

# INDUSTRIAL LAUNDERERS - SIC: 7218 HOW IT RELATES TO.... 40 CFR PART 403

DEAN WOEHL, INDUSTRIAL PRETREATMENT TECHNICIAN

CITY OF BISMARCK, BISMARCK NORTH DAKOTA

R8PA CONFERENCE OCTOBER 2021 CHEYENNE WY



- NOT ALL SIGNIFICANT INDUSTRIAL USERS (SIU) ARE CREATED EQUAL.
- MY GOAL IS TO PRESENT THE LOGIC THE WE USE ON THIS SIU AS AN EXAMPLE HOW YOUR PROGRAM LOOKS AT OTHER SIU'S.

### A SLIDE FROM AL GARCIA'S PRESENTATION

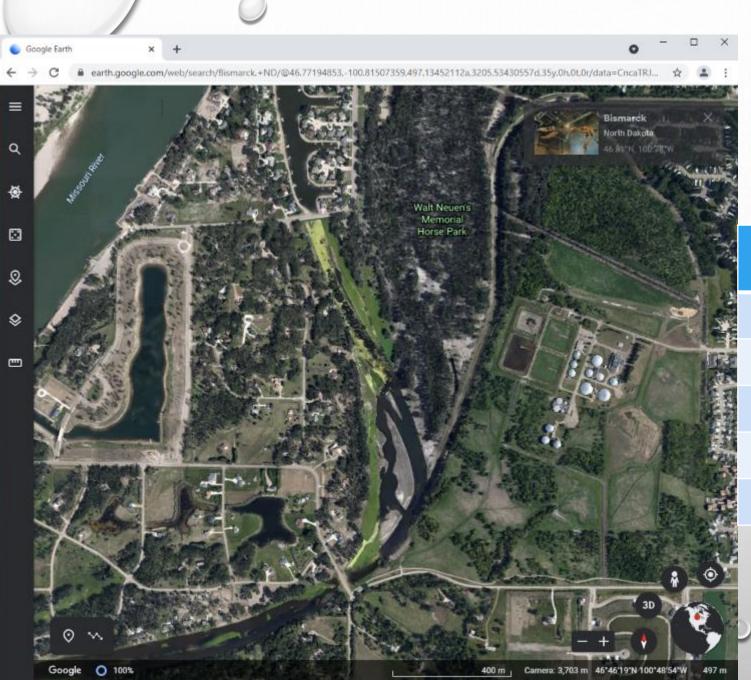


# Definitions

Act	Water Management Division Director	NPDES Permit	Pretreatment Requirements
Approval Authority	Indirect Discharge	NPDES State	Regional Administrator
Approved POTW Pretreatment Program	Industrial User	Pass Through	Significant Industrial User
Best Management Practice(BMP)	Interference	Publicly Owned Treatment Works(POTW)	Submission
Control Authority	National Pretreatment Standard	POTW Treatment Plant	
Director	New Source	Pretreatment	40 CFR 403.3



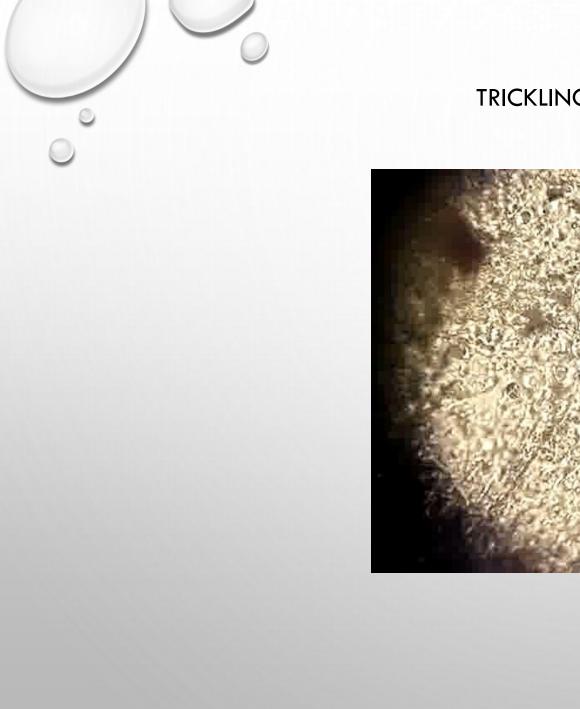
- WE HAVE BEEN MONITORING THIS SIU SINCE THE BEGINNG OF TIME (JANUARY 1991)
- THE SIU HAS ALWAYS BEEN COOPERATIVE, AT ONE POINT THE LOCAL REPRESENTATIVES ASKED FOR NOV
- INDUSTRY WAS HESITANT TO BE USED AS EXAMPLE IN PRESENTATION, I HAVE MADE EFFORTS TO CONCEAL THEIR NAME, AND NO USE PICTURES OF STAFF WHEN POSSIBLE
- BILL GEFROH HAS WAY MORE KNOWLEDGE (HE MAY HAVE INPUT)



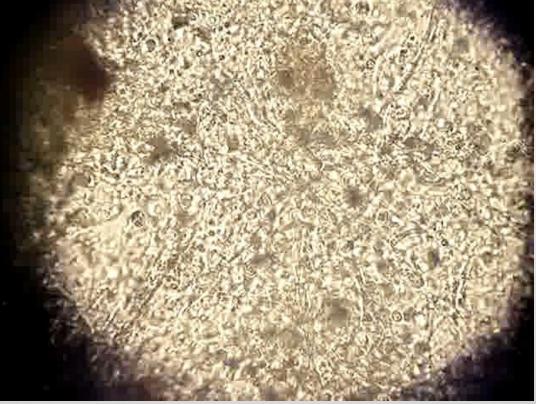
# BISMARCK WASTEWATER TREATMENT PLANT

BISMARCK WWTP	PERMIT # ND0023434
Design Capacity	9.3 MGD avg annual
Average Flow	6.5 MGD
TSS Loading $\sim$ 325 ppm	~18,000 pound/day
CBOD Loading $\sim$ 275 ppm	$\sim$ 15,000 pound/day
BIOSOLIDS	LAND APPLIED





# TRICKLING FILER BACTERIA



# CITY ORDNANCE

<u>HTTPS://ND-BISMARCK2.CIVICPLUS.COM/DOCUMENTCENTER/VIEW/159/TITLE-111---</u> <u>PRETREATMENT-PROGRAM?BIDID</u>=

### TITLE 11.1

#### PRETREATMENT PROGRAM

### Table of Contents

CHAPTER 11.1-01.	GENERAL PROVISIONS	. 2
11.1-01-01.	Purpose and Policy	. 2
11.1-01-02.	Definitions	. 3
CHAPTER 11.1-02.	BUILDING SEWERS AND CONNECTIONS	10
11.1-02-01.	Permit - General	10
11.1-02-02.	Permit Application	10
11.1-02-03.	Connection Costs	10
11.1-02-04.	Connections	10
11.1-02-05.	Construction	10
11.1-02-06.	Location	11
11.1-02-07.	Restrictions	
11.1-02-08.	Building Codes	
11.1-02-09.	Inspection	
11.1-02-10.	Safety and Restoration	11
CHAPTER 11.1-03. 11.1-03-01. 11.1-03-02.	<b>REGULATIONS</b> Prohibitions Limitations on Wastewater Strength	11
11.1-03-03.	Wrongful Discharge of Waste Into Storm Sewer	
	Watercourse	
CHAPTER 11.1-04.	FATS, OIL AND GREASE CONTROL	16
11.1-04-01.	Purpose and Policy	
11.1-04-02.	Administration	17
11.1-04-03.	Definitions	17
11.1-04-04.	Facilities Required to Remove Grease	19
11 1 04 05		1.0

## PRETREATMENT LIMITS

3. Any wastewater having a pH less than 6.0 or having other corrosive property capable of causing damage or hazard to structures, equipment or personnel of the wastewater disposal system.

> 12. Any unpolluted water, including but not limited to non-contact cooling water, storm water, subsurface drainage or groundwater.

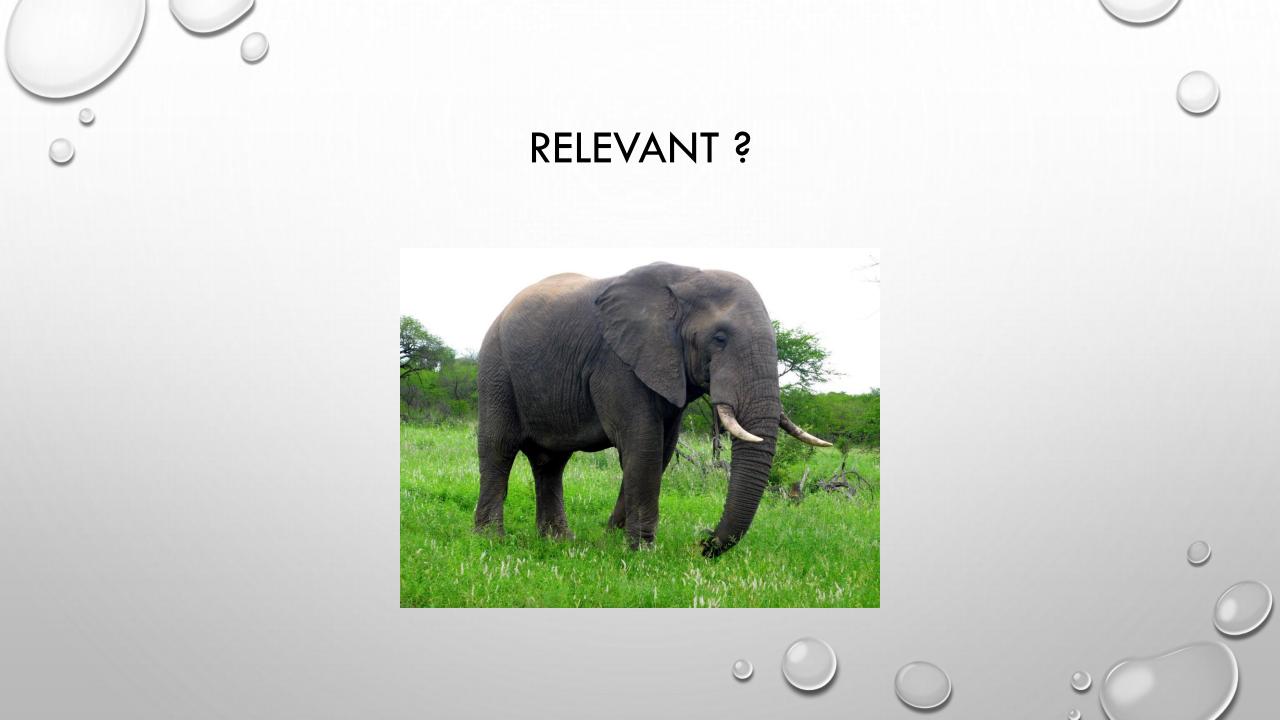
> 13. Any wastewater containing fats, wax, grease or oils, including petroleum oil, nonbiodegradable cutting

oil, or products o

(a) Dep such manner a (b) Ove handling equi (c) Are therefore p facilities t treatment; on (d) Hay the treatment to achieve compliance with the limitations contained herein, contained in the Federal Pretreatment Standards, or contained in any state requirements.

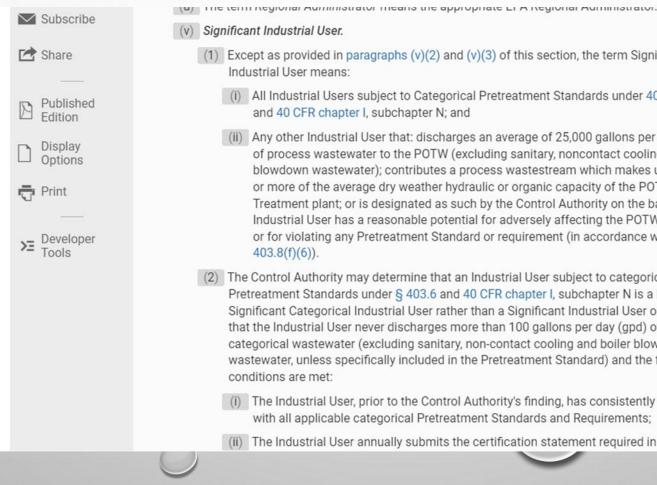
5. <u>Supplementary Limitations</u>: Except as noted in 11.1-03-02.6 no user may discharge wastewater containing materials in excess of the following values:

Material	Concentration	mg/1
Benzene	0.05	
BETX, (Total')	0.75	
Cadmium	0.09	
Chromium (Total)	4.39	
Chromium (VI)	4.39	



### INDUSTRIAL LAUNDERERS - SIC: 7218

HOW IT RELATES TO 40 CFR PART 403.3 SIGNIFICANT INDUSTRIAL USERS



(v) Significant Industrial User.

- (1) Except as provided in paragraphs (v)(2) and (v)(3) of this section, the term Significant Industrial User means:
  - (i) All Industrial Users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and
  - (ii) Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW Treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's operation or for violating any Pretreatment Standard or requirement (in accordance with 40 CFR 403.8(f)(6)).
- (2) The Control Authority may determine that an Industrial User subject to categorical Pretreatment Standards under § 403.6 and 40 CFR chapter I, subchapter N is a Non-Significant Categorical Industrial User rather than a Significant Industrial User on a finding that the Industrial User never discharges more than 100 gallons per day (gpd) of total categorical wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater, unless specifically included in the Pretreatment Standard) and the following conditions are met:
  - (i) The Industrial User, prior to the Control Authority's finding, has consistently complied with all applicable categorical Pretreatment Standards and Requirements;
  - (ii) The Industrial User annually submits the certification statement required in § 403.12(q)

### INDUSTRIAL LAUNDERERS - SIC: 7218

# HOW IT RELATES TO 40 CFR PART 403.5

### Title 40 / Chapter I / Subchapter N / Part 403 / § 403.5

Table of

Contents

Timeline

Go to Date

Compare

Dates

Subscribe

Published

Edition

Display

Options

>= Developer Tools

🖶 Print

C Share

P

Q Search

F

図

i

4

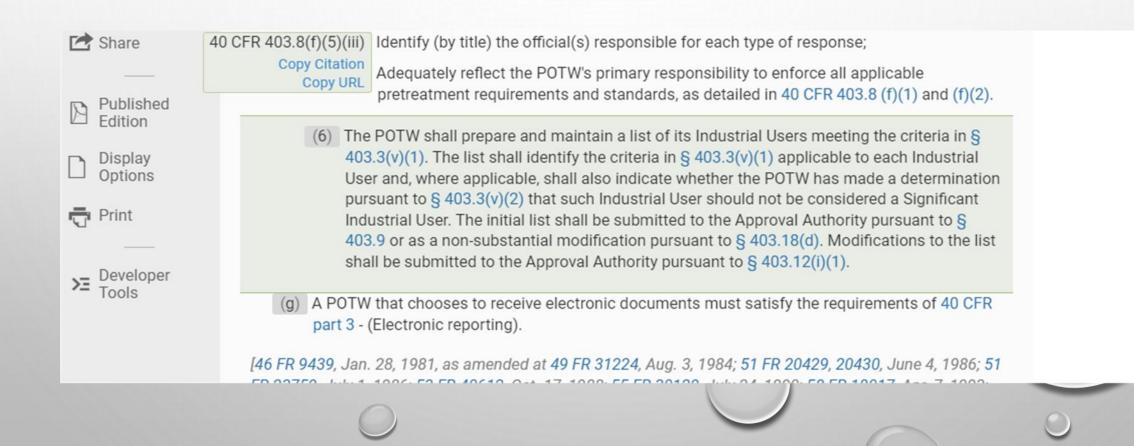
- (2) Pollutants which will cause corrosive structural damage to the POTW, but in no case Discharges with pH lower than 5.0, unless the works is specifically designed to accommodate such Discharges;
  - Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in Interference;
  - (4) Any pollutant, including oxygen demanding pollutants (BOD, etc.) released in a Discharge at a flow rate and/or pollutant concentration which will cause Interference with the POTW.
  - (5) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW Treatment Plant exceeds 40 °C (104 °F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits.
  - (6) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
  - (7) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
  - (8) Any trucked or hauled pollutants, except at discharge points designated by the POTW.
- (c) When specific limits must be developed by POTW.
  - (1) Each POTW developing a POTW Pretreatment Program pursuant to § 403.8 shall develop and enforce specific limits to implement the prohibitions listed in paragraphs (a)(1) and (b) of this section. Each POTW with an approved pretreatment program shall continue to develop these limits as necessary and effectively enforce such limits.
  - (2) All other POTW's shall, in cases where pollutants contributed by User(s) result in Interference or Pass-Through, and such violation is likely to recur, develop and enforce specific effluent limits for Industrial User(s), and all other users, as appropriate, which, together with appropriate changes in the POTW Treatment Plant's facilities or operation, are necessary to



**INDUSTRIAL LAUNDERERS - SIC: 7218** 

HOW IT RELATES TO 40 CFR PART 403.8

INDUSTRIAL WASTE SURVEY



# NAICS DESCRIPTION / NAICS TO SIC CROSSWALK / IWS

	NAICS Code	Permittion   NAICS Association				Doco 1 of a								
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316	00056800-000	GARSKE PRODUCE		5431		PRODUCE MARKE	TS AND STANDS-RETAIL	1341 S 12TH ST	1345 S 12TH ST	BISMARCK	ND	9.00	224	
317	00057000-002	T&M ELECTRIC INC		1731		ELECTRICAL WOR	K-CONTRACTORS	1321 S 12TH ST	913 SE 52ND ST	BISMARCK	ND	2.00	50	
318	00057500-000	ARC THRIFT SHOP		5932		SECONDHAND CL	OTHING AND SHOE STOR	1311 S 12TH ST	1500 E CAPITOL AVE SUITE 203	BISMARCK	ND	3.00	75	
319	00058000-001	THE ARC THRIFT SHOP		5932		SECONDHAND CL	OTHING AND SHOE STOR	1211 PARK AVE	1500 E CAPITOL AVE SUITE 203	BISMARCK	ND	5.00	125	
320	00058500-001	SUPER KIDS JR ACADEMY		8351		CHILD DAY CARE	SERVICES	1227 PARK AVE	1227 PARK AVE	BISMARCK	ND	38.25	954	
321	00059000-001	TEAM TORQUE INC		8734		CALIBRATION AN	D CERTIFICATION (TESTIN	1231 PARK AVE	1231 PARK AVE	BISMARCK	ND	8.00	199	
322	00060000-001	DAVID D DICK		1711		PLUMBING AND H	HEATING-CONTRACTORS	1202 FRONTIER DR	8830 12TH ST SE	BISMARCK	ND	7.50	187	
323	00060510-001	AMERIPRIDE/US ENERGY SERV		7218		LAUNDERERS, INI	DUSTRIAL	1233 FRONTIER DR UNIT 1	PO BOX 1177	MANDAN	ND	2.25	56	
324	00060550-000	BULLER ENTERPRISES INC	Red River G	1793		GLASS AND GLAZ	ING WORK	1233 FRONTIER DR UNIT 5	841 SAN ANGELO DR	BISMARCK	ND	0.00	0	
325	00060560-006	AMERIPRIDE LINEN & APPAREL SVC		7218		LAUNDERERS, INI	DUSTRIAL	1233 FRONTIER DR UNIT 6	PO BOX 1177	MANDAN	ND	0.00	0	
326	00061100-000	EXPRESSWAY AMOCO		5541	7542	GASOLINE SERVIC	CE STATIONS	919 S WASHINGTON ST	919 S WASHINGTON ST	BISMARCK	ND	1.25	31	
327	00061110-000	EXPRESSWAY AMOCO CAR WASH		5541	7542	GASOLINE SERVIC	CE STATIONS	919 S WASHINGTON ST	919 S WASHINGTON ST	BISMARCK	ND	566.75	14131	
328	00061200-000			7218		LAUNDERERS, INI	DUSTRIAL	1238 FRONTIER DR	PO BOX 1177	MANDAN	ND	2610.25	65082	
329	00061220-001	BRIDGESTONE/ECOVA-MS 3173		5531		TIRE (AUTOMOBI	LE) DEALERS-RETAIL	1303 FRONTIER DR	PO BOX 2440	SPOKANE	WA	1.75	44	
330	00061300-000	HERBERT SCHULER		1521		GENERAL CONTRA	ACTORS-SINGLE-FAMILY H	1333 FRONTIER DR	10051 HWY 10	BISMARCK	ND	3.50	87	
331	00061420-000	COMFORT ZONE HEATING/AIR		1711		PLUMBING AND H	HEATING-CONTRACTORS	1313 REPUBLIC ST UNIT C	1313 C REPUBLIC ST	BISMARCK	ND	1.00	25	
332	00061430-002	CAMERON FLECK						1313 REPUBLIC ST UNIT A/B	PO BOX 7273	BISMARCK	ND	1.25	31	
333	00061450-000	CLASSIC DRYWALL INC		5211		LUMBER AND OT	HER BUILDING MATERIAL	1313 REPUBLIC ST UNIT E	1206 EAGLES VIEW LN	BISMARCK	ND	0.50	12	
334	00061460-006	CRAIG SOSA	VACANT	VACANT		DOORS LOCKED N	IO SIGNS	1313 REPUBLIC ST UNIT F	2300 46TH AVE SE APT 214	MANDAN	ND	0.00	0	
335	00061460-007	NATHAN DAVIS						1313 REPUBLIC ST UNIT F	231 MARIETTA DR	BISMARCK	ND	0.00	0	
336	00061470-000	PARK AVE BUSINESS COMPLEX		6512		OPERATORS OF N	IONRESIDENTIAL BUILDIN	1323 REPUBLIC ST UT H	PO BOX 256	BISMARCK	ND	2.00	50	
337	00061500-000	ECON-O-STORAGE BY BERGANS LLLP	,	4225		GENERAL WAREH	OUSING & STORAGE	1343 REPUBLIC ST	1343 REPUBLIC ST	BISMARCK	ND	0.75	19	
		HARLYN KOPP						1525 PARK AVE	132 MARYLAND ST	BISMARCK	ND	1.00	25	
		BISMARCK PARK AVE PROP		9631		PUBLIC SERVICE C	OMMISSIONS, EXCEPT TR	1309 PARK AVE	PO BOX 256	BISMARCK	ND	4.75	118	
		STRAUBS RENTALS		4226			USING AND STORAGE	1515 PARK AVE	608 S 11TH ST		ND	4.75		
		ENEXIO US LLC						1535 PARK AVE	17757 US HWY 19 NORTH SUITE 275		FL	6.00	150	
		ROBERT NORLAND		7991		PHYSICAL FITNES	S FACILITIES	1605 PARK AVE	2923 GENTRY CI		ND	4.25		

# SIGNIFICANT INDUSTRAIL USER

C       ************************************	Soogle Earth	× +	• <sup>–</sup>		
Average Flow	=	n.google.com/web/search/americpride/@46.78866717,-100.77235063,504.2127968a	UTILITY ACCOUNT #	00061200-000	% OF WWTP
Image: Standing (dvg) 420 ppm       ~228 lb/ddy       1.26 %         Image: Standing (dvg) 725 ppm       ~393 lb/day       2.62 %         Image: Standing (dvg) 725 ppm       ~393 lb/day       2.62 %	۹		Average Flow	.065 MGD	1 %
<ul> <li>Contracting (dvg) / 2.5 ppin</li> <li>Contracting (dvg)</li></ul>	*		TSS Loading (avg) 420 ppm	~228 lb/day	1.26 %
			BOD Loading (avg) 725 ppm	~393 lb/day	2.62 %

### SIU DISCHARGE PERMIT / LIMITS / REQUIREMENTS

#### INDUSTRIAL WASTE PERMIT CITY OF BISMARCK, NORTH DAKOTA

Company Name Mailing Address Address Of Premises Telephone Number Fax Number Name Of Person To Contact Secondary Person To Contact Secondary Person Cell



#### AUTHORIZATION TO DISCHARGE TO THE BISMARCK SEWER SYSTEM

Chapter 11.1 of the Bismarck City Ordinance and this permit, both governing the use of the public sewer.

This permit is also granted in accordance with the application filed on July 5, 2019, and in conformity with plans, specifications, and other data submitted to the City, all of which are filed with and considered a part of this permit. Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards or requirements under Local, State, and Federal laws, including any such regulations, standards or requirements, that may become effective during the term of this permit.

Effective this 1st day of October, 2019 Expires on the 30<sup>th</sup> day of September, 2024

mihille Hor Date: 8/14/19 Michelle Klose Director of Utility Operations

 Wastewater discharged into the sanitary sewer system shall not have concentration greater than that listed for the substances below.

Pollutant	Daily Maximum Concentration
Cadmium	0.09 mg/l
Copper	2.50 mg/l
Lead	0.94 mg/l
Zinc	7.93 mg/l
Nonylphenol ethoxylates	10 pounds per day usage

The following wastes are prohibited and shall not be discharged into the City's sanitary sewer system:

a. Any pollutants which create a fire or explosion hazard in the scwer system or wastewater treatment facilities, including, but not limited to, wastestreams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21.

\*

- b. Solid or viscous substances which will or may cause obstruction to the flow in a sewer or other interference with the operation of the wastewater system.
- c. Any wastewater having a pH less than 6.0 or having other corrosive property capable of causing damage or hazard to structures, equipment, or personnel of the wastewater disposal system.
- d. Any wastewater containing toxic pollutants in sufficient quantity, either singly or by interaction to injure or interfere with any wastewater treatment process, constitute a hazard to humans or animals, or create a toxic effect in the receiving waters of the wastewater disposal system. A toxic pollutant shall include but not be limited to any pollutant identified pursuant to Section 307(a) of the Act.

e. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by applicable state or federal regulations.

- f. Pollutants which result in the presence of toxic gases, vapors or fumes in the wastewater facilities that may cause a public nuisance, hazard to life or cause acute health and safety problems for workers.
- g. Any substance which may cause the wastewater disposal system's effluent or any other product of the wastewater treatment process such as residues, sludges or scums, to be unsuitable for reclamation and reuse or to interfere with the reclamation process. In no case shall a substance discharged to the wastewater disposal system cause the system to be in noncompliance with sludge use or disposal criteria, guidelines or regulation developed under Section 405 of the Act, or any criteria, guidelines, or regulations affecting sludge use or disposal developed pursuant to the Solid Waste Disposal Act, the Clean Air Act, the Toxic Substance Control Act or State Standards applicable to the sludge management method being used.
- Any substance, which will cause the wastewater disposal system to violate its National Pollution Discharge Elimination System (NPDES) and/or other, State Disposal System Permits.

THINGS TO CONSIDER FROM THIS SIC AS IT RELATES TO THE SANITARY SERVER

- WHAT ACTIVITY DO THEY DO?
- WHAT ARE THEY WASHING?
- WHAT CHEMICALS DO THE USE?
- HOW DO THEY TREAT THE DISCHARGE?
- WHAT ARE THE RESULTS OF DISCHARGE TESTING?

# INSPECTION ITEMS / PROCESS / CHEMICAL INVENTORY

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- Determine location of all sanitary sewer lines and connection point (s) to City mains. A six line on the southeast corner of the building enters the city sewer main on Frontier Dr.
- Locate storm drain discharge points and/or other drainage areas. The surface runoff is fron and the parking area.

### C. MANUFACTURING OR SERVICING PROCESS

- Describe process employed. Note production and schedules of operation for each process:

   a large commercial laundry facility that launders: uniforms, floor mats, towels, sheets, pille garments, shop coats, oil field fire resistant material (2000 lb./day) and lab scrubs. Process 62,000 lb./day in 2019, (68,000 lb./day in 2018), (67,000 lb./day in 2017, 16, 15 and 14), (6 lb./day in 2013), (52,000 lb./day in 2012) about 60% of process is from floor mats. I.U. has washing devices: 5-900 lb., 1-675 lb., 1-450 lb., 1-130 lb. and 1-110 lb. The large washer e are used mainly for their floor mats. They wash ~ 300 loads per week. Each load consists of cycle and two rinse cycles. I.U. has six dryers; 1-130 lbs., 1-600 lb., 4-450 lbs. They have release steam tunnels. The tunnels are ~30 foot and are chain driven. The dryers run at 29: dryers and steam tunnels are vented from the building through the roof.
- Determine rates of process water consumption and discharge. Daily water usage data [20 42249], [2019- 48,134], [2018- 62480], [2017 60,356], and [2016 57,123] daily average
- <u>Check for available sampling points of individual process wastewater discharges</u>. Sampling performed from individual washers.

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containers and double walled containers. Bulk containers of Sodium Hydroxide and Detergent are kept away from drains.

Chemical	Supplier	Quantity on Hand	Constituents	Quantity/unit used?	Use
ADVACARE DISINFECTANT	ECOLAB 984484-42		Acetic acid         64-19-7         30 - 60           Peroxyacetic acid         79-21-0         15.2           Hydrogen peroxide         7722-84-1         11.2	50 gallon/month	Disinfectant
AQUA MOP	ECOLAB 914008	1-55 gallon	Methyl tallow-diethylenetriamine methosulfate, ethosylated         5 - 10           Propylene glycol         \$7:55.6         1 - 5	10 gallon/month	Mop treatment Laundry softener
BLEACH	ECOLAB	1-160 gallon + 300 gallon	12% Sodium hypochlorite	200 gallon/month	
DYES		2-50 lb	blue, orange	As needed	
HYDREX H68		2 + 1-55 gallon	Hydraulie oil		Used to lubricate washing machines
OXALIC ACID	ECOLAB 975383	VARIES	Chemical name CAS-No. Concentration (%) ethanedioic acid, dihydrate 6153-56-6 60 - 100		Cleaning product
PARA FLEX HT 15	MVP Froehlich	1-55 gallon	Petroleum distillate	As needed	Mop oil after washing treatment
PURE CLEAN DETERGENT	ECOLAB 914068-04	5 + 1 55 gallon	alcohols, c12-16, ethoxylated         685551-12-2         30 - 60           benzenesulfonic acid, dodecyl-, compd. with 2-aminoethanol (1:1)         26336-07-7         10 - 30           2-methylpentane-2,4-diol         107-41-5         10 - 30           Sodium poly(oxyethylene)         dodecyl ether sulfate         68585-34-2         1 - 5	230 gallon/month	Laundry detergent
TEXSTAT II	ECOLAB	1-30 gallon	2-octyl-2H-isothiazol-3-one CAS # 26530-20-1 5-10%	5 gallon/year Used Apr- Nov	Anti-mold after wash treatment
TURBOLIZER	ECOLAB 972745-02	1+1-55 gallon	fluorosilicic acid         16961-83-4         10 - 30           hydrochloric acid         7647-01-0         2.5           hydrogen fluoride         7664-39-3         0.5	30 gallon/month	Sour lower pH
TURBOTEX	ECOLAB 911057-01	1+1-55 gallon	SODIUM THIOSULFATE CAS 7772-98-7 15 - 40 %	ll gallon/month	De-chlorination
PERFORMANCE XXL ALKALI	ECOLAB 913989-05	2100 gallon bulk container	Sodium hydroxide 1310-73-2 30 - 60	400 gallons/month	Mixed with detergent
PERFORMANCE XXL BOOSTER	ECOLAB 916229-02	VARIES	Sodium silicate         1344-09-8         10 - 30           Sodium hydroxide         1310-73-2         5 - 10	75 gallon/month	
PERFORMANCE XXL DETERGENT	ECOLAB 917640-01	1200 gallon bulk container	alcohols, c12-16, ethoxylated 68551-12-2 30 - 60 Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether 166736-648-9 10 - 30 Dizoogolene, elycol 34590-94-8 10 - 30	75 gallon/month	detergent
PERFORMANCE XXL SOUR	ECOLAB 951285-06	VARIES	Durmullicic.neid         16961-83-4         10 - 30           hydrochlorie acid         7647-01-0         1 - 5	20 gallon/month	
Formula 1123	GARRETT CALLAHAN	1-55gallon	NaOH 40% 1-Hydroxyethylidene-1, 1-Diphosphonic Acid CAS 2809-21-4 < 5%	30 gallon/month	Boiler scale control
Formula 159	GARRETT CALLAHAN	1-55gallon	Na Bisulfite K Sulfite	30 gallon/month	Oxygen Scavenger
			Boiler chemicals to change in Feb 2020		
NALCO®BC1011	NALCO	TED	Sodium Bisulfite 7631-90-5 1 - 5		O2 Scavenger
NexGuard™ 22310 NALCO® 356	NALCO NALCO	TBD	Ingredients not listed Cvclohexvlamine 108-91-8 10 - 30		

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ection 1. Cher	nical product a	nd company	/ iden	tification	
oduct name commended use and strictions	: AQUA MOP : Laundry softener				
strictions	Use only for the	ourpose on the proc	uct label.		
a the states of the second					
pplier's information	: Ecolab Inc. Textile	Care Division			
	370 N. Wabasha	Street			
	St. Paul, MN 551 1-800-553-8683	02			
de	: 914008				
IOP					
action 10. S	Stability and rea	ctivity	NI	IA MO.	
Product AS SOLD	1786 - 1913 - 19	A	90	1 10	1
Stability Possibility of hazard	: The product lous : Under norma		ige and u	se, hazardous reactions w	100
reactions	. No encelfer d	ata			
Conditions to avoid Materials to avoid	: Slightly react	ive or incompatible		ollowing materials: organic	
Hazardous decompo products	should not be		age and u	se, hazardous decomposi	
	oxicological in				1
Route of exposure	: Skin contact, Eye cor		estion		
	Product AS SOLD			Product AT USE DILU	
Symptoms Eye contact	: No specific data.			Product is sold ready to	
Skin contact	: No specific data.				
Inhalation Ingestion	<ul> <li>No specific data.</li> <li>No specific data.</li> </ul>				
Acute toxicity					
Eye contact Skin contact	: No known significant : No known significant			IS SIDE TO ALL	
Inhalation	: No known significant	effects or critical h	azards.	S. Barkageria	
Ingestion	: No known significant	effects or critical h	azards.		
Toxicity data Product/ingredient	name				
poly(oxy-1,2-ethaned (2-aminoethyl)methy	liyl), alpha-[2-[bis lammonio]ethyl]-omega-	LD50 Oral	Rat	>15000 mg/kg	
hydroxy-, n,n'- ditallo sulfates (salts)	w acyi derivs., me		<b>D</b> -/	- 4.6 mg/l	
2,2'-oxybisethanol		LC50 Inhalation Dusts and mists	Rat	>4.6 mg/l	
		LD50 Dermal LD50 Oral	Rabbit Rat	13300 mg/kg 1120 mg/kg	
Chronic toxicity	3		anitical b	azarde	
Carcinogenicity Mutagenicity		ignificant effects or gnificant effects or			
Teratogenicity	: No known si	gnificant effects or	critical ha	azards.	
Developmental effe		gnificant effects or gnificant effects or			
Fertility effects	cological infor				
Product AS SOLD	e ste giva inter				
Ecotoxicity	: No known s	ignificant effects o	critical h	azards.	
Aquatic and terrestri	al toxicity		se ti	Species r	
Product/ingredient poly(oxy-1,2-ethaned	liyl), alpha-[2-[bis	Result Acute LC50 5	5 mg/l	Fish V	90 nours
(2-aminoethyl)methy	ammonio]ethyl]-omega- w acyl derivs., me sulfate			(	
(salts) 2,2'-oxybisethanol		Acute LC50 7	5200 ma/	I Fish	96 hours

Product

### SAFETY DATA SHEET SAFETY DATA SHEET ADVACARE DISINFECTANT Acute inhalation toxicity : Peroxyacetic acid 4 h LC50 Rat: 4.080 mg/l Test atmosphere: dust/mist Ingredients Acute dermal toxicity : Acetic acid LD50 Rabbit: 1,060 mg/kg Peroxyacetic acid LD50 Rat: 1,012 mg/kg SECTION 12. ECOLOGICAL INFORMATION Ecotoxicity Environmental Effects : This product has no known ecotoxicological effects. Toxicity to fish : 96 h LC50: 10.3 mg/l Toxicity to daphnia and other : 48 h LC50 Daphnia magna (Water flea): 4.36 mg/l aquatic invertebrates Toxicity to algae : No data available Ingredients Toxicity to algae : Acetic acid 72 h EC50 Skeletonema costatum (marine diatom): 1,000 mg/l Peroxyacetic acid 72 h EC50: 0.7 mg/l Hydrogen peroxide 72 h EC50: 1.38 mg/l Persistence and degradability Not applicable - Biocide Bioaccumulative potential No data available

TEX STAT II	
	or rash occurs: Get medical advice/ attention. Wash contaminated clothing before reuse. Store locked up. Disposal: Dispose of contents/ container to an approved waste disposal plant
Other hazards	None known.
SECTION 3. COMPOSITION/I	NFORMATION ON INGREDIENTS
Pure substance/mixture	: Mixture
SAFETY DATA SHEET	
TEX STAT II	
Teratogenicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration toxicity	No data available
SECTION 12. ECOLOGICAL	
Ecotoxicity	
Environmental Effects	: Very toxic to aquatic life with long lasting effects.
Product	
Toxicity to fish	No data available
Toxicity to daphnia and other aquatic invertebrates	: No data available
Toxicity to algae	No data available
Components	
Toxicity to fish	Propylene glycol 96 h LC50: > 10,000 mg/l
	2-n-Octyl-4-isothiazolin-3-one 96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.047 mg/l
Components	
Toxicity to daphnia and other aquatic invertebrates	: Propylene glycol 48 h EC50: 18,340 mg/l
Components	
Toxicity to algae	: Propylene glycol 96 h EC50: 19,000 mg/l
Persistence and degradabilit	
Not applicable - Biocide	h.
Bioaccumulative potential	
No data available	
Mobility in soil	
No data available	
Other adverse effects	
No data available	
SECTION 13. DISPOSAL CO	NSIDERATIONS
Disposal methods	: Do not contaminate ponds, waterways or ditches with chemical or used container. Where possible recycling is preferred to disposal o incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	: Dispose of as unused product. Empty containers should be taken to
62167-01	6/9

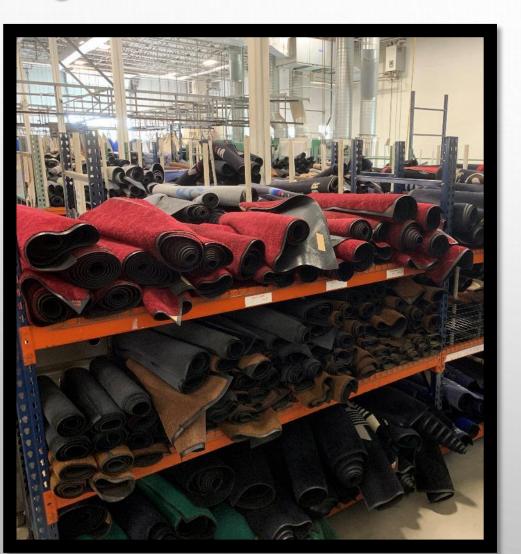


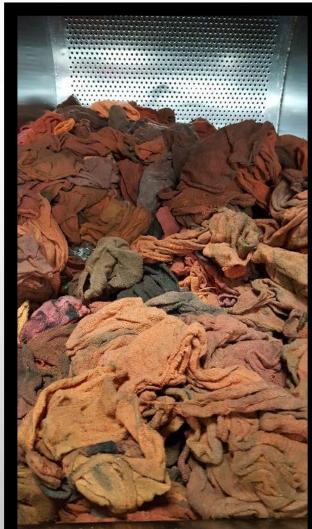






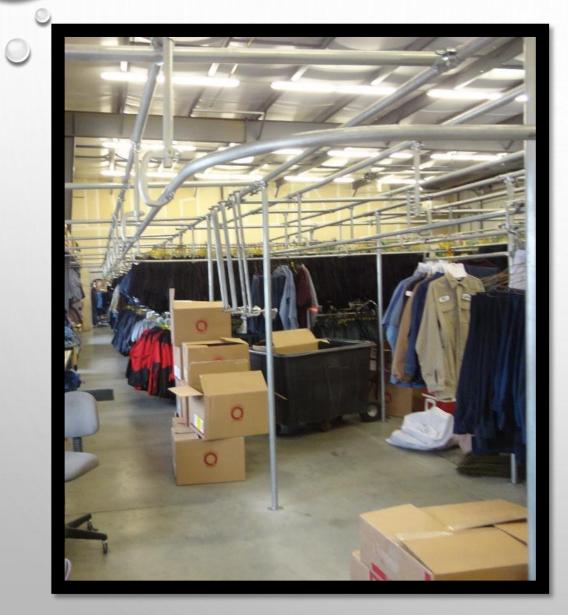
# PRODUCTS WASHED







# PRODUCTS WASHED



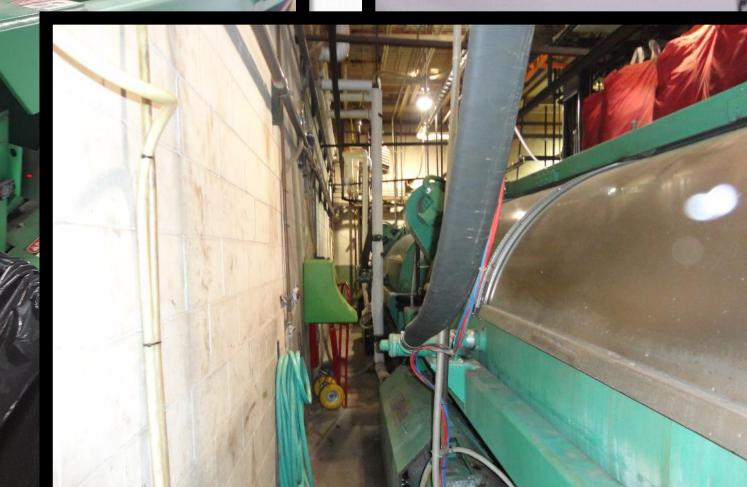








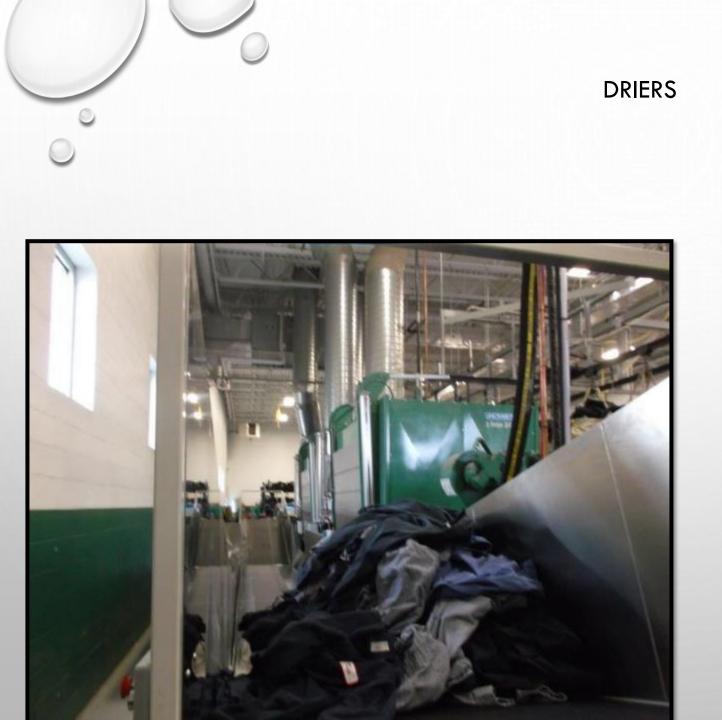
# BEHIND WASHING MACHINES

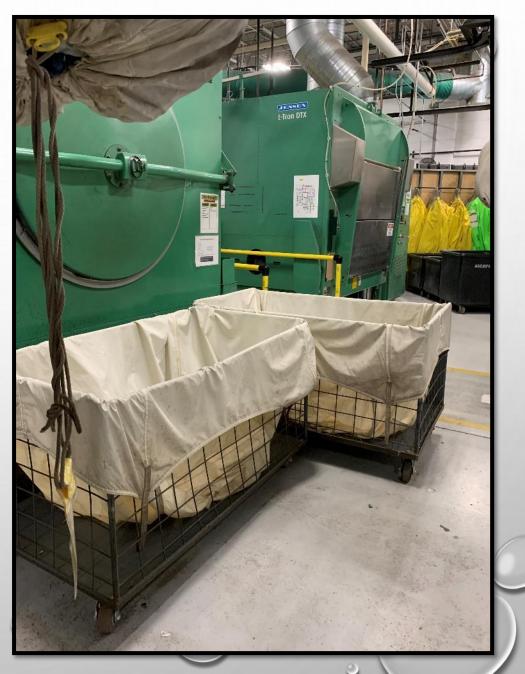




DISCL BI THI







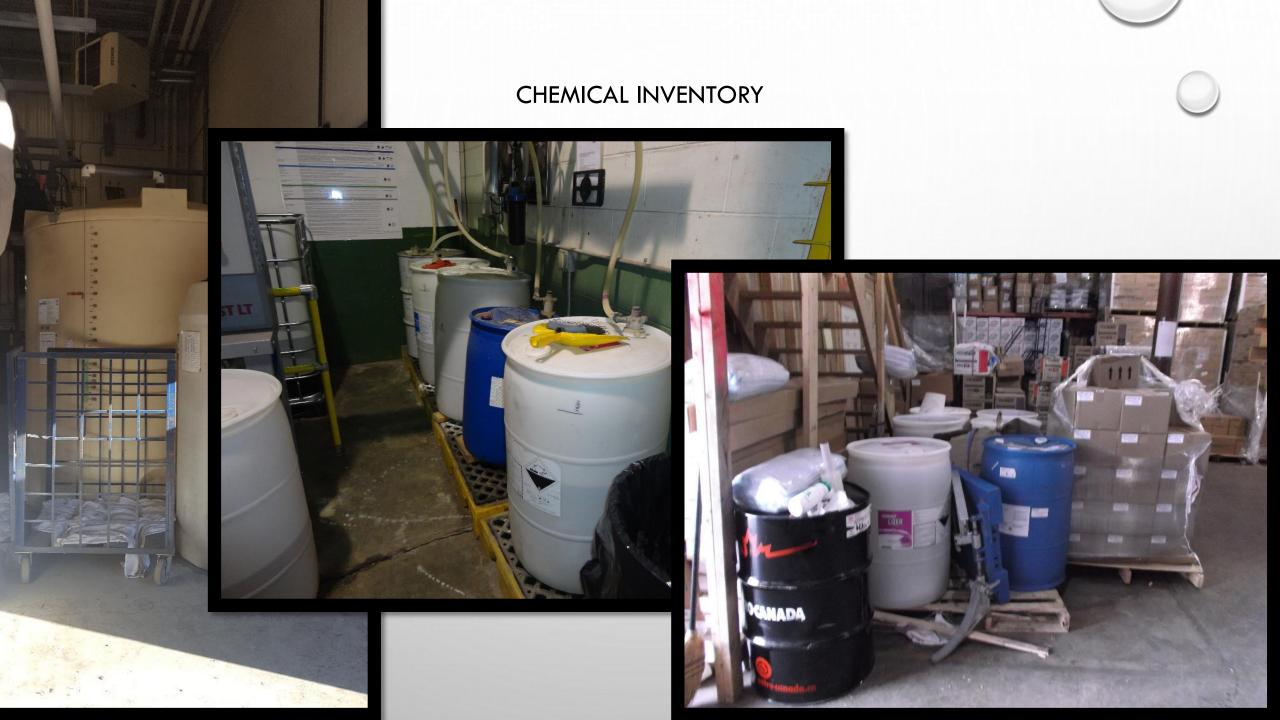
# PRESSING AND FOLDING

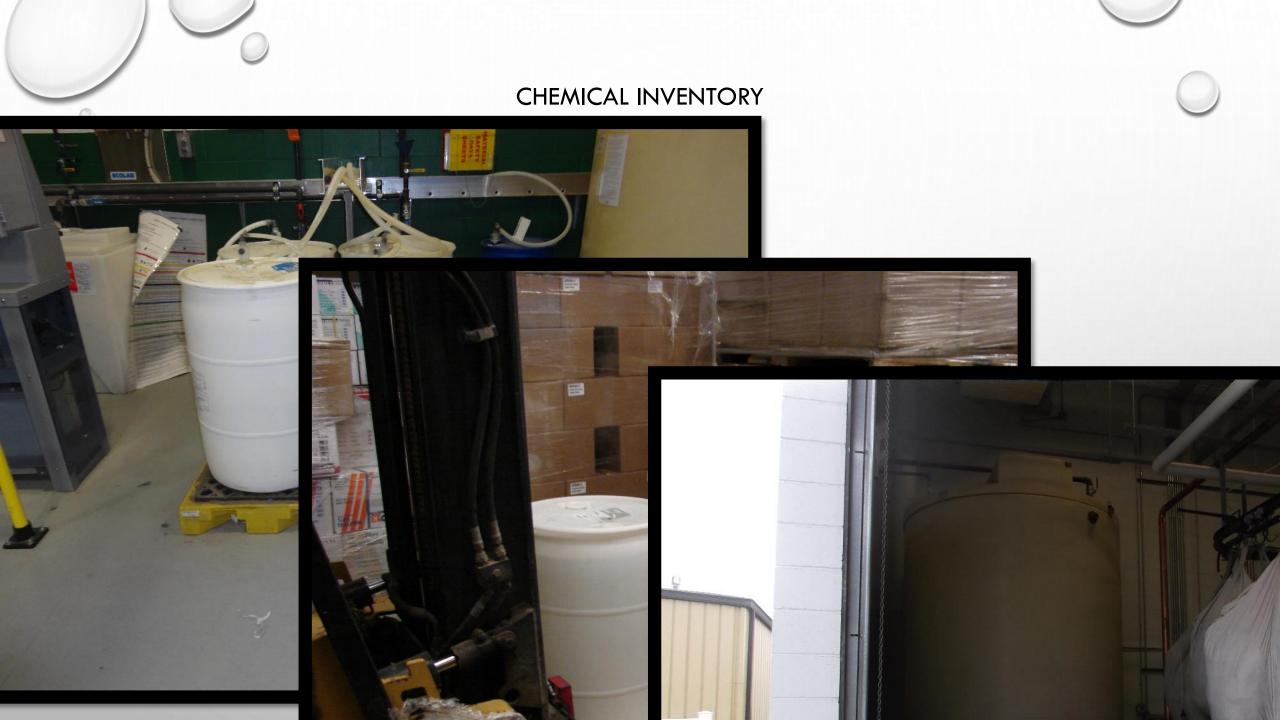
















2 60,000 gpd 7 FT \$ X2 408482 = 8169 6 Am > 3 Am = 9. HOURS 60,000/9, HORR => 6,667 Ste/Hora SALLANS ,11 -WATSAL LING 6% 70 0 VALVE CMY 7 F44 +1.5+ 12 FEET-WALL NOT TO SCALE 9



LIST OF ISSUES FROM ANY SIC ANY TOWN USA

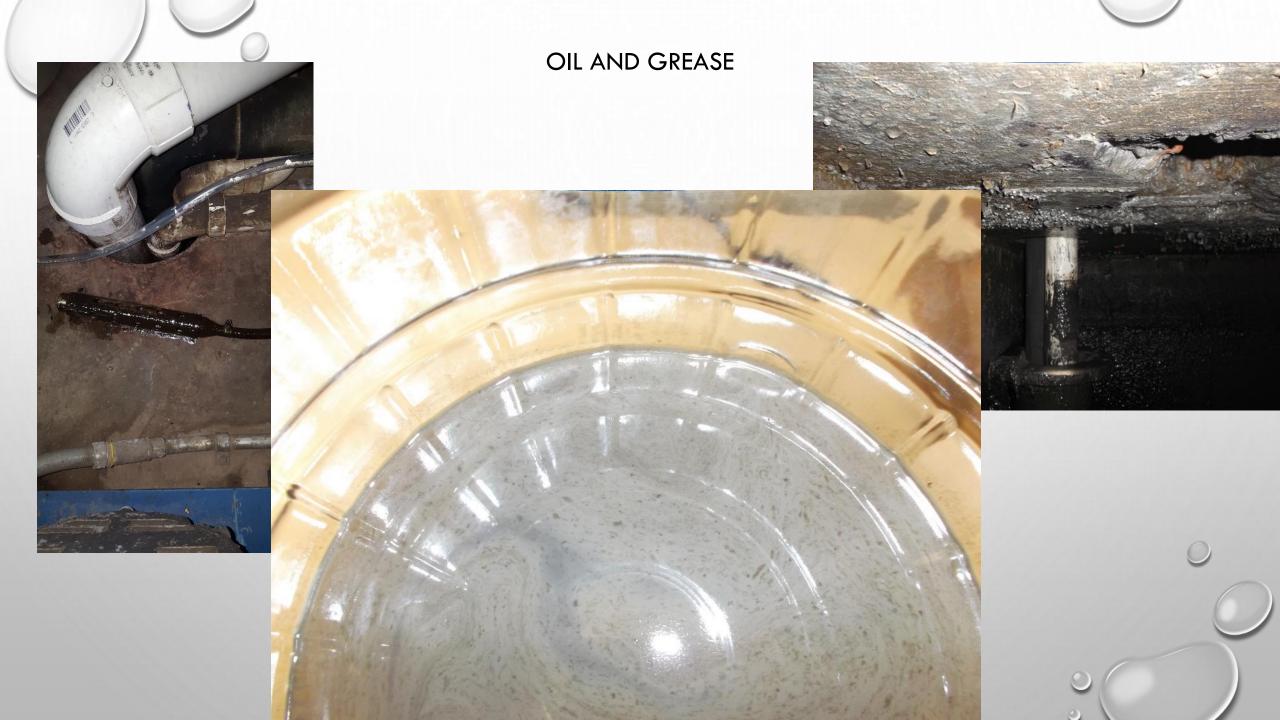
- INTERFERENCE/PASS THROUGH OBSTRUCTION
- NUMERICAL EXCEEDANCE
- NARRATIVE EXCEEDANCE FAILURE TO SAMPLE
- LATE REPORT

 THIS SIC HAS HAD THESE ISSUES (WE WILL COVER THEM CHRONOLOGY (INCLUDING CORRECTIVE ACTIONS TAKEN)



LIST OF ISSUES FROM THIS SIU

- 1991 1992 OIL AND GREASE >200 (BILL G COMMENTS)
- 2003 NPE (BILL G COMMENTS)
- 2007 FAILURE TO SAMPLE (DOCUMENTATION, HOLDING TIME)
- 2009 FAILURE TO SUBMIT REPORT ON TIME (AND 2015)
- 2018 BTEX
- 2020 SOLIDS ACCUMULATION





Department of Public Works 601 South 26th Street \* P.O. Box 5503 \* Bismarck, ND 58506-5503 Phone: 701-222-6431 \* FAX: 701-221-6840 \* TDD: 701-221-6848

June 27, 2007

Bismarck ND 58502-2033

The purpose of this letter is to notify you that

was in violation of its Industrial Waste Permit. The permit violations are due to failure to sample in the designated month as required in discharge permit and to provide documentation for sample collection.

According to discharge permit you are required to follow the sampling requirements that are prescribed in 40 CFR Part 136, which is indicated under Section B Specific Conditions number 5 in the permit. Failure to collect the required samples as prescribed with the proper documentation and adherence to holding times is a violation of your permit. It is your responsibility to see that proper sample documentation is done, which includes the date and time when each sample is collected, who collected them and that the samples are analyzed within the holding time requirements. If a sampling and analysis requirement is not meet then it would be mandatory to resample. In addition, the composite sample must be based on the length of daily operation, (eight-hour day) as indicated in Section B.4. continue to do its own self monitoring if you follow the prescribed sampling requirements and indicate the necessary documentation in the Chain of Custody Record or it is your option to contract this service out.

lt i s responsibility to see that their facility stays in compliance with its discharge permit requirements. In order for to stay in compliance with its discharge permit, it will be necessary to sample in May and October every year and to provide the necessary documentation and adhere to the holding time requirement for pH analysis.

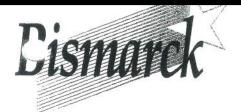
Please reply to the City in writing within thirty days after receipt of this letter with an explanation as to the cause of the violations and what action " has taken or will be taking to prevent future violations.

If you have any questions, please feel free to call me at 222-6584.

Sincerely.

Bill Gefroh Industrial Pretreatment Program Manager

# SAMPLING ISSUE



### Department of Public Works 601 South 26th Street \* P.O. Box 5503 \* Bismarck, ND 58506-5503

Fax: 701-221-6840 TDD: 711 www.bismarck.org Public Works: 701-355-1700 Water Billing: 701-355-1732 Forestry: 701-355-1733

November 2, 2009

Bismarck ND 58502-2033

Dear

The purpose of this letter is to notify you that was in violation of its Industrial Waste Permit. The permit violation was due to a failure to provide the Public Works Department, within 30 days after the due date, the May 2009 selfmonitoring discharge report. Along with the self-monitoring report, please include a copy of the sampling log when the discharge sampling is performed by personnel and a copy of the lab data from your support lab with each of the self-monitoring reports.

It is responsibility to comply with the requirements of its discharge permit. To stay in compliance with the discharge permit, all results of the sampling and analysis required by Item No. 4 of Section B of the permit shall be reported to the Public Works Department no later than thirty (30) days after the last day of the month during which the sample was taken.

Please reply in writing within thirty days after receipt of this letter with an explanation as to the cause of the violation and what action violations.

If you have any questions, please feel free to call me at 222-6584.

Sincerely,

Um Hefest

Bill Gefroh Industrial Pretreatment Program Manager

### **REPORTING ISSUE**

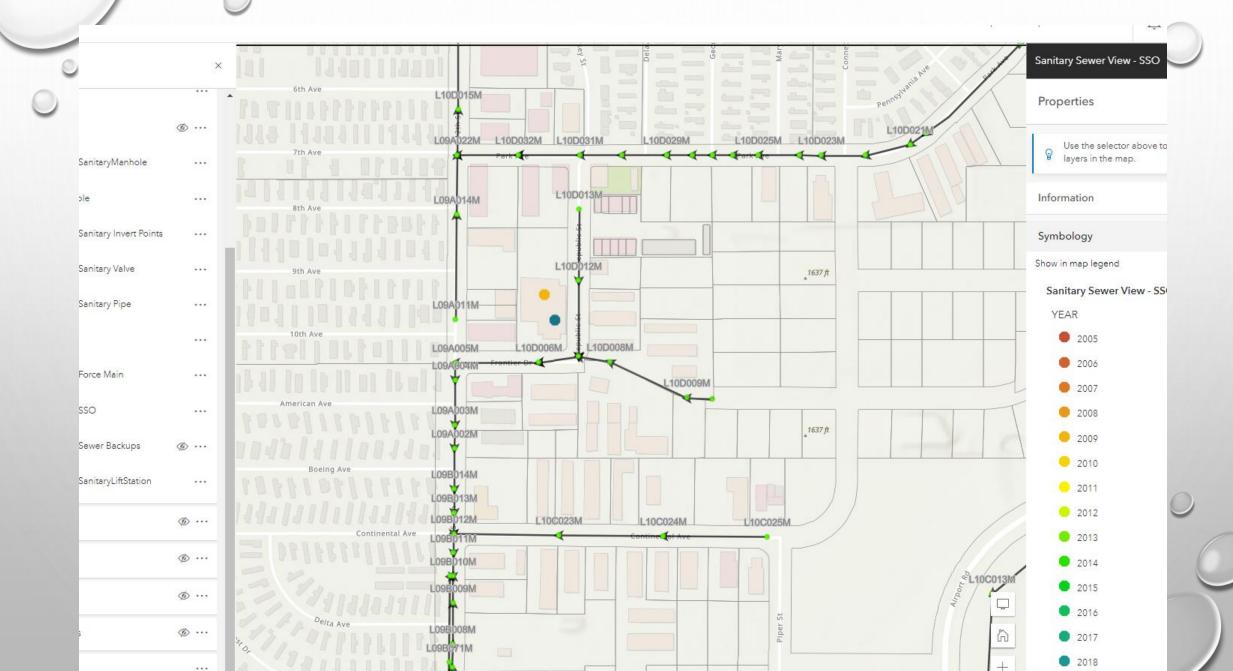


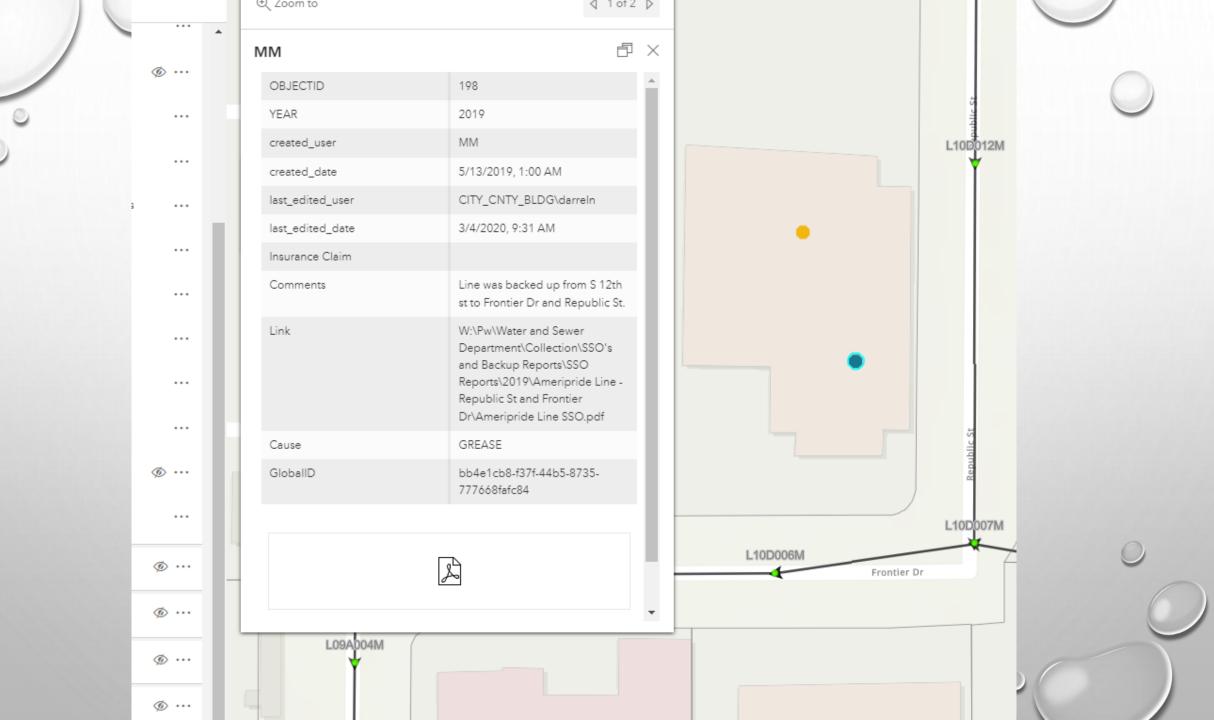
MVTL generator for southy of Lis adors does not be engle rotatical for south of the list of a south south restriction of the south south and the south of the list of a south south restriction of the list	BTEX		
the protostike of skatoscala, unadaments or eversos first or ingalia ja ser car and a pointed and protocol and a set on and a pointed and protocol and a set on and a pointed and and point or a stress set of a s			
Page: 1 of 1 Report Date: 25 Apr 18 Lab Number: 18-D1143			$\bigcirc$
City of Bismarck WWTP FO Box 5503 Bismarck ND 58506 Sample Description: Work Order #: 82-0705 Account #: 002036 Date Sampled: 11 Apr 18 8:37 Date Received: 11 Apr 18 10:40 Sampled By: Client FO #: CCpayment	ismarck Department of Public Works		
Temp at Receipt: 22.2C ROI		MINNESOTAVALL	EY TESTING LABORATORIES
As Received Result         Method RL         Method Reference         Date Analyst           EFA DRC Extraction Benzene Toluene         < 10 # ppb	May 2, 2018	MVTL 1126 N. Front St. ~ New Ulm, MN 2616 E. Broadway Ave. ~ Bismarc	X TESTIVO LADORATORIES § 56073 ~ 800-782-3557 ~ Fax 507-359-2890 ck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-97 50201 ~ 800-362-0855 ~ Fax 515-382-3885
Bthyl Benzene         155.7         pph         1.0         EPA 602         18 Apr 18         ARJ           Xylenes (Total)         1079         ppb         3.0         EPA 602         18 Apr 18         ARJ           GR0 (TPH)         6.684         ug/L         0.200         9015D         23 Apr 18         ARJ           DR0 (TSH)         Comment         0.20         8015D         19 Apr 18         TMP		WPT: guantize for accuracy of the sudpict solve us the sample susmittal Structurg. It is not possible to MVTL for all evolutions afficing the sample much energy method symplegry MVTL. As annual generation is back to be to phylocial of intervals, conclusions or emergined part methods in the open in phylocial of intervals. Conclusions or emergined part methods in the open AN ECULAL OPPN AN ECULAL OPPN.	symmetre that a lost anoth device of each posteriale scopely will be the scane on any other scopely a tile care monoless. If reperious scheming in the contribution processy of classes and autorization cont. ORTUNITY EMPLOYER
AAA-TFT SURROGATE RECOVERY: 95 & 2,153.6 ppb BTEX			
BFFE STRRAGATE RECOVERY: 104 % DROTEN! sample pattern does not match diesel fuel. Sample pattern characteristic of 2 cycle oil. DROTEE, quantified as 2 cycle oil - 4446 ppm.		-	Page: 1 of 1
DBO (TEB) Surroyate recovery not available due to sample concentration. GRO(TEB) pattern is characteristic of gasoline. All methods used for these analyses are compliant with 40CMM Part 136 or Region 3 EFA approved guidance.	Subject: Written Notice of Violation - BTEX Exceedance Dear	PRELIMINARY REPORT Bill Gefroh City of Bismarck WWTP FO Box 5503	Report Date: 13 Ju Lab Number: 18-DI Work Order #: 82-1 Account #: 002036
	The purpose of this letter is to give notice that , was in violation of a Pretree Program Ordinance limitation pursuant to City Ordinance 11.1-07-03. The following imm actions are required:	Bismarck ND 58506	Date Sampled: 29 M Date Received: 29 Sampled By: Client PO fl: CCpayment
	<ol> <li>nust immediately cease discharge of wastewater containing ma in excess of 0.75 mg/L BTEX.</li> </ol>	Sample Description:	Temp at Receipt: 1 Method Method Date
	2. Within five days, must provide written notice of the car	Result	RL Reference Anal
	noncompliance, anticipated time the condition of noncompliance is expect continue, or if such condition has been corrected, the duration of the per noncompliance, steps taken to reduce and eliminate the non-complying disc and steps to be taken to prevent recurrence of the condition of noncompliance	EPA DRO Extraction Benzene < 1 ppb Toluene < 1 ppb schyl Benzene < 1 ppb schyl Benzene < 1 ppb schyl Benzene < 2 ppb GRO (TDH) < 0.2 mg/L DRO (TDH) Not Entercome/L	21 b         21 b           1.0         EPA 602         5 d           1.0         EPA 602         5 d           1.0         EPA 602         5 d           3.0         EPA 602         5 d           0.200         S01ED         5 d           0.200         S01ED         5 d
	<ol> <li>Within 30 days, 'must develop a written corrective action pla submit it to the Lirector of utility Operations.</li> </ol>	AMR TFT SURROGATE RECOVERY: 97 %	-
	The violation was due to a benzene, toluene, ethylbenzene and xylene (BTEX) exceedance a test result of 2.154 mg/L measured during a monitoring event by the City of Bismarck Industrial Pretreatment Program staff on April 11, 2018. As specified in ordinance, no use discharge wastewater containing in excess of 0.75 mg/L BTEX. BTEX poses a danger health or welfare or persons and interference with operations at the wastewater treatment fa	BYPB SURROGATE RECOVERY: 102 % For questions about organic analyses results please at 1-800-702-7557. Organic analyses are performed in Department of Health laboratory certification number of Bealth laboratory certification number is R-640. and 8021, glycol analyses, light hydrocarbons (meth residual bexame are not covered under these certific	n the New Ulm laboratory of MVTL; Minneoc r 1s 027-015-125; North Dakota Department Analyses performed by EPA Method 602 duce, ethanc, ethylene and propane; or
	See City's Pretreatment Program Ordinance Title 11.1, specifically sections 11.1-03-02. 11.1-07.	All methods used for these snalyses are compliant w Region 6 EPA approved guidance.	ith 40CFR Part 136 or

The City will resample and analyze another sample for BTEX within the next 30 days. F noncompliance will result in the escalation of enforcement action up to suspension of services. If you have any questions about this or the Pretreatment Program in general, please feel free to call me at 355-1763.

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**OBSTRUCTION** 







# 2018 LOOKING WEST

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Bismarck Department of Public Works



Subject: Written Notice of Noncompliance - Causing Sanitary Sewer Pipe Obstruction

#### Dear

This is your notice that is in noncompliance with the City of Bismarck Pretreatment Program Ordinance Title 11.1. The wastewater discharge from is causing solids and grease to build up on the pipe at the discharge tap to the city pipe main and downstream causing flow obstruction. A copy of the televised 2020 video of the pipe was provided to you on July 13, 2020. See attached photos from the video, upstream, at the discharge tap and downstream of Aramarck. The video was taken after the sewer pipe was high pressure jetted by the city.

#### Pretreatment Program Ordinance Title 11.1 Prohibitions

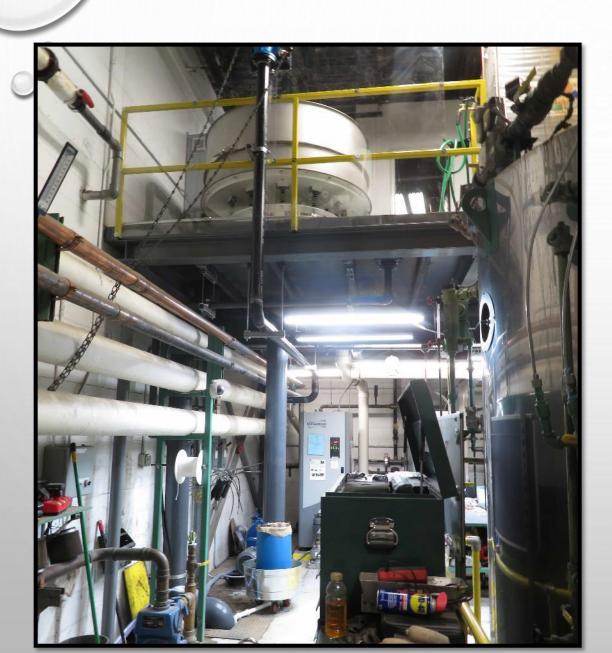
11.1-03-01.2 A user may not discharge or cause to be discharged, directly or indirectly, any of the following substances into the wastewater disposal system or to any public sewer: Solid or viscous substances which will or may cause obstruction to the flow in a sewer.

11.1-03-01.13a. Any wastewater containing fats, wax, grease or oils, including petroleum oil, if such materials: Deposit grease or oil in the sewer lines in such manner as to obstruct the sewers.

The following actions are required:

1. Within 90 days, must develop and submit a plan of action that will prevent the sanitary sewer pipe flow obstruction from the facility discharges.

2. Within 180 days, must complete and implement the engineered plan of action(s) to prevent flow obstruction from the discharge of oil, grease and solids.





### OBSTRUCTION

On February 3, 2021, Industrial Pretreatment Program staff Bill Gefroh and Dean Wohl visited to inspect their newly installed 60-inch diameter vibratory mechanical shaker screen corporate Environmental Engineering Manager and ismarck General Manager with provided the tour. All process wastewater at the facility flows to the first chamber 8000-gallon sand trap located below the first floor in the boiler room. A mixer was added to the first chamber. Wastewater from the mixed first chamber is pumped to the shaker screen. Discharge from the shaker screen flows to the second chamber for further settling (sampling point) before discharging to the city sanitary sewer.

The mechanical shaker screen (60 mesh, 0.25 mm or 0.01 inch filter) filters out process solids. The solids on the screen are vibrated out, solids removal is aided by the red, flow propelled floor polisher. See photos. Solids are transferred out of the shaker through the rectangular opening on the side, the solids drop through a pipe into a burlap filter located on the first floor. The burlap filters are changed out several times per day and disposed of into the trash dumpster and landfilled.

Follow up actions and comments

- Provide the city with a new schematic of the 8000-gallon sand trap, and pretreatment operation. To visualize the sand trap configuration, it would need to be pumped down.
- Request the city collections staff to jet and televise the city sewer pipe main by in 2021 and will help to determine if further obstruction is occurring at and downstream of the discharge point.
  - in 2021 and 2022. This sanitary sewer

- .
- will clean and may televise their private sanitary sewer pipe.
- If it is determined that continues to cause or contribute to city sewer pipe obstruction, further action will be required. Such as requiring equipment to remove oil and grease.
- will track the amount of screenings that are removed.
  - will perform a toxicity characteristic leaching procedure (TCLP) analysis on the screened solids.





### LIST OF ISSUES FROM THIS SIU

• 1991 – 1992 OIL AND GREASE >200

## • 2003 NPE

### **USE OF NON-NPE DETERGENTS**

OIL SKIMMER

- 2007 FAILURE TO SAMPLE (DOCUMENTATION, HOLDING TIME)
- 2009 FAILURE TO SUBMIT REPORT ON TIME (AND 2015)
- 2018 BTEX

IDENTIFYING RED RAGS AS SOURCE, OUTSOURCING

2020 SOLIDS ACCUMULATION

TREATMENT OF WASTEWATER





- WILL ISSUES CONTINUE?
- WAS TREATMENT SUFFICIENT?
- SIU ASKED IF THEY CAN RESUME WASHING SHOP TOWELS

- QUESTIONS??????
- THANK YOU