

# Use of Industrial Reclaimed Water

30 Texas Administrative Code (TAC) Chapter 210  
- Subchapter E



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# What is industrial reclaimed water?

- ▶ Non-domestic wastewater re-used for a beneficial purpose



# Why re-use industrial reclaimed water?

- ▶ **Conserves raw or potable water resources**



# Requirements for reuse of industrial reclaimed water

- ▶ **210E - Level I**
- ▶ **210E - Level II**
- ▶ **Other (individual permit)**



# Level I

- ▶ **No notification to TCEQ**
- ▶ **No periodic testing (except for cooling tower blowdown)**
- ▶ **No application**
- ▶ **No fee**
- ▶ **No written authorization from TCEQ (beyond the rule itself)**
- ▶ **No TLAP or TPDES permit**
- ▶ **No expiration date**



# Level I conditions

- ▶ Wastewater listed in 210.53(a)
- ▶ Wastewater is reused onsite
- ▶ Alternative to reuse listed in 210.56(b)(1)
- ▶ End use listed in 210.56(b)(2)

# Re-use is not Level I if...

- ▶ Waste-stream is not listed in 210.53(a)
- ▶ Re-use is offsite
- ▶ Commingled wastewater
- ▶ Pollutant concentration exceed Table I thresholds

# Threshold Levels (§210.53, Table 1)

Parameter	Threshold (mg/l)	MAL (mg/l)	Parameter	Threshold (mg/l)	MAL (mg/l)
<b>Conventionals &amp; Nonconventionals</b>			<b>Metals</b>		
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
<b>Metals</b>			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	---

# Level II

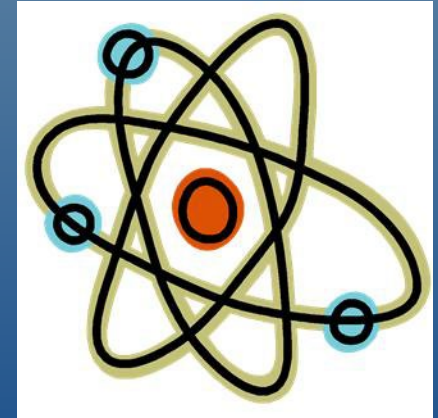
- ▶ TCEQ Application (FORM No. 20094)
- ▶ Application fee (\$100.00)
- ▶ Individual written authorization from TCEQ
- ▶ Effluent limitations and monitoring requirements
- ▶ Conduct annual testing



# The following wastes are not eligible for a re-use authorization under 210E

- ▶ Wastewater containing:

- radioactive materials,
- dioxins or furans,
- pesticides



- ▶ Wastewater classified as, or which is, hazardous as defined by 40 Code of Federal Regulations (CFR) Part 261

# Additional wastes not eligible for re-use under 210E

- ▶ Any wastewater regulated under CFR Parts 400-471 EXCEPT:
- ▶ 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; and
- ▶ Part 460 - hospital;

# Additional wastes not eligible for re-use under 210E

- ▶ **Septic tank, chemical toilet, grit or grease trap waste**
- ▶ **Barge cleaning or air scrubber wastewater**
- ▶ **Any wastewater eligible for coverage under:**
  - **Permit By Rule (30 TAC Chapter 321), or**
  - **Evaporation Pond General Permit.**



# Where are the requirements for re-use of industrial reclaimed water?

## Texas Administrative Code

**TITLE 30** ENVIRONMENTAL QUALITY  
**PART 1** TEXAS COMMISSION ON ENVIRONMENTAL QUALITY  
**CHAPTER 210** USE OF RECLAIMED WATER

### Subchapters

SUBCHAPTER A GENERAL PROVISIONS  
SUBCHAPTER B GENERAL REQUIREMENTS FOR THE PRODUCTION, CONVEYANCE, AND USE OF RECLAIMED WATER  
SUBCHAPTER C QUALITY CRITERIA AND SPECIFIC USES FOR RECLAIMED WATER  
SUBCHAPTER D ALTERNATIVE AND PRE-EXISTING RECLAIMED WATER SYSTEMS  
SUBCHAPTER E SPECIAL REQUIREMENTS FOR USE OF INDUSTRIAL RECLAIMED WATER  
SUBCHAPTER F USE OF GRAYWATER SYSTEMS



# **Am I subject to other requirements in Chapter 210?**

- ▶ **If the end use is irrigation – See Subchapter B**
- ▶ **If any type of impoundment is used to store reclaimed water – See Subchapter B**
- ▶ **If reuse is off-site – See Subchapters A & B**
- ▶ **If any amount of domestic wastewater is commingled with the industrial reclaimed water – See Subchapters A, B, & C**

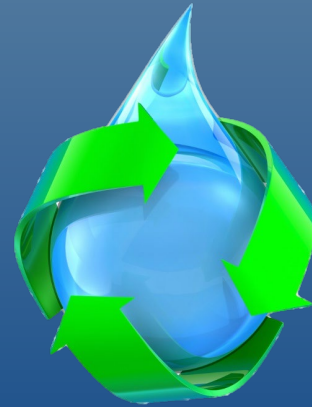
# What about greywater?

- ▶ Re-use of greywater is subject to the requirements of 30 TAC Chapter 210, Subchapter F



# A 210E authorization is not needed for:

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



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