Targeting for pretreatment inspections

May 15, 2023

Al Garcia

Background

- Approximately 13,000 POTW in the U.S.
- 1,600 Publicly Owned Treatment Works (POTWs) with approved programs that treat ~80% of the national wastewater flow to waters of the U.S (32 billion GPD).
- 23,000 Significant Industrial Users (SIUs) and a large unknown universe of other IUs that account for at least 30% of all industrial wastewater generated in the U.S. These discharges are controlled by Pretreatment Program requirements.

Straight Forward Approach to Targeting CMS

- July 21 2014 Compliance Monitoring strategy recommended minimum frequency:
  - Pretreatment compliance audits (PCA): 1 every 5 years
  - Pretreatment compliance inspections (PCI): 2 every 5 years
  - SIU at non approved pretreatment programs: review reports and annual sampling and inspections

Targeting in Region 8

- Approval authority
  - Targeting for approved pretreatment programs (PCAs and PCIs)
    - 38 POTWs in Region 8 where EPA is the Approval Authority (26 CO, 6 WY and 6 MT)

Review of Pretreatment annual reports (Pass through or Interference)

Attachment C: Description of Each Incidence of Pass Through or Interference

Provide a description of each incidence of Pass Through or Interference at the wastewater treatment plant or collection system during the year, the cause if determined, and any actions taken by the POTW in response to the Pass Through or Interference.

	Description of Pass Through/Interference
01	May 17, 2016 our influent composite sample ammonia was 80.6 mg/l . This caused us to violate our
02	permit for ammonia and TIN. On May 17, 2017
03	May 18, 2017 our Influent composite sample ammonia was 61.2 mg/l, This caused us to violate our
04	permit for ammonia and TIN. On May 18, 2017
05	City wastewater staff investigated this abnormal ammonia discharge, by the use of portable samples
06	We were unable to locate the source of this discharge. We have had no other abnormal ammonia
07	readings,
08	The City of Fort Morgan published a statement in the Fort Morgan Times.
09	
10	
11	

Review of QNCR to determine which POTWs are having metal effluent violations

Environmental Protection Agency

Integrated Compliance Information System

Data Run Date: 09/11/17

Report Date: 09/11/17

Coordinator's Quarterly Noncompliance Report ***QNCR***

MONTANA

FACILITY: CITY OF GREAT FALLS WWTP -- NPDES ID: MT0021920 -- FRS ID: 110064645460

MAJ/MIN	FACILITY TYPE	FEDERAL GRANT	COMPLIANCE STATUS	State Region
Major	POTW	$	Noncompliant	

PERMIT RNC STATUS

FY	FY16	FY16	FY16	FY16	FY17	FY17	FY17
Q	Q1	Q2	Q3	Q4	Q1	Q2	Q3
-/-	N/-	E/-	E/-	E/-	R/-	E/-	E/-

DMR VIOLATION(S) SUMMARY

VIOLATION DATE	LIMIT SET	PARAMETER	MON LOC	ENFORCEMENT ACTION IDENTIFIER	CHANGE OF LIMITS STATUS	VIOLATION	RNC DETECTION CODE/DATE/TYPE			RNC RESOLUTION CODE/DATE/DESCRIPTION		
5/31/17	003-M	00978-Arsenic, total recoverable	1			E90	T	5/31/17	TRC	1	5/31/17	NC - Unresolved RNC
4/30/17	003-M	00978-Arsenic, total recoverable	1			E90	T	4/30/17	TRC	1	4/30/17	NC - Unresolved RNC
3/31/17	003-M	00978-Arsenic, total recoverable	1			E90	T	3/31/17	TRC	1	3/31/17	NC - Unresolved RNC
2/28/17	003-M	00978-Arsenic, total recoverable	1			E90	T	2/28/17	TRC	1	2/28/17	NC - Unresolved RNC
1/31/17	003-M	00978-Arsenic, total recoverable	1			E90	T	2/28/17	TRC	1	2/28/17	NC - Unresolved RNC

ENFORCEMENT ACTION(S) SUMMARY

DATE	FINAL ORDER IDENTIFIER	PARTY/ACTION		STATUS	STATUS DATE	FORMAL/ INFORMAL	C.S.?
7/14/17		ST	Letter of Violation/ Warning Letter			Informal	NO
			Linked to: 05/31/2017 003-M 00978 1 0 Arsenic, total recoverable				

Targeting in Region 8

- Targeting for unapproved pretreatment programs (CONTROL AUTHORITY)
  - Targeting approach from Region 7 high bod in the influent from industrial sources

INFLUENT DATA FROM ICIS

Monitoring Period End Date	Parameter	Sample Type	Monitoring Location Description	Limit Type	DMR Value	Units
09/30/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	1875	mg/L
09/30/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	3300	mg/L
10/31/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	270	mg/L
10/31/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	280	mg/L
11/30/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	1690	mg/L
11/30/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	3100	mg/L
12/31/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	1105	mg/L
12/31/2013	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	1300	mg/L
01/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	775	mg/L
01/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	1300	mg/L
02/28/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	610	mg/L
02/28/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	970	mg/L
03/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	170	mg/L
03/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	19	mg/L
04/30/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	118	mg/L
04/30/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	150	mg/L
05/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	775	mg/L
05/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	890	mg/L
06/30/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	825	mg/L
06/30/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	1200	mg/L
07/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MO AVG	325	mg/L
07/31/2014	BOD, 5-day, 20 deg. C	G	Raw Sewage Influent	MX WK AV	490	mg/L

DMR EXCEEDANCES FROM ICIS

Monitoring Period End Date	Parameter	Type	Limit	Result
4/30/2011	BOD Removal	Monthly Average Minimum	85%	83%
5/31/2011	BOD	Monthly Average	30 mg/L	34 mg/L
5/31/2011	BOD Removal	Monthly Average Minimum	85%	79%
6/30/2011	TSS	Monthly Average	30 mg/L	33 mg/L
6/30/2011	TSS	Weekly Average	45 mg/L	50 mg/L

Monitoring Period End Date	Parameter	Type	Limit	Result
1/31/2012	TSS Removal	Monthly Average Minimum	85%	83%
2/29/2012	TSS	Monthly Average	30 mg/L	32 mg/L
3/31/2012	BOD Removal	Monthly Average Minimum	85%	84%
4/30/2012	BOD	Monthly Average	30 mg/L	62.5 mg/L
4/30/2012	BOD	Weekly Average	45 mg/L	86 mg/L
4/30/2012	TSS	Monthly Average	30 mg/L	41 mg/L
4/30/2012	BOD Removal	Monthly Average Minimum	85%	52%
4/30/2012	TSS Removal	Monthly Average Minimum	85%	62%
5/31/2012	BOD	Monthly Average	30 mg/L	30.5 mg/L
5/31/2012	TSS	Monthly Average	30 mg/L	33.5 mg/L
12/31/2012	BOD Removal	Monthly Average Minimum	85%	79%
12/31/2012	TSS Removal	Monthly Average Minimum	85%	69%

Monitoring Period End Date	Parameter	Type	Limit	Result
1/31/2013	Fecal Coliform	Maximum Weekly Average	200 cfu/100 mL	1,100 cfu/100 mL
4/30/2013	BOD	Monthly Average	30 mg/L	46.5 mg/L
4/30/2013	BOD	Maximum Weekly Average	45 mg/L	47 mg/L
5/31/2013	BOD	Monthly Average	30 mg/L	63 mg/L
5/31/2013	BOD	Maximum Weekly Average	45 mg/L	91 mg/L
4/30/2014	BOD	Monthly Average	30 mg/L	67.5 mg/L
4/30/2014	BOD	Maximum Weekly Average	45 mg/L	83 mg/L
4/30/2014	BOD Removal	Monthly Average Minimum	85%	43%
4/30/2014	TSS Removal	Monthly Average Minimum	85%	35%
1/31/2015	Fecal Coliform	Maximum Weekly Average	200 cfu/100 mL	2,400 cfu/100 mL

Potential industrial users

- Population of Big Timber 1,641
- REFRENCE USA narrowed down list

Company Name	Address	City	IU Notes
Big Timber Meats	209 E 1st Ave	Big Timber	domestic & wild game
GNLD International	915 Hart St	Big Timber	vitamin supplement distribution
Pioneer Meats	31 Pioneer Trl	Big Timber	wild game

Unapproved Pretreatment POTW Targeting

Priority	City	POTW Name	Permit Number	Industries	High Influent Data	Conventional Violations	Toxic Violations	Notes	Geographic location	Industrial User Info from State File
1	Big Timber	Big Timber	MT0020753	Y	Y	Y		Consistently very high BOD in influent.	South, between Bozeman and Billings	Big Timber Meats, Pioneer Meats. Unsure what GNLD International is.
2	Livingston	Livingston	MT0020435	Y	Y	Y		Slightly high BOD in the influent.	South, between Bozeman and Billings	Wilcoxson's Ice Cream Co, Neptunes Brewery, Katabatic Brewing Co. Sheep Mountain Meat Processing appears out of town.
1	Jordan	Jordan	MT0021385	Y	Y	Y		Consistently very high BOD in influent.	East, central	Ryan Processing Plant
1	Belt	Belt	MT0021571	Y	Y	Y		Consistently very high BOD in influent.	Central, <30 min east of Great Falls	Harvest Moon Brewing Co, L&M Lockers (meat)
1	Denton	Denton	MT0022462	Y	Y	Y		Very high BOD in influent, limited data.	Central, 1:45 east of Great Falls	Denton Meats

Phone Calls with POTW

- Introduction and purpose of pretreatment inspection
- Explanation of pretreatment program
- Industrial users in service area
- Concerns from potw
- Answered questions

Inspection

- Met with the city and had an opening conference
- Inspected the potw and certain sections of the collection system
- Visited different industries with the potw operators
- Closing conference with city

Summary

- The Targeting tool helps identify industrial users that are subject to the Pretreatment regulations
- The Targeting tool helps identify cities that might need a Pretreatment program.
- Inspections at unapproved Pretreatment programs help cities better understand the Pretreatment program.
- Inspections at unapproved Pretreatment programs help cities identify Pretreatment issues that might be affecting their NPDES permit compliance.

Questions?

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