Beneficial Reuse Authorizations for Treated Industrial Wastewater

30 Texas Administrative Code Chapter 210 – Subchapter E

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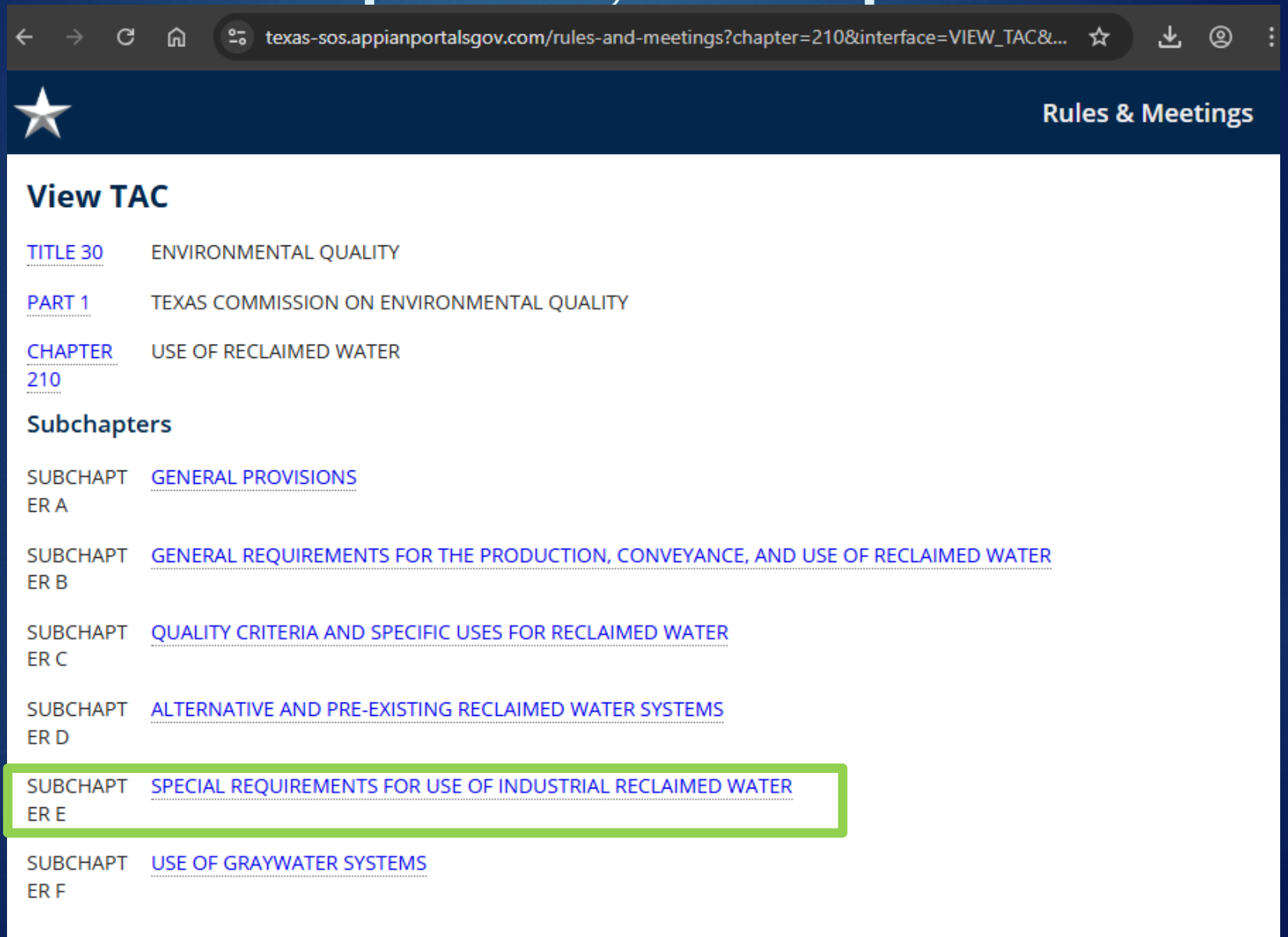
Team Leader

Industrial Wastewater Permitting Team

Overview

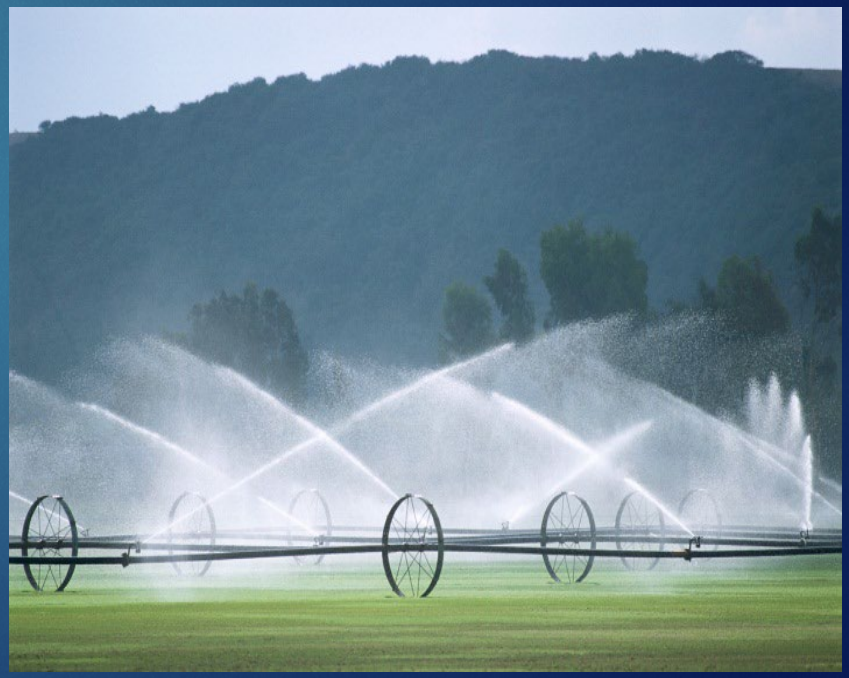
- **What is industrial reclaimed water and why re-use it**
- **What does it mean to reuse reclaimed water under a 210E authorization**
- **Requirements to obtain a 210E authorization**

What is 30 Texas Administrative Code (TAC) Chapter 210, Subchapter E?



What is Industrial Reclaimed Water?

Non-domestic wastewater re-used for a beneficial purpose



Why Re-use Industrial Reclaimed Water?

- Conserve raw water resources
- Provide an alternative to existing water supplies
- Enhance water security, sustainability, and resilience

Requirements for Reuse of Industrial Reclaimed Water

- 210E - Level I
- 210E - Level II

Level I Conditions

Wastewater is re-used onsite

Level I Conditions (cont.)

- **Wastewater listed in 210.53(a)**
  - Air conditioner condensate
  - Washing whole fruit or vegetables
  - Non-contact cooling water
  - Once through cooling water
  - Water treatment filter backwash
  - Water from routine external washing of buildings or pavements without use of detergents or chemicals
  - Cooling tower blowdown with TDS<2000
  - Wastewater at or below the thresholds

Level I Conditions (cont..)

- means of disposal as an Alternative to reuse listed in 210.56(b)(1)
  - Authority to discharge under a permit
  - Route to a Publicly Owned Treatment Works (Pump and haul)
  - Ability to recycle in a manner that does not discharge

Level I Conditions (cont…)

- End use listed in 210.56(b)(2)
  - Irrigation
  - Fire protection
  - Dust suppression
  - Maintenance of impoundments

Level I Requirements

No application

No fee

No expiration date

No notification to TCEQ

Level I Requirements (cont.)

No written authorization from TCEQ (beyond the rule itself)

No periodic testing (except for cooling tower blowdown)

Effluent concentrations at or below threshold levels listed in 210.53, Table 1

Threshold Levels (§210.53, Table 1)

Parameter	Threshold (mg/l)	MAL (mg/l)	Parameter	Threshold (mg/l)	MAL (mg/l)
Conventionals & Nonconventionals			**Metals**		
Total Organic Carbon	55	---	Copper, total	0.030	0.010
Oil and Grease	10	---	Lead, total	0.015	0.005
Total Dissolved Solids	2000	---	Manganese	0.05	---
Nitrate Nitrogen	10	---	Mercury, total	0.0002	0.0002
Metals			Nickel, total	0.030	0.010
Antimony, total	0.09	0.03	Selenium, total	0.030	0.010
Arsenic, total	0.030	0.010	Silver, total	0.006	0.002
Barium, total	0.030	0.010	Thallium, total	0.030	0.010
Beryllium, total	0.015	0.005	Zinc, total	0.015	0.005
Cadmium, total	0.003	0.001	Cyanide, free	0.200	---

Re-use is Not Level I and a Level II Authorization May be Required If…

- Waste stream is not listed in 30 TAC 210.53(a)
- Re-use is offsite
- Pollutant concentration exceeds Table I threshold levels
- Wastewater is comingled

Level II Requirements

- **TCEQ Application (Form No. 20094)**
- **Application fee ($100.00)**
- **Individual written authorization from TCEQ**

Level II Requirements (cont.)

- **Effluent limitations and monitoring requirements**
- **Annual testing**

Testing Requirements for Level II Authorization

Table 1-1 Wastewater Concentrations for Conventional and Nonconventional Pollutants

Pollutant	Average (mg/L)	Maximum (mg/L)	Number of Samples
Biochemical Oxygen Demand (5-day)			
Carbonaceous Biochemical Oxygen Demand (5-day)			
Total Organic Carbon			
Nitrate Nitrogen			
Total Phosphorus			
Oil and Grease			
Total Residual Chlorine *			
Total Dissolved Solids			
Sulfate			
Chloride			
E. coli **			
pH (standard units)			

How to Find Form 20094

tceq.texas.gov/assistance/water/reclaimed_water.html

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How do I get authorization to be a producer, provider, or user of reclaimed water?

Municipal Reclaimed Water:

- We must give you **written approval** before you can provide Type I and Type II municipal reclaimed water to another party for reuse.
- You must submit Form **TCEQ-20427** to apply for reuse by another party. Follow the form's instructions and the rules in **30 TAC 210 Subchapters A-D** to submit a complete application. Note that the application requires attachments such as a water reuse contract and an operation and maintenance plan.
- Producers of Type I and Type II domestic or municipal reclaimed water must **sample and analyze** the water before distribution.

Industrial Reclaimed Water:

- A producer of Level I industrial reclaimed water is authorized to use the water on-site **without notification** or approval by the TCEQ. Sampling of Level I reclaimed waters used on-site is not required unless the water comes from cooling tower blowdown.
- We must give you **written approval** before you reuse Level I water off-site, as well as before the reuse of Level II water. Use Form **TCEQ-20094** to apply for reuse of industrial reclaimed water. Follow the form's instructions and the rules in **30 TAC 210 Subchapters A, B and E** to submit a complete application.
- You must **sample** Level II water to certify its applicability as reclaimed water.

Additional Considerations:

- Special requirements apply if either municipal or industrial reclaimed water use is planned within the **Edwards Aquifer area**.
- Producers may be liable for misapplication of any reclaimed water by users if they do not follow all TCEQ requirements, as stated in **30 TAC 210.6**
- The TCEQ must approve any changes to a use that has received prior approval.
- **Contact the TCEQ Wastewater Permitting Program** for more information.

Form 20094

Application to Use Industrial Reclaimed Water

This application is for the beneficial reuse of industrial reclaimed water in accordance with 30 Texas Administrative Code (TAC) Chapter 210, Subchapter E.

IMPORTANT: Use the INSTRUCTIONS to fill out each question in this form.

APPLICATION FEE:

You must pay the **$100** Application Fee to TCEQ for the application to be complete.
Payment and NOI must be mailed to separate addresses.
You can pay online at: http://www.tceq.texas.gov/goto/epay
Provide your payment information below, for verification of payment

Mailed — Check/Money Order Number: Click here to enter text
Check/Money Order Amount: Click here to enter text
Name Printed on Check: Click here to enter text

EPAY — Voucher Number: Click here to enter text

REASON FOR APPLICATION:
Select the reason you are submitting this application:

- ☐ New authorization
- ☐ Amendment of reuse authorization number: 2E Click here to enter text

Permitting Time Frame

Application Review and Processing Team and Permit Writer review

Sent to permittee for review/approval

Authorization is signed and issued

Approximately 60 – 90 days from application submittal date

Wastes Not Eligible For A Re-use Authorization Under 210E

Septic tank, chemical toilet, and grit or grease trap waste

Any wastewater eligible for coverage under a Permit By Rule

Wastewater containing radioactive materials, dioxins or furans, and pesticides

Wastes Not Eligible For A Re-use Authorization Under 210E (cont.)

Wastewater classified as hazardous, defined by 40 Code of Federal Regulations (CFR) Part 261

Process wastewater regulated under 40 CFR Parts 400-471 (with exceptions)

Exceptions to 40 CFR Parts 400-471

Part 405 - dairy products processing	**Part 406 - grain mills**	**Part 407 - canned and preserved fruits and vegetables**
Part 408 – canned and preserved seafood processing	**Part 409 - sugar processing**	**Part 411 - cement manufacturing**
Part 417 - soap and detergent manufacturing	**Part 423 - steam electric power generating**	**Part 434 - coal mining**
Part 436 - mineral mining and processing	**Part 454 - gum and wood chemicals manufacturing**	**Part 460 - hospital**

Am I subject to Other Requirements in Chapter 210?

Reuse is off-site – Subchapters A & B

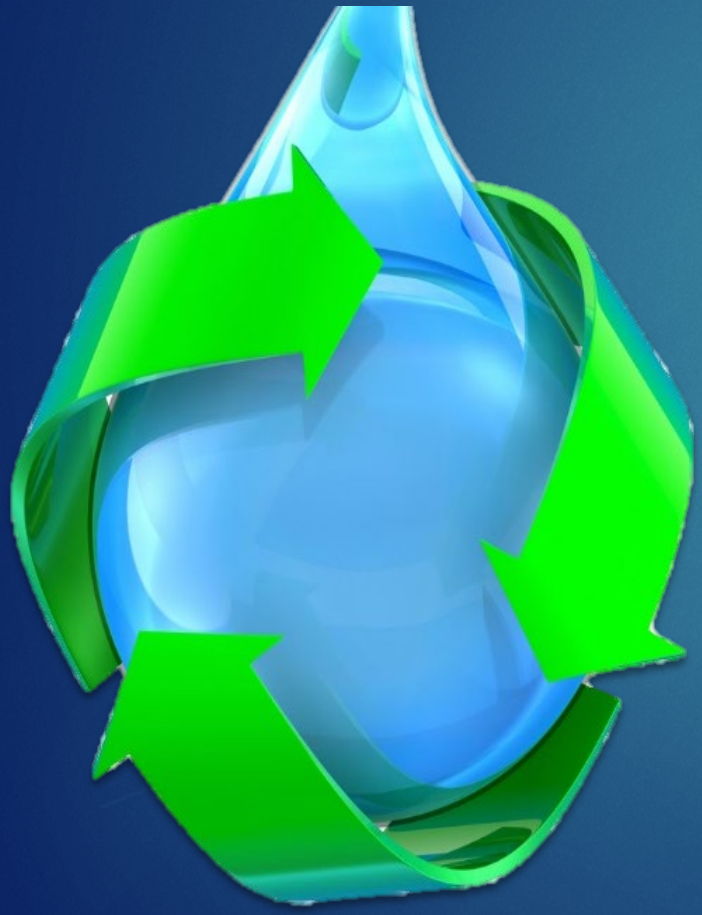
Domestic wastewater commingled with industrial reclaimed water – Subchapters A, B, & C

Am I subject to Other Requirements in Chapter 210? (cont.)

End use is irrigation – Subchapter B

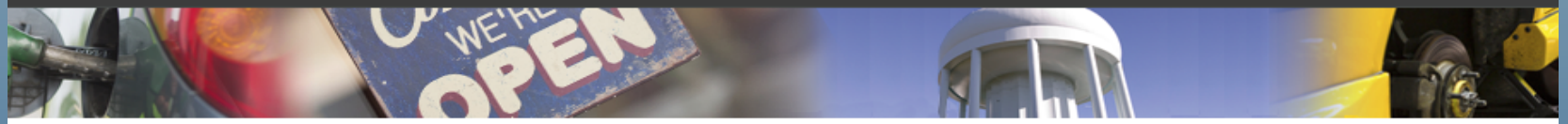
Impoundments are used to store reclaimed water – Subchapter B

A 210E Authorization is Not Needed for:



- Internal recycling
- Closed-loop systems
- Use of industrial wastewater as makeup water within a facility

tceq.texas.gov/assistance/water/reclaimed_water.html



Questions or Comments:
TexasEnviroHelp@tceq.texas.gov

Requirements for Reclaimed Water

Definition for and uses of municipal (also called domestic) and industrial reclaimed water.

The rules in Title **30 Texas Administrative Code, Chapter 210** apply to producers, providers, and users of reclaimed water.

What is reclaimed water?

Reclaimed water is treated wastewater that is safe and suitable for a purpose that would use other water resources. It is classified according to the source from which it originated. It may come from either domestic or industrial activities.

Municipal reclaimed water is treated water that is primarily derived from permitted sewage treatment plants. These plants primarily treat human waste and wastewater from activities such as washing, bathing, and food preparation. These wastes are then treated to the extent at which they are safe and suitable for reuse as reclaimed water. Reuse of untreated wastewater is prohibited.

Contacts

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Questions