chief Clerk within 60 days following the close of the comment period in accordance with 30 TAC §55.156. The Chief Clerk mails the Executive Director's decision, the Executive Director's response to public comments, instructions for requesting that the Commission reconsider the Executive Director's decision, and instructions for requesting a contested case hearing. See 30 TAC §39.420 and §55.156 for additional information on procedures for processing public comment.
4. The Executive Director may act on an uncontested application if public notice requirements have been satisfied and the application meets all relevant statutory and administrative criteria in accordance with 30 TAC §50.133. The Chief Clerk mails notice of the action and an explanation of the opportunity to file a motion to overturn the Executive Director's action on the application. A motion to overturn must be filed no later than 20 days after the signed permit is mailed to the applicant in accordance with §50.139.

SAMPLE APPLICATION MAP

LANDOWNERS AND MINERAL OWNERS CROSS-REFERENCED TO APPLICATION MAP



The persons identified below would be considered as affected persons:

- | | |
|---|---|
| <p>1. MR & MRS SAMUEL L DAVIS
11901 KNIGHTS BRIDGE RD
AUSTIN TX 78759</p> | <p>5. JAXSON BREWING CO
4240 LINE RD
DALLAS TX 77640</p> |
| <p>2. MR & MRS EDWARD SANCHEZ
1405 CRAIGMONT LN
WACO TX 76710</p> | <p>6. PLAINVIEW CO
6647 STAR BLVD
HOUSTON TX 77590</p> |
| <p>3. TEXLINK CORP
8411 ZIP ST
HOUSTON TX 77590</p> | <p>7. ABC CHEMICALS INC
1212 AUSTIN AVE
DALLAS TX 77640</p> |
| <p>4. MR & MRS TED GOLDSBY
3210 20TH ST
WACO TX 76724</p> | <p>8. BIG C BOTTLE CO
10024 NW HWY
BOVINA TX 79402</p> |

Texas Commission on Environmental Quality

**PERMIT APPLICATION TO DISPOSE OF WASTE
IN A CLASS I INJECTION WELL**

I. GENERAL INFORMATION

A. Type of Application Submittal (check all that apply):

- | | | |
|--|---|---|
| <input type="checkbox"/> Initial | <input type="checkbox"/> Renewal | <input type="checkbox"/> Major Amendment |
| <input type="checkbox"/> Hazardous Waste | <input type="checkbox"/> Nonhazardous Waste | <input type="checkbox"/> Minor Amendment |
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Noncommercial | <input type="checkbox"/> Minor Modification |
| Source of waste for noncommercial: | | <input type="checkbox"/> Transfer |
| <input type="checkbox"/> Onsite | | <input type="checkbox"/> Endorsement |
| <input type="checkbox"/> Offsite (captured facility) | | |
| <input type="checkbox"/> Offsite from facilities owned by owner/operator | | |

B. Facility Name _____

TCEQ Solid Waste Registration No. _____ EPA ID No. _____

Street Address _____

Mailing Address _____

City _____, Texas Zip Code _____ County _____

Provide the location of the injection well relative to established surveys:

Enter the geographical coordinates of the injection well:

Latitude ____ deg ____ min ____ sec North

Longitude ____ deg ____ min ____ sec West

Provide the depths of the injection zone and injection interval:

Injection Zone: _____ Formation(s) at depths of _____ to _____ feet below ground level.

Injection Interval: _____ Formation(s) at depths of _____ to _____ feet below ground level.

C. Operator (Applicant) _____

(Individual, Corporation, or Other Legal Entity Name)

Address _____

City _____ State _____ Zip Code _____

Telephone Number _____

Does the applicant own the mineral rights to the facility property? Yes No

Comments _____

If the application is submitted on behalf of a corporation, please identify the Charter Number as recorded with the Office of the Secretary of State for Texas.

(Charter Number)

If the application is submitted by a person residing out of state, or is submitted by a corporation, the applicant must name the Agent in Service or Agent of Service who is registered with the Texas Secretary of State's office, and provide a complete mailing address for the agent. The agent must be a Texas resident.

Agent _____

Address _____

City _____ State _____ Zip Code _____

Telephone Number _____

D. Owner (if the same as operator, state "same as operator"):

Name _____

Address _____

City _____ State _____ Zip Code _____

Telephone Number _____

Charter Number _____

E. Indicate the ownership status of the facility

1. Private: _____ Corporation
 _____ Partnership
 _____ Proprietorship
 _____ Nonprofit organization
2. Public: _____ Federal
 _____ Military
 _____ State
 _____ Regional
 _____ County
 _____ Municipal
3. Other (specify) _____

F. List those persons or firms authorized to act for the applicant during the processing of the permit application. Indicate the capacity in which each person may represent the applicant (engineering, geology, legal, etc.). The person listed first will be the primary recipient of correspondence regarding this application. Include complete mailing addresses, phone numbers and e-mail addresses.

G. Specify the individual who will be responsible for causing notice to be published in the newspaper. Include the complete mailing address, telephone number, fax number and e-mail address.

H. Describe the activities conducted by the applicant which require a permit. [30 TAC §305.45(a)(5) and §331.7]

I. If the application is for amendment, modification, transfer or endorsement to existing permit(s) or for amendment to renewal permit(s), please describe all requested permit changes and the reasons for the request.

J. History of Permit Actions and Application Revisions

For amendment, modification, transfer or endorsement of a Class I waste disposal well permit, information is needed to confirm the history of permit actions and revisions to the most recent complete permit application. For the time period since submittal of the most recent complete permit application (i.e., an application for a new well or renewal of an existing well), provide the following information:

1. A list of permit actions (major and minor amendments, minor modifications, endorsements, etc.), including dates, that have been issued by the TCEQ since the date of issuance of a new permit or the most recent permit renewal; and
2. A list of submittal dates for the following activities that revised the application: Responses to Notices of Deficiency, major or minor amendment applications, minor modification requests, requests for permit transfers or endorsements, and any addenda or supplementary information that has been submitted in connection with a permitting action.

K. Business Information

1. Give a brief description of the nature of your business.

2. List the principal products and/or services which are provided by your plant. Please itemize by Standard Industrial Classification (SIC) codes. Also label the products with their common names, if applicable.

L. Applicant Compliance History

House Bill 2912, 77th Legislature, 2001, §4.01, amended Texas Water Code, Chapter 5, Texas Natural Resource Conservation Commission, by adding Subchapter Q, Performance-Based Regulation. New Subchapter Q of TWC, §5.753, Standard For Evaluating Compliance History, requires the Commission to “develop a uniform standard for evaluating compliance history.” New 30 TAC Chapter 60 has been adopted to define the components of compliance history.

TWC, Subchapter Q, applies to programs under the jurisdiction of the Commission under TWC, Chapters 26 and 27, and THSC, Chapters 361, 382, and 401. HB 2912, §4.01, as it creates new TWC, §5.754(e), specifies that the agency will utilize compliance history when making decisions regarding: the issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit; enforcement; the use of announced investigations; and participation in innovative programs.

The compliance history period includes the five years prior to the date the permit application is received by the Executive Director; the five-year period preceding the date of initiating an enforcement action with an initial enforcement settlement offer or the filing date of an Executive Director’s Preliminary Report (EDPR), whichever occurs first; for purposes of determining whether an announced investigation is appropriate, the five-year period preceding an investigation; or the five years prior to the date the application for participation in an innovative program is received by the Executive Director. The compliance history period may be extended beyond the date the application for the permit or participation in an innovative program is received by the Executive Director, up through completion of review of the application.

For the five years preceding the filing date of this application, please submit a complete listing of all criminal convictions (i.e., State or Federal) of the owner, operator or applicant in which a violation of environmental law was an element of the crime. [30 TAC §60.2(c)(1)(E) and §60.2(c)(2)(F)] If there have been no such convictions then the application should state in a separate sentence for the owner applicant and operator the following:

“In the five years preceding the filing of this application, the _____ (applicant, owner, or operator respectively) has not been convicted of a State or Federal crime in which a violation of environmental law was an element of the crime.”

M. TCEQ Core Data Form

The TCEQ requires that a Core Data Form (Form 10400) be submitted on all incoming applications unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. If no core data information has changed and the TCEQ has issued an RN and CN for your facility, please state these numbers. For more information regarding the Core Data Form, call (512) 239-1575 or go to the TCEQ Web site at:

http://www.tceq.texas.gov/permitting/central_registry/guidance.html

N. Public Interest Demonstration

Section 27.051 of the Texas Water Code (TWC) stipulates certain conditions that must exist for the Commission to grant an application and issue a permit. For all new applications, permit renewals, and permit amendments, submit as "Attachment C" information addressing the following considerations:

1. That the use or installation of the injection well is in the public interest. [TWC §27.051(a)(1)]
2. That no existing rights, including, but not limited to, mineral rights, will be impaired. [TWC §27.051(a)(2)]
3. That, with proper safeguards, both ground and surface fresh water can be adequately protected from pollution. [TWC §27.051(a)(3)]
4. That the applicant has made a satisfactory showing of financial responsibility if required by Section 27.073 of this code. [TWC §27.051(a)(4)]
5. That the compliance history of the applicant and related entities is acceptable. [TWC §27.051(d)(1), 30 TAC § 331.121(b)(1)]
6. That there is no practical, economic, and feasible alternative to an injection well reasonably available. Provide justification for subsurface disposal. Include results of treatability studies of alternate, practical, economic and feasible methods of waste disposal. Explain in detail why each method is considered to be less satisfactory in terms of environmental protection than the proposed subsurface disposal method. Indicate whether this waste is presently being produced and, if so, what method is used for disposal. Describe the manufacturing process(es) and product(s) which produce the waste(s). [TWC §27.051(d)(2), 30 TAC § 331.121(b)(2)]
7. (for hazardous waste injection wells only) That the applicant has provided for the proper operation of the proposed hazardous waste injection well. [TWC §27.051(a)(5)]
8. (for hazardous waste injection wells only) That the applicant for a hazardous waste injection well not located in an area of industrial land use has made a reasonable effort to ensure that the burden, if any, imposed by the proposed hazardous waste injection well on local law enforcement, emergency medical or fire-fighting personnel, or public roadways, will be reasonably minimized or mitigated. [TWC §27.051(a)(6)]
9. (for hazardous waste injection wells only) That the applicant owns or has made a good faith claim to, or has the consent of the owner to utilize, or has an option to acquire, or has the authority to acquire through eminent domain, the property or portions of the property where the hazardous waste injection well will be constructed. [TWC §27.051(a)(7)]
10. (for hazardous waste injection wells only) That the applicant will maintain sufficient public liability insurance for bodily injury and property damage to third parties that is caused by sudden and non-sudden accidents or will otherwise demonstrate financial responsibility in a manner adopted by the Commission in lieu of public liability insurance. [TWC §27.051(d)(3). 30 TAC § 331.121(b)(3)]
11. (for hazardous waste injection wells only) For on-site generated waste, provide certification by the owner/operator that (1) the generator of the hazardous waste has a program to reduce the volume or quantity and toxicity of the waste to the degree determined by the generator to be economically practicable, and (2) injection of the waste is that practicable method of disposal currently available to the generator which minimizes the present and future threat to human health and the environment. [30 TAC §331.121(b)(4) and 40 CFR §146.70(d)]

O. For applications for new permits, renewals, and major amendments a copy of the administratively complete application must be made available at a public place in the county where the facility is located or

proposed to be located for review and copying by the public. Identify the public place in the county (e.g., public library, county court house, city hall), including the address, where the application will be located.

- P. Pre-injection units for Class I nonhazardous, noncommercial injection wells must either be authorized by a permit issued by the Commission or registered in accordance with 30 TAC §331.17, Pre-Injection Units Registration. Provide the following information for nonhazardous, noncommercial injection wells (refer to Part XII):

(for permit amendments/renewals) Current authorization status of existing pre-injection units:

None___ UIC Permit___ Registration___ Wastewater Permit___
 Registration No._____ Wastewater Permit No._____

(for new permits/renewals) Method to be used for pre-injection unit authorization (applicant's option):

UIC Permit___ Registration___ Wastewater Permit___
 Registration No._____ Wastewater Permit No._____

Note: For renewal or amendment of nonhazardous noncommercial injection wells, any changes to the pre-injection unit registration should be submitted concurrently with the application for renewal or amendment of the injection well permits. Please refer to Section XII of this application.

- Q. Facility Background Information [30 TAC §305.45(a)(7)]

Indicate (by listing the permit number(s) in the column below) all existing, pending, interim status, or permit-by-rule State and/or Federal permits, licenses or construction approvals which pertain to pollution control or industrial solid waste management activities conducted by your plant or at your location, or existing at a proposed plant or location. Complete each blank by entering the permit number, or the date of application, or "none."

Relevant Program and/or Law	Permit No.	Government Agency*
1. Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	_____	_____
2. UIC Program under the Texas Injection Well Act	_____	_____
3. NPDES Program under the Clean Water Act and Waste Discharge Program under the Texas Water Code, Chapter 26	_____	_____
4. PSD Program under the Federal Clean Air Act	_____	_____
5. Nonattainment Program under the Federal Clean Air Act	_____	_____
6. National Emission Standards for Hazardous Pollutants (NESHAP) preconstruction approval under the Clean Air Act	_____	_____
7. Ocean dumping permits under the Marine Protection Research and Sanctuaries Act	_____	_____
8. Dredge or fill permits under the Federal Clean Water Act	_____	_____

- 9. Licenses under the Texas Radiation Control Act _____
- 10. Texas Solid Waste Disposal Act _____
- 11. Texas Uranium Surface Mining and Reclamation Act _____
- 12. Texas Surface Coal Mining and Reclamation Act _____
- 13. Other relevant environmental permits _____

*Use the following acronyms for each agency as shown below:

- TCEQ = Texas Commission on Environmental Quality
- RCT = Railroad Commission of Texas
- TDH = Texas Department of Health
- TDA = Texas Department of Agriculture
- EPA = U.S. Environmental Protection Agency
- CORPS = U.S. Army Corps of Engineers

R. Location

- 1. Give a description of the location of the facility site with respect to known or easily identifiable landmarks. Detail the access routes from the nearest U.S. or State Highway to the facility.
- 2. Is the facility located on Indian lands?
 Yes No
- 3. Is the facility located within the Coastal Management Program boundary?
 Yes No

For questions regarding the Coastal Management Program, please call (800) 998-4456 (within Texas) or (512) 463-5385.

- 4. Is the facility in an area in which the governing body of the county or municipality has prohibited the processing or disposal of municipal hazardous waste or industrial solid waste? (See Texas Health and Safety Code (THSC) §363.112.) Yes No

If yes, please provide a copy of the ordinance or order.

- 5. Legal Description of Facility

Submit as "Attachment A" a legal description(s) of the tract or tracts of land upon which the waste management operations referred to in this permit application occur or will occur. Although a legal description is required, a metes and bounds description is not necessary for urban sites with appropriate "lot" description(s).

- 6. Submit as "Attachment B" a drawn-to-scale topographic map (or other map if a topographic map is unavailable) of the facility and area extending one mile beyond the facility boundaries. Maps must be prepared by a licensed professional engineer or a registered surveyor. Maps must be of material suitable for a permanent record, and be on sheets 8½ inches by 14 inches or folded to that size, and be on a scale of not less than one inch equals one mile. The scale should be adequate to depict the following features:

- a. the approximate boundaries of the facility, and within these boundaries, the location of all injection wells; each depicted area should be labeled to identify the well(s) and the well status (active, inactive, or proposed); areal size in acres should be given;
 - b. the overall facility, each of its surface intake and discharge structures, each of its waste treatment, storage or disposal facilities, including proposed or existing pre-injection units; and
 - c. all wells (water, oil and gas, disposal, etc.), springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within one mile of the facility property boundary, and the purpose for which each water well is used (e.g., domestic, livestock, agricultural, industrial, etc.). [30 TAC §305.45(a)(6)]
7. The name and address of each person who owns the land on which the facility is located, if different from the owner or operator listed in sections I.C and D. [Texas Health and Safety Code §361.087]

SIGNATURE PAGE

I, _____, _____
(applicant) (title)

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date _____
(applicant or applicant's authorized agent)

See 30 TAC §305.44 for who must sign. Hazardous waste permits must be signed by both the owner and operator of the facility.

TO BE COMPLETED BY THE APPLICANT IF THE APPLICATION IS SIGNED BY AN AGENT FOR THE APPLICANT

I, _____ hereby designate _____
(applicant) (agent)

as my agent and hereby authorize said agent to sign any application, submit additional information as may be requested by the Commission, and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my agent in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Printed or Typed Name of Applicant or Principal Executive Officer

Signature

(Note: Application Must Bear Signature and Seal of Notary Public)

STATE OF TEXAS §
COUNTY OF _____ §

SUBSCRIBED AND SWORN to before me by the said _____

On this _____ day of _____, _____

My commission expires on the _____ day of _____, _____

Notary Public in and for the State of Texas

II. INFORMATION REQUIRED TO PROVIDE NOTICE

Submit as "Attachment D" the following lists of landowners and mineral owners, cross-referenced to a map. (See attached example.) In accordance with 30 TAC §39.405(b), please also submit this mailing list electronically, in MS Word. The electronic list must contain only the name, mailing address, city, state, and zip code with no reference to the lot number or lot location. The list should contain 30 names, addresses, etc. (10 per column) per page. Each name and address must be typed in the format that meets the United States Postal Service (USPS) requirements for machine readability. The letters in the name and address must be capitalized, contain no punctuation, and the two-character abbreviation must be used for the state. Examples of addresses using the USPS format may be found throughout the "INSTRUCTIONS" section of this application form (pages 1-7). Contact the USPS for further instructions on formatting addresses for machine readability.

Alternatively, the applicant may elect to submit pre-printed mailing labels of this mailing list with the application. If you wish to provide the list on printed labels, please use sheets of labels that have 30 labels to a page (10 labels per column). Please provide **four complete sets of labels** of the adjacent landowners and mineral owners list.

- A. Identify and provide a complete mailing address for all landowners of tracts of land adjacent to the facility and within a reasonable distance from the proposed point or points of discharge, deposit, injection, or other place of disposal or activity.
- B. Identify and provide a complete mailing address for all persons who own mineral rights underlying the existing or proposed injection well facility and underlying the tracts of land adjacent to the property on which the existing or proposed injection well facility is or will be located as required by 30 TAC §39.651(c)(4). If the name(s) submitted represents less than 100% mineral ownership, specify the total percentage owned by all persons identified.
- C. If the adjacent property ownership or mineral right ownership lists show the State of Texas to be an adjacent landowner and/or mineral rights owner underlying the specified area, as defined by 30 TAC §331.2, your application may affect lands dedicated to the permanent school fund. Refer to Texas Water Code §5.115. To determine whether lands dedicated to the permanent school fund are affected, you may submit a request which includes the property location to the General Land Office at the following address:

GENERAL LAND OFFICE
DEPUTY COMMISSIONER OF ASSET ACQUISITION
STEVEN F AUSTIN BLDG
1700 N CONGRESS
AUSTIN TX 78701

If it is determined that your application may affect lands dedicated to the permanent school fund, your application must include the following information:

1. state the location of the permanent school fund land to be affected; and
2. describe any foreseeable impact or effect of the proposed permitted action on permanent school fund land.

A formal action or ruling by the Commission on an application affecting permanent school fund land that is made without the notice required by the above-referenced rule is voidable by the School Land Board as to any permanent school fund lands affected by the action or ruling. [Texas Water Code §5.115(g)]

- D. Provide the name and mailing address for the State Senator and State Representative in the district in which the well is or will be located. Either local district addresses or capitol addresses are acceptable. [30 TAC §39.651(c)(1)]
- E. Provide the name and mailing address of the mayor and health authority of the municipality in whose territorial limits or extraterritorial jurisdiction the well is or will be located, and also the county judge and the health authority of the county in which the facility is located. [30 TAC §39.651(c)(4)]
- F. If the injection well is or will be located in a groundwater conservation district, provide the contact name and mailing address for the groundwater conservation district. To determine if the injection well is or will be located in a groundwater conservation district refer to the following link: <http://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/maps/gcdmap.pdf>. To obtain a contact name and mailing address for the district refer to the following link: <http://www.tceq.texas.gov/assets/public/permitting/watersupply/groundwater/gcd/gcdcontactlist.pdf>
- G. Bilingual Notice Instructions. For certain permit applications, public notice in an alternate language is required. If an elementary school or middle school nearest to the facility offers a bilingual program, notice may be required to be published in an alternative language. The Texas Education Code, upon which the TCEQ alternative language notice requirements are based, requires a bilingual education program for an entire school district should the requisite alternative language speaking student population exist. However, there may not be any bilingual-speaking students at a particular school within a district which is required to offer the bilingual education program. For this reason, the requirement to publish notice in an alternative language is triggered if the nearest elementary or middle school, as part of a larger school district, is required to make a bilingual education program available to qualifying students and either the school has students enrolled at such a program on-site, or has students who attend such a program at another location to satisfy the school's obligation to provide such a program.

If it is determined that a bilingual notice is required, the applicant is responsible for ensuring that the publication in the alternate language is complete and accurate in that language. Electronic versions of the Spanish template examples are available from the TCEQ to help the applicant complete the publication in the alternative language.

Bilingual notice confirmation for this application:

1. Is the school district of the elementary or middle school nearest to the facility required by the Texas Education Code to have a bilingual program?
YES ___ NO ___

(If NO, alternative language notice publication not required)
2. **If YES** to question 1, are students enrolled in a bilingual education program at either the elementary school or the middle school nearest to the facility? YES ___ NO ___

(If YES to questions 1 and 2, alternative language publication is required; If NO to question 2, then consider the next question)
3. **If YES** to question 1, are there students enrolled at either the elementary school or the middle school nearest to the facility who attend a bilingual education program at another location? YES ___ NO ___

(If Yes to questions 1 and 3, alternative language publication is required; If NO to question 3, then consider the next question)

4. **If YES** to question 1, would either the elementary school or the middle school nearest to the facility be required to provide a bilingual education program but for the fact that it secured a waiver from this requirement, as available under 19 TAC §89.1205(g)?
YES ___ NO ___

(If Yes to questions 1 and 4, alternative language publication is required; If NO to question 4, alternative language notice publication not required)

If a bilingual education program(s) is provided by either the elementary school or the middle school nearest to the facility, which language(s) is required by the bilingual program?

III. RAILROAD COMMISSION LETTER

Submit, as "Attachment E," a letter from the Railroad Commission stating that "drilling the disposal well and injecting industrial or municipal waste into the subsurface stratum will not endanger or injure any known oil or gas resources." This letter is required with initial and renewal applications, and with permit amendment applications for injection into subsurface formations not addressed by the current Railroad Commission letter for the injection well.

IV. FINANCIAL ASSURANCE

Submit as "Attachment F," information regarding the financial assurance plan as referenced below.

- A. Financial Assurance Information Requirements for all Applicants [30 TAC §§331.142-144, Subchapter I, and 30 TAC Chapter 37 Subchapter Q "Financial Assurance for Underground Injection Control Wells"]

1. Financial Assurance for Closure

Please refer to 30 TAC §§331.142-144 for the financial assurance requirements for closure, and provide a signed statement from an authorized signatory per 30 TAC §305.44 regarding how the owner or operator will comply with this provision.

The method of calculation of closure costs used by UIC staff and an explanation of the costs are available on request from the Industrial and Hazardous Waste Permits Section at Mail Code 130 at the TCEQ address.

2. Financial Assurance for Post Closure Care (hazardous waste wells only)

Please refer to 30 TAC §331.68 for the financial assurance requirements for post-closure care, and provide a signed statement from an authorized signatory regarding how the owner or operator will comply with this provision.

- B. Liability Requirements (hazardous waste wells only)

Provide information regarding sufficient public liability insurance for bodily injury and property damage to third parties that are caused by sudden and nonsudden accidents. Evidence must be provided to show that the insurance policy covers the injection well(s). [30 TAC §305.154(a)(11)]

TECHNICAL REPORT

(PARTS V - XIV)

SIGNATURE PAGE

Signature of the Technical Report Supervisor

The technical report of the application must be signed by the technical report supervisor. The supervisor must be a Texas licensed professional engineer, a licensed professional geoscientist, or a qualified person who is competent and experienced in the field to which the application relates and thoroughly familiar with the operation or project for which the application is made. Attach a copy of the supervisor's resume.

I, _____, _____
(technical report supervisor) (title)

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 there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature _____ Date _____

(Note: Application Must Bear Signature and Seal of Notary Public)

STATE OF TEXAS §
COUNTY OF _____ §

SUBSCRIBED AND SWORN to before me by the said _____

On this _____ day of _____, _____

My commission expires on the _____ day of _____, _____

Notary Public in and for the State of Texas

V. GEOLOGY AND HYDROGEOLOGY

A. Regional geology

Describe the regional stratigraphic and structural geology, lithology, and hydrogeology pertinent to the proposed injection program. Information must be integrated into a coherent and complete summary, not merely listed. Regional geology should be rendered on a scale capable of accurately depicting the geology of the region (approximately a 20-50 mile radius). Maps and cross-sections from commercial mapping companies may be used, provided they adequately characterize the geology (including faulting) of the region. Major aquifers, stratigraphic units, general lithology, confining zones and the injection zone should be indicated on all cross-sections. Cross-sections should be constructed with well logs and to scale. The (proposed) injection well location(s) should be indicated on all maps and cross-sections. Maps and figures should be referenced in the description, where applicable. The information submitted will be used to help determine the geologic suitability of the region, as required by 30 TAC §331.121(c). This information should include, but is not limited to, the following items.

1. Regional stratigraphy, including a stratigraphic column;
2. Regional hydrostratigraphy, emphasizing major aquifers and the lowest underground source of drinking water (USDW);
3. Definition and description of:
 - a. Confining zone, including structural and isopach maps;
 - b. Injection zone, including structural and isopach maps. (Maps of stratigraphic intervals approximating the confining and injection zones may be used);
4. Regional cross-sections from the surface through the confining strata below the injection zone; or if a major structure exists below the injection zone, to as deep as necessary to define the structure;
5. Discussion of the regional structural geology as it relates to the injection well site. Include fault characteristics and trends as they pertain to the confining and injection zones;
6. Regional seismic activity (earthquakes - natural and artificial);
7. Discussion of regional groundwater flow in the injection zone.

B. Local geology (within the area of review)

Describe local stratigraphic and structural geology, lithology, and hydrogeology pertinent to the proposed injection program. Information must be integrated into a coherent and complete summary, not merely listed. Maps should cover the area of review (AOR), which has a 2½ mile radius from the injection well, or the area of the cone of influence, whichever is greater. Maps should conform to a uniform system of identification numbers for wells that will key the wells to tables, cross-sections and other figures. The (proposed) injection well location should be indicated on all maps and cross-sections. Maps and figures should be referenced in the description, where applicable. Well locations, major aquifers, USDW base, stratigraphic units, general lithology, confining zones, injection zone, and injection interval should be indicated on all cross-sections. Cross-sections should be on a scale necessary to depict the local geology and hydrogeology (within the AOR or the area of the cone of influence, whichever is greater). Cross-sections should be constructed with well logs and to scale. Sufficient well data must be used to accurately depict the local geology. When necessary to accurately

portray the geology of the area, maps or cross-sections should extend beyond the AOR. In areas that lack sufficient well control, where the geology is complicated or there are questions or disputes regarding faulting, the procurement and interpretation of seismic reflection data may be necessary. The data must be of sufficient quality and quantity to accurately delineate the faulting in the area, so as to evaluate its effect on the injection reservoir and to address the transmissive fault issue under 30 TAC §331.121(a)(2)(P) and Part V.B.6 of this application. Additional information, such as dipmeter logs, may be used to help delineate the faulting in the area. The information submitted in the application will be used to determine the geologic suitability of the area, as required by 30 TAC §331.121(c). This information should include, but is not limited to, the following items.

1. Stratigraphy, including a stratigraphic column.
2. Hydrostratigraphy, emphasizing major aquifers and USDWs within them. Describe the vertical and lateral limits of the USDWs and show direction of water movement, where known, in each USDW that may be affected by the injection activities. Provide a complete delineation of any aquifer or portion of an aquifer for which exempt status is sought. [30 TAC §305.49(a)(9)]
3. Definition and description of the following:
 - a. Lowest USDW - describe the configuration of the USDW base and method of its determination;
 - b. Confining zone - include structure and isopach maps and justification of its capability to act as a confining layer;
 - c. Injection zone - include structure and isopach maps and justification of its capability to accept and contain the waste;
 - d. Injection interval - include structure and isopach maps and discussion of existing, abandoned and anticipated completion intervals; and
 - e. Confining strata beneath the injection zone, if applicable.

Please include an uninterpreted copy of the base map used in (b), (c) and (d).

4. A minimum of two structural cross-sections, parallel to dip and strike, intersecting the (proposed) injection well location. These cross-sections should include available log control, with geologic units and lithology indicated (including USDWs and major aquifers), from the surface into the confining strata below the injection zone, or if a major structure exists below the injection zone, to as deep as necessary to define the structure.
5. Discussion of the structural geology. This should include analysis of faults, fractures and any surface lineations. Maps additional to those listed in Item 3 may be included as necessary to adequately depict the structural geology.
6. If there are any faults within the AOR, the applicant must demonstrate that each fault is not sufficiently transmissive or vertically extensive to allow migration of hazardous constituents from the injection zone. This provision applies to all Class I injection wells, both hazardous and nonhazardous. Permits cannot be issued for wells that have a fault in the injection zone or within 2½ miles of the injection well unless the above-mentioned demonstration is successfully made. Applicants who have already made a demonstration to the EPA or the TCEQ should provide the date of the demonstration and summarize the results of the agency's

review of the demonstration in lieu of demonstration within this application. [30 TAC §331.121(a)(2)(P)]

7. A demonstration that the confining zone "is laterally continuous and free of transecting, transmissive faults or fractures over an area sufficient to prevent the movement of fluids into a USDW or freshwater aquifer." [30 TAC §331.121(c)(3)(B)(i)]
 8. A demonstration that the confining zone "contains at least one formation of sufficient thickness and with lithologic and stress characteristics capable of preventing initiation and/or propagation of fractures." [30 TAC §331.121(c)(3)(B)(ii)]
 9. A demonstration that
 - a. the confining zone is separated from the base of the lowermost USDW by at least one sequence of permeable and less permeable strata that will provide an added layer of protection for the USDW in the event of fluid movement in an unlocated borehole or transmissive fault, or
 - b. within the AOR, the potentiometric surface of the injection zone is less than the potentiometric surface of the lowermost USDW, considering fluid density effects, injection pressures, and any significant pumping in the overlying USDW, or
 - c. no USDW is present. [30 TAC §331.121(c)(3)(B)(ii)]
 10. A description of the seismic (earthquake) history of the area, including a description of any recorded seismic activity (natural and artificially induced) in the area, with a description of location, depth, severity, and impact on subsurface structures (e.g., wellbores).
 11. A brief description of the surface geology. Include a map showing detail equal to or greater than that shown at a 1:250,000 scale; indicate location of facility.
- C. Separate copies of all well logs (scale 1"=100'), including logs of injection wells, seismic reflection data (with shot point maps and interpreted and clean prints of seismic data) or other geologic or geophysical data, evaluated during the preparation of the application, shall be submitted with the application. If only larger scale logs are available, the applicant should reduce the scale to 1"=100' before submission to the TCEQ.

VI. INJECTION WELL CONSTRUCTION AND OPERATION (P.E. seal required)

- A. For proposed new injection wells and wells to be converted for injection, provide the following information on construction. Refer to 30 TAC §331.62 for construction standards and to the Class I Injection Well Construction Guidance.
 1. Total depth of the well.
 2. For each casing and tubing string:
 - a. Type, size, weight, grade, end finish, setting depth and life expectancy;
 - b. Collapse resistance, internal yield pressure, joint strength, and yield strength (including the source of these ratings);

- c. Maximum external pressure, internal pressure, and axial loading during construction, operation, closure;
 - d. Detailed factor of safety calculations for burst pressure, collapse pressure, joint strength and pipe body strength;
 - e. Procedures to inspect and prepare casing and tubing prior to installation in the well.
3. Type of completion (perforation, open hole, screen, etc.) and completion interval.
 4. Engineering drawing (schematic) of the proposed well construction.
 5. For new wells only: a step-by-step drilling program. State the mud weight that is planned for each stage of drilling the well. Provide detailed plans to manage problems such as lost circulation zones, over pressured zones, stuck pipe, etc. Include site-specific information describing anticipated formation breakdown pressures, lost circulation zones, and other potential problems based on historical experience from drilling other wells near the proposed well.

For conversion wells only: a certification of the well's existing construction and condition, and a step-by-step program for all work to be done in preparing the well for waste injection. Also submit the original drilling report, if available, and all other construction and plugging records.

6. Plans for logging, coring and testing new wells, and plans for logging and testing conversion wells, as required in 30 TAC §331.62(a)(7). The logging and coring of a new well should include the following.
 - a. Surface casing hole
 - i. Spontaneous potential, resistivity and natural gamma ray log
 - ii. Caliper log
 - iii. Cement bond survey
 - iv. Temperature survey
 - b. Intermediate/long string casing hole (to total depth)
 - i. Spontaneous potential and resistivity log
 - ii. Gamma ray survey
 - iii. Porosity log
 - iv. Directional or inclination survey
 - v. Caliper log
 - vi. Fracture finder (borehole imaging survey recommended)
 - vii. Cement bond surveys (from surface to bottom of long string casing)
 - viii. Casing inspection
 - ix. Temperature survey

- c. Injection zone and confining zone
 - i. Full hole cores from selected intervals of the injection zone and lowermost part of the confining zone, supplemented by sidewall cores. If full hole coring is not feasible, extensive sidewall coring should be done. Coring should be sufficient to adequately characterize all parts of the section (permeable and impermeable strata).
 - ii. Formation fluid sample(s)
 - iii. Bottom hole pressure

Note: The cement bond surveys utilized should be the best suitable for the composition and size of the well construction materials in order to provide the highest quality data for evaluation.

For conversion wells: all available open hole and cased hole logs; state which of the above are not available. Submit a plan for any additional logging to demonstrate that the well construction is suitable for waste injection.

- 7. Number and location of centralizers, wall scratchers, etc. used in running casings/liners.
- 8. For new wells only: cementing procedures, types of cement including volumes, additives, slurry weight, etc., and cementing equipment (guide shoe, float collar, baskets, cement stage (DV) tool, etc.). Submit service company recommendations along with studies to determine the suitability of the selected cement programs with special attention to the need of a tail slurry resistant to degradation and penetration by injected waste. Discuss the presence of lost circulation zones, over-pressured zones and other subsurface conditions which could adversely affect the success of the cementing program. Submit detailed plans to manage problems if encountered in the construction of the proposed well.

For conversion wells only: cementing procedures, types of cement including volumes, additives, slurry weight, etc., cementing equipment, and information on location of cement in the well. Submit all available data concerning cementing procedures, cement bond, any cementing problems and how they were managed. Submit a plan for any cementing or other additional work to be done in preparing the well for waste injection.

- 9. Proposed completion interval(s) with perforation, open hole, or screen- setting depths.
- 10. Size, type and life expectancy of tubing packer, and proposed setting depth.
- 11. The non-corrosive or corrosion-inhibiting fluid to be used in the annulus between the tubing and long string casing. [30 TAC §331.63(e)]
- 12. Proposed well stimulation program, acidizing, etc., where applicable.
- 13. Description of proposed injectivity test for determination of well capacity and reservoir characteristics. [30 TAC §331.62(a)(8)]

B. Provide the following for renewal permit applications and for amended permit applications, if appropriate to the amendment.

- 1. Engineering drawing of the existing well construction, with appropriate information on type, size, weight, grade and setting depths of tubing, casings, liners and packers.

2. A report by a corrosion engineer on the present condition of the tubing, casing, liner, packer and interior of the wellhead, as inferred from life expectancy, historical data from corrosion monitoring, results of tests of the well, and any other information.
 3. Engineering drawings of wellhead configuration, annulus monitoring systems, and pre-injection units, except that nonhazardous noncommercial pre-injection units registered under the provisions of 30 TAC §331.17 of this title (relating to Pre-Injection Units Registration) shall be considered under that section; [30 TAC §331.121(a)(2)(K)]
 4. Plans, with engineering diagrams, for meeting the monitoring requirements of 30 TAC Chapter 331, including a description of all parameters, test methods, sample methods, and quality assurance procedures necessary to meet those requirements.
 5. Contingency plans (based on worst-case scenarios such as catastrophic well failure and/or 100-year rainfall events) and descriptions of emergency storage/alternative disposal facilities.
- C. Injection well operation. Provide the following for all new and renewal permit applications and for amended permit applications, if appropriate to the amendment.
1. The anticipated operational life of the well. [30 TAC §331.62(a)(1) and §331.121(a)(2)(G)(i)]
 2. The maximum instantaneous rate of injection, in gallons per minute (gpm), requested for the permit. [30 TAC §331.63(f)]
 3. The average rate of injection (gpm) per month, and the total monthly and annual volumes (gallons) requested for the permit.
 4. The maximum surface injection pressure requested for the permit. Discussion and calculations are to be shown below under VII.A.5. [30 TAC §331.62(a)(1)(A)(iii)]
 5. An estimate of the average and maximum daily injection rate and the volume of fluid or waste to be injected over the anticipated life of the injection well. [30 TAC §331.121(a)(2)(G)(i)]
 6. Provisions for continuing activities necessary for proper well maintenance and operation, in accordance with 30 TAC §331.63, §331.64(c), §331.64(d), and §331.66.
- D. Waste compatibility and corrosion monitoring for well components. Provide the following for all new and renewal permit applications and for amended permit applications, if appropriate to the amendment.
1. Results of all compatibility tests on all well construction components that may be in contact with the waste stream, including the wellhead, tubing, packer, long string casing, and cement.
 2. A detailed corrosion monitoring plan for all well component materials that may be in contact with the waste stream.
- E. Submit well closure and post-closure care plans, including cost estimate(s) and the manner in which compliance with the plugging and abandonment requirements of 30 TAC §331.46 of this title (relating to Plugging and Abandonment Standards) will be attained. [30 TAC §305.49(a)(4)]

VII. RESERVOIR MECHANICS

- A. Discuss the reservoir mechanics/hydrology of the injection reservoir (providing sources of information, methods and calculations), and include the information itemized below. The term "injection reservoir" is used here for that part of the injection zone through which it is predicted that injected waste water and displaced reservoir fluids will flow and pressure will increase. Laterally continuous impermeable strata may isolate portions of the injection zone from the permeable strata that are in hydraulic communication with the actual completion interval (perforations, screen or open hole). Much of the information requested below applies to predictions of fluid flow and pressure changes. Considerations and predictions of fluid flow and pressure changes should be related to the thickness, extent, porosity, permeability and other parameters of the injection reservoir. The injection reservoir is an informal unit, as contrasted with the formal injection interval defined for the permit. It is required that the injection interval contain the actual completion interval where waste enters the reservoir, but not that the injection reservoir be totally within the injection interval. The injection interval may be defined to correspond to the injection reservoir if that is the preference of the applicant. If the injection interval includes more than one injection reservoir, the applicant may wish to evaluate each reservoir for pressure increase, waste plume, and area of review considerations. If all reservoirs meet the criteria, then the operator would be able to recompleat the well in any of them without further evaluation. An alternate acceptable method is to use a single worst-case reservoir to represent all injection reservoirs in communication with the injection interval.
1. A summary of the stratigraphy and lithology of the injection zone to address the relationship of the injection reservoir to the injection interval and to the part of the injection zone above the injection interval. Refer to logs, cross-sections, other figures, reservoir performance history, modeling, etc. to clearly present the interpretation.
 2. Injection reservoir stratigraphy, lithology, porosity, effective porosity, permeability, thickness and temperature.
 3. Salinity, density, viscosity and pH of the injection reservoir fluid.
 4. Initial and current static reservoir pressures at the top of the injection reservoir. Give methods of determination (or estimation for new wells).
 5. Estimation of pressure necessary to extend existing fractures at the top of the injection reservoir; provide the method of determination and show calculations. State the maximum allowable surface injection pressure (MASIP) that is being requested for the permit. Discuss the method of determination and show calculations. Also estimate the average injection pressure. [30 TAC §331.121(a)(2)(G)(ii)]
 6. Predictions of increase in reservoir pressure (above current static pressure) due to injection, within the AOR. Justify the anticipated distribution pattern of pressure increase, considering patterns of fluid flow in response to any preferential permeability and to any faults or other possible reservoir boundaries. Include predictions for one and ten years from present and for the remainder of the operational lifetime of the well (30 years for new wells). Assume continuous injection during those periods. The rate of injection used in the model should be the requested maximum permitted rate sustainable over those periods of time. If a higher instantaneous rate is proposed, then also predict pressure increase over the maximum time period that the rate could be maintained. The effect of other injection wells in the same reservoir should be included. Use maps to illustrate the distribution of pressure within the AOR.

Describe the methods/models used and their applicability to the site. Give the values used for all input parameters, and provide justification for those values. Show calculations done outside the framework of computer models.

7. Determination of the cone of influence; show calculations. For this application, consider the cone of influence to exist over that area in which increased pressures at the top of the injection reservoir are sufficient to drive reservoir fluids into a wellbore by overcoming a 9.0 pounds per gallon (ppg) fluid column extending from the top of the injection reservoir to a level 50 feet below the ground surface. It is acceptable to use a minimum uniform depth for the top of the reservoir in order to conservatively delineate the area. Discuss the cone of influence in terms of its magnitude and extent. If the area extends more than 2000 feet from the injection well(s), plot the area outline on the map requested under Part VIII.B below.
8. For renewals of permits and/or permitting of additional injection wells at a facility: a historical analysis of the pressure effects of existing injection well(s) upon the injection reservoir. For an additional injection well, discuss the potential effects of the new well as related to the existing injection operations.
9. A potentiometric surface map of the injection zone under static conditions, or if data is unavailable, expected static fluid level and regional gradient.
10. A justification for the anticipated geometry of the waste plume (radial versus nonradial flow, using information given in Part VII.A.7 above). Cite any pertinent historical data.
11. Extent of the waste plume
 - a. as it presently exists, either calculated or established by sampling;
 - b. projected 10 years from present (using the maximum permitted waste volumes); and
 - c. over the anticipated operational lifetime of the well (at least 30 years for new wells).

Provide a description of the methods/models used and their applicability to the site. Effects of advection and dispersion should be evaluated. List and justify the site-specific parameter values of the model reservoir. Evaluate the relationship of the anticipated plume with waste plumes of other injection wells in the area. Show calculations done outside the framework of a computer model.

The presence of immovable water should be considered in modeling plume expansion. Its effect can be conservatively estimated by reducing the reservoir porosity by a factor of 20 percent.

B. Other subsurface disposal operations in the area

Discuss industrial and municipal waste injection wells, waterflood wells, and saltwater disposal well operations in the area of review. Include operator names, distance from the applicant's well, and the injection reservoir depths. Describe whether any are in the same injection reservoir as the applicant's injection well(s) and whether there is pressure interference between the injection wells or mingling of the waste plumes.

VIII. AREA OF REVIEW

- A. Submit a map showing the location, name, number, and depth of each of the existing and/or proposed injection wells and all other wells (oil and gas wells, exploratory tests, disposal wells, water wells, etc.) within the area of review. In addition, the map must show all surface bodies of water, springs, mines (surface and subsurface), quarries, and other pertinent surface features, including residences and roads. The map should also show surface faults, if known or suspected. If preferred, two separate maps may be submitted, with one showing the wells and the second depicting the surface features.
- B. Identify, locate and ascertain the condition of all wells within the AOR which penetrate the injection zone and/or confining zone. Include a description of the protocol followed. Provide a map of the AOR showing the location, number and depth of each of these wells. Identify these wells on the map in Item A above.
- C. Submit a tabulation of data on all wells in the AOR that penetrate the injection zone and/or confining zone. The data should include operator or owner, well number, lease name, date drilled, depth, and status. Each entry in the tabulation should be keyed by identification number to the map in Item B above. Submit completion and plugging records for each well, including information regarding casing size, setting depth, and surface, intermediate and long string casing/liner cementing records. Submit completion cards (scout tickets) on each well.
- D. Submit schematics of all wells within the cone of influence, as determined from Part VII.A.7 above. Copy and modify, as appropriate, the attached sample well diagram and reference the schematics by identification number to the map in Item B above. The sketches should show casings/liners, tubings, open hole, calculated or known cemented intervals, plugs, perforations, mud weight, and approximations of the depth of the base of the USDW and depths of the confining zone, injection zone and injection interval. Include a description of any construction or plugging inadequacies and potential problems.
- E. Determine the wells that are improperly constructed or abandoned; i.e., wells that would allow the movement of fluids into or between USDWs due to pressures in the injection zone. Considerations include the adequacy of cement plugs and casing cement below the USDW, hydrostatic pressure and gel strength of the mud column in the well at the top of the injection reservoir, and the calculated pressure due to injection in the top of the injection reservoir at the wellbore (based on maximum injection rates over the requested permit term). Refer to Part VII.A.7, above, for predictions of pressure increase. For wells for which records are inadequate, assume insufficient cement and a fluid density of 9.0 ppg. Determine whether the calculated pressure in the injection reservoir exceeds the hydrostatic pressure. If the calculated injection reservoir pressure exceeds the hydrostatic pressure, consider the additional factor of gel strength of the mud (use 20 pounds per 100 square feet). If the pressure is still excessive, then the well is considered to be improperly constructed or abandoned. For each improperly constructed or abandoned well, show the calculations used in the determination.
- F. Propose a corrective action plan and schedule (including cost estimates) for any inadequately constructed or abandoned wells, or request a lower injection rate if that will result in a pressure increase that is sufficiently low to prevent endangerment of USDWs.

WELL DIAGRAM

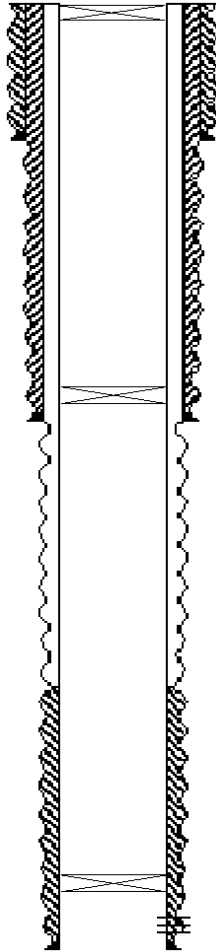
Map ID Number _____
 Operator _____
 Lease _____
 Well Number _____

Type of well¹ _____
 Status² _____
 RCT Forms _____
 Distance from
 nearest injection well _____

On a diagram show casing sizes, depths, cement tops, plugs, perforations, USDW, and tops of injection interval and injection zone. Show calculations on separate pages.

Example:

Base USDW at 2610'



5 sx cement plug in top of casing

**9-5/8" surface casing set at 2900'
 Surface casing cemented to the surface**

Cement plug 2825'-2950'

Top of Confining Zone at 3800'

Top of injection zone at 4750'

Top of injection interval at 5400'

TOC behind 5-1/2" calculated to 5241'

**5-1/2 long string casing
 set at 8431'**

Cement plug 7725'-7925'

Perforations 8175'-8230'

POTENTIAL PROBLEM: _____

¹Oil/gas, enhanced recovery, water well, injection well (Class I, II, III, IV, V), hydrocarbon storage, other (specify)

²Abandoned (dry or productive), shut-in, active, other (specify)

IX. WASTES AND WASTE MANAGEMENT

A. Waste Generation and Management Activities

All analytical data submitted to the TCEQ must be generated by a lab that the Texas Laboratory Accreditation Program (TLAP) has accredited under the National Environmental Laboratory Accreditation Conference (NELAC) standard for matrices, methods, and parameters of analysis, unless: (1) the lab is an in-house lab and either the lab performs work for its owner, for another company with a unit located on the same site, or without compensation for a governmental agency or charitable organization, or the lab is in another state and is accredited or inspected by that state; (2) the lab is accredited under federal law; (3) the data are needed for emergency-response activities and no TLAP-accredited lab is available; or (4) the lab supplies data for which the TCEQ does not offer accreditation. A list of labs that are NELAC-accredited by TLAP can be found at http://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/txnelap_lab_list.pdf.

Starting July 1, 2008 the TCEQ will accept analytical data only if the lab generating the data is NELCA-accredited by TLAP, the TCEQ has approved an exception as described above, or the data were generated on or before June 30, 2008.

1. Complete Table IX.A for each waste stream to be injected into a permitted well. For on-site facilities, list "on-site" for the waste stream source. For off-site facilities, list the source of the waste. If specific sources are unknown, identify potential sources (e.g., industries and/or waste-generating processes to be serviced).
2. Complete Table IX.B for each waste stream to be injected into a permitted well. If wastes are blended before injection, describe only the composite waste stream. Provide a verbal description, EPA waste codes, EPA hazard codes (I, C, R, E, H, T), TCEQ waste classification (H, 1, 2 or 3), and TCEQ waste codes. Information on waste classification and codes may be obtained from the Registration and Reporting Section, Registration, Review, and Reporting Division of the TCEQ.
3. Complete Table IX.C. for each waste stream proposed to be sampled and analyzed and include sampling location, sampling method, sampling frequency, and analytical method for each waste stream to be disposed of by injection at the facility. All waste analyses utilized for waste identification or verification and other analyses for environmental monitoring must be performed in accordance with methods specified in the current editions of EPA SW-846, ASTM or other methods accepted by the TCEQ. Describe the applicant's quality assurance/quality control program and confirm that it is consistent with EPA SW-846 and the TCEQ Quality Assurance Project Plan.
4. Identify which of any hazardous wastes listed above are subject to federal land disposal restrictions. [40 CFR 148 Subpart B] Explain whether an exemption has been granted or requested under 40 CFR 148 Subpart C.
5. Identify which of any hazardous wastes listed above are not subject to federal land disposal restrictions. [40 CFR 148 Subpart B] Explain why each waste is not restricted.
6. Provide a description and analysis of the chemical and physical characteristics of the waste streams proposed to be injected. Include individual waste streams as generated and/or composite waste streams consisting of individual waste streams mixed before injection. The description of each waste stream should include the chemical, physical, thermal, organic, bacteriological, or radiological properties or characteristics, as applicable, described in enough detail to allow evaluation of the water and environmental quality

considerations involved. For each waste stream also state the ranges of pH, density and viscosity, and the percentage of total waste volume. [30 TAC § 305.45(a)(8)(B)(ii) and §331.121(a)(2)(G)]

7. Specify the range of pH and the maximum specific gravity requested under the proposed permit for the injected waste streams.
8. Specify the maximum instantaneous rate of injection, in gallons per minute (gpm), requested for the permit.
9. State the average rate of injection (gpm) per month, and the total monthly and annual volumes (gallons) requested for the permit.
10. Provide detailed information regarding patterns of injection. [30 TAC §305.45(a)(8)(B)(i)]
11. Estimate the ranges of the rate of injection and the surface injection pressure expected during normal operations. Estimate the average and maximum daily injection rate, the annual volume of injected waste, and the volume of fluid or waste to be injected over the anticipated life of the injection well. [30 TAC § 305.45(a)(8)(B)(i) and §331.121(a)(2)(G)]
12. Complete Table IX.D for each Class I injection well at the facility (past, present, and proposed).

B. Waste Management

If applying for a new hazardous waste injection well permit submit the following information for each active Class I hazardous waste injection well at the facility: [30 TAC §331.121(e)]

1. dates well was operated;
2. specification of all wastes that have been injected in the well, if available;
3. all available information pertaining to any release of hazardous waste or constituents from any active hazardous waste injection well at the facility; and
4. results of any preliminary site investigations as were necessary to determine whether a release is occurring, has occurred, or is likely to have occurred.

- C. RCRA Permit by Rule requirement (for a facility where the UIC well is the only unit which requires a RCRA permit). If application is being made for a hazardous waste injection well permit at such a facility, then an evaluation for corrective action for releases from any solid waste management unit (injection well, pond, tank, etc.) is required. In accordance with 40 CFR §270.60(b)(3), the review of such an application must address all releases of hazardous waste or 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX hazardous constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit. [Texas Solid Waste Disposal Act, 30 TAC §335.167, 40 CFR §264.101, 40 CFR §270.14(d), and Section 3004(u) of the Hazardous and Solid Waste Amendments of 1984 (HSWA)]

The process begins with a RCRA Facility Assessment (RFA) to determine if corrective action is necessary. The RFA consists of two parts, a Preliminary Review which is done by the applicant

and submitted with the application, and a Visual Site Inspection of the entire facility by TCEQ staff, which is to be made during the application review. An explanation and methodology for the RFA and a discussion of possible subsequent requirements for further investigation or corrective action are described in "Releases From Solid Waste Units And Corrective Action At A Hazardous Waste Disposal Well Facility With No RCRA Permit for Other Units (Supplement to Class I Injection Well Permit Application)," TCEQ Form 0756. Copies may be obtained from the UIC staff at the phone number given in Item 3 of the Application Instructions.

X. WASTE COMPATIBILITY

Submit test results for the determination of the compatibility of the proposed injection fluid with the formation, and formation fluids, at expected pressures and temperatures. For unconstructed facilities, provide a detailed proposal for compatibility testing following completion of the well and retrieval of reservoir fluids and cores.

XI. DISPOSAL OF WASTES CONTAINING RADIOACTIVE MATERIALS

If applicable, submit as "Attachment G," a letter or other instrument in writing stating either that the applicant has a license governing the disposal of radioactive materials or that the applicant does not need a license. [30 TAC §305.52]

XII. PRE-INJECTION UNITS

Pre-injection units for Class I nonhazardous, noncommercial injection wells must be authorized by a permit issued by the Commission or registered in accordance with 30 TAC §331.17 (relating to Pre-Injection Units Registration). [30 TAC §331.121(a)(2)(Q)] The technical standards and information required to be submitted by the applicant are the same for either option. Submittal of plans, specifications, and details of these units will enable agency staff to conduct a technical review of the pre-injection units associated with an on-site nonhazardous waste injection well to determine if the design of these units meets the requirements of TWC, Chapter 27; THSC, §361.090; and the technical standards specified in 30 TAC Chapter 217. [30 TAC §331.121(a)(2)(R)] To include the pre-injection units in the permit(s) submit as Part XII of this application:

A. Engineering Seal and Certification Statements

1. Submit plans and specifications of the pre-injection units which have the seal of a professional engineer licensed in the State of Texas.
2. As stated in 30 TAC §331.18(b)(6), the engineer shall certify that the submission meets the applicable technical requirements of Chapter 217 of this title (relating to Design Criteria for Sewerage Systems). The engineering certification is stipulated in §217.1(c)(7)&(8) that requires "a statement certifying that the plans and specifications are in substantial compliance with all the requirements of this chapter, with the exception of any listed variance requests" and "a statement certifying that any variances from the requirements will not threaten public health or environment, based on the best professional judgment of the engineer who prepared the report and the project plans and specifications."
3. Describe any variances from the requirements of Chapter 217, and demonstrate the protectiveness of the proposed or existing units.

B. The engineering report and supporting data represents the conceptual basis for the units and ancillary equipment and pumps. The report should include the following information:

1. A process flow diagram (PFD) and piping and instrumentation diagram (P&ID) showing the pre-injection units.
2. Plans and specifications including construction procedures, materials specifications, dimensions, and design capacities relative to the volume of wastes (including contingencies). Certain ancillary components or appurtenant devices must be addressed in the application. These include, but are not limited to, pumps, pipelines, valves, ditches,

and canals. Include calculations and other such engineering information as may be necessary to follow the logical development of the pre-injection units.

3. A demonstration of the compatibility of the materials of construction of the pre-injection units with the waste stream.
4. Citations of national industry codes and standards for quality control, construction, installation and performance of tanks, pumps, piping, filters and surface impoundment liners.
5. A description of the type and frequency of testing, inspection and maintenance procedures.
6. An estimate of the maximum expected down time a pre-injection unit may be out of service for repair or replacement and an outline of contingency plans to manage the wastewater during that time.
7. If the facility has more than one injection well, the engineering report should clearly indicate whether the individual pre-injection units serve one well or multiple wells.

XIII. CONFIDENTIAL MATERIAL

Any information requested in the previous Parts I through XII of this application which is deemed confidential shall be provided in this Part as a separate collective document and clearly labeled "CONFIDENTIAL."

XIV. INDEX OF ATTACHMENTS

List and index below all attachments to this application and indicate if included, not included or not applicable.

<u>Part</u>	<u>Description of Attachment</u>	<u>Attachment</u>	<u>Yes</u>	<u>No</u>
I.R.5.	Site legal description	A	—	—
I.R.6.	Facility boundaries and adjacent waters topographic map	B	—	—
I.N.	Public Interest Demonstration	C	—	—
II.	Affected land and mineral owners	D	—	—
III.	Letter from Railroad Commission	E	—	—
IV.	Financial assurance	F	—	—
XI.	Radioactive waste statement	G	—	—