

2017 Industry Meeting

Presented by : Anthony Turner
Industrial Pretreatment Coordinator
City of Carrollton

Introduction



- ✓ The City of Carrollton representatives
- ✓ Industrial Users representatives

Industrial Pretreatment Program Goals

A. Pretreatment Goals



B. Educational and Developmental Goals



Pretreatment Goals

- Protect the Collection System
- Protect the Collection System Workers
- Protect the Treatment Plant Processes
- Protect the Receiving Stream
- Protect the Sludge Quality



Educational and Developmental Goals

- Provide educational and informational meetings for IU's
- Notify IU's of local and regional training opportunities.
- Promote P2 initiatives with IU's
- Mail environmental and informational news letters to IU's



2016-2017 Highlights

- Annual Report
- Environmental Distinction Award
- IU Meeting
- Lab Standardization



ENVIRONMENTAL DISTINCTION AWARDS

- Started in 2003
- Recognizes industries that were consistently compliant with pretreatment regulations & stormwater regulations
- Open to all Consistently-Compliant Industries
- Chaired by a City Council Member
- Held during a City Council Meeting
 - This year's CC Recognition & EDA Awards: **TBD**

Consistently Compliant Facilities for FY2016

- BeautiControl
- BuzzBallz
- Electroplate Circuitry
Capital
- Gerdau Ameristeel
- Image Industries
- International Paper
- MI Windows & Doors
- PPG
- Quality Powder Coating,
LLC
- Ruskin Rooftop Systems
- QuikTrip #930
- Treehouse Foods
- Texas Finishing Company



Lab Standardization

- Sent known standards to three (3) area labs to check their performance
 - **Ana-Lab**
 - **Oxidor**
 - **Pace**
- Compared accuracy, turnaround time and cost



Price and Turn-Around Comparison Among Laboratories

	Xenco	ERMI	Oxidor	TRA
Turn-Around Time	7 Days	8 Days	8 Days	21 Days
Cost				
Sample Pick-Up	n/a	n/a	n/a	n/a
Arsenic	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Cadmium	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Chromium	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Copper	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Lead	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Mercury	\$ 22.00	\$ 26.10	\$ 25.00	\$ 21.45
Molybdenum	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Nickel	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Selenium	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Silver	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
Zinc	\$ 10.00	\$ 11.25	\$ 12.50	\$ 10.73
O&G	\$ 60.00	\$ 47.25	\$ 55.00	\$ 43.60
TTO-v	\$ 110.00	\$ 146.48	\$ 140.00	\$ 125.00
Sample Prep. Fee*	\$ 4.00	\$ -	\$ 10.00	\$ -
Total	\$ 296.00	\$ 332.33	\$ 355.00	\$ 297.35

Blue = Lowest cost & quickest turn-around time

2017-2018 Goals & Challenges

- Collection System Sampling
- LIMS
- New Ordinance(s)
- Renewing Industrial Permits



Wastewater Surcharge



- The City of Carrollton's industrial extra strength sewer charge targets industries that discharge high-strength wastewater to the sewer system. These industrial customers may or may not have discharge limits, but the pretreatment staff monitors them for five-day Biochemical Oxygen Demand (BOD) and for Total Suspended Solids (TSS) concentrations.
- Discharges exceeding 250 mg/L BOD or 250 mg/L TSS are subject to extra strength sewer charges. The city calculates extra strength services charges using flow rates and monitoring results.

The City of Carrollton

Pretreatment Charges and Fees

- Section 171.59. (A) Users are required to pay applicable pretreatment charges and costs for.
- (3) Treating abnormal strength wastes (surcharges).
- (5) Costs to the city or TRA incurred an upset, bypass or unauthorized discharge.



Surcharge Facts

Who?

- Industrial User types include: Significant Industrial Users, Categorical Industrial Users, or Non-Significant Industrial Users (Monitored Industries)
- The person (industry) discharging the waste pays a monthly surcharge to the City in addition to the usual monthly sewer service charges.

Why?

- Industrial wastewater can cost more for the TRA to treat because it can require higher levels of oxygen, create more bio solids, or require additional chemicals for treatment.
- Research reports have concluded that high concentrations of BOD₅, TSS, and FOG will contribute to increased failure rates.

Surcharge Multiplier Calculation

Based On 6/00-11/00 Averaged Sample Data,
To Be Applied To 12/00-5/01 Surcharge Calculations

$$\text{Surcharge} = (Q) \{ \text{Surcharge Multiplier} \}$$

$$\text{Surcharge} = (Q) \{ (0.001) (8.34) [a(\text{BOD}-250) + b(\text{TSS}-250)] (c) \}$$

Q	Wastewater Flow, Mgal/mo
0.001	Conversion Factor, Mgal/mo to MMgal/mo
8.34	Conversion Factor, mg/L to lb/MMgal
0.05168	a = \$/lb BOD Unit Charge
0.04512	b = \$/lb TSS Unit Charge
1.3	c = CoC Admin Overhead Factor
BOD	Averaged from Sample Testing
TSS	Averaged from Sample Testing

Date	BOD (mg/L)	TSS (mg/L)	Data
Jun-00	11	41	DMR
Jul-00	11		DMR
Aug-00	5	16	DMR
Sep-00	10	150	DMR
Oct-00	9		DMR
Nov-00	2	48	DMR
AVERAGES:	8	63.75	

$$\text{Multiplier} = (0.001) (8.34) [0.05168(\text{BOD}-250)+0.04512(\text{TSS}-250)] (1.3)$$

-0.227

SURCHARGE
MULTIPLIER

Surcharge Multiplier Calculation

Based On 06/14-11/14 Averaged Sample Data

$$\text{Surcharge} = (Q) \{ \text{Surcharge Multiplier} \}$$

$$\text{Surcharge} = (Q) \{ (0.001) (8.34) [a(\text{BOD}-250) + b(\text{TSS}-250)] (c) \}$$

Q	Wastewater Flow, Mgal/mo	
0.001	Conversion Factor, Mgal/mo to MMgal/mo	
8.34	Conversion Factor, mg/L to lb/MMgal	
0.06605	a = \$/lb BOD Unit Charge	
0.06592	b = \$/lb TSS Unit Charge	
1.3	c = CoC Admin Overhead Factor	
BOD	Averaged from Sample Testing	250
TSS	Averaged from Sample Testing	250

Date	BOD (mg/L)	TSS (mg/L)	Data
06/10/2014	14700	117	
9/3/14	5250	86	
10/1/14	4890		
11/13/2014	3060		

AVERAGES: 6975.00 101.50

$$\text{Multiplier} = (0.001) (8.34) [0.06605(\text{BOD}-250)+0.06592(\text{TSS}-250)] (1.3)$$

0.001 8.34 0.06605 6975 -250 0.06592 250 -250)) 1.3

4.816

**SURCHARGE
MULTIPLIER**



Texas Pollution Discharge Elimination System Stormwater Overview



Industrial Stormwater MSGP

- Permit Basics
- Obtaining Coverage
- Permit Requirements



MSGP TXR 050000

- Effective : August 14, 2016
- Expires: August 14, 2021
- Authorizes point source discharges of stormwater associated with industrial activity and certain non-stormwater discharges to surface water in the state.
- Stormwater discharge directly related to manufacturing, processing, or raw materials storage areas at an industrial facility.

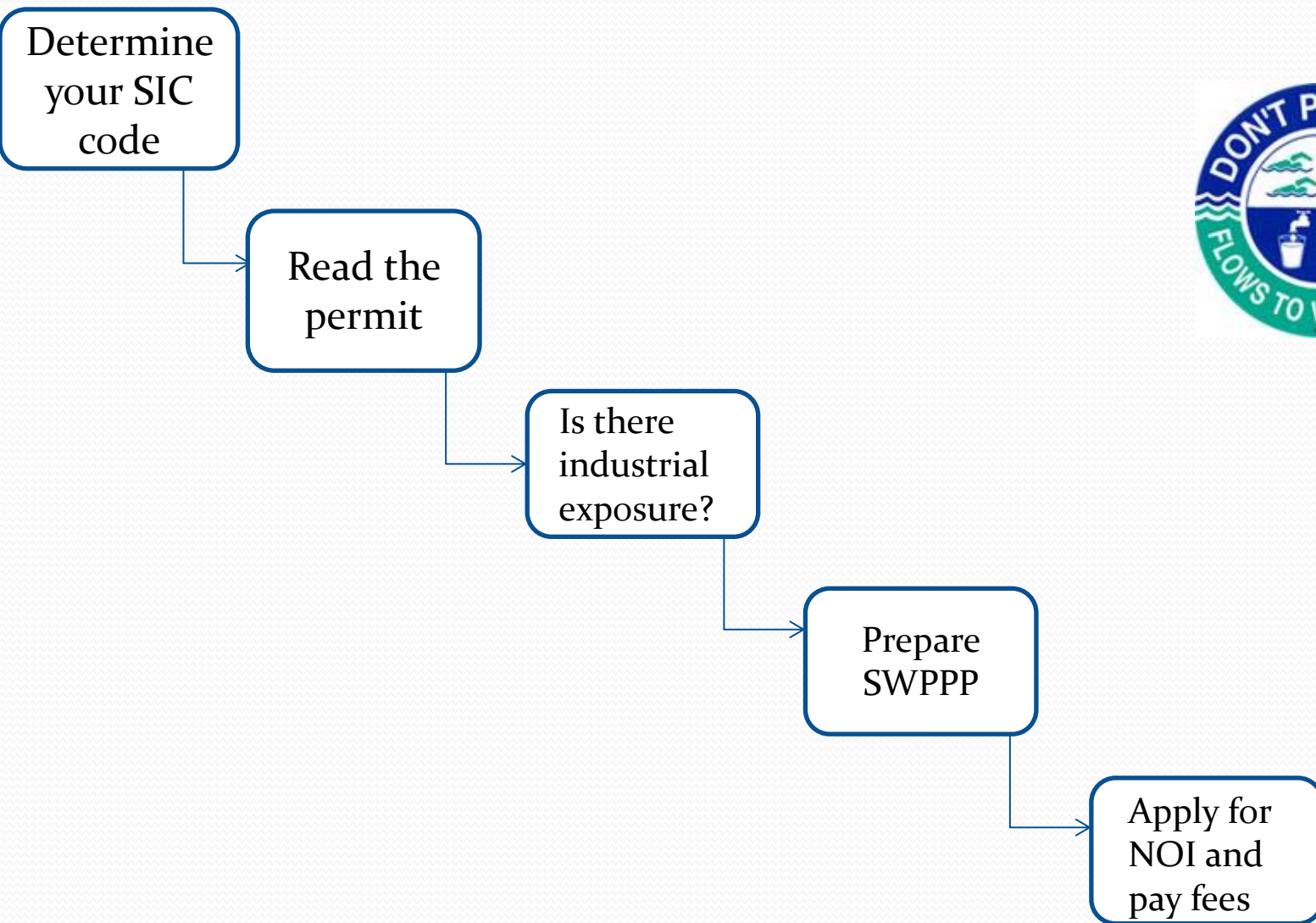


Discharge That Require MSGP Authorization

Stormwater discharges associated with industrial
“activity”, defined in 40 CFR- 122.26(b)(14):

Total of 30 Sectors

How to get permit coverage (MSGP- NOI)



Options and Fees for MSGP Authorization

- Options for Notice of Intent (NOI) application and fee
 1. Paper- \$200 fee/ Provisional coverage 7 days after postmarked date
 2. Electronic- \$100 fee/ Immediate coverage
- Copy of NOI to Municipal Separate Storm Sewer System or MS4

MSGP Requirements

- Develop and implement a Stormwater Pollution Prevention Plan (SWP₃)
- Monitor and record discharges to comply with numeric effluent limits (once annually)
- Perform quarterly visual monitoring
- Perform quarterly inspections of controls
- Performed benchmark sampling (twice annually)
- Annual Report



SWP3 Requirements

- Comprehensive site compliance evaluation
- Site map w/ outfalls & sampling points
- Narrative description of activities
- Pollution Prevention Team
- Describe potential pollutants and sources
- Describe pollution prevention measures
- List best management practices (BMPs)
- Must include: summary of sampling data, inspection, and employee training
- Stays on site or made readily available
- Requires updates - “living document”



Qualifying Storm Event

- Measurable storm event that results in a discharge from the site
- Must have rain-gauge on-site
- If unable to collect a sample, document reason



Hazardous Metals Sampling and Monitoring Requirements

- Comply with the numeric limits for hazardous metals
- Sample once per year
- Submit results by March 31 to TCEQ

Exceedances $\geq 40\%$ must be reported directly to TCEQ's Enforcement Division and regional office within 5 working days (in writing)

- Required by all sectors
- Waiver options are available

Benchmark Monitoring Requirements

- Sector Specific Benchmark Sampling
- Conduct once per six months
- Submit results to TCEQ by March 31st
- Use Benchmark Sampling form #20091 (not a DMR)
- If exceed, the facility must evaluate the SWP₃, BMPs, and revise as needed
- Based on SIC codes within sectors
- Waiver for Years 3 and 4 available if results for Years 1 and 2 are below benchmark levels



Type of Inspections

Type	Frequency	Recording
Inspection/Certification of Non-stormwater Discharges	Within 180 days of filing an NOI	<ul style="list-style-type: none"> - Update SWP3 as needed - Certification in SWP3
Routine Facility Inspection	1/quarter by qualified personnel & SWPP team member	<ul style="list-style-type: none"> - Signed documentation with checklist
Quarterly Visual Monitoring	quarterly	<ul style="list-style-type: none"> - Reviewed by SWPP team - Records in SWP3 - Update SWP3 as needed
Annual Comprehensive Site Compliance Inspection	annually	<ul style="list-style-type: none"> - Report that is signed/certified within 30 days - Update SWP3 as needed



No Exposure Exclusion

Available for all sites that have no exposure of industrial materials or activities to stormwater

This includes waste handling areas, product storage, loading/unloading areas

No exposure generally means inside of a storm resistant shelter

Benefits: Sampling, monitoring, inspections, and SWPPP is not required



No Exposure Exclusion

- Exceptions to storm resistant shelter:
 - Final products meant for outdoor use
 - Must be completely assembled
- Sealed drums/tanks with no operational valves
- Lidded dumpsters
- Roof stacks/vents
- TCEQ Regulatory Guidance RG-467
- <http://www.tceq.texas.gov/publications/rg/rg-467.html>

Obtaining a No Exposure Exclusion

- Submit Conditional No-Exposure Certification (NEC) form instead of NOI
- Pay Application fee

\$200 Paper

\$100 through ePermits

- No Annual fee
- Must maintain “no exposure” condition at all times



Changes in Information or Cancelling Coverage

- Changes to information submitted on NOI or NEC form: The entity must submit a notice of change form
- Cancelling coverage
- The entity must submit a Notice of Termination (NOT) form

Useful Links

- How to Register with STEERS-
<https://www.tceq.texas.gov/permitting/stormwater/industrial/proposed-industrial-permit>
- TCEQ webpage – <http://www.tceq.texas.gov>
- TCEQ Stormwater Permits –
http://www.tceq.gov/permitting/stormwater/sw_permits.html
- STEERS-
<https://www3.tceq.texas.gov/steers/index.cfm>

Additional Contact Information

- MSGP Renewal Hotline- (512) 239-6747
- Stormwater & Pretreatment Team-
(512) 239-4671 or swgp@tceq.texas.gov
- Stormwater Processing Center-
(512) 239-3700 or swpermit@tceq.texas.gov
- STEERS-
(512) 239-6925 or STEERS@tceq.texas.gov
- Small Business and Local Government Assistance (SBGLA)-1800-447-2827

7



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Keep it clean!

Keep it clean!



ANY
QUESTIONS
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