CITY OF MANCHESTER, NEW HAMPSHIRE

INDUSTRIAL PRETREATMENT PROGRAM ANNUAL REPORT

JUNE 1, 2019
THROUGH
MAY 31, 2020

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CITY OF MANCHESTER

Department of Public Works
Environmental Protection Division

July 30, 2020

No. 20-20-MO

Justin Pimpare
EPA New England
5 Post Office Square
Suite 100
OEP 06-3
Boston, MA 02109-3912

Dear Mr. Pimpare,

On behalf of the City of Manchester, Environmental Protection Division (EPD), please find attached the 2019/2020 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2019 to May 31, 2020. Also, included is EPA's revised Compliance Status Work Sheet and the Town of Londonderry, New Hampshire 2019/2020 Annual Report.

In addition to the IPP activities, this report also details required sampling results for the Wastewater Treatment Plant's Influent, Effluent, and Sludge included in Section Five Appendices F, G, and H.

Furthermore, EPD would like to notify you that due to the COVID-19 pandemic, sampling and inspections were not completed for three months from March-May. However, these were completed after May 31, 2020 required timeline and results are included in this report. Moving forward, EPD plans to reschedule some of those activities earlier in the period to minimize future disruptions.

If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley
Pretreatment Supervisor

Copy / Enclosure:
Alexis Rastorguyeff, P.E., SE III, NHDES, Concord, NH
Kevin A. Sheppard, P.E., Public Works Director
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Department of Public Works
Environmental Protection Division

July 30, 2020

No. 20-21-MO

Alexis Rastorguyeff, PE, SE III
NHDES, Industrial Pretreatment Supervisor
Wastewater Engineering Bureau
29 Hazen Drive, PO Box 95
Concord, NH 03302-0095

Dear Mr. Rastorguyeff,

On behalf of the City of Manchester, Environmental Protection Division (EPD), please find attached the 2019/2020 Annual Industrial Pretreatment Program (IPP) Report. The report summarizes the activities of the IPP and the status of all permitted Significant Industrial Users that discharged to the facility from June 1, 2019 to May 31, 2020. Also, included is EPA's revised Compliance Status Work Sheet and the Town of Londonderry, New Hampshire 2019/2020 Annual Report.

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If you have any questions regarding this report, please contact me at (603) 624-6513.

Sincerely,

Christopher J. Crowley
Pretreatment Supervisor

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EPA Region 1-Annual Pretreatment Report Summary Sheet
June 1, 2019 to May 31, 2020

POTW Name: City of Manchester, NH. Environmental Protection Division (EPD)

NPDES Permit #: NH0100447

Pretreatment Report Period Start Date: June 1, 2019

Pretreatment Report Period End Date: May 31, 2020

# of Significant Industrial Users (SIUs):	15
# of SIUs Without Control Mechanisms:	0
# of SIUs not Inspected:	0
# of SIUs not Sampled:	0
# of SIUs in Significant Noncompliance (SNC) with Pretreatment Standards:	1
# of SIUs in SNC with Reporting Requirements:	1
# of SIUs in SNC with Pretreatment Compliance Schedule:	0
# of SIUs in SNC Published in Newspaper:	0
# of SIUs with Compliance Schedules:	0
# of Violation Notices Issued to SIUs:	0
# of Administrative Orders Issued to SIUs:	0
# of Civil Suits Filed Against SIUs:	0
# of Criminal Suits Filed Against SIUs:	0
# of Categorical Industrial Users (CIUs):	4
# of CIUs in SNC:	0

Penalties

Total Dollar Amount of Penalties Collected	$ 0
# of IUs from which Penalties have been collected:	0

Local Limits

Date of Most Recent Technical Evaluation of Local Limits:	9/25/2015- Part of NPDES Permit Review Process
Date of Most Recent Adoption of Technically Based Local Limits:	August 5, 1997

Local Limits

Below is listed the maximum concentrations of chemicals allowed in the effluent discharge of any Manchester industry, commercial, business or residential establishment.

Design Plant Flow 34 MGD

Pollutant / Limit (mg/l)	MAHL (lb/day)
• Copper - 4.55 mg/l	- 1,290.26 lb/day
• Cyanide (total) - 2.86 mg/l	- 810.98 lb/day
• Lead - 0.94 mg/l	- 266.55 lb/day
• Mercury - 0.023 mg/l	- 6.52 lb/day
• Silver - 0.90 mg/l	- 255.20 lb/day
• Zinc - 10.42 mg/l	- 2,954.69 lb/day

Screening Levels

Below is a list of acceptable maximum concentrations for certain chemicals. If one of these levels is exceeded by any industry, commercial establishment, business or residential unit then the situation causing the excess contaminant will be reviewed by EPD's monitoring staff. A permit will be issued that reflects the negotiated allowable discharge concentration for that particular parameter. Certain current permits have limits that are above these screening limits, but other safeguards are written into these specific individual permits to offset the increased pollutant discharge.

• Benzene - 0.13 mg/l	- 36.86 lb/day
• BOD - 350 mg/l	- 99,246.00 lb/day
• Carbon Disulfide - 0.06 mg/l	- 17.01 lb/day
• Chlorine - 1,500 mg/l	- 425,340.00 lb/day
• Chloroform - 0.41 mg/l	- 116.26 lb/day
• 1,2 Dicholorethylene - 0.28 mg/l	- 79.40 lb/day
• Sulfide - 1.0 mg/l	- 283.56 lb/day
• Sulfate - 150 mg/l	- 42,534.00 lb/day
• Sulfate - 1,500 mg/l (for type II concrete structures)	- 425,340.00 lb/day
• Sulfite - 280 mg/l	- 79,396.80 lb/day
• Suspended Solids - 350 mg/l	- 99,246.00 lb/day
• Tetrachloroethylene - 0.53 mg/l	- 150.28 lb/day
• 1,1,1 trichloroethane - 1.55 mg/l	- 439.52 lb/day
• Trichloroethene - 0.71 mg/l	- 201.33 lb/day
• Oil & Grease - 100 mg/l (Petroleum or mineral origin, Method 1664 HEM/SGT)	- 28,356.00 lb/day
• Oil & Grease - 350 mg/l (Animal & vegetable origin, Method 1664 HEM)	- 99,246.00 lb/day

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2019 to May 31, 2020
IPP Annual Report

Information Required By EPA

Section One

An updated list of all industrial users by category, as set forth in 40 CFR 403.8(f)(2)(i), indicating compliance or noncompliance with the following:

Part 1 - 1 Compliance with Baseline Monitoring Requirements and 90-Day Compliance Reports for Newly Promulgated Industries.

There were no 90-day Compliance Reports required during the monitoring period of June 1, 2019 through May 31, 2020. However, The City of Manchester, Environmental Protection Division (EPD) does require all Class I Industries that are renewing their discharge permits to submit a sampling report including several more additional parameters to be tested with their permit application.

Included at the end of this section is *Appendix A*, which includes a worksheet that lists all Class I Industrial Users (CIUs / SIUs). The worksheet includes the following: permitted average flows, category, and type of pretreatment and permit expiration date. Also included is *Appendix B* which lists the Class II and *Appendix C* which lists the Class III Industrial Users.

Part 1 - 2 Compliance Status Reporting Requirements for Newly Promulgated Industries.

All Industries that are subject to monitoring requirements are up to date with their responsibilities. EPD issued no new permit(s) for the Significant Industrial User Classification I (SIU's) during the reporting period of June 1, 2019 through May 31, 2020.

Part 1 - 3 Periodic (Semi-Annual) Monitoring Reporting Requirements.

The Class I listing at the end of Section One *Appendix D* is the EPD Industrial Inspection & Sampling Worksheet which tracks and verifies compliance. All the Class I CIUs / SIUs are listed on this sheet. The list contains the name and category of each industry, permit number, and the permit expiration date. The names and dates are summarized on Page 4, Part 2-3, Summary of Compliance and Enforcement Activities for Compliance Schedules Issued.

Part 1 - 4 Compliance with Categorical Standards.

There was one industry that violated their categorical limits for the reporting period of June 1, 2019 through May 31, 2020. Due to COVID-19 pandemic, Sterling Laundry Permit No. 1004 have temporary closed their operations on March 2020 and did not conduct their self-monitoring requirements. All other sampling reports are documented in the City's LINKO database and noted in *Appendix D*.

Part 1 - 5 Compliance with Local Limits

The City is content to state that there were no compliance issues with Local Limits during the reporting period of June 1, 2019 through May 31, 2020. As noted in Part 1-4 and Section Three, there was one industry that temporary closed its operation on March 2020, Sterling Laundry No. 1004 did not conduct their second required sampling event from December 2019 – May 2020.

APPENDIX - A
Class I / Significant Industrial Users

Type of Business	Facility Name	Permit No.	Location	Avg. Flow GPD	CFR	Company Representative	Pretreatment	Permit Expires
Cleaning Services								
1)	Cintas Corporation	1065	324 Taylor Street	38,500	SIU	Robert Hippert		4/30/2025
2)	Cintas Corporation	1066	324 Taylor Street	13,700	SIU	Robert Hippert	DAF	4/30/2025
3)	E&R Cleaners	1068	80 Ross Ave	70,600	SIU	Dave Ciripompa		8/31/2020
4)	Sterling Laundry	1004	39 Beech Street	95,000	SIU	Glen Stevens		1/31/2022
Metal Finisher								
5)	Jewell Instrument	1024	850 Perimeter RD	3,700	433	Patty Konstantopoulos	pH Adjustment	11/30/2020
Plastic Production								
6)	NYCOA	1015	333 Sundial Ave	285,000	414	Sabre Strout	Settling Tank	5/31/2022
Semi-Conductor								
7)	XMA	1040	7 Perimeter Road	560	469	Stephen Traski	pH Adjustment	3/30/2022
Textile Manufacturing								
8)	Velcro USA	1019	95 Sundial Ave	80,100	SIU	Jerrery Slark	pH Adjustment	11/30/2020
9)	General Cable	1007	345 McGregor St.	23,700	SIU	Sara Janik		1/31/2025
Hospital								
10)	Elliot Hospital	1041	1 Elliot Way	69,400	SIU	Brad Smith		5/31/2022
11)	Catholic Memorial	1107	100 McGregor St	68,900	SIU	Brian Ramsey		5/31/2022
12)	Veterans Medical Center	1018	718 Smyth St.	45,000	SIU	Amanda Furtado		5/31/2022
Un-Classified								
13)	Manchester Landfill	1102	Front Street	100,000	SIU	City of Manchester		2/28/2022
Specialty Industry								
14)	Lyophilization (LSNE)	1005	1 Sundial Street	114,000	SIU	Greg Stevenson		8/30/2020
15)	Freudenberg-NOK	1006	50 Ammon Dr.	8,600	428	Kevin Smith	Calfran/pH	11/30/2020

APPENDIX - B
Class II Industrial Users

	Facility Name	Permit No.	Location	Avg. Flow GPD	Company Representative	Description of Facility	Permit Expires
1)	Hitachi Cable America Inc.	2000	900 Holt Avenue	3,000	Dave Murray	Plastic wrap wire cable	11/30/2024
2)	CRYO Industries	2001	11124 South Willow Street	1,000	Kelcie O'Conner	Cryogenic Equipment	2/28/2024
3)	Western Foods	2005	299 Pepsi Road	4,000	Dave Martin	Food bakery	3/31/2024
4)	Chuckles	2013	11925 South Willow Street	2,500	Chuck Frank	Mfg. of Soaps	3/31/2023
5)	Blake's Manchester Creamery	2015	46 Milford Street	2,000	Richard Wolstencroft	Mfg. of Ice Cream	5/31/2024
6)	Budd Foods	2016	431 Somerville Street	10,000	Fredrick Hayes Jr.	Mfg. of Frozen Pies	11/30/2022
7)	H&O Dental	2017	1050 N. Perimeter Road	250	Michelle Maradiaga	Mfg. of False Teeth	5/31/2024
8)	New England Document Systems	2020	780 E. Industrial Park Drive	850	Nick Brattan	Store Microfiche	11/30/2022
9)	Elliot at Rivers Edge	2041	185 Queen City Ave.	7,000	Kristen Petrin-Doucet	Patient Care/Lab-Sterilization	8/31/2021
10)	NH Plastics (1 Bouchard)	2042	One Bouchard Street	1,000	Harold Young	Plastic Moldings	5/31/2024
11)	NH Plastics (315 Bouchard)	2043	315 Bouchard Street	1,600	Ralph Tremblay	Plastic Moldings	5/31/2024
12)	Kyzen Corporation	2044	540 N. Commercial St.	475	Mike Doucette	Solutions for Circuit Ind.	7/31/2020
13)	Symmetry Medical Inc. Polyvac	2046	253 Abby Road	1,900	Ernie Fuller	Mfg. Medical trays	11/30/2024
14)	Summit Packaging Systems Inc.	2047	400 Gay Street	2,300	Chris Gallo	Mfg. Aerosol valves	7/31/2020

APPENDIX - C
Class III Industrial Users

	Facility Name	Permit No.	Permit Expires		Facility Name	Permit No.	Permit Expires
1	The Doctor's Office	3001	7/31/25	34	Henry's Collision Center	3061	6/30/23
2	Pepsi Cola	3002	1/31/24	35	Soil-Away Salem, NH	3063	7/31/24
3	Granite State Manufacturing	3003	8/31/20	36	A-1 Steam Cleaning	3065	1/31/24
4	USPS	3004	5/31/24	37	Starks Brewery	3066	2/28/23
5	Knoettner	3005	5/31/24	38	Servpro of Man/Derry	3070	3/31/24
6	Stanley Mitsubishi	3007	7/31/25	39	Walgreens 227 S. Main St.	3077	11/30/23
7	Enterprise Holdings	3008	2/28/20	40	Holloway Cars of Man.	3083	7/31/25
8	M.L. Halle	3009	7/31/20	41	Team Nissan	3089	7/31/24
9	Secondwind	3011	7/31/20	42	Manchester Subaru	3090	7/31/25
10	BAE Oasis	3012	6/30/22	43	AutoFair Honda	3091	7/31/25
11	Best Qualified Cleaning Inc.	3013	Closed	44	Quirk Parts Warehouse	3092	5/31/21
12	Signature Flight Support	3015	11/30/23	45	AutoFair Hyundai	3093	7/31/25
13	Brenntag Lubricants	3016	2/28/24	46	Merrimack Street Volvo	3094	7/31/25
14	R & L Carriers	3017	2/28/24	47	Merrimack Street Volvo	3095	7/31/25
15	Quirk 1250 S. Willow St.	3018	11/30/23	48	Bonneville & Son Inc.	3097	11/30/24
16	Quirk 1100 S. Willow St.	3019	7/31/25	49	State Motors Car Wash	3102	7/31/25
17	Quirk Works - Porter St	3020	11/30/23	50	Kalwall Corp. - Pine Street	3104	7/31/20
18	Steralon	3021	7/31/25	51	Keller Products	3105	7/31/20
19	Manchester Armory	3022	4/30/21	52	IRA Toyota	3109	10/31/20
20	Frank's Signs	3023	4/30/24	53	Conway Express	3112	7/31/24
21	AutoFair Ford	3025	8/1/24	54	CVS Pharmacy (271 Mammoth)	3113	7/31/24
22	PMC Wire & Cable	3029	6/30/24	55	Kalwall Corp. - 1111 Candia	3120	3/31/23
23	U-Haul	3031	8/1/24	56	Prestige Auto Body Inc.	3122	9/30/22
24	Admix	3033	8/1/24	57	FedEx Ground Package System	3123	9/30/22
25	Crawford Vogel & Wenzel	3037	6/30/20				
26	Certified Maintenance Ser	3043	11/30/23				
27	Liberty Trucks	3039	10/31/20				
28	Eversource 73 West Brook St.	3047	2/28/25	**Special / Temporary Discharge Permit**			
29	Eversource 80 West Pennacook	3048	2/28/25				
30	Eversource 1580 Elm Street	3042	2/28/25				
31	PSNH 780 N.Commercial St.	3051	7/31/23				
32	Texas Instruments	3053	5/31/22				
33	Kimark Specialty Box Co.	3057	8/1/24				

APPENDIX - D
Class I/Significant Industrial Users
EPD Industrial Inspections & Sampling Worksheet

	EPA Classification	Permit No.	Facility Name	Permit Expires	EPD Inspection City Required	EPD Sampling City Required	July - Dec (19) Self-Mon. Rpt. Ind. Required	July - Dec (19) Flow Rpt. Ind. Required	Jan - June (20) Self-Mon. Rpt. Ind. Required	Jan - June (20) Flow Rpt. Ind. Required
1	SIU	1005	Lyophilization-LSNE	8/31/2020	6/16/2020	3/12/2020	11/12/2019	12/2/2019	6/1/2020	6/1/2020
2	SIU	1065	Cintas Corporation	4/30/2025	6/17/2020	5/22/2020	7/10/2019	12/10/2019	6/8/2020	6/8/2020
3	SIU	1066	Cintas Corporation	4/30/2025	6/17/2020	5/26/2020	7/10/2019	12/10/2019	6/8/2020	6/8/2020
4	SIU	1068	E & R Laundry	8/31/2020	6/10/2020	5/19/2020	10/3/2019	12/13/2019	6/8/2020	6/8/2020
5	SIU	1041	Elliot Hospital	5/31/2022	6/25/2020	5/29/2020	10/31/2019	12/10/2019	6/8/2020	6/8/2020
6	CIU 428	1006	Freudenberg-NOK	11/30/2020	6/12/2020	3/5/2020	9/6/2019	12/12/2019	6/12/2020	6/12/2020
7	SIU	1102	Front St. Landfill	2/28/2022	Not Required	9/20/2019	Not Required	Not Required	3/5/2020	Not Required
8	CIU 433	1024	Jewell	11/30/2020	6/11/2020	3/12/2020	8/29/2019	12/12/2019	6/11/2020	6/11/2020
9	CIU 414	1015	NYCOA	5/31/2022	6/24/2020	3/5/2020	11/14/2019	12/5/2019	6/9/2020	6/9/2020
10	SIU	1019	Velcro	11/30/2022	6/23/2020	3/12/2020	6/25/2019	12/4/2019	6/12/2020	6/12/2020
11	CIU 469	1040	XMA Corporation	2/28/2022	6/15/2020	3/12/2020	10/15/2019	11/15/2019	5/8/2020	5/8/2020
12	SIU	1018	VA Medical Center	1/31/2022	6/12/2020	5/19/2020	9/12/2019	10/4/2019	5/7/2020	5/7/2020
13	SIU	1107	Catholic Medical	5/31/2022	12/30/2019	5/19/2020	9/24/2019	12/6/2019	6/12/2020	6/12/2020
14	SIU	1007	General Cable	1/31/2025	6/17/2020	7/2/2020	11/25/2019	12/18/2019	6/27/2020	6/27/2020
15	SIU	1004	Sterling Laundry	1/31/2022	Covid -19	Covid -19	10/23/2019	12/4/2019	Covid -19	Covid -19

Town of Bedford

No permit activity

Town of Londonderry

See 2019-2020 IPP Annual Report

Town of Goffstown

No permit activity

Notes:

1. Front Street is the City of Manchester's Landfill. The IPP staff maintains the permit and sampling activities.
2. N/D = No Discharge
3. Sterling Laundry closed its buisness in March 2020 due to COVID-19

Information Required By EPA

Section Two

Summary of Compliance and Enforcement Activities during the preceding year, including the number of:

Part 2 - 1 Significant industrial users inspected by POTW (include inspection dates for each industrial user)

The City of Manchester, EPD IPP inspections are summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. Due to COVID-19 pandemic, the Class I inspections were delayed but were able to be performed between June 1, 2019 through June 31, 2020. These inspections are noted on *Appendix D*. EPD also completed the Industrial Class II and Class III permit renewals for this monitoring period. EPD's enforcement tracking sheet is summarized on the Enforcement Response Worksheet *Appendix E* at the end of Section Three.

Part 2 - 2 Summary of significant industrial users sampled by the POTW.

The City of Manchester, EPD Industrial sampling is summarized on the Industrial Inspection and Sampling Worksheet *Appendix D* at the end of Section One. All Class I Industries sampling activities were performed from June 1, 2019 through May 31, 2020.

Below are the City's sampling activities that will continue throughout the upcoming reporting year:

1. The Town of Londonderry is still monitoring the collection system quarterly for excess organic loading and sulfides generated due to the degredation of the high strength waste in the Londonderry sewer system. EPD will continue to monitor Londonderry wastestream for silver, copper, mercury, lead, zinc, selenium, aluminum and total phosphorous. EPD is continuing to collect data to determine excessive loadings to the treatment plant.

2. EPD has implemented extensive treatment plant effluent sampling as required by the current NPDES Permit NH0100447. The facility is sampling on a monthly basis for copper, lead and Total Phosphorous from the final effluent. On May 2019, EPD added Total Nitrogen and Ammonia-N to the sampling. EPD has also started a sampling protocol for per-and poly fluoroalkyl substances (PFAS) including 16 compounds. Presently, EPD is sampling for the influent & effluent, dewatered sludge, ash lagoon solids, septage and the City landfill leachate for these PFAS compounds.

3. In the past, EPD has had ongoing issues with copper, silver, zinc, and mercury discharges from contributing towns (Bedford, Londonderry, and Goffstown). The sampling activities that were conducted this reporting period indicated that none of those towns exceeded their allowable discharge limits for the parameters sampled.

EPD will continue to monitor the contributing towns for the metals listed above and continue to monitor for aluminum and Total Phosphorous to determine whether or not they are contributing any excessive loadings to the treatment plant.

Part 2 - 3 Summaries of Compliance and Enforcement Activities for Compliance Schedules Issued.

There were no enforcement activities implemented for compliance schedules for the fifteen (15) CAT/SIU industries that are required to be permitted, sampled and inspected.

Listed below are the compliance schedules that the City of Manchester. EPD issued for the Class I Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2020.

1. Cintas Corporation Permit No. 1065 *Effective Date 5/1/2020*
2. Cintas Corporation Permit No. 1066 *Effective Date 5/1/2020*
3. General Cable Permit No. 1007 *Effective Date 2/1/2020*

Listed below are the compliance schedules that the City of Manchester, EPD issued for the Class II Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2019.

1. Hitachi Cable America Inc. Permit No. 2000 *Effective Date 12-1-19*
2. Symmetry Medical Manufacturing Inc. DBA Tecomet. Permit No. 2046 *Effective Date 12/1/2020*

Listed below are the compliance schedules that the City of Manchester, EPD issued for the Class III Industries that reissued a discharge permit over the reporting period of June 1, 2019 through May 31, 2020.

1. A-1 Steam Cleaning Permit No. 3065 *Effective Date 2/1/2019*
2. Frank's Signs Inc. Permit No. 3123 *Effective Date 5/1/2019*
3. Knoettner Dental Laboratory No. 3005 *Effective Date 6/1/2019*
4. Marmon Aerospace and Defense Permit No. 3029 *Effective Date 7/1/2019*
5. Con-way Freight Permit No. 3112 *Effective Date 8/1/2019*
6. CVS (Mammoth Road) Permit No. 3113 *Effective Date 8/1/2019*
7. Eversource (1580 Elm Street) Permit No. 3042 *Effective Date 3/1/2020*
8. Eversource (73 W. Brook Street) Permit No. 3047 *Effective Date 3/1/2020*
9. Eversource (W. Pennacook Street) Permit No. 3048 *Effective Date 3/1/2020*
10. Medin Technologies Inc. Permit No. 3021 *Effective Date 4/1/2020*

Part 2 - 4 Summaries of Compliance and Enforcement Activities for Written Notices of Violation Issued.

The City of Manchester, EPD, Industrial Enforcement Activities are summarized on the Enforcement Worksheet *Appendix E* at the end of Section Three. The City of Manchester, EPD did not issue any Written Notices of Violations during this reporting period.

Part 2 - 5 Summary of Compliance and Enforcement Activities Involving Administrative Orders Issued.

The City of Manchester, EPD did not issue any Administrative Orders during this reporting period.

Part 2 - 6 Summary of Compliance and Enforcement Activities Involving Civil or Criminal Suits Filed.

The City of Manchester, EPD did not file any Civil or Criminal Suits during this reporting period.

Part 2-7 Summary of Compliance and Enforcement Activities Involving Penalties Obtained.

The City of Manchester, EPD did not issue or collect any penalties to any permitted industries during this reporting period.

Information Required By EPA

Section Three

List of Significantly Violating Industries Requiring Publication.

In review of this year's inspections, self-monitoring reports and submission of periodic compliance reporting it was determined that all but one Class I industry completed their reporting and monitoring criteria.

Due to COVID-19 Sterling Laundry Permit No. 1004 has temporarily closed back in March 2020 and the City did not conduct its annual inspection or received their required semi-annual self-monitoring report for the reporting period from December 2019 through May 2020.

The City of Manchester, EPD has determined not to issue a Notice of Violation (NOV) to Sterling Laundry for not conducting their reporting / sampling requirements during this monitoring period because of the pandemic. The City will continue to coordinate with Sterling's management on any progress and monitor any reopening of their operations. When and if they begin their operations, EPD will require Sterling to sample and submit their monitoring requirements.

APPENDIX - E
Enforcement Response Log

	Facility Name	Permit No.	Description of Notice of Violation	Type of Action Taken from Control Authority	Date Issued	Date Due	Date Received	Final Resolutions of the NOV Issued
								No Notices of Violations were issued from June 1, 2019 through May 31, 2020.

City of Manchester, NH Environmental Protection Division (EPD)
June 1, 2019 to May 31, 2020
IPP Annual Report

Information Required By EPA

Section Four

A Narrative Description of Program Effectiveness Including Present and Proposed Changes to the Program

Part 4 - 1 Effectiveness and Changes in Program.

The City of Manchester (EPD) operates a 34-MGD secondary activated sludge plant. The major components of the operation are grit removal, primary clarification, aeration, secondary settling and clarification, chlorination and dechlorination. Sludge is burned onsite through a fluidized-bed incinerator.

The City of Manchester has had an approved Industrial Pretreatment Program since1980 that oversees three classifications of industrial users. The Class I are the CAT/SIU users. The Class II are industries that have certain permitted limitations. The Class III are industries that had have either a silvery recovery unit or oil water separator. The City considers the Class II and III non-SIU even thou they do have a potential to upset the treatment facility. All permitted industries are evaluated and permits are renewed every 5 years.

EPD has initiated the recently issued §441.40 Pretreatment Standards for new sources (PSNS) for Dental Amalgam Separator Rule. Any new source subject to this part must comply with the requirements of §441.30(a) and (b) and the reporting and recordkeeping requirements of §441.50.

EPD has prepared a draft Fats, Oil and Grease (FOG) program that will be implemented under the Phase III CMOM program which is anticipated for later this year. Before implementing this program, the City will submit the documentations to the State of NH IPP Coordinator and EPA's Region I-Pretreatment Coordinator for their comments prior to implementation.

The City is in the process of updating IPP webpage on the City of Manchester's web site which will include all permitted industries, IPP sampling programs, IPP permit information, City Septic Policy and procedures. The webpage will also provide additional links for the IPP annual reports. This is scheduled to be on line by October 2020.

Part 4 - 2 Narrative Description of Program Staffing.

The IPP Pretreatment program is administered by Christopher Crowley. The daily activity of the IPP program include all sampling activity for the permitted industries and Intermunicipal activities which include City meter readings and sewer bills. The IPP also supports a variety of facility sampling which supports several monitoring programs.

On February 2020, the City filled two positions by hiring a new Environmental Permits Program Coordinator and a new Engineer Technician II. The City also created a new civil engineering position to manage Phase II of our CSO Program.

The City of Manchester, (EPD) Monitoring Department is divided into four (4) programs: CSO, CMOM, Stormwater and the Industrial Pretreatment Program (IPP). The CSO Program Manager oversees the four programs.

Part 4 - 3 Narrative Description of Funding and Resources

The City of Manchester's (EPD) operating budget is supported by sewer user revenues. Revenues are collected from sewer users through a combination of sewer use charges. All sewer users in the City of Manchester pay sewer user fees based on water consumption. The three towns serviced by the EPD are assessed fees based on their measured sewer flows and loadings into the Manchester Sewer System.

Part 4 - 4 Narrative Description of the Sewer Use Ordinance

The EPA and the Mayor and Board of Aldermen adopted the present Sewer Use Ordinance in 1997. The Ordinance is effective and adequate in addressing the requirements of Part 403 of the Federal Pretreatment Program requirements.

The few minor changes since adoption have been submitted with the updated IPP sent to EPA on May 11, 2007. On August 22, 2007 EPA responded to our Streamlining Rule modifications to the latest version of the Sewer Ordinance. This was adopted by Board of Mayor and Alderman on November 18, 2014.

Presently there are no new adoptions planned in the near future for EPA or the State of New Hampshire Department of Environmental Services to review.

Information Required By EPA

Section Five

Summary of Analytical Data.

This section includes the following data:

1. Summary of POTW Annual Influent Monitoring Results for the period of June 2019 through May 2020 compared to threshold inhibition concentrations. *See Appendix F*

2. Summary of POTW Annual Effluent Monitoring Results for the period of June 2019 through May 2020 compared to threshold inhibition concentrations. *See Appendix G*

3. Summary of Sludge Priority Pollutant Analysis Data for the period of June 2019 through May 2020 *See Appendix H*

4. Executive Summary of the Analytical Data is attached in the form of tables. The toxicity data are from summary sheets submitted by the contracted laboratory.

SDG: 15699 September 23, 2019 – September 27,2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic whole effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility. Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (September 23,25, and 27,2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	6 Days	50 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

COMMENTS:

SDG: 15716 October 8 - October 15, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (October 7,9 and 11, 2019). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100 %	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100 %	100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	6 Days	100 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

COMMENTS:

SDG: 15782 February 11 -February 18, 2020

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (February 10,12 and 14, 2020). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	6 Days	50 %	99.6%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

COMMENTS:

SDG: 15840 May 12 – May 19, 2019

EXECUTIVE SUMMARY

The following summarizes the results of modified acute and chronic WHOLE effluent toxicity (WET) tests completed with samples collected from Manchester, NH Wastewater Treatment Facility (NPDES Permit # NH0100447). Acute and chronic toxicity was evaluated using daphnids, *Ceriodaphnia dubia* and flathead minnows, *Pimephales promelas*.

Daphnid neonates from in-house cultures were collected within an eight-hour time span and were less than 24hrs. old when the test was started. Minnows were acquired from Aquatic BioSystem, Inc. of Fort Collins, Colorado and were one day old when the test was started. According the chain of custody, effluent samples were 24-h composite while the Merrimack River samples, used as dilution water, were river grab samples. Samples were received and transported by Aquatec Environmental staff under chain of custody, packed in ice and delivered on the same day (May 11, 13 and 15, 2020). Sample receipt, test conditions and control endpoints were within protocol specifications.

The results presented in this report relate to the samples described on the on the chain(s)-of-custody and are intended to be used only by authorized personnel of the City of Manchester, NH. Results from acute and chronic WET tests and their relationship to permit limits are summarized below.

Acute Toxicity Evaluation

Species	Exposure	LC-50	A-NOEC	Permit Limit (LC-50)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	48-Hours	>100 %	100%	100 %	Yes	Yes
Pimephales promelas	48-Hours	>100 %	100%	100 %	Yes	Yes

Chronic Toxicity Evaluation

Species	Exposure	C-NOEC	IC-25	Permit Limit (C-NOEC)	Effluent Meets Permit Limit	Assay Meets Protocol Limits
Ceriodaphnia dubia	6 Days	100 %	>100%	8.5 %	Yes	Yes
Pimephales promelas	7 Days	100 %	>100%	8.5 %	Yes	Yes

COMMENTS:

APPENDIX - F
INFLUENT SAMPLING RESULTS

INFLUENT INFORMATION		State H2O Quality Criteria	Criteria Corrected for 7Q10	State H2O Quality Criteria	Criteria Corrected for 7Q10	Compliance Status
Date of Analysis	5/19/2020					
Lab I.D.	210378	Acute	Acute	Chronic	Chronic	
Listed Parameter	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Yes or No
Antimony						
Aluminum	0.32					
Arsenic	0.0021	0.36	4.2552	0.19	2.24580	Yes
Barium						
Beryllium						
Cadmium	<0.001	0.00082	0.00969	0.00038	0.0044916	Yes
Calcium						
Chromium	0.0013	0.176	2.08032	0.057	0.67374	Yes
Copper	0.042	0.0046	0.054372	0.0035	0.04137	No
Hardness						
Fluoride						
Iron						
Lead	0.0026	0.014	0.16548	0.00055	0.0065010	Yes
Magnesium						
Mercury	0.0000705	0.00204	0.02411	0.000012	0.000142	Yes
Molybdenum						
Nickel	0.0024	0.438	5.17716	0.0487	0.57563	Yes
Phenolic (T)	< 0.05					Yes
Selenium						
Silver	<0.001	0.00032	0.0037824			Yes
Thallium	<0.001					Yes
Vanadium						
Zinc	0.12	0.0354	0.418428	0.0322	0.38060	No
Cyanide	<0.02	0.022	0.26004	0.0052	0.06146	Yes
Oil & Grease	6.70					
Oil & Grease W/SGT						
T. Phosphorus	3.80					
ORGANICS	See Note below					
added 625	1,2 diphenylhydrazine					
3 and 4 methylphenol (p-cresol)	9.8					

The sample was tested for 624-625

*The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

APPENDIX - G
EFFULENT SAMPLING RESULTS

EFFULENT INFORMATION		State H2O Quality Criteria	Criteria Corrected for 7Q10	State H2O Quality Criteria	Criteria Corrected for 7Q10	Compliance Status
Date of Analysis	5/28/2019					
Lab I.D.	195779	Acute	Acute	Chronic	Chronic	
Listed Parameter	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Concentration mg/l (*)	Concentration mg/l	Yes or No
Antimony						
Aluminum	<0.05					
Arsenic	0.0017	0.36	4.2552	0.19	2.24580	Yes
Barium						
Beryllium						
Cadmium	< 0.001	0.00082	0.00969	0.00038	0.0044916	Yes
Calcium						
Chromium	< 0.001	0.176	2.08032	0.057	0.67374	Yes
Copper	0.0092	0.0046	0.054372	0.0035	0.04137	No
Hardness						
Fluoride						
Iron						
Lead	<0.001	0.014	0.16548	0.00055	0.0065010	Yes
Magnesium						
Mercury	0.0000131	0.00204	0.02411	0.000012	0.000142	Yes
Molybdenum						
Nickel	0.0023	0.438	5.17716	0.0487	0.57563	Yes
Phenolic (T)	< 0.05					Yes
Selenium						
Silver	< 0.001	0.00032	0.0037824			Yes
Thallium	< 0.001					Yes
Vanadium						
Zinc	0.042	0.0354	0.418428	0.0322	0.38060	No
Cyanide	<0.02	0.022	0.26004	0.0052	0.06146	Yes
Oil & Grease	< 8					
Oil & Grease W/SGT						
T. Phosphorus	2.5					
ORGANICS	See Note below					
added 625	1,2 diphenylhydrazine					

The sample was tested for 624-625

*The Merrimack River 7Q10 is at 412 MGD

Manchester has an average daily flow of 26 MGD and the correction factor is 11.82X

Date Received Lab ID Number Listed Parameter	6/24/2019 197035 ug/g	7/24/2019 198304 ug/g	8/21/2019 199406 ug/g	9/27/2019 201130 ug/g	TCLP Limits Criteria mg/kg dry wt.	NPDES Permit 5/1/15 mg/kg dry wt.	503 Rags Sub B (1) mg/kg dry wt.	State NH (1) Criteria mg/kg dry wt.	State of Compliance mg/kg dry wt.
Aluminum	4500.00	3700.00	5200.00	3400.00					
Antimony	2.30	1.80	2.00	2.00					
Arsenic	5.20	6.10	7.90	4.90	**100**	**8,573**	**41**	**32**	**Yes**
Barium	260.00	280.00	290.00	230.00	**2,000**				
Beryllium	<0.7	<0.5	<0.5	<0.5					
Boron	<7	6.70	6.30	5.20					
Cadmium	1.70	1.50	1.70	1.20	**20**	**43,416**	**39**	**14**	**Yes**
Chromium	20.00	16.00	20.00	15.00	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	260.00	300.00	330.00	270.00			**1,500**	**1,500**	**Yes**
Iron	10000.00	9500.00	9400.00	8500.00					
Lead	35.00	29.00	39.00	25.00	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.44	0.45	0.54	0.53	**4**		**17**	**10**	**Yes**
Molybdenum	5.50	6.40	7.60	6.50			**75**	**35**	**Yes**
Nickel	13.00	9.60	12.00	9.30		**213,643**	**420**	**200**	
Selenium	1.70	4.00	5.50	5.00	**20**		**100**	**28**	**Yes**
Silver	3.00	1.90	2.50	5.40	**100**				**Yes**
Thallium	<0.7	<0.5	<0.5	<0.5					
Vanadium	9.20	8.70	9.40	8.40					
Zinc	580.00	750.00	750.00	680.00			**2,800**	**2,500**	**Yes**
% Solids	23.60%	24.20%	24.40%	23.80%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	47.3	48.1	48.0	49.8					
Total Organic Carbon									
% CaCO3 -eq.	24000	27000	28000	24000					
pH (Soil)									
Date of Analysis **Lab ID Number** **Concentration ug/g dr**	6/8/2020 197035 mg/Kg	7/30/2019 198304 mg/Kg	8/27/2019 199406 mg/Kg	10/2/2019 201130 mg/Kg					
acetone	62.00	300.00	160.00	92.00					
2-Butanone (MEK)	32.00	130.00	45.00	39.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene									
benzene									
carbon tetrachloride									
Toluene	1.40	44.00	6.60	2.30					
chloroform									
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creasol)									
3-4-methylphenol(p-o-c	310.00								
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene									
phenathrene									
methylene chloride									
Fluoranthane									
Pyrene									
Chysene									
benzo(b)fluranthene									
phenol									

Date Received	10/21/2019	11/27/2019	12/19/2019	1/10/2020	TCLP Limits	NPDES	503 Rags	State NH (1)	State of
Lab ID Number	202127	204061	204913	205580	Criteria	Permit 5/1/15	Sub B (1)	Criteria	Compliance
Listed Parameter	ug/g	ug/g	ug/g	ug/g	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.	mg/kg dry wt.
Aluminum	5900.00	3800.00	3500.00	2900.00					
Antimony	3.10	2.80		1.70					
Arsenic	8.10	5.70	4.30	4.00	**100**	**8,573**	**41**	**32**	**Yes**
Barium	270.00	240.00		190.00	**2,000**				
Beryllium	<0.5	<0.5	<0.5	0.21					
Boron	7.00	6.20		<0.5					
Cadmium	2.00	1.60	2.10	7600.00	**20.0**	**43,416**	**39**	**14**	**Yes**
Chromium	26.00	21.00	13.00	12.00	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	380.00	330.00	230.00	160.00			**1,500**	**1,500**	**Yes**
Iron	11000.00	8900.00	7300.00	6400.00					
Lead	57.00	26.00	25.00	22.00	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.76	0.42	0.40	0.50	**4.0**		**17**	**10**	**Yes**
Molybdenum	8.10	6.30		3.50			**75**	**35**	**Yes**
Nickel	17.00	12.00	9.30	7.20		**213,643**	**420**	**200**	
Selenium	4.00	2.50	3.10	2.50	**20.0**		**100**	**28**	**Yes**
Silver	4.80	3.80		1.40	**100**				**Yes**
Thallium	<0.5	<0.5		<0.5					
Vanadium	15.00	9.70		11.00					
Zinc	810.00	640.00	470.00	370.00			**2,800**	**2,500**	**Yes**
% Solids	28.30%	25.70%		25.00%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	39.7	44.2		50.1					
Total Organic Carbon									
% CaCO3 -eq.	38000	35000		29000					
pH (Soil)									
Date of Analysis	10/29/2019	12/3/2019	12/6/2019	1/10/2020					
Lab ID Number	202127	204061	204405	205580					
Concentration ug/g	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
acetone	300.00	71.00		120.00					
2-Butanone (MEK)	170.00	110.00	900.00	37.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene									
benzene									
carbon tetrachloride									
Toluene	6.00	7.90							
chloroform									
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creasol)									
3-4-methylphenol(p-o	130.00	2900.00		270.00					
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene									
hexachloroethane									
nitrobenzene									
pentachlorophenol									
Pryidine									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
phenol									

Date Received Lab ID Number Listed Parameter	2/21/2020 207056 ug/g	3/13/2020 207858 ug/g	4/28/2020 209527 ug/g	5/22/2020 210682 ug/g	TCLP Limits Criteria mg/kg dry wt.	NPDES Permit 5/1/15 mg/kg dry wt.	503 Rags Sub B (1) mg/kg dry wt.	State NH (1) Criteria mg/kg dry wt.	State of Compliance mg/kg dry wt.
Aluminum	4800.00	3200.00	3600.00	4800.00					
Antimony	1.90	2.00	2.00	3.10					
Arsenic	5.40	3.90	4.50	6.00	**100**	**8,573**	**41**	**32**	**Yes**
Barium	200.00	240.00	240.00	230.00	**2,000**				
Beryllium	<0.5	<0.5	<0.5	<0.5					
Boron	<5	<5	<50	<50					
Cadmium	3.40	2.70	2.60	2.30	**20.0**	**43,416**	**39**	**14**	**Yes**
Chromium	19.00	18.00	16.00	20.00	**100**	**1,423,398**	**1,200**	**1,000**	**Yes**
Copper	140.00	210.00	220.00	290.00			**1,500**	**1,500**	**Yes**
Iron	8200.00	7200.00	7400.00	9800.00					
Lead	25.00	25.00	29.00	49.00	**100**	**262,781**	**300**	**300**	**Yes**
Mercury	0.95	0.48	0.31	0.56	**4.0**		**17**	**10**	**Yes**
Molybdenum	4.10	3.90	3.90	5.10			**75**	**35**	**Yes**
Nickel	11.00	9.40	9.80	12.00		**213,643**	**420**	**200**	
Selenium	2.80	2.80	3.40	4.80	**20.0**		**100**	**28**	**Yes**
Silver	1.70	2.70	5.00	3.40	**100**				**Yes**
Thallium	<0.5	<0.5	<0.5	<0.5					
Vanadium	15.00	9.50	7.80	12.00					
Zinc	610.00	450.00	500.00	700.00			**2,800**	**2,500**	**Yes**
% Solids	26.20%	23.40%	26.60%	25.60%					
Free Lq (Paint Filter)	Absent	Absent	Absent	Absent					
% Carbon	44.3	49.7	48.3	45.6					
Total Organic Carbon									
% CaCO3 -eq.	26000	24000	26000	29000					
pH (Soil)									
Date of Analysis **Lab ID Number** **Concentration ug/g dr**	2/24/2020 207056 mg/Kg	3/16/2020 207858 mg/Kg	4/29/2020 209527 mg/Kg	5/27/2020 210682 mg/Kg					
acetone	900.00	57.00	220.00						
2-Butanone (MEK)	300.00	23.00	62.00	15.00					
1,2-dichloroethane									
1,1-dichloroethene									
1,4-dichlorobenzene									
benzene									
carbon tetrachloride									
Toluene	18.00	48.00	2.50	13.00					
chloroform									
methyl ethyl ketone									
tetrachloroethene									
trichloroethene									
vinyl chloride									
2-methylphenol (m-creasol)									
3-4-methylphenol(p-o-c	140.00	180.00	270.00	3300.00					
1,4 dichlorobenzene									
o-cresol									
m-cresol									
p-cresol									
2,4-dinitrotoluene									
hexachlorobenzene									
hexochloro-1,3-butadiene									
hexachloroethane									
nitrobenzene									
pentachlorophenol									
Pryidine									
2,4,5-trichlorophenol									
2,4,6-trichlorophenol									
phenol									

Information Required By EPA

Section Six

Description of Interference and Pass-Through

There was no industrial interference with the treatment plant process that caused any interference or pass-through during the June 1, 2019 through May 31, 2020 reporting period. The aeration system is fully operational and thus, the system is more flexible in handling high loadings and low dissolved oxygen conditions. EPD will continue monitor the conditions and adjust the performance of the plant's performance.

Information Required By EPA

Section Seven

Investigation of Interference and Pass-Through

The City of Manchester, EPD has taken a proactive approach at sampling the POTW influent and effluent for nutrients, metals and total phosphorus and will continue to do so. EPD has taken the initiative to sample permitted industrial discharges that could potentially contribute to the metals and total phosphorus loadings at the treatment plant. EPD has determined that the Manchester Water Works and Granite Ridge Energy of New Hampshire are two industries that might be contributing to high aluminum levels in the influent during dry weather conditions.

EPD will continue to test for aluminum, mercury and total phosphorus from the contributing towns (Bedford, Goffstown and Londonderry) during the quarterly sampling activities.

The Town of Bedford quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
7/12/19	0.200 mg/l	0.00005 mg/l	7.10 mg/l
1018/19	0.370 mg/l	0.00006 mg/l	7.50 mg/l
1/10/20	0.230 mg/l	0.00049 mg/l	6.60 mg/l
5/21/20	0.210 mg/l	0.00009 mg/l	5.30 mg/l

The Town of Goffstown quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
7/12/19	0.530 mg/l	0.00003 mg/l	5.20 mg/l
1018/19	0.660 mg/l	0.00003 mg/l	8.80 mg/l
1/10/20	0.220 mg/l	0.00003 mg/l	3.70 mg/l
5/21/20	0.170 mg/l	0.00002 mg/l	4.60 mg/l

The Town of Londonderry quarterly sampling results from June 1, 2019 to May 31, 2020 indicate that they had not exceeded their allowable loadings for any of the parameters that were tested. The additional test results for aluminum, mercury and total phosphorus are provided in the table below.

The additional sampling of:	Aluminum	Mercury	Total Phosphorus
7/12/19	0.380 mg/l	0.00002 mg/l	9.00 mg/l
1018/19	1.70 mg/l	0.00004 mg/l	9.20 mg/l
1/10/20	0.660 mg/l	0.00002 mg/l	7.00 mg/l
5/21/20	0.270 mg/l	0.00002 mg/l	12.00 mg/l

EPD will continue to monitor the influent and effluent for those parameters to ensure compliance with effluent requirements.

Information Required By EPA

Section Eight
Monitoring for Interference and Pass-Through

The City of Manchester, EPD has an active sampling and monitoring program for interference and pass-through. Below are the tests performed for the parameters listed through the reporting period.

1. Influent and Effluent monitoring for metals, total phosphorous, cyanide, volatile and semi-volatile organics (priority pollutant scan).

2. Quarterly toxicity testing as outlined within the NPDES Permit.

3. Monthly Sludge analysis for metals. Testing includes the required total metals analysis (Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Thallium, Zinc, and EPD added Aluminum), but also included some TCLP and organics analysis when sludge must be landfilled during incinerator shutdown.

4. Semi-Annual Ash monitoring for all priority pollutants.

5. Annual Grits & Screening monitoring for all priority pollutants.

6. Increased Class II Industrial sampling during permit renewals above what is required in the approved IPP.

7. Continued Effluent monitoring on a monthly basis. Since 2015, EPD has been monitoring the effluent twice a month for grab samples for Copper, Lead and Total Phosphorous due to the fact that those parameters are a requirement in our current NPDES permit. In 2020 T. Nitrogen, Nitrite and Ammonia were added.

8. In 2019, EPD began sampling on a monthly basis for PFAS (16 compounds) for the influent, effluent, landfill leachate, septage, sludge and ash solids.

9. Sampling of Intermunicipal Agreement communities (Bedford, Goffstown and Londonderry) includes the following monitoring of Local Limits for metals of concern (Ag, Al, Cu, Pb, Hg, Zn) and Total Phosphorous. Due to EPA Interim Mercury Control Plan, EPD has been sampling the Towns on a monthly basis for mercury as well.

10. The Town of Londonderry discharges is monitored for excessive metals, organics, sulfides and other inorganics.

11. The City shall continue to comply with the Interim Mercury Control Plan instituted by EPA under the air emissions requirements. Below are control measures to assist in the investigation of mercury in the POTW incinerator emissions:

a. Manchester currently maintains a sludge-monitoring program that satisfies State and Federal requirements. This program includes evaluation of new industrial customers prior to receiving their wastewater, ongoing periodic and routine monitoring of customer wastewater and monthly sampling of sludge feed to the Fluidized Bed Incinerator (FBI) as required by 40 CFR Part 503. All of the monitoring and sampling components of this program include mercury in their analyses.

b. The IPP will continue to evaluate (a) the self-monitoring reports submitted by all facilities discharging to the WWTP under a municipal Industrial Discharge Permit (each hereinafter an Industrial Permittee), and (b) the results of annual Industrial Permittee wastewater sampling performed by Manchester, to determine the facilities that have the highest mercury content of wastewater by weight discharged to the WWTP for the past three years (Industrial Permittee wastewater is sampled at least three times per year, twice per year for the self-monitoring reports and once per year by Manchester).

c. Collect wastewater samples from the existing metering stations at the three towns that have Intermunicipal Agreements with Manchester (Bedford, Goffstown, and Londonderry) on a monthly basis, rather than the previous quarterly basis. This is to evaluate the mercury content by weight in the wastewater discharged from each Town to the WWTP. These results will determine whether a town has exceeded its limit for mercury.

d. In the event that the increased wastewater sampling identifies a mercury exceedance by a Town, Manchester will send an outreach letter to the Town's Department of Public Works asking for their assistance in reducing mercury in its wastewater discharge and scheduled a meeting with the Town to discuss how best to address the exceedance.

The IPP has scheduled this year an increase in dental office inspections under the Dental Amalgam Program from every two years to every year. Currently, EPD has not completed all the inspections due to the COVID-19 shut down of the dentistry businesses. As of August 2020, EPD is to start another round of inspections and anticipates all inspections will be completed by October 2020.

Information Required By EPA

Section Nine

Reduction Efforts for SNC SIUs

The City of Manchester, EPD continues to be diligent in notifying each industry of potential late sampling and reporting requirements as outlined in their permits. The industrial sampling, both City unannounced and industrial self-monitoring, indicate that all permitted Class I CIUs/SIUs are discharging within their categorical and/or headworks loading concentrations.

EPD is continuing to take a proactive approach in investigating potential new industries. The IPP conducts an initial walk through, gathers flow information (water consumption) through with the City's billing department; logs them into a database; and gathers potential hazardous substances usage to evaluate if a permit is warranted.

EPD has a proactive approach with all types of spill investigations. The IPP works closely with the City's Board of Health Department and the City Sewer Department with the guidance with of EPD Engineering Department to track down any potential illicit dischargers.

EPD joined the City of Manchester's Local Emergency Planning Committee (LEPC) to collect information on any industries that might require a discharge permit. Unfortunately, due to continued logistical issues there has not been any recent activity.

Information Required By EPA

Section Ten
Local Limits Adoption

The local limits are current and technically based. The EPA accepted the limits with notification to the City of Manchester on March 18, 1997. The City formerly adopted the limits within the Sewer Use Ordinance on August 5, 1997.

The City of Manchester's NPDES permit became effective May 1, 2015. A requirement was to submit, within 180 days of the effective date of the permit November 8, 2015, a "Reassessment of Technically Based Local Limits."

On October 26, 2015 EPD submitted to EPA its Reassessment of the Technically Based Local Limits. The City believes that the information confirms that Manchester's present Local Limits Headwork's Allocation is sound, conservative and protective of the wastewater treatment operations. The new discharge permit requires monthly monitoring of effluent copper with an average monthly limit of 24 ug/l. We have a chronic toxicity-reporting requirement of >8.5% for NOEC and an acute toxicity requirement of an LC50 of >100%.

EPD is anticipating another review of the technically based local limits during the upcoming monitoring year when the new NPDES permit will be reviewed and issued to the City.