



Railroad Commission of Texas

Oil and Gas Waste Stream Management, Part 2

July 28, 2021

The meeting will begin shortly.





Oil and Gas Waste Stream Management, Part 2

July 28, 2021

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Power Point Presentation



This presentation is available for download from the RRC website at <https://www.rrc.texas.gov/oil-and-gas/workshops-and-conferences/rrc-regulatory-webinars/regulatory-webinars-2021-schedule/>

Topics for Discussion



- Permit Types
- Guidance for Potential Locations
- Pits
- Reclamation Plants
- Waste Separation Facilities
- Commercial Recycling
- Notice Requirements
- Additional Commercial Facility Requirements
 - Financial Security/Closure Cost Estimate
 - Restrictive Covenant
 - NORM Survey

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Some of the topics we will cover today will be permit types, guidance for potential locations, pits, reclamation plants, waste separation facilities, commercial recycling, notice requirements, additional commercial facility requirements pertaining to financial security, closure cost estimates, restrictive covenants, and norm surveys.



Permit Types

Permit Types



- Waste Hauler
- Minor
- Hydrostatic Test Discharge
- Domestic Wastewater
- Landspreading
- **Pits**
- **Reclamation Plant**
- **Waste Separation Facility**
- **Recycling**



Non-commercial vs. Commercial



Commercial Facility Definition:

According to Statewide Rule 78

"A facility whose owner or operator receives compensation from others for the storage, reclamation, treatment, or disposal of oil field fluids or oil and gas wastes that are wholly or partially trucked or hauled to the facility and whose primary business purpose is to provide these services for compensation"

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*Per Statewide Rule 78 the facility is permitted under §3.8 of this title (related to Water Protection);
the facility is permitted under §3.57 of this title (related to Reclaiming Tank Bottoms, Other Hydrocarbon Wastes, and Other Waste Materials);
the facility is permitted under §3.9 of this title (related to Disposal Wells) and a collecting pit permitted under §3.8 is located at the facility; or
the facility is permitted under §3.46 of this title (related to Fluid Injection into Productive Reservoirs) and a collecting pit permitted under §3.8 is located at the facility."*



Guidance for Potential Locations

Property Ownership



- A surface lease agreement must be provided for all facilities where the P-5 operator does not own the property
 - A surface lease agreement must be between the P-5 operator that is applying for the permit and the surface owner(s)
 - Lease agreements are reviewed by the Office Of General Council to ensure legal requirements are met

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A surface lease agreement between the operator and landowner must be provided for all facilities if the P-5 operator does not own the property. Submitted lease agreements are reviewed by the Office of General Council to ensure all legal requirements are met.

Environmental Factors



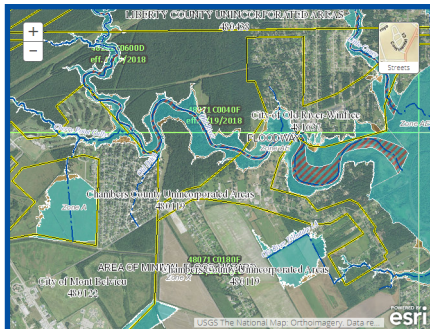
Important Environmental Factors:

- Flood Prone Areas
- Wetland Environments
- Groundwater
- Soils and Geology
- Major and Minor Aquifers
- Karsting

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Flood prone areas, wetland environments, groundwater, soils and geology, major and minor aquifers, and karst features are important environmental factors to consider when selecting a potential location. This is not an exhaustive list of environmental risk factors. Other factors may exist on a case-by-case basis, and a hydro-geologic review of the proposed location will be conducted to assess these environmental factors by Environmental Permitting and Support staff.

Hydro-Geo Review: Floodplain (1 of 2)



In general, facilities are **prohibited** in the FEMA 100-year floodplain

But...

- Not all areas of the state are mapped
- Three “500-year floods” since 2014
- Valuable coastal resources may be in flood prone areas



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Facilities are normally prohibited from building in a Federal Emergency Management Agency or FEMA 100-year flood plain, but not all areas of Texas are mapped. For areas where the floodplain is not mapped by FEMA, the RRC may require a base flood elevation map to be submitted. Depending on the frequency of extreme regional rainfall, the operator may be required to satisfy more stringent floodplain requirements.

Hydro-Geo Review: Floodplain (2 of 2)



Statewide Rule 8 (SWR 8) and Chapter 4 prohibit **authorized pits** and **recycling** within the 100-year floodplain

All authority for other permitted facilities comes from the “*No Pollution Clause*”

- Facility boundary should be at least 150 feet from the 100-year floodplain
- “*No Pollution*” clause in SWR 8 gives considerable latitude for regulation

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Statewide Rule 8 and Chapter 4 prohibit authorized pits and recycling within the 100-year floodplain. The term “100-year flood plain” is somewhat misleading and does not mean that the area will flood every 100 years. The term means that there is a 1 percent chance the area will flood each year. The “500-year flood plain” is an area with a 0.2 percent chance of flood every year.

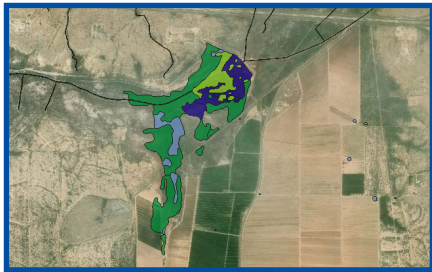
Hydro-Geo Review: Wetlands



Wetland conservation is mandated at the Federal and State level

Jurisdiction is decided by the US Army Corps of Engineers. If jurisdiction is claimed:

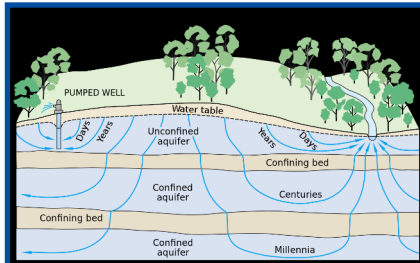
- Facility boundaries must be at least 150 feet from a designated wetland
- Possible to restore a wetland habitat to offset wetland destruction
- May involve other Federal and State agencies



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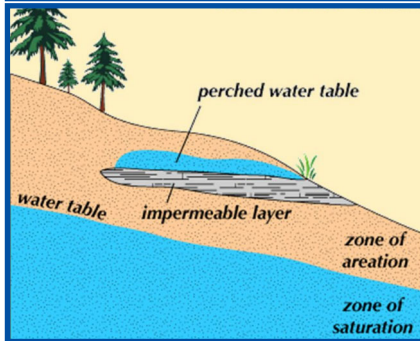
Wetland conservation is mandated at the federal and state level. Facility boundaries must be at least 150 feet from a designated wetland. A jurisdictional determination letter from the US Army Corp of Engineers will be required for application approval.

Hydro-Geo Review: Groundwater



Local groundwater elevation is impacted by:

- Soil types and geology
- Precipitation and evaporation
- Local and regional groundwater use



Groundwater within 100 feet of the surface considered “shallow”:

- Determined by groundwater investigation and borings
- Groundwater monitoring wells may be required
- Unconfined shallow groundwater may be cause for application denial

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If a shallow aquifer is determined by a groundwater investigation and soil borings to be within 100 feet of the location’s surface elevation, a minimum of three groundwater monitoring wells may be required to be installed. An unconfined shallow aquifer found on the proposed location may lead to the application being denied.

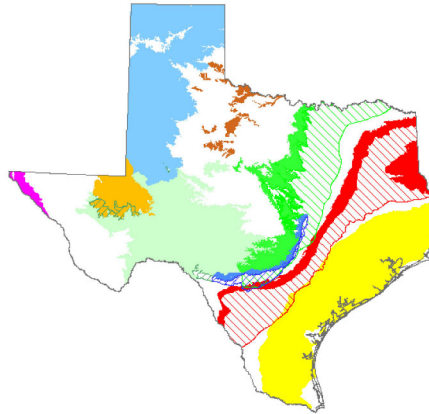
Hydro-Geo Review: Aquifers



MAJOR AQUIFERS OF TEXAS

LEGEND

- PECOS VALLEY
- SEYMOUR
- GULF COAST
- CARRIZO - WILCOX (OUTCROP)
- CARRIZO - WILCOX (SUBCROP)
- HUECO - MESILLA BOLSONS
- OGALLALA
- EDWARDS - TRINITY PLATEAU (OUTCROP)
- EDWARDS - TRINITY PLATEAU (SUBCROP)
- EDWARDS #1Z (OUTCROP)
- EDWARDS #1Z (SUBCROP)
- TRINITY (OUTCROP)
- TRINITY (SUBCROP)



SOURCE: TEXAS WATER DEVELOPMENT BOARD

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This map from the Texas Water Development Board shows all major aquifers found in Texas. When choosing a potential location for your facility, please refer to this map to determine which aquifer your facility will be constructed over.

Hydro-Geo Review: Soils and Geology



Underlying soils and geology are important factors in determining risk

Ideal soil and geologic conditions:

- Stable soils
- Moderately to slowly permeable soils
- Continuous fat clay layer(s) confining groundwater
- If soils are thin, the bedrock should be low permeability and stable
- No local or regional karsting



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Underlying soil and geologic features are important factors when determining risk at a proposed facility location. An ideal location includes stable soils. Moderately to slowly permeable soils, a continuous fat clay layer or layers confining the local aquifer, underlying bedrock should have a low permeability and be stable and have no local or regional karsts.

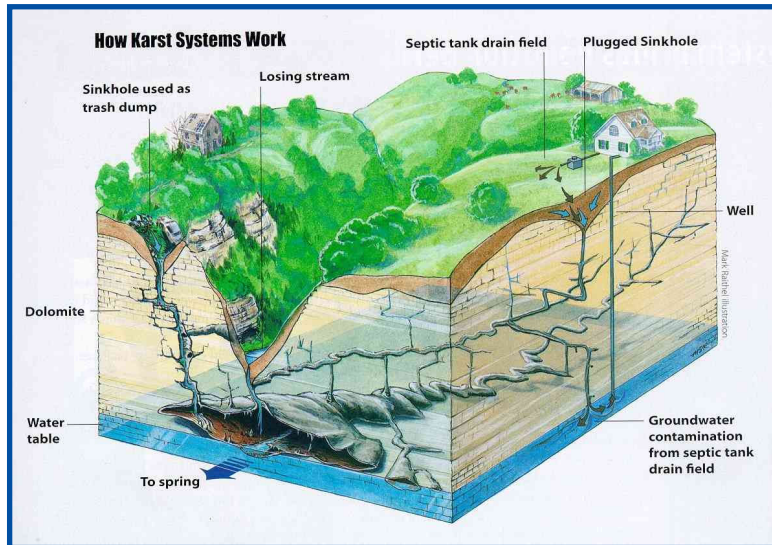
Hydro-Geo Review: Karsting (1 of 2)



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The google map image shows regions where surface karsts are found exposed. This map does not include regions where karsts exist in the subsurface. Karst environments are widespread in areas of economic value, such as the Permian Basin.

Hydro-Geo Review: Karsting (2 of 2)



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The diagram shows an idealized karst system.

Karst systems often form conduits that allow quick surface water communication with groundwater. For this reason, a local groundwater table within a karst system can be deeper than 100 feet from the surface, but the pollution risk may still be high. Groundwater tends to flow quickly through karst systems, so groundwater monitoring wells may also be rendered ineffective.

Public Health & Safety Factors



- Sensitive Receptors: areas where the occupants are more susceptible to the adverse effects of exposure to pollutants
 - Hospitals
 - Schools
 - Water wells
 - Residential areas
 - Etc.
- All facility boundaries must be at least 500 feet from all sensitive receptors

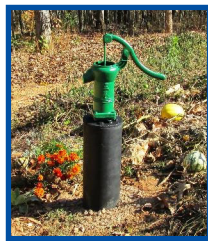
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Sensitive receptors are areas where the occupants are more susceptible to adverse effects of exposure to pollutants. A few examples of these are hospitals, schools, water wells, and residential areas. All facility boundaries must be 500 feet from all sensitive receptors.

Sensitive Receptors (1 of 2)



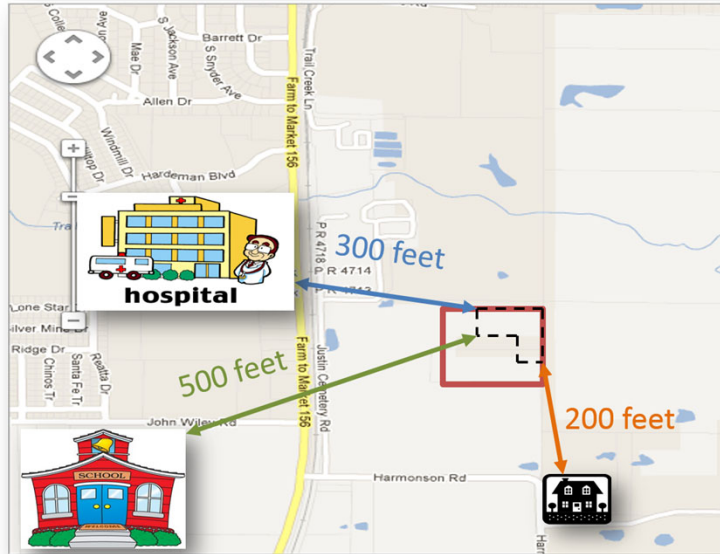
Sensitive Receptor Examples



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Here are some examples of sensitive receptors. A neighborhood, a water well, a school, and a hospital.

Sensitive Receptors (2 of 2)



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Applications for commercial facilities must identify the distance from the facility's outermost perimeter boundary to water wells, residences, schools, churches, or hospitals that are within 500 feet of the boundary.

Questions?





Pits

Introduction to Pits



Disposal or storage of oil and gas wastes in a pit should be allowed only if the activity does not result in the waste resources and the pollution of surface and subsurface water

Pit Categories:

- Authorized
- Non-Commercial
- **Commercial**



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Disposal or storage of oil and gas wastes in a pit may be allowed only if the activity does not result in the pollution of ground soils, surface water, and subsurface water. Pits are categorized as authorized, non-commercial, and commercial.

You have a Pit If...



You have a pit if...

- It's in contact with the ground but not an above ground storage tank
- If it's below grade
- If it's a concrete structure that cannot be moved easily checked for leaks
- If it's a steel containment ring with a liner
- If it's a "sump" larger than 500 gal

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You have a pit if it is in contact with the ground but not an above ground storage tank, its below grade, it's a concrete structure that cannot be moved quickly and easily to check for leaks, it's a steel containment ring with a liner, and it's a sump larger than 500 gallons.

General Pit Requirements (1 of 3)



Liner System

- All pits must have a natural or synthetic liner with a hydraulic conductivity no greater than 1.0×10^{-7} cm
- Commercial Disposal Pits, Brine Pits and other large-scale liquid waste storage pits must have a dual synthetic liner with a leak detection system (LDS)
 - Action Leakage Rate (ALR) calculations are required to demonstrate the liner system can handle the specified flow of fluids in the event of a leak/failure from the primary liner

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All pits must have a natural or synthetic liner with a hydraulic conductivity no greater than 1.0 times 10^{-7} centimeters. Concrete is considered a synthetic liner and should be steel reinforced with a 6-inch minimum thickness. Commercial disposal pits, brine pits, and other large-scale liquid waste storage pits must have a dual synthetic liner with a leak detection system. Action Leakage Rate calculations are required to demonstrate how the liner system can handle the specified flow of fluids in the event of a leak or failure from the primary liner. A primary liner failure is typically calculated at 1000 gal/acre, or 100 gal/acre for a disposal pit, unless the liner system cannot handle the flow rate.

General Pit Requirements (2 of 3)



Berms

- All pits must have berms to divert non-contact storm water and contain contact stormwater
- Each berm must consist of a slope no steeper than a three-to-one (horizontal to vertical) ratio on both sides, unless constructed of concrete or equivalent material. Berms must meet compaction requirements and typically have a minimum height of 2 feet above the natural grade.

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Berms or containment structures must be constructed around all pits and must be constructed of material and compacted to meet or exceed 95% standard proctor (ASTM D698) or 90-92% modified proctor (ASTM D1557) density or have a hydraulic conductivity no greater than 1.0×10^{-7} cm/s. Each berm must consist of a slope no steeper than a three-to-one (horizontal to vertical) ratio on both sides unless constructed of concrete or equivalent material. These structures must be designed to divert non-contact storm water around the pit and contain and isolate waste and storm water within the waste management units.

General Pit Requirements (3 of 3)



- Pits designed to store waste above ground level must be designed under seal of P.E. licensed in the State of Texas
- At least two (2) feet of freeboard must be maintained between the fluid level of the pit and the top of the pit berms
- Any pit without a dual liner and LDS will require an annual inspection
- Any pit with a dual liner and LDS must be monitored regularly

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Pits designed to store waste above ground level must be designed under the seal of a Professional Engineer licensed in the state of Texas. At least two feet of freeboard must be always maintained between the fluid level of the pit and the top of the pit berms. An annual inspection will be required for a pit without a dual liner and leak detection system. Any pit with a dual liner and leak detection system must be monitored regularly.

Commercial Pits: Types



Common Types of Commercial Pits:

- Disposal Pits
 - Permanent burial of wastes
- Collecting Pits
 - Receiving, Staging, Storing of waste
- Washout Pits
 - Including trenches and sumps
- Off-Lease Fluid Recycling Pits
 - Treated or untreated fluids

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Examples of commercial pits are disposal pits, collecting pits, washout pits, and off lease fluid recycling pits.

Pit: Application



- A complete “*Application for Permit to Maintain and Use a Pit*” (Form H-11)
 - Operator, location, design, and environmental information
 - Must contain an original signature
 - All “*Instruction to Pit Application*” requirements must be included
- Notice Requirements
- Commercial Facility Requirements, if applicable

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An operator must submit a complete “application for permit to maintain and use a pit (form H-11). All “instruction to pit application”, notice, and commercial facility requirements if applicable must be included in the submission. A form H-11 must be filled out for each individual pit.

Form H-11(1 of 2)



RAILROAD COMMISSION OF TEXAS
Oil and Gas Division
Form H-11
May 1984
Application for Permit to Maintain and Use a Pit
Comply with instructions on reverse side

New Application
 Application for Renewal

1. Operator's Name (As shown on Permit P-5, Organization Report) _____ 2. RRC Operator No. _____ 3. RRC Dist. No. _____ 4. County of pit site _____

5. Operator's Address (Street, City, State and Zip Code) _____

6. Name of Lease, Project or Facility of Pit Location _____ 7. RRC Oil Lease No. or RRC Gas ID No. _____

8. Pit Location
a. Section _____ Block _____ Survey _____ Abstract No. _____
b. Location in _____ order _____ (directed from _____ Abstract No. _____ (nearest town))

10. a. Is pit bottom below ground level?
 Yes No
b. Artificial liner?
 Yes No
c. If lined, equipped with a leak detection system?
 Yes No

11. Name and Address of Surface Owner _____

12. Are wastes or fluids from operations other than this pit disposed?
 Yes No

13. Type of pit (refer to Item F of instructions) _____

14. a. Describe land use surrounding pit location: _____
b. Is land surrounding pit location productive agricultural land?
 Yes No

15. a. Chloride concentration _____ mg/l
b. Type of waste or fluid _____
c. Height above ground level _____ feet Width at base _____ feet
d. Are dikes designed to keep stormwater runoff out of the pit? Yes No
e. Are dikes designed to keep stormwater runoff out of the pit? Yes No
f. Source of this material excavated from pit adjacent borrow pit
g. Off-site excavation (describe material) _____

16. Pit is _____
 Filled Existing
 Proposed Existing
if existing, date constructed _____

17. Disks _____

18. Pit capacity (barrels) _____

19. Length _____ feet Width _____ feet
Depth _____ feet

20. Wastes or fluids are transported to pit by check all that apply:
 Contract Hauler Applicant's truck Pipe Other _____

21. a. Distance to nearest water well _____ feet
b. Distance to nearest water well _____ feet
c. Depth to shallowest fresh water source of information _____ feet
 measured observation well owner electric log LTRN

22. Have you included all attachments required by the instructions on the reverse side of this form? _____

CERTIFICATE
I declare under penalty provided in Sec. 41.143, Texas Natural Resources Code, that I am authorized to make this report, that this report was prepared for me or under my supervision, and that the data and facts stated therein are true, correct, and complete to the best of my knowledge.

Signature _____
Name of Person (Type or print) _____ Title _____
Telephone Area Code Number _____ Date _____

*** RRC DISTRICT USE ONLY ***
Application Information Review
Date received _____ Location _____ Liner _____ Agricultural Land _____
Date inspected _____ Grade Construction _____ Type Pit _____ Capacity _____ Disks _____
Comments _____ Waste Transport _____

*** RRC AUSTIN USE ONLY ***
Date received _____ Pit code _____ Pit type _____ Permit no. _____ Permit date _____

This is page 1 of 2 of the Form H-11. On this 1st page, operators will be required to fill out every box that is found on this form. Boxes 1, 2, and 5 pertain to operator information. Boxes 2, 4, 6 through 9, and 11 pertain to location information. Boxes 10, and 12 through 20 pertain to pit information. Boxes 21, and 22 pertain to environmental information. An active p-5 number is required to submit a Form H-11.

Form H-11(2 of 2)



Instructions to Pit Application

Authority: Statewide Rule 8, Water Protection

- A. File the application, including all attachments, with the Railroad Commission, Oil and Gas Division, P.O. Drawer 12967, Capitol Station, Austin, Texas 78711. On the same day file one copy of the application and its attachments with the appropriate District Office. This form is not required for a minor permit.
- B. Notify the surface owner of the land where the pit will be located by mailing or delivering a copy of the application form, both front and back, but excluding the attachments. If the land where the pit is proposed is within corporate limits, also notify the city clerk or other appropriate city official. If application is for renewal of an existing permit, notice is not required.
- C. Attach a plat showing the size of the lease or tract and the location of the pit within the lease or tract. Give approximate perpendicular distance to nearest intersecting lease/unit lines and section/survey lines. To avoid confusion, distinguish between the two sets of lines. Indicate scale on this plat.
- D. Attach a county highway map (scale: 1" = 4 miles) showing the location of the pit. County highway maps are available from the Texas Department of Highways and Public Transportation, P. O. Box 5051, Attr. Map Distribution File D-10, Austin, TX 78763.
- E. If application is for renewal of a permit for an existing pit, attach a copy of your current authority to use the pit.
- F. Identify the type of pit in item 13 using one of the following as defined in Statewide Rule 8(a): Emergency Saltwater Storage Pit, Collecting Pit, Gas Plant Evaporation/Retention Pit, Brine Pit (located at underground hydrocarbon storage facilities only), Saltwater Disposal Pit, Skimming Pit, Washout Pit, Drilling Fluid Disposal Pit, Drilling Fluid Storage Pit, or other (specify in item 13 and explain in item 15a).
- G. Attach a drawing of two perpendicular, sectional views of the pit showing the pit bottom, sides, dikes and the natural grade. For an existing pit, dimensions below fluid level may be approximated. If the pit length and width are irregular, include a top view to show pit dimensions and dike widths. Indicate scale on all views.
- H. If pit is lined, attach data on liner material, thickness, and installation procedures.
 1. Attach an identification and description of the soil or subsoil that will make up the pit bottom and sides. The information shall describe the soil by typical name, appropriate proportion of grain sizes, texture, consistency, moisture condition, and other pertinent characteristics. (Example: clayey silt, slightly plastic, small percentage of fine sand, firm and dry in place.) Identify the source of soil information. Information on how to classify soils is available from the District Office or Austin Office upon request. If application is for renewal of a permit for an existing emergency saltwater storage pit or a lined pit with a leak detection system, this attachment is not required.
- J. If pit is equipped with a leak detection system, attach engineering design drawing of the pit and leak detection system.
- K. If lined pit is not equipped with a leak detection system, describe procedures for periodic maintenance and determining liner integrity, including any special monitoring.
- L. If pit is an emergency salt water storage pit, attach justification for pit size based on water production, lease water storage capacity, and anticipated well or equipment shut-down time.

Note: The Director of the Oil and Gas Division may require the applicant to provide the Commission with any additional engineering, geological, or other information which the Director deems necessary to show that issuance of the permit will not result in the waste of oil, gas, or geothermal resources or the pollution of surface or subsurface water.

Protests and hearings.

An affected person may file a protest to the application and request a hearing. Any protest to the application should be filed with the Commission in Austin within fifteen days of the date the application is filed with the Commission. Any such protest shall be made in writing and shall include (1) the name, mailing address, and phone number of the person making the protest; and (2) a brief description of how the protestant would be adversely affected by the granting of the permit. If the Commission determines that a valid protest has been received, or that a hearing would be in the public interest, a hearing will be held after the issuance of proper and timely notice of the hearing by the Commission. If no protest is received within fifteen (15) days of receipt of the application in Austin, the application may be processed administratively.

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This is page 2 of 2 of the Form H-11. On this 2nd page titled "Instructions to Pit Application", operators will be required to submit all supplemental information required by the Form H-11 A through L which includes notification to the surface owner, a plat showing the size of the lease or tract and location of the pit with the lease or tract, an county highway map showing the location of the pit, a drawing of two perpendicular, cross sectional views of the pits bottom, sides, dikes, and the natural grade, data on liner material if lined, identification and description of the soil or subsoil that will makeup pit's side and bottom, attach an engineering design drawing of the pit, and the leak detection system. If not equipped with a leak detection system, describe the procedures for periodic maintenance, and determining liner integrity. If the pit is an emergency saltwater storage pit, attach justification for pit size based on water production of lease.

Questions?



Christopher Straub
Christopher.Straub@rrc.texas.gov

Environmental Permits & Support
512-463-3840



Reclamation Plants

Introduction to Reclamation Plants



- Reclamation of oil and gas streams is highly encouraged to conserve the natural resources of Texas.
- Statewide Rule 57 governs permitting and operation of Reclamation Plants
- Waste types:
 - Tank bottoms, or BS&W
 - Other hydrocarbon wastes or oily waste materials which have been generated in connection with activities associated with the exploration, development, and production of oil or gas

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Primary function is to reclaim hydrocarbons from “heavy” wastes and wastes that require active separation.

SWR 57 (2) Other hydrocarbon wastes--Oily waste materials, other than tank bottoms, which have been generated in connection with activities associated with the exploration, development, and production of oil or gas or geothermal resources, as those activities are defined in §3.8(a)(30) of this title (relating to Water Protection). The term "other hydrocarbon wastes" includes, but is not limited to, pit hydrocarbons, skim oil, spillage, and leakage of crude oil or condensate from producing lease or pipeline storage tanks, and crude oil or condensate associated with pipeline ruptures and other spills.

According to 3.57 (6) Applicants must demonstrate they are familiar with commission rules and have the proper facilities to comply with the rules. Proper processing and equipment must be part of the initial application.

Reclamation Plants: Methods



Methods of separation:

- Mechanical
- Chemical
- Thermal

Reclamation plants must actively reclaim hydrocarbons:

- Hydrocarbon recovery is the main business model
- Gravity separation alone is not reclamation
- Reclamation plant permits will be canceled if operations are inactive for more than 12 months.

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Reclamation typically occurs by 3 main methods of separation: mechanical, chemical, and thermal. It should be noted that if applying for an R-9 permit, 3-phase centrifuges are required if the facility intends to separate the wastes mechanically; gravity separation alone is not a sufficient method to merit a permit. The primary goal of reclamation is hydrocarbon recovery, so applicants must demonstrate an understanding of current reclamation practices in their application. After separation, stored hydrocarbons are typically sold, while liquid wastes are to be recycled or disposed of at an injection well, and solids are to be disposed of at a landfill. Facilities that are permitted must also be actively reclaiming hydrocarbons in order to maintain their permit. Any facility that ceases operations for over 12 months will result in the cancellation of their permit.

Reclamation Plant: Application



- A complete “*Application for Permit to Operate a Reclamation Plant*” (Form R-9)
 - Operator, location, and design information
 - Must contain an original signature
 - All attachments from the Instructions for the Form R-9 must be included
- A brief description of the treating process
 - How incoming waste is received or stored
 - The process used to separate crude oil
 - Where separated products will be stored
 - Where residual waste will be disposed of

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Now we’ll delve into the application itself and the requirements. The most basic requirements that are requested for all permit applications include the operator, location, and design information, this must be submitted by hardcopy to Technical Permitting in Austin with original signatures. All attachments from the Instructions for the Form R-9 must be included and will be discussed in the next few slides. Included with the application requirements, a brief description of the treatment process must be provided. This includes how the incoming wastes will be stored and received at the facility; a description of the processes used to separate the crude oil; the location of the stored separated products; and the location of where all the separated waste will be disposed of.

Form R-9 (1 of 2)



RAILROAD COMMISSION OF TEXAS APPLICATION FOR PERMIT TO OPERATE A RECLAMATION PLANT R-9
Oil and Gas Operations DRAFT 2/7/80

READ INSTRUCTIONS ON BACK

1. OPERATOR NAME, exactly as shown on P.S. Organization Report	2. OPERATOR P.S. NO.	3. REC. DISTRICT NO.	4. COUNTY OF PLANT LOCATION
5. OPERATOR ADDRESS, including city, state, and zip code	6. PURPOSE OF FILING <input type="checkbox"/> New permit for new facility. Estimated completion date: _____ <input type="checkbox"/> New permit for existing facility. Name of previous operator: _____ <input type="checkbox"/> One-time renewal of existing permit (serial registration, R-13, etc.)		
7. TYPE OF FACILITY <input type="checkbox"/> Petroleum <input type="checkbox"/> Pulp and Paper	8. County closest from the nearest town (identify town)		
9. Brief description of reclamation process			
10. Material transported to plant (or tank, etc.) <input type="checkbox"/> vehicle owned by applicant <input type="checkbox"/> for hire vehicle <input type="checkbox"/> both applicant's and for hire vehicles			
11. Identify all oil and/or gas related facilities located within 100 yards of facility (example: well, pipeline, surface disposal facility, tank battery, etc.)			
TYPE OF FACILITY	OPERATOR	TYPE OF FACILITY	OPERATOR
CERTIFICATION: I certify under penalties prescribed in Sec. 21.143, Texas Revised Penal Code, that I am authorized to make this report, that it was prepared in my or under my supervision and direction, and that the data and facts stated herein are true, correct, and complete to the best of my knowledge.			
SIGNATURE: _____		TITLE: _____	
NAME (print or type)		PHONE: _____ DATE: _____	

TO BE COMPLETED BY RAILROAD COMMISSION PERSONNEL

This permit is valid until cancellation under either of the following conditions:

- The above named operator requests cancellation of this permit.
- The commission cancels the permit after notice of opportunity for hearing because:
 - the permit facility has been inactive for 12 months, or
 - there has been a violation or a violation in threatened of any provision of this permit, the commission laws or the state or rules or orders of the Commission.

The permit is non-transferable. The financial interest filed in support of this application shall be renewed and submitted in effect until its conditions have been met or released as approved by the Commission. The facility schematic diagram to be kept with this permit. Permit and diagram are to be kept at facility.

Serial/registration no. _____
is/has been/has not been effective (date) _____

By _____
Signature of REC representative Name (print or print) Phone No. _____

ALL WASTES GENERATED BY RECLAIMING OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATEWIDE RULES, 8, 9, AND 46 (RELATING TO WATER PROTECTION, DISPOSAL WELLS, AND FLUID INJECTION)

Here we have the front page of the R-9 application template. This is where the operator and facility information can be described, as well as requirements such as driving directions from the nearest town, vehicle information for the transported materials, and identifying any oil and gas related facilities within 100 yards of the facility, which are more specific for an R-9 application.

Form R-9 (2 of 2)



Draft 3/21/90

INSTRUCTIONS
FORM R-9: APPLICATION FOR PERMIT TO
OPERATE A RECLAMATION PLANT
REFERENCE: STATEWIDE RULES 57 and 85

1. **FORM P-5, ORGANIZATION REPORT.** Before this application can be processed, you must have an active Form P-5, Organization Report, on file with the Commission in Austin. In addition, if your organization is a corporation, a certification that your franchise tax payment is current is also required.

2. **R-9 FILING.** File the original of your application and attachments with:

Railroad Commission of Texas
Oil and Gas Division - Production Allocation
P. O. Drawer 12987 - Capitol Station
Austin, Tx 78711-2987

At the same time, file a copy of the R-9 and the schematic diagram with the Commission district office of the facility location.

3. **ATTACHMENTS.** Your application must include the following attachments:

- **schematic diagram** showing the proposed or existing facility, including the location and identification of all treating equipment and tanks with tank capacity noted. Also, show the location of all oil and/or gas-related facilities located within 100 yards of the facility as identified in No. 11 on front.

- **a bond or letter of credit in commission-approved format*** for the amount of \$100,000 with attached power of attorney. See No. 4 below.

- **proof of publication** of the notice of application, if this application is for a new permit rather than one-time renewal of an existing permit. See No. 5 below.

4. **FINANCIAL ASSURANCE.** As a condition of the permit to operate a reclamation plant, you are required to submit, renew, and continue in effect a bond or letter of credit in commission-approved format in the amount of \$100,000. Prior to the expiration of your financial assurance, you will be sent a renewal notice. In a limited set of circumstances a lesser amount may be accepted. However, you must be able to clearly show that amount will be sufficient to operate and close the facility site in accordance with state law, commission rules, and the conditions of the permit. File your bond or letter of credit in the lesser amount and attach a letter including a complete justification to your application. Include a copy of that letter with your district office filing.

5. **NOTICE.** When applying for a new permit, you are to give the following notices of the application prior to or at the same time as filing the application with the Commission:

- mail or deliver a copy of the permit application to the county clerk of the county of facility location and, if the facility is located within the corporate limits of the city, the city clerk.

- publish notice of the application in commission-approved form* once in a newspaper of general circulation for the county of the facility.

6. **TRANSPORTATION OF MATERIAL.** Trucks transporting material to the reclamation facility on a "for hire" basis must be permitted by the Railroad Commission's Transportation/Gas Utilities Division.

7. **MONTHLY REPORTING.** Each month, file a Form R-2, Monthly Report for Reclaiming and Treating Plants, according to the instructions on the reverse of that form.

* Available from the Commission's Supply Department at the above address.

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The back of the application goes over filing requirements and attachments needed to complete the application. Every operator who wishes to conduct business with the Commission must first have an active P5 before the application can proceed, but if submitting an R9, our address is listed here for convenience and must also be sent to the respective district office of the facilities location. We'll go over more of the requirements of the next slide.

Reclamation Plant: Application Cont.



- Safety Data Sheets (SDS) for any chemicals
- A site plan/schematic
 - Fences, roads, and paved areas
 - Equipment and tanks with size, contents, and tank material
- Notice Requirements
- Facility Requirements

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If the facility intends to separate the hydrocarbons by any form of chemical separation, Safety Data Sheets must be included in the application for any and all chemicals proposed. A site plan or facility schematic must also be included and provide a detailed account of the facility's security fences, roads, and paved areas, as well as accurate depictions of all tanks and equipment on site with descriptions of their size, contents, and materials. Closure Cost Estimates will be required for review by our Technical Reviewers, and once approved, financial security in the form of a bond or letter of credit will be requested. Notice requirements for reclamation facilities will also be required and further discussed later in this presentation.

Reclamation Plants: Transfer/Renewal



Reclamation plant permits do **not** transfer or renew:

- A change in operator requires submittal of a new and complete application
- Reclamation plant permits do not expire, therefore no renewal is required



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RULE §3.57 Reclaiming Tank Bottoms, Other Hydrocarbon Wastes, and Other Waste Materials:

3.57(9) A permit to operate a reclamation plant is not transferable. A new permit must be obtained by the new operator.



Waste Separation

Introduction to Waste Separation



- Also known as a stationary treatment facility (STF)
- General category for facilities that receive, store, handle, treat, recycle and/or dispose of certain non-hazardous oil and gas wastes
 - Typically issued in conjunction with other types of permits such as pit, reclamation plant, or recycling permits
- Methods of separation: gravity, physical, mechanical, thermal, and/or chemical

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Oil and gas waste separation facilities are generally known and referred to as stationary treatment facilities, or STFs. This category encompasses facilities that receive, store, handle, treat, recycle, and dispose of certain non-hazardous oil and gas wastes. The separation of the waste into liquid and solid components may be achieved by using gravity, physical, mechanical, thermal, and/or chemical methods. Similar to Reclamation plants, the separated fluid is transported to a Class II injection well for disposal and the solids are disposed of at a permitted landfill or disposal pit. STFs are commonly paired with other types of permits to be operated at the same facility such as pits, reclamation plants, or recycling permits.

Waste Separation: Application



- The full application can be found online
 - Operator information
 - Location information
 - Environmental information
 - Facility design including waste processing information
 - SDS for any chemicals
 - Must contain an original signature
- Notification Requirements
- Commercial Facility Requirements

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<https://www.rrc.texas.gov/oil-and-gas/applications-and-permits/environmental-permit-types/waste-separation-facilities/>

There is no specific form for an STF application, but the full application requirements are located on our website for submittal. It requires the operator and location information of the proposed facility; environmental factors ranging from information about the subsurface to listing all domestic water wells within a 1-mile radius, as well as other factors; a description of the facility design, detailing all of the facility equipment and waste processing information; if the facility intends to utilize any chemicals in the separation process, safety data sheets must be provided for all chemicals proposed; a collection of maps and figures to represent the facility and surrounding area are also requested; as well as more specific requirements detailed out on our webpage, all of which must be submitted by hardcopy with original signatures.

A cost closure estimate and specific notice requirements will also be required with the submittal, but again, the full requirements needed to apply for a waste separation, or STF, permit can be found in more detail on our website.

Questions?





Commercial Solid and Fluid Recycling

Commercial Recycling: Introduction



- The Commission encourages responsible recycling of oil and gas waste
- Chapter 4B governs permitting and operation of recycling facilities and is separated into 5 divisions
- Common Waste Types for Recycling:
 - Separated Solids from E&P Activities
 - Produced Formation Water
 - Fracture Flow-Back Water
 - Completion/Workover Fluids (Used Drilling Mud)

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Statewide Rule 8 and Chapter 4B have been written and amended in order to encourage recycling in the oil field. The Commercial Recycling rules are divided into 5 separate divisions based on the type of oil and gas waste being treated and the location and duration of the treatment operations. The most common of these wastes include but are not limited to: separated solids from exploration and production activities, produced formation water, fracture flow-back water, and completion or workover fluids.

Commercial Recycling: Divisions



- Solid Recycling
 - Division 2 (Mobile Recycling)
 - On-lease recycling up to 1 year on each lease
 - Division 3
 - Off-lease/centralized recycling up to 2 years
 - Division 4
 - Stationary recycling



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Solid recycling is covered in Divisions 2, 3, and 4. Division 2, or more commonly known as our mobile recycling permit, is an on-lease solid waste recycling facility that is limited to operate on each lease for a maximum of 1 year. Application information for Division 2 recycling must include a typical layout of the facility, processing information, and storage and liner information. Off-lease, or centralized solid waste recycling is covered in Division 3 and is limited to any location for a maximum of 2 years. Since the facility will be at one location for more than a year, environmental and property information, financial security, monitoring wells, and surface owner and adjacent landowner notifications will be required in addition to the requirements listed for the Division 2 application. Division 4, or stationary solid waste facilities are permitted for a single location for up to 5 years and can be renewed. The application requirements of Divisions 4 include those of Divisions 2 and 3 but must also include proper published notice.

Commercial Recycling: Solids (1 of 2)



Solid Recycling physically and chemically stabilizes E&P solids so that they may be reused for:

- **Roadbase**
 - Lease roads and wells pads
 - Private and county roads with proper authorization
- **Reusable Product (Treated Aggregate)**
 - Requires an LOA for each use
 - Non-load bearing construction fill, cement bulking agents, landfill capping materials, berm material for commercial or industrial site

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Solid recycling physically and chemically stabilizes E&P solids to be reused as 2 main products, roadbase and reusable product. Roadbase is primarily spread and used for lease roads and well pads, and if granted the proper authorization can also be used for private and county roads. Reusable product on the other hand requires a Letter of Authority for each use but can be used for non-lead bearing construction fill, cement bulking agents, landfill capping materials, or berm material for commercial and industrial sites. It should be noted that while applications to recycle roadbase and reusable product are similar, they do have different testing parameters depending on which end product is applied for.

Commercial Recycling: Solids (2 of 2)



- Trial Run
 - 1000 cy to be sampled, analyzed, and approved
 - Demonstrates proof of concept
- Drilling Mud (Notice to Operators, Dec 2014)
 - A permit is not required if used drilling mud is treated on a Commission-issued lease or drilling unit
 - Resulting refined product (base oil/ diesel) is not under RRC jurisdiction

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Each solid recycling facility that is permitted must complete a trial run before operations may start. 1000 cubic yards must be sampled, analyzed, and approved to demonstrate the facilities ability to comply with environmental standards. If a facility intends to switch the product between roadbase or reusable material during any time while they operate a permit, a new trial run will be required with the new analytical parameters. A notice to operators was issued in December of 2014 to maintain that used drilling mud or fluid is under the jurisdiction of the Commission. However, a permit is not required if used drilling mud is treated on a Commission-issued lease or drilling unit, and any resulting refined product is not under the jurisdiction of the Commission.

Commercial Recycling: Divisions



- Fluid Recycling:
 - Division 5
 - Off-lease/centralized recycling up to 2 years
 - Re-use for downhole purposes
 - Division 6
 - Stationary recycling
 - Re-use for downhole purposes

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All fluid recycling is covered by Divisions 5 and 6 to re-use fluid for downhole purposes. Division 5 consists of off-lease, or centralized recycling for a maximum of 2 years at any location and requires the same application requirements described for Division 3; while Division 6 consists of stationary fluid recycling facilities that are permitted for up to 5 years and have similar application requirements to Division 4.

Commercial Recycling: Fluids



- Recycled water may be used for downhole purposes only:
 - Drilling fluid
 - Frac fluid
 - Concrete makeup water
 - Other downhole uses

Commercial Recycling: Application



- Each Division Rule is written as a permitting guide and must be followed to apply for an application
 - Operator, location, and design information
 - Must contain an original signature
 - Attachments addressing each application requirement of the specific division must be included
- Notification Requirements
- Commercial Facility Requirements

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So earlier it was briefly explained what may be needed to apply for each facility, but each division rule for both solid and fluid recycling acts as a permitting guide to apply for an application and further explains what requirements are necessary. All applications must be submitted by hardcopy to Technical Permitting in Austin with original signature and include the operator, location, and design information, plus the specific attachments and notice requirements required by the Division of the desired permit. Applications for all recycling permits must include a cost closure estimate for review.

House Bill 3516



Recent legislation passed in the 87th session will require the Railroad Commission to establish or rely on current rules for the recycling of commercial fluid.

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Check the website for future updates

Questions?



Riley Monk
Riley.Monk@rrc.texas.gov

Environmental Permits & Support
512-463-3840



Notice Requirements

Notice Requirements by Rule (1 of 2)



Requirements by Rule:

- **Statewide Rule 8**
 - HT Discharges
 - Pits
 - Landspreading Facilities
 - Waste Separation Facilities

- **Statewide Rule 57**
 - Reclamation Facilities

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Notice requirements under statewide rule 8 apply to all hydrostatic test discharges, pits, landspreading and waste separation facilities. Reclamation facilities have their own specific requirements under statewide rule 57.

Notice Requirements by Rule (2 of 2)



Requirements by Rule:

- **16 TAC Chapter 4 Subchapter B**
 - Division 2, 3, 4, 5 and 6 Recycling

- **Texas Natural Resources Code Chapter 91**
 - Commercial Disposal Facilities
 - Commercial Pits
 - Commercial Landspreading
 - Commercial Waste Separation Facilities

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Division 1 covers general rules for commercial recycling and definitions. Recycling divisions 2-6 each have their own notice requirements under 16 Texas Administrative Code Chapter 4 Subchapter B. Any facility that falls under the category of a commercial disposal facility such as a commercial pit, landspreading or waste separation facility must complete notice requirements under the Texas Natural Resources Code Chapter 91.



Statewide Rule 8 Notice

- Surface owner
- City clerk if within corporate limits
- Adjacent landowners
 - Commercial facilities only
- Additional notice if required by the director

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Statewide rule 8 requires the operator to provide notice to the surface owner where disposal will take place and to the city clerk or other official if the facility is located within corporate limits. If the facility is categorized as commercial, the operator is required to provide notice to adjacent landowners within a ½ mile from the facility boundaries. Additionally, under rule 8, the director of the oil and gas division can require an operator to notice additional parties, such as local authorities, on a case-by-case basis.



Statewide Rule 8 Notice

- Personal notice
 - Mailed or delivered **on or before** the date the application is mailed or delivered to the commission in Austin

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Notice given under rule 8 must be mailed or delivered on or before the date the application is mailed or delivered to the commission in Austin. However, it is recommended that notice should not be given more than 15 days before the application is submitted.

Statewide Rule 57 Notice

- Surface Owner
- County Clerk
- City clerk if within corporate limits
- Published notice

Statewide rule 57 requires the operator applying for a reclamation plant permit provide notice to the surface owner and county clerk where the facility will be located. Notice must also be provided to the city clerk if the location is within corporate limits and published in a newspaper of general circulation in the corresponding county.



Statewide Rule 57 Notice

- Personal notice
 - Mailed or delivered **on or before** the date the application is mailed or delivered to the commission in Austin
- Published notice
 - Published **on or before** the date the application is mailed or delivered to the commission in Austin

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Notice given under rule 57 must be mailed or delivered and published on or before the date the application is mailed or delivered to the commission in Austin. However, it is recommended that notice should not be published more than 15 days before the application is submitted.



Chapter 4, Subchapter B Notice

- Surface Owner
- City clerk if within corporate limits
- Adjacent landowners
- Published notice
 - Divisions 4 and 6 only

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Chapter 4 subchapter B, which governs recycling facilities, requires the operator to provide notice to the surface owner where the recycling facility will be located and to the city clerk if the location is within corporate limits. Notice must also be given to adjacent landowners within a ½ mile of the facility boundaries. For commercial recycling facility applications under division 4 and 6, notice must be published in a newspaper of general circulation in the corresponding county.



Chapter 4, Subchapter B Notice

- Personal notice
 - Mailed or delivered **on or after** the date the application is mailed or delivered to the commission in Austin
- Published notice
 - Once a week for two consecutive weeks with the first publication occurring **not earlier** than the date the application is filed and not later than the 30th day after the date the application is filed

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Notice for recycling facility applications should be mailed or delivered on or after the date the application is mailed or delivered to the commission in Austin. Published notice should occur once a week for 2 consecutive weeks with the first publication occurring not earlier than the date the application is filed and not later than the 30th day after the after the application is received by the commission.

Requirements by HB 480



Texas Natural Resources Code (HB 480)

- Published notice
 - Once a week for two consecutive weeks with the first publication occurring **not earlier** than the date the application is filed and not later than the 30th day after the date the application is filed

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Chapter 91 of the Texas Natural Resources Code requires that commercial disposal facilities publish notice in in a newspaper of general circulation for the county where the facility will be located. Published notice must occur once a week for 2 consecutive weeks with the first publication occurring not earlier than the date the application is filed and not later than the 30th day after the after the application is received by the commission.

When to Notice



When to Notice:

- New Applications
- Renewal Applications
- Major Amendments
 - Determined on a case-by-case basis
 - Contact Technical Permitting

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Operators must give notice when filing a new application, a renewal, or requesting a major amendment. Renewal applications have the same requirements as a brand-new application and amendment requirements are determined on a case-by-case basis.

Notice Must Include (1 of 2)



Notice must include:

- Notice to Surface Owners, Adjacent Surface Owners and City/County Clerk Officials
 - A complete copy of the application
 - Protest instructions
 - The mailing address for Technical Permitting
 - Description of facility/operations

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When giving notice to surface owners, adjacent landowners, or local officials, the notice must include: a complete copy of the application, the instructions for protest, the mailing address for technical permitting, and a description of the facilities' operations. Protest deadlines vary under each rule, so make sure to check each application requirements to provide the correct instructions.

Notice Must Include (2 of 2)



- Published Notice
 - Date the application was filed
 - Information about the facility location
 - Name of the surface owner
 - Name of the applicant
 - Type of fluid or waste to be disposed of at the facility
 - Disposal method proposed
 - Protest instructions

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Recommended Notice Form:

<https://www.rrc.texas.gov/media/nwedny4v/noticeform.pdf>

When publishing notice in a newspaper, the notice must include the date the application was or will be filed, the facility location including the county, survey name and abstract number, the direction and distance from the nearest city or municipality, the name of the surface owner, the name of the applicant, the type of waste that will be disposed of at the facility, the disposal methods that will take place, and the procedure for protesting the application. A recommended publish notice form can be found on our website and is linked on the notes of this slide.

Proof of Notice



Providing Proof of Notice

- A copy of the notification letters provided
 - Certified mail is recommended
- Tear sheets of the full page from the newspaper of published notice
- A sworn affidavit from the newspaper publisher

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The recommended affidavit of publication form:

<https://portalvhdsklfb8q9lqr9.blob.core.windows.net/media/6564/noticeaffidavit.pdf>

Operators must provide proof of notice which must include a copy of the notice letter or a signed statement from the affected party that the application was received. It is recommended that certified mail be used and the certified mail receipts be provided as proof that proper notice was given. The tear sheets from the published notice must be provided as well as a sworn affidavit from the newspaper publisher. A recommend affidavit form can be found on our website.

<div style="display: flex; justify-content: space-between; align-items: center;"> <h1 style="margin: 0;">Notice Requirements Summary</h1> </div>								
Permit Type	Rule	Surface / Adjacent Landowner	City and/or County	Notice to Surface Landowner/Offsite Landowner/City/County Must be Provided...	Contents of Notice	Published Notice	Published Notice Data	Contents of Published Notice
Permits Issued under Statewide Rule 8								
Non-Commercial Disposal (Pits, land spreading, etc.)	16 TAC, Sect. 3.8(i)(9)(C)	Surface landowner only	City Clerk - if in corporate limits	On or before the date the application is filed with the RRC.	See application for full requirements. Notice must include a statement that protests must be filed with the RRC within 18 days of the date the application is received by the RRC .	Not required	n/a	n/a
Commercial Surface Disposal Facility (Collecting/Washout Pits, Waste Separation, Disposal Pits, Landspreading, etc.) <i>Without recycling or reclamation</i>	16 TAC, Sect. 3.8(i)(9)(C) & Texas Natural Resources Code, Sect. 91.116	Surface & Adjacent Landowners	City Clerk - if in corporate limits	On or before the date the application is filed with the RRC.	See application for full requirements. Notice must include a statement that protests must be filed with the RRC within 15 days of the date the application is received by the RRC .	Yes - 2 consecutive weeks	First publication must be no earlier than the date the application is filed and no later than the 30th day after the date the application is filed with the RRC.	See application for full requirements
Permits Issued under Statewide Rule 57								
Reclamation Plant (RP) <i>without other permits</i>	16 TAC, Sect. 3.57(c)(1) and (2)	Surface landowner only	County Clerk, City Clerk - if in corporate limits	On or before the date the application is filed with the RRC.	Not specified	Yes - 1 time	On or before the date the application is mailed/delivered/ filed with the RRC	See application for full requirements
Permits Issued Under Chapter 4 (Recycling Permits)								
Off-Lease / Centralized Commercial Solid Recycling Facility (Division 3) <i>Without other permits</i>	16 TAC, Sect. 4.238	Surface & Adjacent Landowners	City Clerk - if in corporate limits	On or after the date the application is filed with the RRC.	See application for full requirements.	Not required	n/a	n/a
Off-Lease / Centralized Commercial Fluid Recycling Facility (Division 5) <i>Without other permits</i>	16 TAC, Sect. 4.270	Surface & Adjacent Landowners	City Clerk - if in corporate limits	On or after the date the application is filed with the RRC.	See application for full requirements. Notice must include a statement that a protest to the application must be filed within 15 days of the date of receipt .	Not required	n/a	n/a
Stationary Commercial Recycling (Divisions 4 or 6) <i>Without other permits</i>	16 TAC, Sect. 4.254 or 4.286	Surface & Adjacent Landowners	City Clerk - if in corporate limits	On or after the date the application is filed with the RRC.	See application for full requirements. Notice must include a statement that a protest to the application must be filed within 15 days of the last date of published notice .	Yes - 2 consecutive weeks	First publication must be no earlier than the date the application is filed and no later than the 30th day after the date the application is filed with the RRC.	See application for full requirements
Examples for Facilities with Multiple Permits								
Reclamation Plant (RP) with Pits (Commercial Surface Disposal Facility)	16 TAC, Sect. 3.57(c)(1) and (2) & Texas Natural Resources Code, Sect. 91.116	Surface & Adjacent Landowners	County Clerk, City Clerk - if in corporate limits	On or before the date the application is filed with the RRC.	Not specified by Statewide Rule 57, but use contents of notice required for Commercial Surface Disposal Facility (Collecting/Washout Pits, Waste Separation, Disposal Pits, Landspreading, etc.)	Yes - 2 consecutive weeks	First publication must be no earlier than the date the application is filed and no later than the 30th day after the date the application is filed with the RRC.	All permit types must be included in notice.
Commercial Surface Disposal Facility (e.g., Waste Separation, Disposal) and Stationary Commercial Solid Oil & Gas Waste Recycling	16 TAC, Sect. 3.8(i)(9) & Texas Natural Resources Code, Sect. 91.116 & 16 TAC, Sect. 4.254	Surface & Adjacent Landowners	City Clerk - if in corporate limits	On or before the date the application is filed with the RRC.	Include contents of notice required for Commercial Surface Disposal Facility Permit and Stationary Commercial Solid Oil & Gas Waste Recycling	Yes - 2 consecutive weeks	First publication must be no earlier than the date the application is filed and no later than the 30th day after the date the application is filed with the RRC.	All permit types must be included in notice.
Reclamation Plant (RP) and Stationary Commercial Solid and Fluid Oil & Gas Waste Recycling	16 TAC, Sect. 3.57(c)(1) and (2) & 16 TAC, Sects. 4.270 and 4.286	Surface & Adjacent Landowners	County Clerk, City Clerk - if in corporate limits	On or before the date the application is filed with the RRC. See 16 TAC, Sect. 3.57(c)(1) and (2) (the more stringent notice requirement).	Not specified by Statewide Rule 57, but use contents of notice required for Stationary Commercial Solid and Fluid Oil & Gas Waste Recycling regulations	Yes - 2 consecutive weeks	First publication must be no earlier than the date the application is filed and no later than the 30th day after the date the application is filed with the RRC.	All permit types must be included in notice.

A summary table that lists the applicable rules to each type of application can be found on our website. It is recommended that operators refer to this table when determining the notice required for their application.



General Comments

- Landowner Notice is not required if the facility will be located on land owned by the applicant
- If providing a telephone number for Environmental Permits and Support, be sure to provide the CORRECT phone number (512-463-3840). The fax number is not acceptable

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If the operator owns the land of the proposed facility, then landowner notice is not required. If providing a telephone number when giving notice, make sure that the correct phone number for the Environmental Permits and Support Division is used. If an incorrect number is provided, the notice will not be accepted and the application may be returned. So, make sure to use the number on this slide.



General Comments

- Failure to provide proper notice within the required time frames will result in an application being returned or cancellation of a permit after issuance if it is found that proper notice was not provided (refer to the specific rules).
- Protests **will not** be accepted after the 15th day of personal notice (surface and adjacent landowners).
- Protests **will not** be accepted after the 15th day of the last publication date.

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Failure to provide proper notice can result in the application being returned or the permit being canceled. Protests cannot be accepted outside of the time frames specified in each rule. If late protests are received, they can only be accepted as a public comment to be included in the file.

Questions?



Additional Commercial Requirements



- Financial Security/Closure Cost Estimate
- Restrictive Covenant (if applicable)
- NORM Surveying (existing facilities)

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Additional requirements for commercial facility applications which include a financial security and the corresponding closure cost estimate, a restrictive covenant, if needed, and naturally occurring radioactive material or “NORM” surveys for existing facilities that are conducted every 5 years or during renewal.



Financial Security and the Closure Cost Estimate

Financial Security Requirements



- Commercial facilities must maintain financial security *“equal to or greater than the maximum amount necessary to close the commercial facility, at any time during the life of the permit term in accordance with all applicable state laws”*

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Under statewide rule 78, commercial facilities are required to maintain a financial security equal to or greater than the maximum amount necessary to close the facility at any time during the life of the permit.

Closure Cost Estimate (1 of 2)



- A closure cost estimate (CCE) is a “*written estimate approved by the Commission or its delegate as being equal to or greater than the maximum amount necessary to close the commercial facility*”
- Requirements are found in Statewide Rule 78
- A closure cost estimate (CCE) must be approved prior to submitting financial security

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In order to determine this closure cost, the applicant must submit what is called a closure cost estimate. A closure cost estimate, or CCE, is a written estimate approved by the commission and is equal to or greater than the maximum amount necessary to close the commercial facility. The full rules can be found in statewide rule 78, and the CCE must be approved prior to submitting the financial security.

When is a CCE Required



When is a CCE Required?

- Required for Commercial Facilities
 - New Applications
 - Renewal Applications
 - Transfer Application
 - Major Amendments

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Since financial security is required for all commercial facilities, a CCE must be provided for any commercial facility application. An updated CCE is required for a renewal application, or every 5 years. If an applicant is requesting to transfer a commercial facility permit, the new operator must submit a CCE. And any time an amendment is requested, a new CCE may be required. This is determined on a case-by-case basis, but a good rule of thumb is that if the closure cost will increase by more than 10%, a new CCE will be required. The CCE must be approved, and the financial security provided, before any approved modifications can take place.

Major CCE Components



Major CCE Components:

- Offsite Waste Disposal Costs*
- Waste Loading & Transportation Costs
- Tank Cleaning/Removal/Disposal*
- Concrete Cleaning/Removal/Disposal
- Contaminated Soil Removal/Disposal
- Site Restoration
- Soil Sampling /Tilling (if applicable)
- Monitor Well Plugging
- Closure Soil Sampling
- Oversight & Contingencies
- Post Closure Activities

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This is a list of the main components that must be included in a CCE. Since a CCE must reflect the maximum amount necessary to close the facility, it must assume the worst case scenario and that no waste can be disposed of on-site. I will give you a moment to read through each of the components. Post closure activities may include groundwater monitoring and disposal pit inspections for 5 years after closure. If NORM is determined to be present at a facility, the cost to decontaminate any affected equipment under the Texas Department of State Health Services rules must be included.

CCE Assumptions



- Show all assumptions for estimated costs.
 - Remove all waste from entire facility
 - Transport, disposal, removal, backfill
 - Crew, dozers, welders, cleaning, etc.
- Based on worst case scenario (i.e., all pits/tanks are full)
- The facility is operated at permitted capacity with no pollution violations
- Restrictive Covenants
 - Property owner agrees material will be available for closure
 - Must be certified by the RRC

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The operator must include all of the assumptions used to determine their closure cost estimate. And as previously mentioned, must be based on the worst-case scenario, for example it must be assumed that the facility is at full capacity and all pits and/or tanks are full. The CCE cannot assume that any equipment will stay on location as that does not represent the worst-case scenario. If a CCE assumes that backfill material from the property will be used as agreed by the landowner, a restrictive covenant must be provided, which I will cover in a few slides.

Filing Financial Security (1 of 2)



- Technical Permitting will issue a “*CCE Approval*” letter when the application is complete
- P-5 Department processes all financial security documents
 - Bond – Form CF-1
 - Letter of Credit – Form CF-2
- A facility may not receive, store, handle, treat or dispose of oil and gas wastes or fluids at the facility until financial security is provided and approved by the RRC

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Once an application is complete and the CCE approved, technical permitting will issue a CCE Approval letter documenting the required amount of financial security. The operator can file financial security in the form of a bond or letter of credit. Any questions related to filing financial security should be directed to the P-5 department. The financial security must be provided and approved prior to beginning operations at the permitted facility.



Filing Financial Security

- When transferring a permit, financial security must be on file with the RRC before the transferred permit will be issued.
- Financial Security must be maintained until the facility has been closed in accordance with the permit

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During a renewal, transfer, or amendment of an active facility, financial security must be provided before a new permit can be issued. The financial security must be maintained until the facility has been closed according to permit conditions.



Restrictive Covenant

Restrictive Covenant Definition



What is a Restrictive Covenant (RC)?

- Deed restriction stating that soil material will be used for closure



Restrictive Covenant: Is it Required?



When is a RC Required?

- A Restrictive Covenant is required if fill dirt will be stored or excavated from the property to use for backfilling or grading during closure

Restrictive Covenant Components



- Restrictive Covenant Form
 - A deed restriction stating that soil will be available for closure
 - The location of the material
 - Type of material
 - Volume/amount of material
 - Exhibit A and B certified by a registered professional land surveyor

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<https://www.rrc.texas.gov/media/pdgg04se/restcovenantform.pdf>

A restrictive covenant form is available on our website and includes a deed restriction stating that the soils will be available for closure. It includes the location, type, and volume of material. And lastly 2 exhibits must be attached that have been certified by a professional land surveyor registered in the state of Texas.

Restrictive Covenant Filing



1. Operator submits a draft RC
2. Technical Permitting approves the closure cost estimate and the closure plan
3. Operator submits a signed RC with signatures
 - The landowner
 - the operator
4. RRC signs the RC
5. RRC returns the RC to the Operator
6. Operator shall file the signed RC to the property records of the county where the property is located
7. The Operator shall provide a certified copy of the RC back to the RRC

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To file a restrictive covenant the operator must submit a draft to be reviewed by legal counsel. Once the draft is approved, along with the CCE, the operator must submit a restrictive covenant signed by the operator and landowner. A representative from the commission will sign the copy and return it to the operator. The operator must then file the restrictive covenant in the corresponding county and provide the proof of filing back to the commission. This must be done before operations can commence at the permitted facility.



NORM Surveys

NORM Definition



- NORM: Naturally Occurring Radioactive Material
 - Encountered in oil and gas exploration, development and production operations, and originates in subsurface formations
 - Accumulates within the sludge found in oilfield pits and tanks (tank bottoms). These solids become sources of oil and gas NORM waste
 - 6 TAC Chapter 4, Subchapter F

NORM Jurisdiction



- Texas Department of State Health Service (DSHS)
 - Regulates possession, use, transfer, transport, and storage



- The RRC gives authority to dispose of NORM waste in NORM authorized injection wells

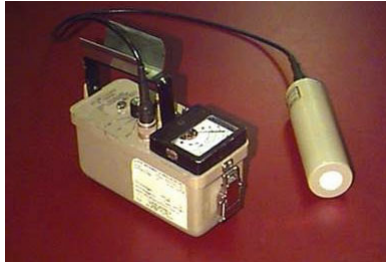
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NORM is regulated by the Texas department of state health services which governs the possession, use, transfer, transport, and storage of NORM waste. The commission can authorize the disposal of NORM waste in NORM approved injection wells.

When a NORM Survey is Required



- Renewal applications for commercial facilities
- Transfer of commercial facilities that have not been surveyed in over five (5) years
- The presence of NORM will affect the financial security



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A NORM survey must be completed during the renewal of an existing commercial facility or every 5 years. As previously mentioned, if NORM is found to be present at a facility, the cost to dispose of the NORM waste must be included in the closure cost estimate and corresponding financial security.

What to Include in a NORM Survey



- The date of the survey
- The instrument used, the last calibration date, and a copy of the calibration records
- A background reading
- A site diagram showing where all readings, including the background, were taken. All tanks, pits and equipment are required to be surveyed
- The survey results (in microroentgens per hour)

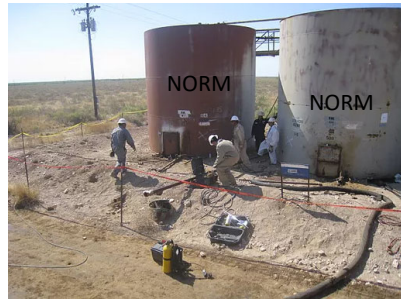
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A NORM survey is conducted using a scintillation meter. When providing the results of the survey, the operator should include the date of the survey and the instrument used including the calibration records. The results should include a background reading and the results of the NORM readings from any tanks, pits, and other equipment.

NORM Survey Results



- Identification of Equipment Contaminated with NORM
- RULE §4.605 states that the operator must identify NORM-contaminated equipment.



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If NORM is detected at a facility, the NORM contaminated equipment must be clearly labeled as NORM in legible and waterproof writing.

Questions?



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Environmental Permits & Support

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Evaluation & Archive Video



Evaluation

- Please complete the evaluation available on the RRC website at <https://survey.alchemer.com/s3/6403402/2021-RRC-Regulatory-Webinars-Oil-Gas-and-Pipeline-Safety-Evaluation>

Archive Video

- A link to the archive video of the webcast will be available on the same webpage as the presentation.