

National Pollutant Discharge Elimination System (NPDES) Permit Program**PUBLIC NOTICE****NPDES Permit to Discharge to State Waters**

Ohio Environmental Protection Agency
Permits Section
50 West Town St., Suite 700
P. O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2001

Public Notice No.: 192573
Date of Issue of Public Notice: Nov-29-2023
Name and Address of Applicant: Republic Steel, 2633 Eighth Street, NE, Canton, OH 44704

Name and Address of Facility
Where Discharge Occurs: Republic Steel Canton Hot Rolled Plant, 2633 Eighth Street, NE,
Canton, OH 44704, Stark County

Outfall Flow and Location List:	003	740,000 GPD	40N 48' 28"	81W 19' 59"
	006		40N 48' 28"	81W 20' 05"
	008		40N 48' 29"	81W 20' 04"
	009	160,000 GPD	40N 48' 29"	81W 20' 13"
	010	1,690,000 GPD	40N 48' 20"	81W 20' 39"
	011	40,000 GPD	40N 48' 29"	81W 20' 15"
	020		40N 48' 29"	81W 20' 15"
	022		40N 48' 23"	81W 19' 40"
	024		40N 48' 04"	81W 20' 60"
	025		40N 48' 08"	81W 20' 60"
	027		40N 48' 07"	81W 19' 46"
	028		40N 48' 07"	81W 19' 45"
	029		40N 48' 06 "	81W 19' 48"
	030		40N 48' 05"	81W 19' 49"
	031		40N 48' 03"	81W 19' 49"
	032		40N 48' 04"	81W 19' 46"
	033		40N 48' 03"	81W 19' 47"
	034		40N 48' 27 "	81W 19' 47"
	601		40N 53' 23"	81W 20' 26"

Receiving Stream: East Branch Nimishillin Creek

Nature of Business: The Republic Steel Canton Hot Rolled Plant produces carbon and alloy special bar quality steels. The manufacturing operations consist of electric arc furnace steel making ladle metallurgy vacuum degassing continuous casting, a hot forming mill, conditioning, saw cutting and finishing facilities and ancillary operations.

Key parameters to be limited in the permit are as follows: pH, Oil and Grease-Hexane Extr, Copper, Total Recoverable, Ceriodaphnia Acute Toxicity, Ceriodaphnia dubia Chronic Toxicity, Total Recoverable Selenium, Total Recoverable Zinc,

Total Residual Chlorine, Total (Low Level) Mercury, Total Suspended Solids, Total Recoverable Lead, Residue, Total Filterable

On the basis of preliminary staff review and application of standards and regulations, the director of the Ohio Environmental Protection Agency will issue a permit for the discharge subject to certain effluent conditions and special conditions. The draft permit will be issued as a final action unless the director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the administrator of the U.S. Environmental Protection Agency. Any person may submit written comments on the draft permit and administrative record and may request a public hearing. A request for public hearing shall be in writing and shall state the nature of the issues to be raised. In appropriate cases, including cases where there is significant public interest, the director may hold a public hearing on a draft permit or permits prior to final issuance of the permit or permits. Following final action by the director, any aggrieved party has the right to appeal to the Environmental Review Appeals Commission.

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted in person or by mail no later than 30 days after the date of this public notice. Comments should be delivered or mailed to both of the following locations: 1) Ohio Environmental Protection Agency, Lazarus Government Center, Division of Surface Water, Permits Processing Unit, 50 West Town St., Suite 700, P.O. Box 1049, Columbus, Ohio 43216-1049 and 2) Ohio Environmental Protection Agency, Northeast District Office 2110 East Aurora Road, Twinsburg, Ohio 44087.

The Ohio EPA permit number and public notice numbers should appear next to the above address on the envelope and on each page of any submitted comments. All comments received no later than 30 days after the date of this public notice will be considered.

Proposed Water Quality Based Effluent Limitations: This draft permit contains water quality based effluent limitation(s) (WQBELs). In accordance with Ohio Revised Code Section 6111.03(J)(3), the Director establishes WQBELs after considering, to the extent consistent with the Federal Water Pollution Control Act, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to accomplishment of the purposes of this chapter. This determination was made based on data and information available at the time the permit was drafted, which included the contents of the of the timely submitted National Pollutant Discharge Elimination System (NDPES) permit renewal application, along with any and all pertinent information available to the Director.

This public notice hereby allows the permittee to provide to the Director for consideration during this public comment period, additional site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness for achieving compliance with WQBEL(s). This information shall be submitted to the addresses listed above.

Should the applicant need additional time to review, obtain or develop site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness of achieving compliance with WQBEL(s), written notification for any additional time shall be sent no later than 30 days after the date of this public notice to the Director at the addresses listed above.

Should the applicant determine that compliance with a WQBEL is technically and/or economically unattainable, the permittee may submit an application for a variance to the applicable WQBEL in accordance with the terms and conditions set forth in Ohio Administrative Code (OAC) Rule 3745-33-07(D) no later than 30 days after the date of this public notice to the addresses listed above.

Alternately, the applicant may propose the development of site-specific water quality standard(s) pursuant to OAC Rule 3745-1-35. The permittee shall submit written notification to the Director regarding their intent to develop site-specific water quality standards for the pollutant at issue to the addresses listed above no later than 30 days after the date of this public notice.

The application, fact sheets, permit including effluent limitations, special conditions, comments received, and other documents are available for inspection and may be copied at a cost of 5 cents per page at the Ohio Environmental Protection Agency at the address shown on page one of this public notice any time between the hours of 8 a.m. and 4:30 p.m., Monday through Friday. Copies of the public notice are available at no charge at the same address.

Mailing lists are maintained for persons or groups who desire to receive public notice for all applications in the state or for certain geographical areas. Persons or groups may also request copies of fact sheets, applications, or other documents pertaining to specific applications. Persons or groups may have their names put on such a list by making a written request to the agency at the address shown above.

Ohio EPA Permit No. 3ID00000*VD
Application No. OH0006912

DRAFT COPY
SUBJECT TO REVISION
OHIO EPA

Action Date:
Effective Date:
Expiration Date: 5 Years

Ohio Environmental Protection Agency
Authorization to Discharge Under the
National Pollutant Discharge Elimination System

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereinafter referred to as the "Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111),

Republic Steel

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the Republic Steel Canton Hot Rolled Plant located at 2633 Eighth Street, NE, Canton, Ohio, Stark County, to the East Branch Nimishillen Creek between River Miles 0.45 -1.40, and an undesignated tributary (informally known as Harding Creek) at River Miles 0.3 to 0.40, in accordance with the conditions specified in Parts I, II, III, IV, V, and VI of this permit.

In accordance with the antidegradation rule, OAC 3745-1-05, I have determined that a lowering of water quality in the East Branch Nimishillen Creek is necessary. Provision (D)(1)(g) was applied to this application for mercury. This provision excludes the need for the submittal and subsequent review of technical alternatives and social and economic issues related to the degradation. Other rule provisions, however, including public participation and appropriate intergovernmental coordination were required and considered prior to reaching this decision.

This permit is conditioned upon payment of applicable fees as required by Section 3745.11 of the Ohio Revised Code.

This permit and the authorization to discharge shall expire at midnight on the expiration date shown above. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information and forms as are required by the Ohio EPA no later than 180 days prior to the above date of expiration.

Anne M. Vogel
Director

Total Pages: 81

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting for a period of 24 months, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000003. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 003 - Interim

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00981 - Selenium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Week	24hr Total Estimate	All
50060 - Chlorine, Total Residual - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000003:

- a. The facility’s production operations are currently idled. During operations, the discharge from this outfall is limited to non-contact cooling water, steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.
 - b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.
 - c. Quarterly-Alt - Monitoring months are March, June, September, and December.
 - d. See Part I, C - Schedule of Compliance for Copper and Total Residual Chlorine.
 - e. Fluoride, iron, lead, mercury, selenium and zinc tracking requirement - See Part II, Item P.
 - f. Phosphorus, Method Detection Limit - See Part II, Item I.
 - g. This outfall contributes stormwater. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, “Storm event”.
- | | |
|-----------|-----------|
| Parameter | Benchmark |
| Aluminum | 750 ug/l |
- h. During each year of the permit cycle, one benchmark sampling event shall be performed during each of the represented quarterly monitoring periods (Q1-Q4) unless the facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).
 - i. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

2. During the period beginning 24 months after the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000003. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 003 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00981 - Selenium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01118 - Chromium, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	72	-	-	44	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Week	24hr Total Estimate	All
50060 - Chlorine, Total Residual - mg/l	0.026	-	-	0.016	-	-	-	1/Month	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000003:

- a. The facility’s production operations are currently idled. During operations, the discharge from this outfall is limited to non-contact cooling water, steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.
 - b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.
 - c. Quarterly-Alt - Monitoring months are March, June, September, and December.
 - d. Total Residual Chlorine, Limits Below Quantification - See Part II, Item H.
 - e. Fluoride, iron, lead, mercury, selenium and zinc tracking requirement - See Part II, Item P.
 - f. Phosphorus, Method Detection Limit - See Part II, Item I.
 - g. This outfall contributes stormwater. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, “Storm event”.
- | | |
|-----------|-----------|
| Parameter | Benchmark |
| Aluminum | 750 ug/l |
- h. During each year of the permit cycle, one benchmark sampling event shall be performed during each of the represented quarterly monitoring periods (Q1-Q4) unless the facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).
 - i. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

3. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfall 3ID00000006. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 006 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Number 3ID00000006:

a. The facility’s production operations are currently idled. During operations, this outfall consists of steam condensate, stormwater and groundwater. It shall be free from process wastewater and other contaminants. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.

b. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, “Storm event”. If there are no discharges during the quarter, select the "No Discharge" check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Zinc	360 ug/l

c. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).

d. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

4. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfalls 3ID00000008, 3ID00000022, and 3ID00000024. Monitoring shall be performed in accordance with the following representative table. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 008 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Numbers 3ID00000008, 3ID00000022, and 3ID00000024:

- a. These outfalls consist of stormwater and groundwater. They shall be free from process wastewater and other contaminants.
- b. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event". If there are no discharges during the quarter, select the "No Discharge" check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Copper	47 ug/L
Total Suspended Solids	100 mg/L
Zinc	360 ug/l

c. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).

d. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

5. During the period beginning on the effective date of this permit and lasting for a period of 24 months, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000009. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 009 - Interim

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Week	24hr Total Estimate	All
50060 - Chlorine, Total Residual - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000009:

a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to non-contact cooling water, steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.

b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.

c. Quarterly-Alt - Monitoring months are March, June, September, and December.

d. See Part I, C - Schedule of Compliance for Copper and Total Residual Chlorine.

e. Fluoride, tracking requirement - See Part II, Item P.

f. Phosphorus, Method Detection Limit - See Part II, Item I.

g. This outfall contributes stormwater. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event".

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning 24 months after the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000009. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 009 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	72	-	-	44	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Week	24hr Total Estimate	All
50060 - Chlorine, Total Residual - mg/l	0.026	-	-	0.016	-	-	-	1/Month	Grab	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000009:

a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to non-contact cooling water, steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.

b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.

c. Quarterly-Alt - Monitoring months are March, June, September, and December.

d. Total Residual Chlorine, Limits Below Quantification - See Part II, Item H.

e. Fluoride, tracking requirement - See Part II, Item P.

f. Phosphorus, Method Detection Limit - See Part II, Item I.

g. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event".

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. During the period beginning on the effective date of this permit and lasting a period of 24 months, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000010. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 010 - Interim

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00981 - Selenium, Total Recoverable - ug/l	109	-	-	5.8	0.77	-	0.037	1/Week	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
32101 - Bromodichloromethane - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
32106 - Chloroform - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	0.022	-	-	-	-	-	-	1/Month	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	1700	-	-	40.6	0.011	-	0.00026	1/Month	Grab	All

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	1.0	-	-	-	-	-	-	2/Year	24hr Composite	March and Sep.
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUC	-	-	-	2.44	-	-	-	2/Year	24hr Composite	March and Sep.
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000010:

* Effluent loadings based on average design flow of 1.69 MGD.

- a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to treated process wastewater from outfall 3ID00000601, stormwater, groundwater, service water bleeds, and the freeze protection line. During idled conditions, the discharge from this outfall is limited to treated scale pit water and accumulated building water, along with stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.
- b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.
- c. Quarterly-Alt - Monitoring months are March, June, September, and December.
- d. Mercury - the general mercury variance permits an annual average mercury effluent concentration (AAMEC) of 12 ng/l effective for the duration of this permit. See Part II, Items M, N, and O.
- e. Selenium - See Part I, C.
- f. See Part I, C - Schedule of Compliance for Lead and Total Residual Chlorine.
- g. Phosphorus, Method Detection Limit - See Part II, Item I.
- h. This outfall contributes stormwater. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall indicate in the comment section, "Storm event".

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. During the period beginning 24 months after the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000010. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 010 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	10	-	-	-	-	-	-	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
00981 - Selenium, Total Recoverable - ug/l	109	-	-	5.8	-	0.7	0.037	1/Week	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	1104	-	-	58	7.1	-	0.37	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
32101 - Bromodichloromethane - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
32106 - Chloroform - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
50060 - Chlorine, Total Residual - mg/l	0.022	-	-	0.016	-	-	-	1/Month	Grab	All
50092 - Mercury, Total (Low Level) - ng/l	1700	-	-	40.6	0.011	-	0.00026	1/Month	Grab	All
61425 - Acute Toxicity, Ceriodaphnia dubia - TUa	1.0	-	-	-	-	-	-	2/Year	24hr Composite	March and Sep.
61426 - Chronic Toxicity, Ceriodaphnia dubia - TUc	-	-	-	2.44	-	-	-	2/Year	24hr Composite	March and Sep.
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.

Notes for Station Number 3ID00000010:

* Effluent loadings based on average design flow of 1.69 MGD.

- a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to treated process wastewater from outfall 3ID00000601, stormwater, groundwater, service water bleeds, and the freeze protection line. During idled conditions, the discharge from this outfall is limited to treated scale pit water and accumulated building water, along with stormwater and groundwater. If production operations resume, notification and additional sampling is required – See Part II, Item R.
- b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.
- c. Quarterly-Alt - Monitoring months are March, June, September, and December.
- d. Mercury - the general mercury variance permits an annual average mercury effluent concentration (AAMEC) of 12 ng/l effective for the duration of this permit. See Part II, Items M, N, and O.
- e. Selenium - See Part I, C.
- f. Biomonitoring - See Part II, Item L.
- g. Total Residual Chlorine, Limits Below Quantification - See Part II, Item H.
- h. Phosphorus, Method Detection Limit - See Part II, Item I.

i. This outfall contributes stormwater. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall indicate in the comment section, "Storm event".

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

9. During the period beginning on the effective date of this permit and lasting a period of 24 months, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000011. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 011 - Interim

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Month	24hr Total Estimate	All
70300 - Residue, Total Filterable - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All

Notes for Station Number 3ID00000011:

- a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.
- b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.
- c. Quarterly-Alt - Monitoring months are March, June, September, and December.
- d. See Part I, C - Schedule of Compliance for Total Filterable Residue.
- e. Phosphorus, Method Detection Limit - See Part II, Item I.

f. This outfall contributes stormwater. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event".

Parameter	Benchmark
Aluminum	750 ug/l

g. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).

h. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

10. During the period beginning 24 months after the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000011. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 011 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00011 - Water Temperature - F	-	-	-	-	-	-	-	1/Month	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Month	Grab	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00665 - Phosphorus, Total (P) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
00980 - Iron, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly - Alt.
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Month	24hr Total Estimate	All
70300 - Residue, Total Filterable - mg/l	-	-	-	1942	-	-	-	1/Month	24hr Composite	All

Notes for Station 3ID00000011:

a. The facility's production operations are currently idled. During operations, the discharge from this outfall is limited to steam condensate, stormwater, groundwater, and the freeze protection line. It shall be free from process wastewater. During idled conditions, the discharge from this outfall is limited to stormwater and groundwater. If production operations resume, notification and additional sampling is required - See Part II, Item R.

b. Sampling shall be performed when discharging. If NO DISCHARGE OCCURS DURING THE ENTIRE MONTH, select the "No Discharge" check box on the data entry form. PIN the eDMR.

c. Quarterly-Alt - Monitoring months are March, June, September, and December.

d. Phosphorus, Method Detection Limit - See Part II, Item I.

e. This outfall contributes stormwater. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall capture a storm event at least once per quarter. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall indicate in the comment section, "Storm event".

f. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).

Parameter	Benchmark
Aluminum	750 ug/l

g. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

11. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from these outfalls: 3ID00000020, 3ID00000030, 3ID00000031, and 3ID00000032. Monitoring shall be performed in accordance with the following representative table. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 020 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00400 - pH - S.U.	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Numbers 3ID00000020, 3ID00000030, 3ID00000031, and 3ID00000032:

- a. These outfalls consists of stormwater and groundwater. They shall be free from process wastewater and other contaminants.
- b. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event". If there are no discharges during the quarter, select the "No Discharge" check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Copper	47 ug/L
Lead	630 ug/L
Total Suspended Solids	100 mg/L

Zinc 360 ug/l

- c. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).
- d. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.
- e. pH monitoring is only required at outfall 3ID00000020.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

12. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfalls 3ID00000025, 3ID00000027, 3ID00000028, 3ID00000029 and 3ID00000033. Monitoring shall be performed in accordance with the following representative table. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table – Final Outfall – 025 – Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
01094 – Zinc, Total Recoverable – ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly – Alt.
01104 – Aluminum, Total Recoverable – ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly – Alt.

Notes for Station Numbers 3ID00000025, 3ID00000027, 3ID00000028, 3ID00000029 and 3ID00000033:

- a. These outfalls consists of stormwater and groundwater. They shall be free from process wastewater and other contaminants.
- b. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 – March 31; Q2 = April 1 – June 30; Q3 = July 1 – September 30; and Q4 = October 1 – December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, “Storm event”. If there are no discharges during the quarter, select the “No Discharge” check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Zinc	360 ug/l

- c. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).
- d. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

13. During the period beginning on the effective date of this permit and lasting until the end of the 23rd month, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfall 3ID00000034. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 034 - Interim

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Number 3ID00000034:

- a. This outfall consists of stormwater and groundwater. It shall be free from process wastewater and other contaminants.
- b. Copper and Zinc, see Part I, C - Schedule of Compliance
- c. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event". If there are no discharges during the quarter, select the "No Discharge" check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Total Suspended Solids	100 mg/L

d. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).

e. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

14. During the period beginning 24 months after the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfall 3ID00000034. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 034 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01094 - Zinc, Total Recoverable - ug/l	360	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01104 - Aluminum, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.
01119 - Copper, Total Recoverable - ug/l	47	-	-	-	-	-	-	1/Quarter	Grab	Quarterly - Alt.

Notes for Station Number 3ID00000034:

- a. This outfall consists of stormwater and groundwater. It shall be free from process wastewater and other contaminants.
- b. The benchmark concentrations listed below and the requirements of Parts IV, V and VI of this permit apply to this outfall. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C. Monitoring and sampling shall be performed as required in the above table. Sampling shall be performed when discharging. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) shall be submitted during the last month of each quarterly period with a note in the comment section, "Storm event". If there are no discharges during the quarter, select the "No Discharge" check box on the eDMR.

Parameter	Benchmark
Aluminum	750 ug/l
Total Suspended Solids	100 mg/L

- c. During each year of the permit cycle, one benchmark sampling event shall occur during each of the represented quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. The annual average of the quarterly sample results shall be compared to the benchmark concentration(s).
- d. Corrective Action Reports must be submitted to Ohio EPA Northeast District Office, Division of Surface Water, within 30 days of discovery. See Part IV.D.

PART I, A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

15. During the period beginning the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following monitoring requirements from outfall 3ID00000099. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Fictitious Outfall/Station - 099 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
51451 - Phosphorous, Total - Kg	-	-	-	-	-	-	-	1/Year	Calculated	December

Notes for Station Number 3ID00000099:

- a. This fictitious outfall represents the annual median Total Phosphorus load from outfalls 3ID00000003, 3ID00000009, 3ID00000010, and 3ID00000011 for Total Maximum Daily Load (TMDL) reporting.
- b. The total phosphorus annual load is calculated as follows: [median daily effluent flow (MGD) from all four outfalls for the calendar year] x [median total phosphorus concentration (mg/l) from all four outfalls for the calendar year] x 3.7854. Round the result to two decimals and enter the calculated loading for this parameter on the December eDMR.
- c. Nimishillen Creek TMDL Requirements - See Part I, C.2.

PART I, A. INTERNAL MONITORING REQUIREMENTS

16. During the period beginning on the effective date of this permit and lasting until the expiration date, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 3ID00000601. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Internal Monitoring Station - 601 - Final

Effluent Characteristic Parameter	Discharge Limitations							Monitoring Requirements		
	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00400 - pH - S.U.	-	-	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	188	-	68.1	1 / 2 Weeks	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	43.1	-	-	1 / 2 Weeks	Grab	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	2.76	-	0.93	1 / 2 Weeks	24hr Composite	All
01114 - Lead, Total Recoverable - ug/l	-	-	-	-	1.84	-	0.62	1 / 2 Weeks	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50092 - Mercury, Total (Low Level) - ng/l	-	-	-	-	-	-	-	1/Month	Grab	All

Notes for Station Number 3ID00000601:

* Effluent loadings are based on the Effluent Limitation Guidelines (i.e. Title 40 Code of Federal Regulations, Subchapter N - Effluent Guidelines and Standards) and the following associated production values:

Operation Production Rate

 Vacuum Degassing (40 CFR 420.54)..... 6,148 tons/day
 Continuous Casting (40 CFR 420.64).....6,148 tons/day
 Hot Forming (40 CFR 420.74(b)(1)).....2,042 tons/day
 Non-Process Wastewater (40 CFR 420.08).....0.167 MGD

a. This station is comprised of treated process water discharges including non-contact cooling water, casting system, degassing system, hot rolling cooling water, condensates, scale pits, stormwater, groundwater and vacuum truck clean-up prior to outfall 3ID00000010.

b. Mercury - See Part II, Item J. This data shall be included in the mercury variance plan of study as required in Part II, Item M.

PART I, C. - SCHEDULE OF COMPLIANCE

<u>Compliance Milestone Event Summary Table</u>			
<u>Section</u>	<u>Report</u>	<u>Event Code</u>	<u>Due Date</u>
TMDL	Status Report	95999	12 months after the permit effective date
Final Effluent Limits	Status Report	95999	12 months after the permit effective date
Final Effluent Limits	Final Compliance w/ Effluent Limits	5699	24 months after the permit effective date
Selenium Compliance	Other	88899	2 months after the permit effective date

1. Final Effluent Limitations

The permittee shall immediately initiate an evaluation to determine the ability of its existing treatment facilities to meet the final effluent limits for the following parameters at the respective outfalls:

- Outfall 3ID00000003: Copper and Total Residual Chlorine
- Outfall 3ID00000009: Copper and Total Residual Chlorine
- Outfall 3ID00000010: Lead and Total Residual Chlorine
- Outfall 3ID00000011: Total Filterable Residue
- Outfall 3ID00000034: Copper and Zinc

- a. No later than 12 months after the permit effective date, the permittee shall submit a brief status report on the ability to meet the final effluent limits for the above-listed parameters to the Ohio EPA Northeast District Office, Division of Surface Water. (Event Code 95999)
- b. If the permittee determines that its existing treatment facilities cannot meet the final effluent limits, an approvable Permit To Install application for plant improvements shall be submitted no later than 14 months after the permit effective date.
- c. No later than 24 months after the permit effective date, the permittee shall achieve compliance with the final effluent limits for the above-listed parameters. (Event code 05699)
- d. The permittee shall notify the Ohio EPA Northeast District Office, Division of Surface Water, in writing within 7 days of achieving compliance with the final effluent limits.

2. Nimishillen Creek Watershed Total Maximum Daily Load (TMDL) Implementation Schedule
The “Total Maximum Daily Loads for the Nimishillen Creek Watershed”, approved by U.S EPA on December 16, 2009, established the following wasteload allocation for Republic Steel – Canton:

Total phosphorus – 0.40 mg/L and 1.93 kg/d

The TMDL report also established an iterative, adaptive implementation approach that includes an initial total phosphorus reduction of 60% with a phosphorus effluent limit of 1.0 mg/L applied at the large municipal point sources: City of Canton Water Reclamation Facility and City of Louisville wastewater treatment plant.

Consistent with the adaptive implementation approach, this compliance schedule provides time for making the initial phosphorus reduction, time for responses in ambient water quality and biological conditions to occur, and time to evaluate the response in the stream biology. Moreover, the TMDL report identifies multiple causes and sources of impairment, in addition to phosphorus, that affect the biological

attainment status. The approach is repeated through a series of steps to achieve biological attainment in Nimishillen Creek.

As soon as possible, but not later than the timeframes developed in accordance with the following schedule, the permittee shall reduce total phosphorus loads to the receiving stream until excess total phosphorus no longer limits the biological community from attaining applicable criteria or the waste load allocation in the TMDL is achieved.

- a. The permittee shall submit an annual status report to the Ohio EPA Northeast District Office that includes the following:
 - i. Monthly average total phosphorus effluent concentrations from outfalls 3ID00000003, 3ID00000009, 3ID00000010, and 3ID00000011 for the previous 12 months;
 - ii. Monthly average total phosphorus concentrations from source water (i.e., City of Canton Water Department);
 - iii. Evaluation of any treatment additive total phosphorus contribution;
 - iv. Summary of any additional source reduction measures, operational improvements, or minor facility modifications taken to maximize the ability of existing treatment facilities to reduce discharges of total phosphorus; and
 - v. Summary of other projects, initiatives or activities the permittee has taken to achieve loading reductions of total phosphorus.

The first annual report shall be submitted 12 months after the effective date of the permit. (Event Code 95999)

b. Ohio EPA recognizes that the receiving stream will need to be reassessed to evaluate the impact of total phosphorus reductions and other restoration efforts before any reductions are required. If a stream reassessment demonstrates Nimishillen Creek continues to be impaired by excessive total phosphorus loadings and the Republic Steel - Canton causes, or has the reasonable potential to cause or contributes to the impairment, phosphorus reduction may be required. This permit shall be either modified or renewed to establish the due date for the submittal of a general plan with actions to be taken to achieve incremental load reductions and the amount of time required to achieve said reductions.

c. If water quality trading is proposed to achieve a portion of the reductions necessary to meet the phosphorus wasteload allocation, the permittee shall submit a water quality trading management plan for approval 12 months prior to the final effluent limits for total phosphorus become effective. The trading plan shall be developed in accordance with chapter 3745-5 of the Ohio Administrative Code.

d. The Director will not require phosphorus reductions from Republic Steel - Canton if any of the following criteria are adequately demonstrated:

- i. The biological criteria applicable to Nimishillen Creek are in full attainment.
- ii. Biological criteria are not in full attainment due to causes other than nutrients.
- iii. Monitoring data collected at the compliance point in the Nimishillen Creek study area show that the total phosphorus target concentration is met.

e. This Schedule of Compliance includes items that may extend beyond the term of the permit. The requirements of Schedule of Compliance Item 2 will be included in permit 3ID00000 when it is renewed.

3. Selenium Compliance - Outfall 3ID00000010

Not later than 60 days from the effective date of this permit, the permittee shall evaluate the selenium effluent data for outfall 3ID00000010 collected while operations are idled and submit to the Ohio EPA Northeast District Office one of the following (Event Code 88899):

- a. If the permittee believes that it can consistently comply with the selenium final effluent limits included in Part I, A while production operations are idled, then it shall submit a status report stating that the facility is and believes it can remain in compliance with selenium final effluent limits and no further action is being requested at this time.

- b. If the permittee believes that it will not be able to achieve compliance with the selenium final effluent limits while production operations are idled, then the permittee shall submit an application for a individual variance from the selenium water quality standards. Paragraph (A-C) of rule 3745-1-38 provides information on the applicability and conditions of an individual variance. Paragraph (D)(1-4) of the rule lists the information that must be included in the application.

PART II, OTHER REQUIREMENTS

A. Description of the location of the required sampling stations are as follows:

Sampling Station	Description of Location
3ID00000003	54-inch diameter pipe located along south bank of East Branch Nimishillen Creek (~500 feet upstream of dam). (Lat: 40N 48' 28"; Long: 81W 19' 59")
3ID00000006	30-inch diameter pipe located along south bank of East Branch Nimishillen Creek (~50 feet upstream of dam). (Lat: 40N 48' 28"; Long: 81W 20' 05")
3ID00000008	30-inch diameter pipe located along north bank of East Branch Nimishillen Creek (immediately downstream of dam). (Lat: 40N 48' 29"; Long: 81W 20' 04")
3ID00000009	30-inch diameter pipe located along south bank of East Branch Nimishillen Creek (~700' upstream of dam). (Lat: 40N 48' 29"; Long: 81W 20' 13")
3ID00000010	48-inch diameter pipe located north of Carpenter Shop (~ 20 feet south of railroad tracks) at the outlet of "Johnson's Pond". (Lat: 40N 48' 20"; Long: 81W 20' 39")
3ID00000011	Trench located along south bank of East Branch Nimishillen Creek (~ 900 feet downstream of dam). (Lat: 40N 48' 29"; Long: 81W 20' 15")
3ID00000020	12-inch diameter pipe located along south bank of East Branch Nimishillen Creek (~350 feet downstream of dam at northeast corner of Transportation and Labor Office). (Lat: 40N 48' 29"; Long: 81W 20' 15")
3ID00000022	Point source located along south bank of East Branch Nimishillen Creek. (Lat: 40N 48' 23"; Long: 81W 19' 40")
3ID00000024	Point source located along 8th Street, and discharging to the City of Canton storm sewer system. (Lat: 40N 48' 04"; Long: 81W 20' 60")
3ID00000025	Point source located along 8th Street, and discharging to the City of Canton storm sewer system. (Lat: 40N 48' 08"; Long: 81W 20' 60")
3ID00000027	Point source located along Harding Creek prior to East Branch Nimishillen Creek (Lat: 40N 48' 07"; Long: 81W 19' 46")
3ID00000028	Point source located along Harding Creek prior to East Branch Nimishillen Creek. (Lat: 40N 48' 07 "; Long: 81W 19' 45")
3ID00000029	Point source located along Harding Creek, a tributary of East Branch Nimishillen Creek. (Lat: 40N 48' 06 "; Long: 81W 19' 48")
3ID00000030	Point source located along Harding Creek, a tributary of East Branch Nimishillen Creek. (Lat: 40N 48' 05"; Long: 81W 19' 49")
3ID00000031	Point source located along Harding Creek, a tributary of East Branch Nimishillen Creek. (Lat: 40N 48' 03 "; Long: 81W 19' 49")

3ID00000032	Point source located along Harding Creek, a tributary of East Branch Nimishillen Creek. (Lat: 40N 48' 04 "; Long: 81W 19' 46")
3ID00000033	Point source located along Harding Creek, a tributary of East Branch Nimishillen Creek. (Lat: 40N 48' 03 "; Long: 81W 19' 47")
3ID00000034	Point source located along East Branch Nimishillen Creek. (Lat: 40N 48' 27 "; Long: 81W 19' 47")
3ID00000099	A fictitious outfall representative for TMDL reporting for outfalls 3ID00000003, 3ID00000009, 3ID00000010, and 3ID00000011. This is not a physical location; no samples are collected.
3ID00000601	Water Quality Control Center (WQCC) effluent sampling station (located in chamber on downstream side of cold well overflow weir) prior to outfall 3ID00000010. (Lat: 40N 53' 23"; Long: 81W 20' 26")

B. This permit shall be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved.

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
2. Controls any pollutant not limited in the permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

C. All parameters, except flow and any other continuously-recorded parameters, need not be monitored on days when the plant is not normally staffed (Saturdays, Sundays, and Holidays). On those days, report "AN" on the monthly report form.

D. Composite samples shall be comprised of a series of grab samples collected over a 24-hour period and proportionate in volume to the wastewater flow rate at the time of sampling. Such samples shall be collected at such times and locations, and in such a fashion, as to be representative of the facility's overall performance.

E. Grab samples shall be collected at such times and locations, and in such fashion, as to be representative of the facility's performance.

F. Treatment Additives

Written permission must be obtained from the director of the Ohio EPA prior to the use of any treatment additives discharged to waters of the state, except for those exempt in rule. If additives are being used that have not previously been approved, an approval must be obtained for continued use. Discharges of these additives must meet Ohio Water Quality Standards and shall not be harmful or inimical to aquatic life. Request for approvals shall be filed in accordance with OAC 3745-33-03(G) and should be filed at least forty-five days prior to use or immediately if the additive is currently being used. Application forms are available for download on the DSW website:

<https://epa.ohio.gov/static/Portals/35/permits/Additive-Form.docx>

G. Water quality based permit limitations in this permit may be revised based on updated wasteload allocations or use designation rules. This permit may be modified, or revoked and reissued, to include new water quality based effluent limits or other conditions that are necessary to comply with a revised wasteload allocation, or an approved total maximum daily loads (TMDL) report as required under Section 303 (d) of the Clean Water Act.

H. Limits Below Quantification

The parameters below have had effluent limitations established that are below the Ohio EPA Quantification Level (OEPA QL) for the approved analytical procedure promulgated at 40 CFR 136. OEPA QLs may be expressed as Practical Quantification Levels (PQL) or Minimum Levels (ML). Compliance with an effluent limit that is below the OEPA QL is determined in accordance with ORC Section 6111.13 and OAC Rule 3745-33-07(C). For maximum effluent limits, any value reported below the OEPA QL shall be considered in compliance with the effluent limit. For average effluent limits, compliance shall be determined by taking the arithmetic mean of values reported for a specified averaging period, using zero (0) for any value reported at a concentration less than the OEPA QL, and comparing that mean to the appropriate average effluent limit. An arithmetic mean that is less than or equal to the average effluent limit shall be considered in compliance with that limit.

The permittee must utilize the lowest available detection method currently approved under 40 CFR Part 136 for monitoring these parameters.

REPORTING:

All analytical results, even those below the OEPA QL (listed below), shall be reported. Analytical results are to be reported as follows:

1. Results above the QL: Report the analytical result for the parameter of concern.
2. Results above the MDL, but below the QL: Report the analytical result, even though it is below the QL.
3. Results below the MDL: Analytical results below the method detection limit shall be reported as "below detection" using the reporting code "AA".

The following table of quantification levels will be used to determine compliance with NPDES permit limits:

<u>Parameter</u>	<u>PQL</u>	<u>ML</u>
Chlorine, tot. res.	0.050 mg/l	--

This permit may be modified, or, alternatively, revoked and reissued, to include more stringent effluent limits or conditions if information generated as a result of the conditions of this permit indicate the presence of these pollutants in the discharge at levels above the water quality based effluent limit (WQBEL).

I. Method Detection Limits

The permittee shall use analytical procedures approved under 40 CFR 136 with method detection limits (MDLs) less than or equal to those listed below to comply with the monitoring requirements for the following parameters:

<u>Parameter</u>	<u>MDL (mg/L)</u>
Phosphorus	0.01

J. The permittee shall use either EPA Method 1631 or EPA Method 245.7 promulgated under 40 CFR 136 to comply with the influent and effluent mercury monitoring requirements of this permit.

K. Outfall Signage

The permittee shall maintain a permanent marker on the stream bank at each outfall that is regulated under this NPDES permit. This includes final outfalls, bypasses, and combined sewer overflows. The sign shall include, at a minimum, the name of the establishment to which the permit was issued, the Ohio EPA permit number, and the outfall number and a contact telephone number. The information shall be printed in letters not less than two inches in height. The sign shall be a minimum of 2 feet by 2 feet and shall be a minimum of 3 feet above ground level. The sign shall not be obstructed such that persons in boats or persons swimming on the river or someone fishing or walking along the shore cannot read the sign. Vegetation shall be periodically removed to keep the sign visible. If the outfall is normally submerged the sign shall indicate that. If the outfall is a combined sewer outfall, the sign shall indicate that untreated human sewage may be discharged from the outfall during wet weather and that harmful bacteria may be present in the water. When an existing sign is replaced or reset, the new sign shall comply with the requirements of this section.

L. Biomonitoring Program Requirements

The permittee shall continue to implement biomonitoring program to determine the toxicity of the effluent from outfall 3ID00000010.

General Requirements

All toxicity testing conducted as required by this permit shall be done in accordance with "Reporting and Testing Guidance for Biomonitoring Required by the Ohio Environmental Protection Agency" (hereinafter, the "biomonitoring guidance"), Ohio EPA, July 1998 (or current revision). The Standard Operating Procedures (SOP) or verification of SOP submittal, as described in Section 1.B. of the biomonitoring guidance shall be submitted no later than three months after the effective date of this permit. If the laboratory performing the testing has modified its protocols, a new SOP is required.

Testing Requirements

1. Chronic Bioassays

The permittee shall conduct chronic toxicity tests using water fleas (*Ceriodaphnia dubia*), as specified in Part I, A, on effluent samples from outfall 3ID00000010. These tests shall be conducted as specified in Section 3 of the biomonitoring guidance.

2. Acute Bioassays

The permittee shall conduct definitive acute toxicity tests using water fleas (*Ceriodaphnia dubia*), as specified in Part I, A, on effluent samples from outfall 3ID00000010. These tests shall be conducted as specified in Section 2 of the biomonitoring guidance. Acute toxicity tests need not be performed for months in which chronic toxicity tests are conducted. Acute endpoints, as described in Section 2.H. of the biomonitoring guidance, shall be derived from the chronic test.

3. Data Review

a. Reporting

Following completion of each bioassay requirement, the permittee shall report results of the tests in accordance with Sections 2.H.1., 2.H.2.a., 3.H.1., and 3.H.2.a. of the biomonitoring guidance, including reporting the results on the monthly DMR and submitting a copy of the complete test report to Ohio EPA, Division of Surface Water. The test report may be submitted electronically using the chronic NPDES Biomonitoring Report Form available through the Ohio EPA eBusiness Center, Division of Surface Water NPDES Permit Applications service. Alternatively, the permittee may submit a hard copy of the report to Ohio EPA, Division of Surface Water, NPDES Permit Unit, P.O. Box 1049, Columbus, OH, 43216-1049.

Based on Ohio EPA's evaluation of the results, this permit may be modified to require additional biomonitoring, require a toxicity reduction evaluation, and/or contain whole effluent toxicity limits.

b. Definitions

TUa = Acute Toxicity Units = 100/LC50

TUc = Chronic Toxicity Units = 100/IC25

This equation for chronic toxicity units applies outside the mixing zone for warmwater, modified warmwater, exceptional warmwater, coldwater, and seasonal salmonid use designations except when the following equation is more restrictive (*Ceriodaphnia dubia* only):

TUc = Chronic Toxic Units = 100/square root of (NOEC x LOEC)

M. General Mercury Variance

The permittee is granted a general mercury variance under the provisions of Rule 3745-01-38(J) of the Ohio Administrative Code. The permittee has demonstrated that the facility is currently unable to comply with the monthly average water quality based effluent limit of 12 ng/L without construction of expensive end-of-pipe controls more stringent than those required by sections 301(b) and 306 of the Clean Water Act. The permittee is currently able to achieve or projects it can achieve an annual average mercury concentration of 12 ng/L within 5 years. For general mercury variance purposes, the annual average mercury effluent concentration is defined as the average of the most recent 12 months of effluent data.

One of the conditions of the general mercury variance is that the permittee make reasonable progress towards attaining the water quality based effluent limits for mercury (1.b, below). To accomplish this the permittee is required to implement a pollutant minimization program (PMP) for mercury. The elements of a PMP include: a control strategy to locate, identify and, where cost-effective, reduce levels of mercury that contribute to discharge levels; periodic monitoring of sources and the treatment system; and annual reporting of results.

The plan of study that was part of the permittee's application for coverage under the general mercury variance includes items associated with developing a control strategy and initial implementation of a PMP. Condition 1.d, below, requires the permittee to implement the plan of study. By implementing the plan of study and meeting other conditions of this NPDES permit, the permittee is taking actions consistent with a PMP for mercury.

1. As conditions of this variance, the permittee shall meet the following requirements:

- a. The permittee shall comply with the effluent limitations for mercury at outfall 3ID00000010 given in Part I, A of this permit.
- b. The permittee shall make reasonable progress towards attaining the monthly average water quality based effluent limit for mercury by complying with the general mercury variance conditions included in this NPDES permit.
- c. The permittee shall use either EPA Method 1631 or EPA Method 245.7 to comply with the influent and effluent mercury monitoring requirements of this permit.
- d. The permittee shall implement the plan of study as included in the permittee's February 2021 mercury variance application.
- e. The permittee shall assess the impact of the mercury variance on public health, safety, and welfare by, as a minimum, monitoring for mercury in the facility's influent and effluent as required by this NPDES permit.
- f. The permittee shall achieve an annual average mercury effluent concentration equal to or less than 12 ng/L.
- g. On or prior to March 1 of each year, the permittee shall submit two copies of an annual PMP report to Ohio EPA, Division of Surface Water, NPDES Permit Unit, P.O. Box 1049, Columbus, OH, 43216-1049. The annual PMP report shall include:
 - i. All minimization program monitoring results for the year;
 - ii. A list of potential sources of mercury;
 - iii. A summary of all actions taken to meet the effluent limits for mercury; and,
 - iv. Any updates of the control strategy, including actions planned to reduce the levels of mercury in the treatment plant's final effluent

The Ohio EPA Annual Mercury PMP Report and Appendices are available on the Division of Surface Water Permits Program Technical Assistance web page at

<https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/permits-program-technical-assistance>. Open the Mercury list.

- h. Upon completion of the actions identified in the plan of study as required in Part II, Item M.1.d. of this permit or upon submittal of the permittee's NPDES permit renewal application, whichever comes first, the permittee shall submit to Ohio EPA's Northeast District Office a certification stating that all permit conditions imposed to implement the plan of study and the PMP have been satisfied and whether compliance with the monthly average water quality based effluent limit for mercury has been achieved and can be maintained. This certification shall be accompanied by the following:
 - i. All available mercury influent and effluent data for the most recent 12 month period;
 - ii. Data documenting all known significant sources of mercury and the steps that have been taken to reduce or eliminate those sources; and

iii. A determination of the lowest mercury concentration that currently available data indicate can be reliably achieved through implementation of the PMP.

2. Exceedance of annual average limit of 12 ng/L.

a. If at any time after the date specified in this variance by which the permittee must meet an average annual mercury effluent concentration of 12 ng/L or after the Director's final approval of a variance renewal, whichever is earlier, the permittee's annual average mercury effluent concentration exceeds 12 ng/L, the permittee shall:

i. Notify Ohio EPA's Northeast District Office not later than 30 days from the date of the exceedance;

ii. Submit an individual variance application, if a variance is desired, not later than 6 months from the date of the exceedance; or

iii. Request a permit modification not later than 6 months from the date of the exceedance for a compliance schedule to attain compliance with the water quality based effluent limits for mercury.

b. If the permittee complies with either 2.a.ii or 2.a.iii, above, the general mercury variance conditions included in this NPDES permit will remain in effect until the date that the Director acts on the individual variance application or the date that the permit modification becomes effective.

c. If the permittee does not comply with either 2.a.ii or 2.a.iii, above, a monthly water-quality based effluent limit for mercury of 12 ng/l shall apply at outfall 3ID00000010 beginning 6 months from the date of the exceedance.

3. The requirements of Part II, Item M.2 shall not apply if the permittee demonstrates to the satisfaction of the Director that the mercury concentration in the permittee's effluent exceeds 12 ng/L due primarily to the presence of mercury in the permittee's intake water.

N. Permit Reopener for Mercury Variance Revisions

Ohio EPA may reopen and modify this permit at any time based upon Ohio EPA water quality standard revisions to the mercury variance granted in Part II, Item M of this permit.

O. Renewal of Mercury Variance

For renewal of the mercury variance authorized in this permit, the permittee shall include the following information with the submittal of the subsequent NPDES permit renewal application:

1. the certification described under Part II, Item M.1.h., and all information required under Part II, Item M.1.h.i. through Part II, Item M.1.h.iii;

2. a status report on the progress being made implementing the pollutant minimization program (PMP). This information may be included in the annual PMP report required under Part II, Item M.1.g;

3. a listing of the strategies and/or programs in the PMP which will be continued under the next renewal of this permit; and,

4. a statement requesting the renewal of the mercury variance.

P. Tracking of Fluoride, Iron, Lead, Mercury, Selenium and Zinc (outfall 3ID00000003) and Fluoride (outfall 3ID00000009)

The water quality standard (WQS) has been provided below for parameters with a projected effluent quality (PEQ) equivalent to or exceeding seventy-five percent of the WQS. The permittee must report in writing, any effluent concentration sample result greater than the WQS values listed below to Ohio EPA, Northeast District Office. Written notification must be submitted within 30 days of an effluent concentration sample result that exceeds the WQS and must detail the reasons why the WQS has been exceeded and the expectation of continued levels above the WQS.

Outfall 3ID00000003

Parameter	Avg. WQS	Max WQS
Fluoride	2 mg/L	--
Iron	5,000 ug/L	--
Lead	33 ug/L	630 ug/L
Mercury	12 ng/L	1,700 ng/L
Selenium	5 ug/L	62 ug/L
Zinc		

Outfall 3ID00000009

Parameter	Avg. WQS	Max. WQS
Fluoride	2 mg/L	--

The permittee shall reduce discharge levels to below the WQS if either of the following conditions are met:

1. The maximum detected concentration per month is greater than the maximum WQS for four or more months during any consecutive six month period; or
2. The thirty-day average for any pollutant is greater than the average WQS for two or more months during any consecutive six month period; and If the permittee cannot reduce discharge levels below the WQS within six months after either of conditions 1 or 2 above are met, the permittee may request to modify the permit to contain a compliance schedule. This request shall contain justification for the additional time necessary to reduce discharge levels.

Q. Selenium Pollutant Minimization Program (PMP)

The goal of the PMP is to evaluate and minimize/control impacts associated with the discharge of selenium at outfalls 3ID00000010 and 3ID00000003. The PMP shall contain a control strategy designed to proceed toward the goal for selenium.

a. No later than 12 months following recommencement of operations, the permittee shall develop and submit the PMP to Ohio EPA Northeast District Office, Division of Surface Water. At a minimum, the control strategy shall include:

- i. Existing information on plant processes, waste streams, stormwater or sewers tributary to outfalls 3ID00000003 and 3ID00000010.

ii. A plan-of-study for locating/identifying potential sources of selenium.

b. Following recommencement of operations, on or prior to March 1 of each year, the permittee shall submit an annual report to the Ohio EPA Northeast District Office, Division of Surface Water. The annual PMP report shall include:

- i. All minimization program monitoring results for the year;
- ii. A list of potential sources of selenium;
- iii. A summary of all actions taken to meet the WQBEL for selenium;
- iv. Any updates and/or revisions to the control strategy

c. This permit may be modified, or alternatively, revoked and reissued, to revise or remove the requirements of this paragraph based on information collected under this paragraph.

R. Operation Start-up: Notification and Sampling

a. Within 90 days of production startup, the permittee shall submit notification to the Ohio EPA Northeast District Office of the general timeline of start-up operations, full production, and initiation of a discharge. Within 14 days of the initial discharge date, the permittee shall submit notification to the Ohio EPA Northeast District Office of the specific date.

b. Within 60 days after production start-up, the applicable final outfalls shall be sampled for associated parameters under Form 2C and submitted to Ohio EPA Northeast District Office. Upon review, a permit modification may be necessary.

PART III - GENERAL CONDITIONS

1. DEFINITIONS

"Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

"Average weekly" discharge limitation means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. Each of the following 7-day periods is defined as a calendar week: Week 1 is Days 1 - 7 of the month; Week 2 is Days 8 - 14; Week 3 is Days 15 - 21; and Week 4 is Days 22 - 28. If the "daily discharge" on days 29, 30 or 31 exceeds the "average weekly" discharge limitation, Ohio EPA may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28. Compliance with fecal coliform bacteria or

"Average monthly" discharge limitation means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month. Compliance with fecal coliform bacteria or E coli bacteria limitations shall be determined using the geometric mean.

"85 percent removal" means the arithmetic mean of the values for effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period.

"Absolute Limitations" Compliance with limitations having descriptions of "shall not be less than," "nor greater than," "shall not exceed," "minimum," or "maximum" shall be determined from any single value for effluent samples and/or measurements collected.

"Net concentration" shall mean the difference between the concentration of a given substance in a sample taken of the discharge and the concentration of the same substances in a sample taken at the intake which supplies water to the given process. For the purpose of this definition, samples that are taken to determine the net concentration shall always be 24-hour composite samples made up of at least six increments taken at regular intervals throughout the plant day.

"Net Load" shall mean the difference between the load of a given substance as calculated from a sample taken of the discharge and the load of the same substance in a sample taken at the intake which supplies water to given process. For purposes of this definition, samples that are taken to determine the net loading shall always be 24-hour composite samples made up of at least six increments taken at regular intervals throughout the plant day.

"MGD" means million gallons per day.

"mg/l" means milligrams per liter.

"ug/l" means micrograms per liter.

"ng/l" means nanograms per liter.

"S.U." means standard pH unit.

"kg/day" means kilograms per day.

"Reporting Code" is a five-digit number used by the Ohio EPA in processing reported data. The reporting code does not imply the type of analysis used nor the sampling techniques employed.

"Quarterly (1/Quarter) sampling frequency" means the sampling shall be done in the months of March, June, August, and December, unless specifically identified otherwise in the Effluent Limitations and Monitoring Requirements table.

"Yearly (1/Year) sampling frequency" means the sampling shall be done in the month of September, unless specifically identified otherwise in the effluent limitations and monitoring requirements table.

"Semi-annual (2/Year) sampling frequency" means the sampling shall be done during the months of June and December, unless specifically identified otherwise.

"Winter" shall be considered to be the period from November 1 through April 30.

"Bypass" means the intentional diversion of waste streams from any portion of the treatment facility.

"Summer" shall be considered to be the period from May 1 through October 31.

"Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Sewage sludge" means a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works as defined in section 6111.01 of the Revised Code. "Sewage sludge" includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes. "Sewage sludge" does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator, grit and screenings generated during preliminary treatment of domestic sewage in a treatment works, animal manure, residue generated during treatment of animal manure, or domestic septage.

"Sewage sludge weight" means the weight of sewage sludge, in dry U.S. tons, including admixtures such as liming materials or bulking agents. Monitoring frequencies for sewage sludge parameters are based on the reported sludge weight generated in a calendar year (use the most recent calendar year data when the NPDES permit is up for renewal).

"Sewage sludge fee weight" means the weight of sewage sludge, in dry U.S. tons, excluding admixtures such as liming materials or bulking agents. Annual sewage sludge fees, as per section 3745.11(Y) of the Ohio Revised Code, are based on the reported sludge fee weight for the most recent calendar year.

2. GENERAL EFFLUENT LIMITATION

The effluent shall, at all times, be free of substances:

- A. In amounts that will settle to form putrescent, or otherwise objectionable, sludge deposits; or that will adversely affect aquatic life or water fowl;
- B. Of an oily, greasy, or surface-active nature, and of other floating debris, in amounts that will form noticeable accumulations of scum, foam, or sheen;
- C. In amounts that will alter the natural color or odor of the receiving water to such degree as to create a nuisance;
- D. In amounts that either singly or in combination with other substances are toxic to human, animal, or aquatic life;
- E. In amounts that are conducive to the growth of aquatic weeds or algae to the extent that such growth become inimical to more desirable forms of aquatic life, or create conditions that are unsightly, or constitute a nuisance in any other fashion;
- F. In amounts that will impair designated instream or downstream water uses

3. FACILITY OPERATION AND QUALITY CONTROL

All wastewater treatment works shall be operated in a manner consistent with the following:

- A. At all times, the permittee shall maintain in good working order and operate as efficiently as possible all treatment or control facilities, or systems installed or used by the permittee necessary to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with conditions of the permit.
- B. The permittee shall effectively monitor the operation and efficiency of treatment and control facilities and the quantity and quality of the treated discharge.
- C. Maintenance of wastewater treatment works that results in degradation of effluent quality shall be scheduled during non-critical water quality periods and shall be carried out in a manner approved by Ohio EPA as specified in the Paragraph in the PART III entitled, "UNAUTHORIZED DISCHARGES".

4. REPORTING

- A. Monitoring data required by this permit shall be submitted monthly on Ohio EPA 4500 Discharge Monitoring Report (DMR) forms using the electronic DMR (e-DMR) internet application. e-DMR allows permitted facilities to enter, sign, and submit DMRs on the internet. e-DMR information is found on the following web page:

<https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services>

- B. DMRs shall be signed by a facility's Responsible Official or a Delegated Responsible Official (i.e. a person delegated by the Responsible Official). The Responsible Official of a facility is defined as:

1. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (b) The manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions that govern the operation of the regulated facility including having explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

2. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

3. In the case of a municipal, state or other public facility, by either the principal executive officer, the ranking elected official or other duly authorized employee.

For e-DMR, the person signing and submitting the DMR will need to obtain an eBusiness Center account and Personal Identification Number (PIN). Additionally, Delegated Responsible Officials must be delegated by the Responsible Official, either on-line using the eBusiness Center's delegation function, or on a paper delegation form provided by Ohio EPA. For more information on the PIN and delegation processes, please view the following web page:

<https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/electronic-business-services>

C. DMRs submitted using e-DMR shall be submitted to Ohio EPA by the 20th day of the month following the month-of-interest.

D. If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified in Section 5. SAMPLING AND ANALYTICAL METHODS, the results of such monitoring shall be included in the calculation and reporting of the values required in the reports specified above.

E. Analyses of pollutants not required by this permit, except as noted in the preceding paragraph, shall not be reported to the Ohio EPA, but records shall be retained as specified in Section 7. RECORDS RETENTION.

5. SAMPLING AND ANALYTICAL METHOD

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored flow. Test procedures for the analysis of pollutants shall conform to regulation 40 CFR 136, "Test Procedures For The Analysis of Pollutants" unless other test procedures have been specified in this permit. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

6. RECORDING OF RESULTS

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

A. The exact place and date of sampling; (time of sampling not required on EPA 4500)

- B. The person(s) who performed the sampling or measurements;
- C. The date the analyses were performed on those samples;
- D. The person(s) who performed the analyses;
- E. The analytical techniques or methods used; and
- F. The results of all analyses and measurements.

7. RECORDS RETENTION

The permittee shall retain all of the following records for the wastewater treatment works for a minimum of three years except those records that pertain to sewage sludge disposal, use, storage, or treatment, which shall be kept for a minimum of five years, including:

- A. All sampling and analytical records (including internal sampling data not reported);
- B. All original recordings for any continuous monitoring instrumentation;
- C. All instrumentation, calibration and maintenance records;
- D. All plant operation and maintenance records;
- E. All reports required by this permit; and
- F. Records of all data used to complete the application for this permit for a period of at least three years, or five years for sewage sludge, from the date of the sample, measurement, report, or application.

These periods will be extended during the course of any unresolved litigation, or when requested by the Regional Administrator or the Ohio EPA. The three-year period, or five year period for sewage sludge, for retention of records shall start from the date of sample, measurement, report, or application.

8. AVAILABILITY OF REPORTS

Except for data determined by the Ohio EPA to be entitled to confidential status, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the appropriate district offices of the Ohio EPA. Both the Clean Water Act and Section 6111.05 Ohio Revised Code state that effluent data and receiving water quality data shall not be considered confidential.

9. DUTY TO PROVIDE INFORMATION

The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

10. RIGHT OF ENTRY

The permittee shall allow the Director or an authorized representative upon presentation of credentials and other documents as may be required by law to:

- A. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.
- B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.
- C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit.
- D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

11. UNAUTHORIZED DISCHARGES

A. Bypass Not Exceeding Limitations - The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 11.B and 11.C.

B. Notice

- 1. Anticipated Bypass - If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- 2. Unanticipated Bypass - The permittee shall submit notice of an unanticipated bypass as required in paragraph 12.B (24 hour notice).

C. Prohibition of Bypass

- 1. Bypass is prohibited, and the Director may take enforcement action against a permittee for bypass, unless:
 - a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - c. The permittee submitted notices as required under paragraph 11.B.
- 2. The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 11.C.1.

12. NONCOMPLIANCE NOTIFICATION

A. Exceedance of a Daily Maximum Discharge Limit

- 1. The permittee shall report noncompliance that is the result of any violation of a daily maximum discharge limit for any of the pollutants listed by the Director in the permit by e-mail or telephone within twenty-four (24) hours of discovery.

The permittee may report to the appropriate Ohio EPA district office e-mail account as follows (this method is preferred):

Southeast District Office: sedo24hournpdes@epa.ohio.gov
Southwest District Office: swdo24hournpdes@epa.ohio.gov
Northwest District Office: nwdo24hournpdes@epa.ohio.gov
Northeast District Office: nedo24hournpdes@epa.ohio.gov
Central District Office: cdo24hournpdes@epa.ohio.gov
Central Office: co24hournpdes@epa.ohio.gov

The permittee shall attach a noncompliance report to the e-mail. A noncompliance report form is available on the following web site under the Monitoring and Reporting - Non-Compliance Notification section:

<https://epa.ohio.gov/divisions-and-offices/surface-water/permitting/individual-wastewater-discharge-permits>

Or, the permittee may report to the appropriate Ohio EPA district office by telephone toll-free between 8:00 AM and 5:00 PM as follows:

Southeast District Office: (800) 686-7330
Southwest District Office: (800) 686-8930
Northwest District Office: (800) 686-6930
Northeast District Office: (800) 686-6330
Central District Office: (800) 686-2330
Central Office: (614) 644-2001

The permittee shall include the following information in the telephone noncompliance report:

- a. The name of the permittee, and a contact name and telephone number;
- b. The limit(s) that has been exceeded;
- c. The extent of the exceedance(s);
- d. The cause of the exceedance(s);
- e. The period of the exceedance(s) including exact dates and times;
- f. If uncorrected, the anticipated time the exceedance(s) is expected to continue; and,
- g. Steps taken to reduce, eliminate or prevent occurrence of the exceedance(s).

B. Other Permit Violations

1. The permittee shall report noncompliance that is the result of any unanticipated bypass resulting in an exceedance of any effluent limit in the permit or any upset resulting in an exceedance of any effluent limit in the permit by e-mail or telephone within twenty-four (24) hours of discovery.

The permittee may report to the appropriate Ohio EPA district office e-mail account as follows (this method is preferred):

Southeast District Office: sedo24hournpdes@epa.ohio.gov
Southwest District Office: swdo24hournpdes@epa.ohio.gov
Northwest District Office: nwdo24hournpdes@epa.ohio.gov
Northeast District Office: nedo24hournpdes@epa.ohio.gov
Central District Office: cdo24hournpdes@epa.ohio.gov
Central Office: co24hournpdes@epa.ohio.gov

The permittee shall attach a noncompliance report to the e-mail. A noncompliance report form is available on the following web site under the Monitoring and Reporting - Non-Compliance Notification section:

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Northwest District Office: (800) 686-6930
Northeast District Office: (800) 686-6330
Central District Office: (800) 686-2330
Central Office: (614) 644-2001

The permittee shall include the following information in the telephone noncompliance report:

- a. The name of the permittee, and a contact name and telephone number;
- b. The time(s) at which the discharge occurred, and was discovered;
- c. The approximate amount and the characteristics of the discharge;
- d. The stream(s) affected by the discharge;
- e. The circumstances which created the discharge;
- f. The name and telephone number of the person(s) who have knowledge of these circumstances;
- g. What remedial steps are being taken; and,
- h. The name and telephone number of the person(s) responsible for such remedial steps.

2. The permittee shall report noncompliance that is the result of any spill or discharge which may endanger human health or the environment within thirty (30) minutes of discovery by calling the 24-Hour Emergency Hotline toll-free at (800) 282-9378. The permittee shall also report the spill or discharge by e-mail or telephone within twenty-four (24) hours of discovery in accordance with B.1 above.

C. When the telephone option is used for the noncompliance reports required by A and B, the permittee shall submit to the appropriate Ohio EPA district office a confirmation letter and a completed noncompliance report within five (5) days of the discovery of the noncompliance. This follow up report is not necessary for the e-mail option which already includes a completed noncompliance report.

D. If the permittee is unable to meet any date for achieving an event, as specified in a schedule of compliance in their permit, the permittee shall submit a written report to the appropriate Ohio EPA district office within fourteen (14) days of becoming aware of such a situation. The report shall include the following:

1. The compliance event which has been or will be violated;
2. The cause of the violation;
3. The remedial action being taken;
4. The probable date by which compliance will occur; and,
5. The probability of complying with subsequent and final events as scheduled.

E. The permittee shall report all other instances of permit noncompliance not reported under paragraphs A or B of this section on their monthly DMR submission. The DMR shall contain comments that include the information listed in paragraphs A or B as appropriate.

F. If the permittee becomes aware that it failed to submit an application or submitted incorrect information in an application or in any report to the director, it shall promptly submit such facts or information.

13. RESERVED

14. DUTY TO MITIGATE

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

15. AUTHORIZED DISCHARGES

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant identified in this permit more frequently than, or at a level in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such violations may result in the imposition of civil and/or criminal penalties as provided for in Section 309 of the Act and Ohio Revised Code Sections 6111.09 and 6111.99.

16. DISCHARGE CHANGES

The following changes must be reported to the appropriate Ohio EPA district office as soon as practicable:

A. For all treatment works, any significant change in character of the discharge which the permittee knows or has reason to believe has occurred or will occur which would constitute cause for modification or revocation and reissuance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. Notification of permit changes or anticipated noncompliance does not stay any permit condition.

B. For publicly owned treatment works:

1. Any proposed plant modification, addition, and/or expansion that will change the capacity or efficiency of the plant;
2. The addition of any new significant industrial discharge; and
3. Changes in the quantity or quality of the wastes from existing tributary industrial discharges which will result in significant new or increased discharges of pollutants.

C. For non-publicly owned treatment works, any proposed facility expansions, production increases, or process modifications, which will result in new, different, or increased discharges of pollutants.

Following this notice, modifications to the permit may be made to reflect any necessary changes in permit conditions, including any necessary effluent limitations for any pollutants not identified and limited herein. A determination will also be made as to whether a National Environmental Policy Act (NEPA) review will be required. Sections 6111.44 and 6111.45, Ohio Revised Code, require that plans for treatment works or improvements to such works be approved by the Director of the Ohio EPA prior to initiation of construction.

D. In addition to the reporting requirements under 40 CFR 122.41(l) and per 40 CFR 122.42(a), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis of any toxic pollutant which is not limited in the permit. If that discharge will exceed the highest of the "notification levels" specified in 40 CFR Sections 122.42(a)(1)(i) through 122.42(a)(1)(iv).
2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the "notification levels" specified in 122.42(a)(2)(i) through 122.42(a)(2)(iv).

17. TOXIC POLLUTANTS

The permittee shall comply with effluent standards or prohibitions established under Section 307 (a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement. Following establishment of such standards or prohibitions, the Director shall modify this permit and so notify the permittee.

18. PERMIT MODIFICATION OR REVOCATION

A. After notice and opportunity for a hearing, this permit may be modified or revoked, by the Ohio EPA, in whole or in part during its term for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this permit;
2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
3. Change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

B. Pursuant to rule 3745-33-04, Ohio Administrative Code, the permittee may at any time apply to the

Ohio EPA for modification of any part of this permit. The filing of a request by the permittee for a permit modification or revocation does not stay any permit condition. The application for modification should be received by the appropriate Ohio EPA district office at least ninety days before the date on which it is desired that the modification become effective. The application shall be made only on forms approved by the Ohio EPA.

19. TRANSFER OF OWNERSHIP OR CONTROL

This permit may be transferred or assigned, and a new owner or successor can be authorized to discharge from this facility, provided the following requirements are met:

A. The permittee shall notify the succeeding owner or successor of the existence of this permit by a letter, a copy of which shall be forwarded to the appropriate Ohio EPA district office. The copy of that letter will serve as the permittee's notice to the Director of the proposed transfer. The copy of that letter shall be received by the appropriate Ohio EPA district office sixty (60) days prior to the proposed date of transfer;

B. A written agreement containing a specific date for transfer of permit responsibility and coverage between the current and new permittee (including acknowledgement that the existing permittee is liable for violations up to that date, and that the new permittee is liable for violations from that date on) shall be submitted to the appropriate Ohio EPA district office within sixty days after receipt by the district office of the copy of the letter from the permittee to the succeeding owner;

At any time during the sixty (60) day period between notification of the proposed transfer and the effective date of the transfer, the Director may prevent the transfer if he concludes that such transfer will jeopardize compliance with the terms and conditions of the permit. If the Director does not prevent transfer, he will modify the permit to reflect the new owner.

20. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act.

21. SOLIDS DISPOSAL

Collected grit and screenings, and other solids other than sewage sludge, shall be disposed of in such a manner as to prevent entry of those wastes into waters of the state, and in accordance with all applicable laws and rules.

22. CONSTRUCTION AFFECTING NAVIGABLE WATERS

This permit does not authorize or approve the construction of any onshore or offshore physical structures or facilities or the undertaking of any work in any navigable waters.

23. CIVIL AND CRIMINAL LIABILITY

Except as exempted in the permit conditions on UNAUTHORIZED DISCHARGES or UPSETS, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance.

24. STATE LAWS AND REGULATIONS

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act.

25. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

26. UPSET

The provisions of 40 CFR Section 122.41(n), relating to "Upset," are specifically incorporated herein by reference in their entirety. For definition of "upset," see Part III, Paragraph 1, DEFINITIONS.

27. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

28. SIGNATORY REQUIREMENTS

All applications submitted to the Director shall be signed and certified in accordance with the requirements of 40 CFR 122.22.

All reports submitted to the Director shall be signed and certified in accordance with the requirements of 40 CFR Section 122.22.

29. OTHER INFORMATION

A. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

B. ORC 6111.99 provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$25,000 per violation.

C. ORC 6111.99 states that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$25,000 per violation.

D. ORC 6111.99 provides that any person who violates Sections 6111.04, 6111.042, 6111.05, or division (A) of Section 6111.07 of the Revised Code shall be fined not more than \$25,000 or imprisoned not more than one year, or both.

30. NEED TO HALT OR REDUCE ACTIVITY

40 CFR 122.41(c) states that it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with conditions of this permit.

31. APPLICABLE FEDERAL RULES

All references to 40 CFR in this permit mean the version of 40 CFR which is effective as of the effective date of this permit.

32. AVAILABILITY OF PUBLIC SEWERS

Notwithstanding the issuance or non-issuance of an NPDES permit to a semi-public disposal system, whenever the sewage system of a publicly owned treatment works becomes available and accessible, the permittee operating any semi-public disposal system shall abandon the semi-public disposal system and connect it into the publicly owned treatment works.

PART IV. STORMWATER CONTROL MEASURES AND POLLUTION PREVENTION PROGRAMS

In Part IV and in Part VI, the term “minimize” means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

A. Control Measures.

You shall select, design, install, and implement control measures (including best management practices) to address the selection and design considerations in Part IV.B, and meet the control measures/best management practices in Part IV.C and any applicable numeric effluent limits in Part I. The selection, design, installation, and implementation of these control measures shall be in accordance with good engineering practices and manufacturer’s specifications. Note that you may deviate from such manufacturer’s specifications where you provide justification for such deviation and include documentation of your rationale in the part of your SWPPP that describes your control measures, consistent with Part IV.J.3. If you find that your control measures are not achieving their intended effect of minimizing pollutant discharges, you shall modify these control measures as expeditiously as practicable. Regulated stormwater discharges from your facility include stormwater run-on that commingles with stormwater discharges associated with industrial activity at your facility.

B. Control Measure Selection and Design Considerations.

You shall consider the following when selecting and designing control measures:

1. Preventing stormwater from coming into contact with polluting materials is generally more effective, and less costly, than trying to remove pollutants from stormwater;
2. Using control measures in combination is more effective than using control measures in isolation for minimizing pollutants in your stormwater discharge;
3. Assessing the type and quantity of pollutants, including their potential to impact receiving water quality, is critical to designing effective control measures that will achieve the limits in this permit;
4. Minimizing impervious areas at your facility and infiltrating runoff onsite (including bioretention cells, green roofs, and pervious pavement, among other approaches) can reduce runoff and improve groundwater recharge and stream base flows in local streams, although care shall be taken to avoid ground water contamination;
5. Attenuating flow using open vegetated swales and natural depressions can reduce in-stream impacts of erosive flows;
6. Conserving and/or restoring of riparian buffers will help protect streams from stormwater runoff and improve water quality; and
7. Using treatment interceptors (e.g., swirl separators and sand filters) may be appropriate in some instances to minimize the discharge of pollutants.

C. Control Measures/Best Management Practices (BMPs)

1. Minimize Exposure. You shall minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings (although

significant enlargement of impervious surface area is not recommended). In minimizing exposure, you should pay particular attention to the following:

- a. Use grading, berming, or curbing to prevent runoff of contaminated flows and divert run-on away from these areas;
- b. Locate materials, equipment, and activities so that leaks are contained in existing containment and diversion systems (confine the storage of leaky or leak-prone vehicles and equipment awaiting maintenance to protected areas);
- c. Clean up spills and leaks promptly using dry methods (e.g., absorbents) to prevent the discharge of pollutants;
- d. Use drip pans and absorbents under or around leaky vehicles and equipment or store indoors where feasible;
- e. Use spill/overflow protection equipment;
- f. Drain fluids from equipment and vehicles prior to on-site storage or disposal;
- g. Perform all cleaning operations indoors, under cover, or in bermed areas that prevent runoff and run-on and also that capture any overspray; and
- h. Ensure that all washwater drains to a proper collection system (i.e., not the stormwater drainage system).

If the discharge of vehicle and equipment washwater is not authorized under Part I of this permit, these wastewaters must be discharged to sanitary sewer in accordance with applicable industrial pretreatment requirements or disposed of otherwise in accordance with applicable law.

Note: Industrial materials do not need to be enclosed or covered if stormwater runoff from affected areas will not be discharged to receiving waters or if discharges are authorized under Part I of this permit.

2. Good Housekeeping. You shall keep clean all exposed areas that are potential sources of pollutants, using such measures as sweeping at regular intervals, keeping materials orderly and labeled, and storing materials in appropriate containers.
3. Maintenance. You shall regularly inspect, test, maintain, and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharged to receiving waters. You shall maintain all control measures that are used to achieve the control measures/best management practices (BMPs) required by this permit in effective operating condition. Nonstructural control measures shall also be diligently maintained (e.g., spill response supplies available, personnel appropriately trained). If you find that your control measures need to be replaced or repaired, you shall make the necessary repairs or modifications as expeditiously as practicable.
4. Spill Prevention and Response Procedures. You shall minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur. At a minimum, you shall implement:
 - a. Procedures for plainly labeling containers (e.g., “Used Oil,” “Spent Solvents,” “Fertilizers and Pesticides,” etc.) that could be susceptible to spillage or leakage to encourage proper handling and facilitate rapid response if spills or leaks occur;

- b. Preventative measures such as barriers between material storage and traffic areas, secondary containment provisions, and procedures for material storage and handling;
 - c. Procedures for expeditiously stopping, containing, and cleaning up leaks, spills, and other releases. Employees who may cause, detect, or respond to a spill or leak shall be trained in these procedures and have necessary spill response equipment available. If possible, one of these individuals should be a member of your stormwater pollution prevention team (Part IV.J.1); and
 - d. Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies. Where a leak, spill or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period, you shall notify the Ohio EPA in accordance with the requirements of Part III Item 12 of this permit as soon as you have knowledge of the discharge. Contact information shall be in locations that are readily accessible and available.
5. Erosion and Sediment Controls. You shall stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Among other actions you shall take to meet this limit, you shall place flow velocity dissipation devices at discharge locations and within outfall channels where necessary to reduce erosion and/or settle out pollutants. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with the current edition of Ohio's Rainwater and Land Development manual (<https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/rainwater-and-land-development>), U.S. EPA's internet-based resources relating to BMPs for erosion and sedimentation, including the sector-specific Industrial Storm Water Fact Sheet Series, (<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance>), National Menu of Storm Water BMPs (<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents>), and National Management Measures to Control Nonpoint Source Pollution from Urban Areas (<https://www.epa.gov/nps/urban-runoff-national-management-measures>).
6. Management of Runoff. You shall divert, infiltrate, reuse, contain, or otherwise reduce stormwater runoff, to minimize pollutants in your discharges. In selecting, designing, installing, and implementing appropriate control measures, you are encouraged to consult with the current edition of Ohio's Rainwater and Land Development manual (<https://epa.ohio.gov/divisions-and-offices/surface-water/guides-manuals/rainwater-and-land-development>), U.S. EPA's internet-based resources relating to runoff management, including the sector-specific Industrial Storm Water Fact Sheet Series, (<https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-fact-sheets-and-guidance>), National Menu of Storm Water BMPs (<https://www.epa.gov/npdes/national-menu-best-management-practices-bmps-stormwater-documents>), and National Management Measures to Control Nonpoint Source Pollution from Urban Areas (<https://www.epa.gov/nps/urban-runoff-national-management-measures>).
7. Salt Storage Piles or Piles Containing Salt. You shall enclose or cover storage piles of salt, or piles containing salt, used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces. You shall implement appropriate measures (e.g., good housekeeping, diversions, containment) to minimize exposure resulting from adding to or removing materials from the pile.

8. Sector Specific Control Measures/Best Management Practices (BMPs). You shall achieve any additional control measures/best management practices (BMPs) stipulated in the relevant sector-specific section(s) of Part IV.K. of this permit.
9. Employee Training. You shall train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team. Training shall cover both the specific control measures used to achieve the conditions in this Part, and monitoring, inspection, planning, reporting, and documentation requirements in other parts of this permit. Ohio EPA requires that training be conducted at least annually (or more often if employee turnover is high).
10. Non-Stormwater Discharges. You shall eliminate non-stormwater discharges not authorized in Part I and Part II of this NPDES permit. The following are additional non-stormwater discharges authorized under this permit:
 - a. Discharges from fire-fighting activities (not planned exercises);
 - b. Fire hydrant flushings;
 - c. Potable water, including water line flushings;
 - d. Uncontaminated condensate from air conditioners, coolers/chillers, and other compressors and from the outside storage of refrigerated gases or liquids;
 - e. Irrigation drainage;
 - f. Landscape watering provided all pesticides, herbicides, and fertilizer have been applied in accordance with the approved labeling;
 - g. Pavement wash waters where no detergents or hazardous cleaning products are used (e.g., bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols, etc.), and the wash waters do not come into contact with oil and grease deposits, sources of pollutants associated with industrial activities (see Part IV.J.2), or any other toxic or hazardous materials, unless residues are first cleaned up using dry clean-up methods (e.g., applying absorbent materials and sweeping, using hydrophobic mops/rags) and you have implemented appropriate control measures to minimize discharges of mobilized solids and other pollutants (e.g., filtration, detention, settlement);
 - h. Routine external building washdown/power wash water that does not use detergents or hazardous cleaning products (e.g., those containing bleach, hydrofluoric acid, muriatic acid, sodium hydroxide, nonylphenols, etc.);
 - i. Uncontaminated ground water or spring water;
 - j. Foundation or footing drains where flows are not contaminated with process materials; and
 - k. Incidental windblown mist from cooling towers that collect on rooftops or adjacent portions of your facility, but not intentional discharges from the cooling tower (e.g., “piped” cooling tower blowdowns or drains).
11. Waste, Garbage and Floatable Debris. You shall ensure that waste, garbage, and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged.

12. Dust Generation and Vehicle Tracking of Industrial Materials. You shall minimize generation of dust and off-site tracking of raw, final, or waste materials.

D. Corrective Actions

1. Conditions Requiring Review and Revision to Eliminate Problem. If any of the following conditions occur, you shall review and revise the selection, design, installation, and implementation of your control measures to ensure that the condition is eliminated and will not be repeated in the future:
 - a. An unauthorized release or discharge (e.g., spill, leak, or discharge of non-stormwater not authorized by this or another NPDES permit) occurs at your facility;
 - b. A discharge violates a numeric effluent limit;
 - c. You become aware, or Ohio EPA determines, that your control measures are not stringent enough for the discharge to meet applicable water quality standards;
 - d. An inspection or evaluation of your facility by an Ohio EPA official or local MS4 operator determines that modifications to the control measures are necessary to meet the control measures/best management practices (BMPs) in this permit; or
 - e. You find in your routine facility inspection or quarterly visual assessment that your control measures are not being properly operated and maintained.
2. Conditions Requiring Review to Determine if Modifications Are Necessary. If any of the following conditions occur, you shall review the selection, design, installation, and implementation of your control measures to determine if modifications are necessary to meet the Part IV.A conditions in this permit:
 - a. Construction or a change in design, operation, or maintenance at your facility significantly changes the nature of pollutants discharged in stormwater from your facility, or significantly increases the quantity of pollutants discharged; or
 - b. The average of your four quarterly sampling results exceeds an applicable benchmark (see Part V.B.7). If less than four benchmark samples have been taken, but the results are such that an exceedance of the four quarter average is mathematically certain (i.e., if the sum of quarterly samples results to date is more than four times the benchmark level) this is considered a benchmark exceedance, triggering this review.
3. Corrective Action Deadlines. You shall document your discovery of any of the conditions listed in Part IV.D.1 and Part IV.D.2 within 24 hours of making such discovery. Subsequently, within 30 days of such discovery, you shall document any corrective action(s) to be taken to eliminate or further investigate the deficiency, or if no corrective action is needed, the basis for that determination. Specific documentation required within 24 hours and 30 days is detailed in Part IV.D.4. If you determine that changes are necessary following your review, any modifications to your control measures shall be made before the next storm event if possible, or as soon as practicable following that storm event. These time intervals are not grace periods, but are schedules considered reasonable for documenting your findings and for making repairs and improvements. They are included in this permit to ensure that the conditions prompting the need for these repairs and improvements are not allowed to persist indefinitely.
4. Corrective Action Report. Within 24 hours of discovery of any condition listed in Part IV.D.1 and Part IV.D.2, you shall document the following information:

- Identification of the condition triggering the need for corrective action review;
- Description of the problem identified; and
- Date the problem was identified.

Within 30 days of discovery of any condition listed in Part IV.D.1 and Part IV.D.2, you shall document the following information and submit the report to the appropriate Ohio EPA District Office):

- Summary of corrective action taken or to be taken (or, for triggering events identified in Part IV.D.2 where you determine that corrective action is not necessary, the basis for this determination);
- Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
- Date corrective action initiated; and
- Date corrective action completed or expected to be completed.

In addition to your corrective action report, you shall also include this documentation in an annual report as required in Part V. A.2 and retain onsite with your SWPPP.

5. Effect of Corrective Action. If the event triggering the review is a permit violation (e.g., non-compliance with an effluent limit), correcting it does not remove the original violation. Additionally, failing to take corrective action in accordance with this section is an additional permit violation. Ohio EPA will consider the appropriateness and promptness of corrective action in determining enforcement responses to permit violations.
6. Substantially Identical Outfalls. If the event triggering corrective action is linked to an outfall that represents other substantially identical outfalls, your review shall assess the need for corrective action for each outfall represented by the outfall that triggered the review. Any necessary changes to control measures that affect these other outfalls shall also be made before the next storm event if possible, or as soon as practicable following that storm event.

E. Inspections

Beginning on the effective date of this permit, you shall conduct the inspections in Part IV.E.1 and Part IV.E.2 at your facility.

1. Routine Facility Inspections.

- a. Conduct routine facility inspections of all areas of the facility where industrial materials or activities are exposed to stormwater, and of all stormwater control measures used to comply with Part IV. Items A-C conditions contained in this permit. Routine facility inspections shall be conducted at least quarterly (i.e., once each calendar quarter) although in many instances, more frequent inspection (e.g., monthly) may be appropriate for some types of equipment, processes, and control measures or areas of the facility with significant activities and materials exposed to stormwater. Perform these inspections during periods when the facility is in operation. You shall specify the relevant inspection schedules in your SWPPP document as required in Part IV. Items A-C. These routine inspections shall be performed by qualified personnel (for definition see VI - Definitions) with at least one member of your stormwater pollution prevention team participating. At least once each calendar year, the

routine facility inspection shall be conducted during a period when a stormwater discharge is occurring.

You shall document the findings of each routine facility inspection performed and maintain this documentation onsite with your SWPPP. You are not required to submit your routine facility inspection findings to Ohio EPA, unless specifically requested to do so. At a minimum, your documentation of each routine facility inspection shall include:

- i. The inspection date and time;
- ii. The name(s) and signature(s) of the inspector(s);
- iii. Weather information and a description of any discharges occurring at the time of the inspection;
- iv. Any previously unidentified discharges of pollutants from the site;
- v. Any control measures needing maintenance or repairs;
- vi. Any failed control measures that need replacement;
- vii. Any incidents of noncompliance observed; and
- viii. Any additional control measures needed to comply with the permit requirements.

Any corrective action required as a result of a routine facility inspection shall be performed consistent with Part IV.D of this permit.

b. Exceptions to Routine Facility Inspections:

Inactive and Unstaffed Sites: The requirement to conduct routine facility inspections on a quarterly basis does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. Such a facility is only required to conduct an annual site inspection in accordance with the requirements of Part IV.E.1. To invoke this exception, you shall maintain a statement in your SWPPP pursuant to Part IV.F indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement shall be signed and certified in accordance with Part III.28. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies and you shall immediately resume quarterly facility inspections. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you shall include the same signed and certified statement as above and retain it with your records pursuant to Part IV.J.5.

Ohio EPA's Encouraging Environmental Excellence (E3) Program: If your facility has been recognized under the Gold and Platinum levels by Ohio EPA's Encouraging Environmental Excellence (E3) Program, you only need to conduct routine facility inspections for two quarters each year. If Part IV.K of this permit requires your facility to conduct routine facility inspections on a monthly basis, you only need to conduct routine facility inspections on a quarterly basis.

2. Quarterly Visual Assessment of Stormwater Discharges.

a. Quarterly Visual Assessment Procedures

Once each calendar quarter for the entire permit term you shall collect a stormwater sample from outfalls 3ID00000003, 3ID00000006, 3ID00000008, 3ID00000009, 3ID00000010, 3ID00000011, 3ID00000020, 3ID00000022, 3ID00000024, 3ID00000025, and 3ID00000027 through 3ID00000034 and conduct a visual assessment of each of these samples. These samples are not required to be collected consistent with 40 CFR Part 136 procedures but should be collected in such a manner that the samples are representative of the stormwater discharge. The visual assessment shall be made:

- Of a sample in a clean, clear glass, or plastic container, and examined in a well-lit area;
- On samples collected within the first 30 minutes of an actual discharge from a storm event. If it is not possible to collect the sample within the first 30 minutes of discharge, the sample shall be collected as soon as practicable after the first 30 minutes, and you shall document why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples shall be taken during a period with a measurable discharge from your site; and
- For storm events, on discharges that occur at least 72 hours (3 days) from the previous discharge. The 72-hour (3-day) storm interval does not apply if you document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period. If it is not possible to collect the sample on discharges that occur at least 72 hours (3 days) from the previous discharge, the sample shall be collected as close to this storm interval as practicable, and you shall document why it was not possible to take samples from a 72-hour (3 day) storm interval.
- Areas Subject to Snow: In areas subject to snow, at least one quarterly visual assessment shall capture snowmelt discharge.
- For the following water quality characteristics: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of stormwater pollution.

b. Quarterly Visual Assessment Documentation

You shall document the results of your visual assessments and maintain this documentation onsite with your SWPPP. You are not required to submit your visual assessment findings to Ohio EPA, unless specifically requested to do so. At a minimum, your documentation of the visual assessment shall include:

- Sample location(s);
- Sample collection date and time, and visual assessment date and time for each sample;
- Personnel collecting the sample and performing visual assessment, and their signatures;
- Nature of the discharge (i.e., runoff or snowmelt);
- Results of observations of the stormwater discharge;
- Probable sources of any observed stormwater contamination; and
- If applicable, why it was not possible to take samples within the first 30 minutes and/or from a 72 hour (3 day) storm interval.

Any corrective action required as a result of a quarterly visual assessment shall be performed consistent with Part IV.D of this permit.

c. Exceptions to Quarterly Visual Assessments

The following are exceptions to quarterly visual assessments:

- Adverse Weather Conditions: When adverse weather conditions prevent the collection of samples during the quarter, you shall take a substitute sample during the next qualifying storm event. Documentation of the rationale for no visual assessment for the quarter shall be included with your SWPPP records. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms, or situations that otherwise make sampling impractical, such as drought or extended frozen conditions.
- Areas Subject to Snow: In areas subject to snow, at least one quarterly visual assessment shall capture snowmelt discharge, as described in Part IV.E.2.
- Substantially identical outfalls: If your facility has two or more outfalls that you believe discharge substantially identical effluents, as documented in your SWPPP, you may conduct quarterly visual assessments of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s) provided that you perform visual assessments on a rotating basis of each substantially identical outfall throughout the period of your coverage under this permit. If stormwater contamination is identified through visual assessment performed at a substantially identical outfall, you shall assess and modify your control measures as appropriate for each outfall represented by the monitored outfall.
- Inactive and unstaffed sites: The requirement for a quarterly visual assessment does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you shall maintain a statement in your SWPPP indicating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to precipitation, in accordance with the substantive requirements in 40 CFR 122.26(g)(4)(iii). The statement shall be signed and certified in accordance with Part III.28 of this permit. If circumstances change and industrial materials or activities become exposed to stormwater or your facility becomes active and/or staffed, this exception no longer applies, and you shall immediately resume quarterly visual assessments. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you shall include the same signed and certified statement as above and retain it with your records.
- Ohio EPA's Encouraging Environmental Excellence (E3) Program: If your facility has been recognized under the Gold and Platinum levels by Ohio EPA's Encouraging Environmental Excellence (E3) Program, you only need to conduct quarterly visual assessment of stormwater discharges for two quarters each year.

F. Stormwater Pollution Prevention Plan (SWPPP)

A stormwater pollution prevention plan (SWPPP) shall be developed to address each outfall that discharges to waters of the state that contains stormwater associated with industrial activity. Stormwater pollution prevention plans shall be prepared in accordance with good engineering practices. The SWPPP shall identify potential sources of pollution which may reasonably be

expected to affect the quality of stormwater discharges associated with industrial activity from the facility. The SWPPP shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in stormwater discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. Facilities must implement the provisions of the stormwater pollution prevention plan required under this part as a condition of this permit.

The SWPPP does not contain effluent limitations; the limitations or benchmarks are contained in Part I. The SWPPP is intended to document the selection, design, and installation of control measures. As distinct from the SWPPP, the documentation requirements are intended to document the implementation (including inspection, maintenance, monitoring, and corrective action) of the permit requirements.

G. Deadlines to Update the SWPPP

The permittee shall continue to implement and be in compliance with the SWPPP required by the previous permit. Within six months of the effective date of this permit, the permittee shall update the SWPPP as necessary to address any new or reviewed requirements of this permit.

H. Signature Requirements and SWPPP Availability.

1. Your plan shall be signed and dated in accordance with Part III, Item 28, and be retained on-site at the facility which generates the stormwater discharge.
2. You shall retain a copy of the current SWPPP required by this permit at the facility, and it shall be immediately available to Ohio EPA; a local agency approving stormwater management plans; and the operator of an MS4 receiving discharges from the site. Ohio EPA may provide access to portions of your SWPPP to a member of the public upon request. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from those staff cleared for CBI review within Ohio EPA. Your current SWPPP or certain information from your current SWPPP shall be made available to the public, except any confidential business information (CBI) or restricted information, but you shall clearly identify those portions of the SWPPP that are being withheld from public access. See 40 CFR Part 2 for relevant definitions of CBI: <https://www.govinfo.gov/content/pkg/CFR-2013-title40-vol1/pdf/CFR-2013-title40-vol1-part2-subpartB.pdf>
3. All stormwater pollution prevention plans required under this permit are considered reports that shall be available to the public under Section 308(b) of the Act. Confidential Business Information (CBI) may be withheld from the public, but may not be withheld from those staff cleared for CBI review within Ohio EPA. An interested party wishing a copy of a discharger's SWPPP will have to contact the Ohio EPA to obtain a copy.

I. Required SWPPP Modifications.

The permittee shall modify your SWPPP whenever necessary to address any of the triggering conditions for corrective action in Part IV.D and to ensure that they do not reoccur, or to reflect changes implemented when a review following the triggering conditions in Part IV.D.2 indicates that changes to your control measures are necessary to meet the control measures/best management practices (BMPs) in this permit. Changes to your SWPPP document shall be made in accordance with the corrective action deadlines in Part IV.D.3 and Part IV.D.4.

The Director may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this Part. Within 30 days of such notification from the Director, the

permittee shall make the required changes to the plan and shall submit to the Director a written certification that the requested changes have been made.

J. Contents of SWPPP.

The plan shall include, at a minimum, the following items:

1. Stormwater Pollution Prevention Team. You shall identify the staff members (by name or title) that comprise the facility's stormwater pollution prevention team as well as their individual responsibilities. Your stormwater pollution prevention team is responsible for assisting the facility manager in developing and revising the facility's SWPPP as well as maintaining control measures and taking corrective actions where required. Each member of the stormwater pollution prevention team shall have ready access to either an electronic or paper copy of applicable portions of this permit and your SWPPP.
2. Site Description. Your SWPPP shall include the following:
 - a. *Activities at the Facility*. Provide a description of the nature of the industrial activities at your facility;
 - b. *General location map*. Provide a general location map (e.g. U.S. Geologic Survey (USGS) quadrangle map) with enough detail to identify the location of your facility and all receiving waters for your stormwater discharges.
 - c. *Site map*. Provide a site map showing:
 - The size of the property in acres;
 - The location and extent of significant structures and impervious surfaces;
 - Directions of stormwater flow (use arrows);
 - Locations of all existing structural control measures;
 - Locations of all receiving waters in the immediate vicinity of your facility;
 - Locations of all stormwater conveyances including ditches, pipes and swales;
 - Locations of potential pollutant sources identified under Part IV J. 2.b;
 - Locations where significant spills or leaks identified under Part IV J. 2.b. have occurred;
 - Locations of all stormwater monitoring points;
 - Locations of stormwater inlets and outfalls, with a unique identification code for each outfall (e.g. Outfall 001, Outfall 002, etc), indicating any outfalls that are considered substantially identical to another outfall, and an approximate outline of the areas draining to each outfall;
 - Municipal separate storm sewer systems, where your stormwater discharges to them;
 - Locations and descriptions of all non-stormwater discharges identified under Part IV. C. 10;
 - Locations of the following activities where such activities are exposed to precipitation

- o Fueling stations;
 - o Vehicle and equipment maintenance and/or cleaning areas;
 - o Loading/unloading areas;
 - o Locations used for the treatment, storage, or disposal of wastes;
 - o Liquid storage tanks;
 - o Processing and storage areas;
 - o Immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility;
 - o Transfer areas for substances in bulk;
 - o Machinery; and
 - o Locations and sources of run-on to your site from adjacent property that contains significant quantities of pollutants.
3. Summary of Potential Pollutant Sources. You shall document at your facility where industrial materials or activities are exposed to stormwater and from which allowable non-stormwater discharges are released. Industrial materials or activities, include, but are not limited to: material handling equipment or activities; industrial machinery; raw materials; industrial production and processes; and intermediate products, by-products, final product or waste product. Material handling activities include, but are not limited to: the storage, loading and unloading, transportation, disposal, or conveyance of any raw material, intermediate product, final product or waste product. For each area identified, the description shall include, at a minimum:
- a. **Activities in the Area.** This includes a list of industrial activities exposed to stormwater (e.g., material storage; equipment fueling, maintenance, and cleaning; cutting steel beams).
 - b. **Pollutants.** A list of the pollutant(s) or pollutant constituents (e.g, crankcase oil, zinc, sulfuric acid, and cleaning solvents) associated with each identified activity. The pollutant list shall include all significant materials that have been handled, treated, stored, or disposed, and that have been exposed to stormwater in the three years prior to the date you prepare or amend your SWPPP.
 - c. **Spills and Leaks.** You shall document where potential spills and leaks could occur that could contribute pollutants to stormwater discharges, and the corresponding outfall(s) that would be affected by such spills and leaks. You shall document all significant spills and leaks of oil or toxic or hazardous pollutants that actually occurred at exposed areas, or that drained to a stormwater conveyance, in the three years prior to the date you prepare or amend your SWPPP.

Note: Significant spills and leaks include, but are not limited to, releases of oil or hazardous substances in excess of quantities that are reportable under CWA Section 311 (see 40 CFR 110.6 and 40 CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 USC Section 9602. This permit does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302 relating to spills or other releases of oil or hazardous substances.

- d. **Non-Stormwater Discharges.** You shall document that you have evaluated for the presence of non-stormwater discharges, except for those listed in Part I and Part IV.C.10, and that all unauthorized discharges have been eliminated. Documentation of your evaluation shall include:
- The date of any evaluation;
 - A description of the evaluation criteria used;
 - A list of the outfalls or onsite drainage points that were directly observed during the evaluation;
 - The different types of non-stormwater discharge(s) and source locations; and
 - The action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. For example, a floor drain was sealed, a sink drain was re-routed to sanitary, or an NPDES permit application was submitted for an unauthorized cooling water discharge.
- e. **Salt Storage.** You shall document the location of any storage piles containing salt used for deicing or other commercial or industrial purposes.
- f. **Sampling Data.** A summary of existing discharge sampling data describing pollutants in stormwater discharges from the facility.
4. **Description of Control Measures.** You shall document the location and type of control measures you have installed and implemented at your site to achieve the control measures/best management practices (BMPs) in Part IV.C, and where applicable, in Part IV.K. You shall describe how you addressed the control measure selection and design considerations in Part IV.B. This documentation shall describe how the control measures at your site address both the pollutant sources identified in Part IV.J.2 and any stormwater run-on that commingles with any discharges covered under this permit.
5. **Schedules and Procedures.**
- a. **Pertaining to Control Measures used to Comply with the Control Measures/Best Management Practices (BMPs).** The following shall be documented in your SWPPP:
- i. **Good Housekeeping (See Part IV.C.2)** – A schedule for regular pickup and disposal of waste materials, along with routine inspections for leaks and conditions of drums, tanks and containers.
 - ii. **Maintenance (See Part IV.C.3)** – Preventative maintenance procedures, including regular inspections, testing, maintenance, and repair of all industrial equipment and systems, and control measures, to avoid situations that may result in leaks, spills, and other releases, and any back-up practices in place should a runoff event occur while a control measure is off-line;
 - iii. **Spill Prevention and Response Procedures (See Part IV.C.4)** – Procedures for preventing and responding to spills and leaks. You may reference the existence of other plans for Spill Prevention Control and Countermeasure (SPCC) developed for the facility under Section 311 of the CWA or BMP programs otherwise required by an NPDES permit for the facility, provided that you keep a copy of that other plan onsite (hard copy or electronic) and make it available for review consistent with Part IV.J.5; and
 - iv. **Employee Training (See Part IV.C.9)** – A schedule for all types of necessary training.

- b. Pertaining to Monitoring and Inspection. Where applicable, you shall document in your SWPPP your procedures for conducting analytical stormwater monitoring. You shall document in your SWPPP your procedures for performing, as appropriate, the two types of inspections specified by this permit, including: 1) Routine facility inspections (See Part IV.E.1) and 2) Quarterly visual assessment of stormwater discharges (See Part IV.E.2).

For each type of monitoring, your SWPPP shall document:

- Locations where samples are collected, including any determination that two or more outfalls are substantially identical;
- Parameters for sampling and the frequency of sampling for each parameter;
- Schedules for monitoring at your facility (see Part 6.1.6);
- Any numeric control values (benchmarks, effluent limitations guidelines, or other requirements) applicable to discharges from each outfall; and
- Procedures (e.g., responsible staff, logistics, laboratory to be used, etc.) for gathering storm event data.

For each type of inspection performed, your SWPPP shall identify:

- Person(s) or positions of person(s) responsible for inspection;
- Schedules for conducting inspections; and
- Specific items to be covered by the inspection, including schedules for specific outfalls.

If you are invoking the exception for inactive and unstaffed sites relating to routine facility inspections and quarterly visual assessments, you shall include in your SWPPP the information to support this claim as required by Parts V.E. If you are invoking the exception for inactive and unstaffed sites for benchmark monitoring, you shall include in your SWPPP the information to support this claim.

You shall document the following in your SWPPP if you plan to use the substantially identical outfall exception for your quarterly visual assessment requirements in Part IV.E.2 or your benchmark monitoring requirements in Part V:

- Location of each of the substantially identical outfalls;
- Description of the general industrial activities conducted in the drainage area of each outfall;
- Description of the control measures implemented in the drainage area of each outfall;
- Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges;
- An estimate of the runoff coefficient of the drainage areas (low = under 40%; medium = 40 to 65%; high = above 65%); and
- Why the outfalls are expected to discharge substantially identical effluents.

6. Documentation Requirements. You are required to keep inspection, monitoring, and certification records with your SWPPP that together keep your records complete and up-to-date, and demonstrate your full compliance with the conditions of this permit:

- A copy of this permit (an electronic copy easily available to SWPPP personnel is also acceptable);
- Descriptions and dates of any incidences of significant spills, leaks, or other releases that resulted in discharges of pollutants to surface waters of the State, through stormwater or otherwise; the circumstances leading to the release and actions taken in response to the release; and measures taken to prevent the recurrence of such releases (see Part IV.C.4);
- Records of employee training, including date training received (see Part IV.C.9);
- Documentation of maintenance and repairs of control measures, including the date(s) of regular maintenance, date(s) of discovery of areas in need of repair/replacement, and for repairs, date(s) that the control measure(s) returned to full function, and the justification for any extended maintenance/repair schedules (see Part IV.C.3);
- All inspection reports, including the Routine Facility Inspection Reports (see Part IV.E.1) and the Quarterly Visual Assessment Reports (see Part IV.E.2);
- Description of any deviations from the schedule for visual assessments and/or monitoring, and the reason for the deviations (e.g., adverse weather or it was impracticable to collect samples within the first 30 minutes and/or from a 72-hour (3 day) storm interval) (see Parts IV.E.2.a, Part V.B.4 & 7);
- Description of any corrective action taken at your site, including triggering event and dates when problems were discovered and modifications occurred;
- Documentation of any benchmark exceedances and how they were responded to, including either (1) corrective action taken, (2) a finding that the exceedance was due to natural background pollutant levels, or (3) a finding that no further pollutant reductions were technologically available and economically practicable and achievable in light of best industry practice consistent with Part V.B.7;
- Documentation to support any determination that pollutants of concern are not expected to be present above natural background levels if you discharge directly to impaired waters, and that such pollutants were not detected in your discharge or were solely attributable to natural background sources (see Part V.B.7); and
- Documentation to support your claim that your facility has changed its status from active to inactive and unstaffed with respect to the requirements to conduct routine facility inspections (see Part IV.E.1), quarterly visual assessments (see Part IV.E.2), and/or benchmark monitoring (see Part V.B.7).

Where your SWPPP refers to procedures in other facility documents, such as a Spill Prevention, Control and Countermeasure (SPCC) Plan or an Environmental Management System (EMS) developed for a National Environmental Performance Track facility, copies of the relevant portions of those documents shall be kept with your SWPPP.

K. Sector-Specific Requirements

Sector F – Primary Metals.

You shall comply with the following sector-specific requirements associated with your primary industrial activity and any co-located industrial activities, as defined in Part VI. The sector-specific requirements apply to those areas of your facility where those sector-specific activities occur. These sector-specific requirements are in addition to any requirements specified elsewhere in this permit.

1. Additional Control Measures/Best Management Practices (BMPs).

a. *Good Housekeeping Measures.* (See also Part IV.C.2) As part of your good housekeeping program, include a cleaning and maintenance program for all impervious areas of the facility where particulate matter, dust, or debris may accumulate, especially areas where material loading and unloading, storage, handling, and processing occur; and, where practicable, the paving of areas where vehicle traffic or material storage occur but where vegetative or other stabilization methods are not practicable (institute a sweeping program in these areas too). For un-stabilized areas where sweeping is not practicable, consider using stormwater management devices such as sediment traps, vegetative buffer strips, filter fabric fence, sediment filtering boom, gravel outlet protection, or other equivalent measures that effectively trap or remove sediment.

2. Additional SWPPP Requirements.

a. *Drainage Area Site Map.* (See also Part IV.J.2) Identify in the SWPPP where any of the following activities may be exposed to precipitation or surface runoff: storage or disposal of wastes such as spent solvents and baths, sand, slag and dross; liquid storage tanks and drums; processing areas including pollution control equipment (e.g., baghouses); and storage areas of raw material such as coal, coke, scrap, sand, fluxes, refractories, or metal in any form. In addition, indicate where an accumulation of significant amounts of particulate matter could occur from such sources as furnace or oven emissions, losses from coal and coke handling operations, etc., and could result in a discharge of pollutants to surface waters of the State.

b. *Inventory of Exposed Material.* (See also Part IV.J.3) Include in the inventory of materials handled at the site that potentially may be exposed to precipitation or runoff, areas where deposition of particulate matter from process air emissions or losses during material-handling activities are possible

3. Additional Inspection Requirements. (See also Part IV.E.)

As part of conducting your quarterly routine facility inspections (Part IV.E.), address all potential sources of pollutants, including (if applicable) air pollution control equipment (e.g., baghouses, electrostatic precipitators, scrubbers, and cyclones), for any signs of degradation (e.g., leaks, corrosion, or improper operation) that could limit their efficiency and lead to excessive emissions. Consider monitoring air flow at inlets and outlets (or use equivalent measures) to check for leaks (e.g., particulate deposition) or blockage in ducts. Also inspect all process and material handling equipment (e.g., conveyors, cranes, and vehicles) for leaks, drips, or the potential loss of material; and material storage areas (e.g., piles, bins, or hoppers for storing coke, coal, scrap, or slag, as well as chemicals stored in tanks and drums) for signs of material losses due to wind or stormwater runoff.

PART V. MONITORING AND REPORTING REQUIREMENTS

A. Reporting and Recordkeeping

1. Reporting Benchmark Monitoring Data to Ohio EPA. Benchmark monitoring data shall be submitted to Ohio EPA in accordance with Part III Item 4. of this permit.
2. Annual Report. You shall complete an annual report using the Annual Reporting Form provided by Ohio EPA at the following location:

<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fepa.ohio.gov%2Fstatic%2FPortals%2F35%2Fpermits%2FOHR000006%2FARForm.docx&wdOrigin=BROWSELINK>

You are not required to submit your annual report to Ohio EPA unless specifically requested. The timeframe to complete the report is at the discretion of the permittee but the same schedule to complete shall be maintained throughout this permit term. You shall keep the completed annual reports with your SWPPP.

B. Stormwater Monitoring Requirements

1. Monitored Outfalls.

Applicable benchmark monitoring requirements apply to stormwater outfalls 3ID00000003, 3ID00000006, 3ID00000008, 3ID00000011, 3ID00000020, 3ID00000022, 3ID00000024, 3ID00000025, and 3ID00000027 through 3ID00000034. (see Part I, A of this permit), except as otherwise exempt from monitoring as a “substantially identical outfall”. For monitoring purposes, an outfall can include a discrete conveyance (i.e., pipe, ditch, channel tunnel or conduit) or a location where sheet flow leaves your facility’s property. If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on the similarities of the general industrial activities and control measures, exposed materials that may significantly contribute pollutants to stormwater, and runoff coefficients of their drainage areas, you may monitor the effluent of just one of the outfalls and report that the results also apply to the substantially identical outfall(s). As required in Part IV.F, your SWPPP shall identify each outfall authorized by this permit and describe the rationale for any substantially identical outfall determinations. The allowance for monitoring only one of the substantially identical outfalls is not applicable to any outfalls with numeric effluent limitations. You are required to monitor each outfall covered by a numeric effluent limit as identified in Part I.

2. Commingled Discharges.

If discharges authorized by this permit commingle with discharges not authorized under this permit, any required sampling of the authorized discharges shall be performed at a point before they mix with other waste streams, to the extent practicable.

3. Measurable Storm Event.

All required monitoring shall be performed on a storm event that results in an actual discharge from your site (“measurable storm event”) that follows the preceding measurable storm event by at least 72 hours (3 days). The 72-hour (3-day) storm interval does not apply if you are able to document that less than a 72-hour (3-day) interval is representative for local storm events during the sampling period. In the case of snowmelt, the monitoring shall be performed at a time when a measurable discharge occurs at your site.

For each monitoring event, except snowmelt monitoring, you shall identify the date and duration (in hours) of the rainfall event, rainfall total (in inches) for that rainfall event, and time (in days)

since the previous measurable storm event. For snowmelt monitoring, you shall identify the date of the sampling event.

4. Sample Type.

You shall take a minimum of one grab sample from a discharge resulting from a measurable storm event as described in Part V.B.2. Samples shall be collected within the first 30 minutes of a measurable storm event. If it is not possible to collect the sample within the first 30 minutes of a measurable storm event, the sample shall be collected as soon as practicable after the first 30 minutes and documentation shall be kept with the SWPPP explaining why it was not possible to take samples within the first 30 minutes. In the case of snowmelt, samples shall be taken during a period with a measurable discharge.

5. Adverse Weather Conditions.

When adverse weather conditions as described in Part 4.2.3 prevent the collection of samples according to the relevant monitoring schedule, you shall take a substitute sample during the next qualifying storm event. You shall report any failure to monitor as specified in Part IV.E.2 indicating the basis for not sampling during the usual reporting period.

6. Monitoring for Allowable Non-Stormwater Discharges

You are only required to monitor allowable non-stormwater discharges (as delineated in Part IV.C.10) when they are commingled with stormwater discharges associated with industrial activity.

7. Benchmark Monitoring.

This permit stipulates pollutant benchmark concentrations that are applicable to certain sectors and subsectors and must be monitored. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the control measures/best management practices (BMPs) in Part IV. Items A-C.

At your discretion, more than four samples may be taken during separate runoff events and used to determine the average benchmark parameter concentration for facility discharges.

- a. *Benchmark Monitoring Schedule.* During each year of the permit cycle, one benchmark sampling event shall be taken during each of the quarterly monitoring periods unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your 4 monitoring values and compare to the benchmark concentration.
- b. *Data not exceeding benchmarks:* After collection of 4 annual quarterly samples, if the average of the 4 monitoring values for any parameter does not exceed the benchmark, you are compliant. For averaging purposes, use a value of zero for any individual sample parameter, analyzed using procedures consistent with 40 CFR 136, which is determined to be less than the method detection limit. For sample values that fall between the method detection level and the quantitation limit (i.e., a confirmed detection but below the level that can be reliably quantified), use a value halfway between zero and quantitation limit.
- c. *Data Exceeding benchmark:* Based on the average of your monitoring results, if the monitoring values for any parameter exceeds the benchmark, you shall in accordance with Part IV.D.2, review the selection, design, installation, and implementation of your control measures to

determine if modifications are necessary to meet the Part IV. Items A-C control measures/best management practices (BMPs) of this permit, and either :

- i. Make the necessary modifications and continue to perform benchmark monitoring. One benchmark sampling event shall be taken during each of the quarterly monitoring periods unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of the quarterly samples, you shall average your 4 annual monitoring values and compare to the benchmark concentration to determine the effectiveness of your modifications; or
- ii. Make a determination that no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice to meet the control measures/best management practices (BMPs) in Part IV. Items A-C of this permit. You shall also document your rationale for concluding that no further pollutant reductions are achievable, and retain all records related to this documentation with your SWPPP. You shall also notify Ohio EPA of this determination within 30 days.
- iii. If less than four benchmark samples have been taken, but the results are such that an exceedance of the four-quarter average is mathematically certain (i.e., if the sum of quarterly samples results to date is more than four times the benchmark level), this is considered a benchmark exceedance, triggering this review.

Ideally your stormwater samples will contain only runoff from your site. However, stormwater from a neighboring facility can run-on and comingle with your regulated stormwater discharge, possibly adding contaminants not found at your facility. The SWPPP site description shall document the locations and sources of any run-on. If you feel your discharge is exceeding a benchmark value due to, run-on from neighboring properties, you may collect and analyze samples of the run-on. Determined contaminant concentrations of run-on from neighboring properties may be deducted from your stormwater discharge when determining whether a benchmark has been exceeded. This information shall be documented within eDMR's comment section. All sample data and findings shall be maintained with your SWPPP.

If it is determined that a water quality standard is less restrictive than this permit's benchmark value, you may use the less restrictive value for benchmark monitoring purposes.

Pollutant concentrations from your facility's structures (roofs, walls, fencing, etc.) can be considered to determine if it is technologically available and economically practical and achievable in light of best industry practice to implement additional control measures or not when a benchmark has been exceeded.

In accordance with Part IV.D.2, you shall review your control measures and perform any required corrective action immediately or document why no corrective action is required.

- d. *Natural background pollutant levels:* If you determine that exceedance of the benchmark is attributable solely to the presence of that pollutant in the natural background, you are not required to perform corrective action provided that:
 - i. The concentration of your benchmark monitoring result is less than or equal to the concentration of that pollutant in the natural background;
 - ii. You document and maintain with your SWPPP your supporting rationale for concluding that benchmark exceedances are in fact attributable solely to natural

background levels. You shall include in your supporting rationale any data previously collected by you or others (including literature studies) that describe the levels of natural background pollutants in your stormwater discharge; and

Natural background pollutants include those substances that are naturally occurring in soils or groundwater. Natural background pollutants do not include legacy pollutants from earlier activity on your site, or pollutants in run-on from neighboring sources which are not naturally occurring.

- e. *Exception for Inactive and Unstaffed Sites.* The requirement for benchmark monitoring does not apply at a facility that is inactive and unstaffed, as long as there are no industrial materials or activities exposed to stormwater. To invoke this exception, you shall do the following:
 - i. Maintain a statement onsite with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to stormwater in accordance with the substantive requirements in 40 CFR 122.26(g) and sign and certify the statement in accordance with Part IV.E.1.b.
 - ii. If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you shall immediately begin complying with the applicable benchmark monitoring requirements under Part V. B; and
 - iii. If you are not qualified for this exception at the time you are authorized under this permit, but during the permit term you become qualified because your facility is inactive and unstaffed, and there are no industrial materials or activities that are exposed to stormwater, then you shall notify the appropriate district office of Ohio EPA of this change in your next benchmark monitoring report. You may discontinue benchmark monitoring once you have notified Ohio EPA, and prepared and signed the certification statement described above concerning your facility's qualification for this special exception.

PART VI. DEFINITIONS AND ACRONYMS

Action Area – all areas to be affected directly or indirectly by the stormwater discharges, allowable non-stormwater discharges, and stormwater discharge-related activities, and not merely the immediate area involved in these discharges and activities.

Best Management Practices (BMPs) – schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to surface waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. See 40 CFR 122.2.

Co-located Industrial Activities – Any industrial activities, excluding your primary industrial activity(ies), located on-site that are defined by the stormwater regulations at 122.26(b)(14)(i)-(ix) and (xi). An activity at a facility is not considered co-located if the activity, when considered separately, does not meet the description of a category of industrial activity covered by the stormwater regulations or identified by the SIC code list in the Industrial Multi-Sector General Permit OHR000007, Appendix D.

Control Measure – refers to any BMP or other method (including effluent limitations) used to prevent or reduce the discharge of pollutants to surface waters of the State.

Director – the Director of the Ohio Environmental Protection Agency (Ohio EPA).

Discharge – when used without qualification, means the "discharge of a pollutant." See 40 CFR 122.2.

Discharge of a pollutant – any addition of any “pollutant” or combination of pollutants to “surface waters of the State” from any “point source,” or any addition of any pollutant or combination of pollutants to the waters of the “contiguous zone” or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. This includes additions of pollutants into surface waters of the State from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. See 40 CFR 122.2.

Discharge-related activities – activities that cause, contribute to, or result in stormwater and allowable non-stormwater point source discharges, and measures such as the siting, construction and operation of BMPs to control, reduce, or prevent pollution in the discharges.

Drought-stricken area – a period of below average water content in streams, reservoirs, ground-water aquifers, lakes and soils.

U.S. EPA Approved or Established Total Maximum Daily Loads (TMDLs) – “U.S. EPA Approved TMDLs” are those that are developed by a State and approved by U.S. EPA. “U.S. EPA Established TMDLs” are those that are developed by U.S. EPA.

Existing Discharger – an operator applying for coverage under this permit for discharges authorized previously under an NPDES general or individual permit.

Facility or Activity – any NPDES “point source” (including land or appurtenances thereto) that is subject to regulation under the NPDES program. See 40 CFR 122.2.

Federal Facility – any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the federal government.

Illicit Discharge – is defined at 40 CFR 122.26(b)(2) and refers to any discharge to a municipal separate storm sewer that is not entirely composed of stormwater, except discharges authorized under an NPDES

permit (other than the NPDES permit for discharges from the MS4) and discharges resulting from fire fighting activities.

Impaired Water (or “Water Quality Impaired Water” or “Water Quality Limited Segment”) – A water is impaired for purposes of this permit if it has been identified by a State or U.S. EPA pursuant to Section 303(d) of the Clean Water Act as not meeting applicable State water quality standards (these waters are called “water quality limited segments” under 40 CFR 30.2(j)). Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

Industrial Activity – the 10 categories of industrial activities included in the definition of “stormwater discharges associated with industrial activity” as defined in 40 CFR 122.26(b)(14)(i)-(ix) and (xi).

Industrial Stormwater – stormwater runoff from industrial activity.

Municipal Separate Storm Sewer – a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

- (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or a designated and approved management agency under section 208 of the CWA that discharges to surface waters of the State;
- (ii) Designed or used for collecting or conveying stormwater;
- (iii) Which is not a combined sewer; and
- (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2. See 40 CFR 122.26(b)(4) and (b)(7).

New Discharger – a facility from which there is a discharge, that did not commence the discharge at a particular site prior to August 13, 1979, which is not a new source, and which has never received a finally effective NPDES permit for discharges at that site. See 40 CFR 122.2.

New Source – any building, structure, facility, or installation from which there is or may be a “discharge of pollutants,” the construction of which commenced:

- after promulgation of standards of performance under section 306 of the CWA which are applicable to such source, or
- after proposal of standards of performance in accordance with section 306 of the CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal. See 40 CFR 122.2.

New Source Performance Standards (NSPS) – technology-based standards for facilities that qualify as new sources under 40 CFR 122.2 and 40 CFR 122.29.

No exposure – all industrial materials or activities are protected by a storm-resistant shelter to prevent exposure to rain, snow, snowmelt, and/or runoff. See 40 CFR 122.26(g).

Ohio EPA – the Ohio Environmental Protection Agency.

Operator – any entity with a stormwater discharge associated with industrial activity that meets either of the following two criteria:

- (i) The entity has operational control over industrial activities, including the ability to modify those activities; or
- (ii) The entity has day-to-day operational control of activities at a facility necessary to ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

Person – an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. See 40 CFR 122.2.

Point source – any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff. See 40 CFR 122.2.

Pollutant – dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal and agricultural waste discharged into water. See 40 CFR 122.2.

Pollutant of concern – A pollutant which causes or contributes to a violation of a water quality standard, including a pollutant which is identified as causing an impairment in a state's 303(d) list.

Primary industrial activity – includes any activities performed on-site which are (1) identified by the facility's primary SIC code; or (2) included in the narrative descriptions of 122.26(b)(14)(i), (iv), (v), or (vii), and (ix). [For co-located activities covered by multiple SIC codes, it is recommended that the primary industrial determination be based on the value of receipts or revenues or, if such information is not available for a particular facility, the number of employees or production rate for each process may be compared. The operation that generates the most revenue or employs the most personnel is the operation in which the facility is primarily engaged. In situations where the vast majority of on-site activity falls within one SIC code, that activity may be the primary industrial activity.] Narrative descriptions in 40 CFR 122.26(b)(14) identified above include: (i) activities subject to stormwater effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards; (iv) hazardous waste treatment storage, or disposal facilities including those that are operating under interim status or a permit under subtitle C of the Resource Conservation and Recovery Act (RCRA); (v) landfills, land application sites and open dumps that receive or have received industrial wastes; (vii) steam electric power generating facilities; and (ix) sewage treatment works with a design flow of 1.0 mgd or more.

Qualified Personnel – Qualified personnel are those who possess the knowledge and skills to assess conditions and activities that could impact stormwater quality at your facility, and who can also evaluate the effectiveness of control measures.

Reportable Quantity Release – a release of a hazardous substance at or above the established legal threshold that requires emergency notification. Refer to 40 CFR Parts 110, 117, and 302 for complete definitions and reportable quantities for which notification is required.

Runoff coefficient – the fraction of total rainfall that will appear at the conveyance as runoff. See 40 CFR 122.26(b)(11).

Run-On – sources of stormwater that drain from land located upslope or upstream from the regulated facility in question.

Semi-Arid Climate – areas where annual rainfall averages from 10 to 20 inches.

Significant materials – includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101(14) of CERCLA; any chemical the facility is required to report pursuant to section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with stormwater discharges. See 40 CFR 122.26(b)(12).

Special Aquatic Sites – sites identified in 40 CFR 230 Subpart E. These are geographic areas, large or small, possessing special ecological characteristics of productivity, habitat, wildlife protection, or other important and easily disrupted ecological values. These areas are generally recognized as significantly influencing or positively contributing to the general overall environmental health or vitality of the entire ecosystem of a region.

Stormwater – stormwater runoff, snow melt runoff, and surface runoff and drainage. See 40 CFR 122.26(b)(13).

Stormwater Discharges Associated with Construction Activity – a discharge of pollutants in stormwater runoff from areas where soil disturbing activities (e.g., clearing, grading, or excavating), construction materials, or equipment storage or maintenance (e.g., fill piles, borrow areas, concrete truck washout, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located. See 40 CFR 122.26(b)(14)(x) and 40 CFR 122.26(b)(15).

Stormwater Discharges Associated with Industrial Activity – the discharge from any conveyance that is used for collecting and conveying stormwater and that is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program under Part 122. For the categories of industries identified in this section, the term includes, but is not limited to, stormwater discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at part 401 of this chapter); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater. For the purposes of this paragraph, material handling activities include storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, final product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with stormwater drained from the above described areas. Industrial facilities include those that are federally, State, or municipally owned or operated that meet the description of the facilities listed in 40 CFR 122.26(b)(14).

Surface Waters of the State - Means all streams, lakes, ponds, marshes, watercourses, waterways, springs, irrigation systems, drainage systems, and all other bodies or accumulations of surface water, natural or artificial, which are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters which do not combine or effect a junction with natural surface waters.

Total Maximum Daily Loads (TMDLs) – A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and shall include a

margin of safety (MOS) and account for seasonal variations. (See section 303(d) of the Clean Water Act and 40 CFR 130.2 and 130.7).

Water Quality Impaired – See ‘Impaired Water’.

Water Quality Standards – A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. States and U.S. EPA adopt water quality standards to protect public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act (See CWA sections 101(a)2 and 303(c)). Water quality standards also include an antidegradation policy. See P.U.D. o. 1 of Jefferson County et al v. Wash Dept of Ecology et al, 511 US 701, 705 (1994).

“You” and “Your” – as used in this permit are intended to refer to the permittee, the operator, or the discharger as the context indicates and that party’s facility or responsibilities. The use of “you” and “your” refers to a particular facility and not to all facilities operated by a particular entity. For example, “you shall submit” means the permittee shall submit something for that particular facility. Likewise, “all your discharges” would refer only to discharges at that one facility.

ABBREVIATIONS AND ACRONYMS

BAT – Best Available Technology Economically Achievable

BOD5 – Biochemical Oxygen Demand (5-day test)

BMP – Best Management Practice

BPJ – Best Professional Judgment

BPT – Best Practicable Control Technology Currently Available

CERCLA – Comprehensive Environmental Response, Compensation and Liability Act

CGP – Construction General Permit

COD – Chemical Oxygen Demand

CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 *et seq*)

CWT – Centralized Waste Treatment

DMR – Discharge Monitoring Report

U.S. EPA – U. S. Environmental Protection Agency

FWS – U. S. Fish and Wildlife Service

LA – Load Allocations

MDMR – MSGP Discharge Monitoring Report

MGD – Million Gallons per Day

MOS – Margin of Safety

MS4 – Municipal Separate Storm Sewer System

MSDS – Material Safety Data Sheet

MSGP – Multi-Sector General Permit

NAICS – North American Industry Classification System

NMFS – U. S. National Marine Fisheries Service

NOI – Notice of Intent

NOT – Notice of Termination

NPDES – National Pollutant Discharge Elimination System

NRC – National Response Center

NTU – Nephelometric Turbidity Unit

OMB – U. S. Office of Management and Budget

ORW – Outstanding Resource Water

OSM – U. S. Office of Surface Mining

POTW – Publicly Owned Treatment Works

RCRA – Resource Conservation and Recovery Act

RQ – Reportable Quantity

SARA – Superfund Amendments and Reauthorization Act

SIC – Standard Industrial Classification

SMCRA – Surface Mining Control and Reclamation Act

SPCC – Spill Prevention, Control, and Countermeasures

SWPPP – Stormwater Pollution Prevention Plan

TMDL – Total Maximum Daily Load

TSDF – Treatment, Storage, or Disposal Facility

TSS – Total Suspended Solids

USGS – United States Geological Survey

WLA – Wasteload Allocation

WQS – Water Quality Standard

National Pollutant Discharge Elimination System (NPDES) Permit Program

FACT SHEET

Regarding an NPDES Permit To Discharge to Waters of the State of Ohio for

Republic Steel - Canton Hot Rolled Plant (Republic Steel - Canton)

Public Notice No.: 192573
Public Notice Date: November 29, 2023
Comment Period Ends: December 30, 2023

Ohio EPA Permit No.: **3ID00000*VD**
Application No.: **OH0006912**

Name and Address of Applicant:

Republic Steel
2633 Eighth Street, NE
Canton, OH 44704

Name and Address of Facility Where
Discharge Occurs:

Republic Steel - Canton Hot Rolled Plant
2633 Eighth Street, NE
Canton, OH 44704
Stark County

Receiving Water: **East Branch Nimishillen Creek and an undesignated tributary (informally known as Harding Creek)**

Subsequent Stream Network: **Nimishillen Creek, Sandy Creek, Tuscarawas River, Muskingum River, Ohio River**

INTRODUCTION

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations (CFR), Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency (Ohio EPA), as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of water quality based NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, instream biological, chemical and physical conditions, and the relative risk of alternative effluent limitations. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act (CWA) and Ohio Water Pollution Control Law (Ohio Revised Code [ORC] 6111). Decisions to award variances to Water Quality Standards (WQS) or promulgated effluent guidelines for economic or technological reasons will also be justified in the Fact Sheet where necessary.

Antidegradation provisions in Ohio Administrative Code (OAC) Chapter 3745-1 describe the conditions under which water quality may be lowered in surface waters. Antidegradation applies to this permit renewal at outfall 3ID00000010 for the general mercury variance. A lowering of water quality in the East Branch Nimishillen Creek is necessary. In accordance with OAC 3745-1-05, this decision was reached only after examining a series of technical alternatives, reviewing social and economic issues related to the degradation, and considering all public and appropriate intergovernmental comments.

Effluent limits based on available treatment technologies are required by Section 301(b) of the CWA. Many of these have already been established by the United States Environmental Protection Agency (U.S. EPA) in the

effluent guideline regulations (a.k.a. categorical regulations) for industry categories in 40 CFR Parts 405-499. Technology-based regulations for publicly-owned treatment works are listed in the Secondary Treatment Regulations (40 CFR Part 133). If regulations have not been established for a category of dischargers, the director may establish technology-based limits based on best professional judgment (BPJ).

Ohio EPA reviews the need for water-quality-based limits on a pollutant-by-pollutant basis. Wasteload allocations (WLAs) are used to develop these limits based on the pollutants that have been detected in the discharge, and the receiving water's assimilative capacity. The assimilative capacity depends on the flow in the water receiving the discharge, and the concentration of the pollutant upstream. The greater the upstream flow, and the lower the upstream concentration, the greater the assimilative capacity is. Assimilative capacity may represent dilution (as in allocations for metals), or it may also incorporate the break-down of pollutants in the receiving water (as in allocations for oxygen-demanding materials).

The need for water-quality-based limits is determined by comparing the WLA for a pollutant to a measure of the effluent quality. The measure of effluent quality is called Projected Effluent Quality (PEQ). This is a statistical measure of the average and maximum effluent values for a pollutant. As with any statistical method, the more data that exists for a given pollutant, the more likely that PEQ will match the actual observed data. If there is a small data set for a given pollutant, the highest measured value is multiplied by a statistical factor to obtain a PEQ; for example if only one sample exists, the factor is 6.2, for two samples - 3.8, for three samples - 3.0. The factors continue to decline as samples sizes increase. These factors are intended to account for effluent variability, but if the pollutant concentrations are fairly constant, these factors may make PEQ appear larger than it would be shown to be if more sample results existed.

SUMMARY OF PERMIT CONDITIONS

The effluent limits and/or monitoring requirements proposed for all parameters are the same as in the current permit, except those listed below:

“Idled” Facility Operations Status

- Provisions have been included for impacted outfalls and/or monitoring stations to describe applicable reporting requirements under “idled” conditions.

Outfall 3ID00000003 (hereinafter referred to as outfall 003)

- New final effluent limits for the following:
 - Oil and grease daily maximum concentration limit is recommended based on the water quality standard.
 - Copper and total residual chlorine limits are recommended based on the wasteload allocation. Monitoring increased to monthly.
- New quarterly monitoring and tracking for fluoride, iron, lead, mercury, selenium and zinc.
- New quarterly monitoring requirement for aluminum.
- Flow monitoring is increased to weekly.
- New monitoring requirement to capture a storm event at least once per quarter and a new benchmark requirement for aluminum.
- Monitoring for barium and oil and grease severity are proposed to be removed.

Outfall 3ID00000009 (hereinafter referred to as outfall 009)

- New limits for copper and total residual chlorine recommended based on the wasteload allocation. Monitoring increased to monthly.
- New monthly monitoring and a daily maximum limit for oil and grease recommended based on the water quality standard.
- New quarterly monitoring and tracking requirement proposed for fluoride.
- Flow monitoring is increased to weekly.

- Monitoring for barium and oil and grease severity is proposed to be removed.
- New monitoring requirement to capture a storm event at least once per quarter.

Outfall 3ID00000010 (hereinafter referred to as outfall 010)

- New concentration and loading limits for the following:
 - Lead recommended based on the wasteload allocation.
 - Mercury daily maximum limits are recommended based on the water quality standards. Thirty-day average limits are based on the variance request.
 - Total residual chlorine concentration limits recommended based on the wasteload allocation. Monitoring increased to monthly.
 - Selenium daily maximum limits based on the wasteload allocation.
- Limits for zinc are proposed to be removed and monitoring reduced to quarterly.
- New quarterly monitoring requirement proposed for ammonia, chloroform, copper, dichlorobromomethane, fluoride, and iron.
- Monitoring for barium is proposed to be removed.
- New monitoring requirement to capture a storm event at least once per quarter.
- Acute and chronic toxicity limits for *Ceriodaphnia dubia* are recommended to continue.

Outfall 3ID00000011 (hereinafter referred to as outfall 011)

- New 30-day average final effluent limit for total filterable residual is recommended based on the wasteload allocation. Monitoring increased to monthly.
- New monitoring requirement to capture a storm event at least once per quarter and a new benchmark requirement for aluminum.

Internal Monitoring Station 3ID00000601 (hereinafter referred to as station 601)

- Production and flow rates have changed resulting in slightly lower loading limitations for oil and grease, zinc and lead.
- New monitoring for mercury.

Stormwater outfalls 3ID00000006, 3ID00000008, 3ID00000020, 3ID00000022, 3ID00000024, 3ID00000025, and 3ID00000027 through 3ID00000034 (hereinafter referred to as outfalls 006, 008, 020, 022, 024, 025, and 027 through 034)

- New monitoring with a benchmark is proposed for aluminum. Monitoring will continue with new benchmarks for copper, lead, total suspended solids and zinc. These apply differently at each outfall dependent upon the data assessment.
- New limits are proposed at outfall 034 for copper and zinc based on the water quality standards.
- Monitoring for lead is proposed to be removed from the stormwater outfalls excluding outfalls 020, 030, 031, and 032 where discharge data exceeded the Outside Mixing Zone Maximum water quality standard.
- Monitoring for copper and total suspended solids are proposed to be removed from the following stormwater outfalls: 006, 025, 027, 028, 029 and 033.
- Monitoring is proposed once per quarter for all stormwater outfalls. Quarterly sampling may be collected any time during the quarter (Q1 = January 1 - March 31; Q2 = April 1 - June 30; Q3 = July 1 - September 30; and Q4 = October 1 - December 31). Discharge Monitoring Reports (DMRs) must be submitted during the quarter months of March, June, September and December.
- Monitoring for precipitation, dry days preceding precipitation event, and duration of discharge are proposed to be removed.
- Stormwater monitoring shall be performed for the entire permit cycle in accordance with the Part V. The sample shall represent a “measurable storm event” that follows the preceding storm event by 72 hours and collected with the first 30 minutes.

New Fictitious Station 3ID00000099 (hereafter referred to as outfall 099)

- This outfall is to report an annual total phosphorous load from outfalls 003, 009, 010 and 011. This is a calculated load for the Nimishillen Creek Total Maximum Daily Load (TMDL).

Compliance Schedule Items include:

- A 24-month schedule is proposed to attain compliance with the new final effluent limits at:
 - Outfall 003: Copper and Total Residual Chlorine
 - Outfall 009: Copper and Total Residual Chlorine
 - Outfall 010: Lead and Total Residual Chlorine
 - Outfall 011: Total Filterable Residue
 - Outfall 034: Copper and Zinc
- Beginning 12 months from the permit effective date, annual status reports shall be submitted that summarize the facility's effort to reduce total phosphorus loads to Nimishillen Creek.
- Not later than 60 days from the permit effective date, the permittee shall evaluate selenium effluent data at outfall 010 while operations are idled and submit either a status report that compliance is achieved and no further action is necessary, or submit an individual variance from water quality standards.

Mercury Variance

Republic Steel – Canton is eligible for coverage under the general mercury variance. An initial variance-based limit is proposed at outfall 010.

Part II

In Part II of the permit, special conditions are included that address limits below quantification; whole effluent toxicity (WET) testing; mercury variance at outfall 010; selenium pollutant minimization plan; tracking (Outfall 003: fluoride, iron, lead, mercury, selenium and zinc, Outfall 009: fluoride); method detection level (total phosphorus); operation start-up notification and sampling requirement, and outfall signage.

Stormwater Requirements

Updates to Parts IV, V and VI to maintain consistency with the renewed Industrial Stormwater Multi-Sector General Permit. The main changes include the following: quarterly sample collection during any month of the quarter; and submission of a corrective action report for benchmark exceedances.

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PROCEDURES FOR PARTICIPATION IN THE FORMULATION OF FINAL DETERMINATIONS

The draft action shall be issued as a final action unless the Director revises the draft after consideration of the record of a public meeting or written comments, or upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty days of the date of the Public Notice, any person may request or petition for a public meeting for presentation of evidence, statements or opinions. The purpose of the public meeting is to obtain additional evidence. Statements concerning the issues raised by the party requesting the meeting are invited. Evidence may be presented by the applicant, the state, and other parties, and following presentation of such evidence other interested persons may present testimony of facts or statements of opinion.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be emailed to HClerk@epa.ohio.gov or mailed to:

**Legal Records Section
Ohio Environmental Protection Agency
P.O. Box 1049
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the discharge permit. Comments should be submitted by email to epa.dswcomments@epa.ohio.gov (preferred method) or delivered in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits Processing Unit
P.O. Box 1049
Columbus, Ohio 43216-1049**

The Ohio EPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the draft permit, contact Allison Cycyk, 330-963-1132, Allison.cycyk@epa.ohio.gov.

INFORMATION REGARDING CERTAIN WATER QUALITY BASED EFFLUENT LIMITS

This draft permit may contain proposed water-quality-based effluent limits (WQBELs) for parameters that **are not** priority pollutants. (See the following link for a list of the priority pollutants: http://epa.ohio.gov/portals/35/pretreatment/Pretreatment_Program_Priority_Pollutant_Detection_Limits.pdf.) In accordance with ORC 6111.03(J)(3), the Director established these WQBELs after considering, to the extent consistent with the Federal Water Pollution Control Act, evidence relating to the technical feasibility and economic reasonableness of removing the polluting properties from those wastes and to evidence relating to conditions calculated to result from that action and their relation to benefits to the people of the state and to

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accomplishment of the purposes of this chapter. This determination was made based on data and information available at the time the permit was drafted, which included the contents of the timely submitted NPDES permit renewal application, along with any and all pertinent information available to the Director.

This public notice allows the permittee to provide to the Director for consideration during this public comment period additional site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness for achieving compliance with the proposed final effluent limitations for these parameters. The permittee shall email to epa.dswcomments@epa.ohio.gov (preferred method) or deliver or mail this information to:

Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits Processing Unit
P.O. Box 1049
Columbus, Ohio 43216-1049

Should the applicant need additional time to review, obtain or develop site-specific pertinent and factual information with respect to the technical feasibility and economic reasonableness of achieving compliance with these limitations, a written request for any additional time shall be sent to the above address no later than 30 days after the Public Notice Date on Page 1.

Should the applicant determine that compliance with the proposed WQBELs for parameters other than the priority pollutants is technically and/or economically unattainable, the permittee may submit an application for a variance to the applicable WQS used to develop the proposed effluent limitation in accordance with the terms and conditions set forth in OAC 3745-33-07(D). The permittee shall submit this application to the above address no later than 30 days after the Public Notice Date.

Alternately, the applicant may propose the development of site-specific WQS pursuant to OAC 3745-1-39. The permittee shall submit written notification regarding their intent to develop site specific WQS for parameters that are not priority pollutants to the above address no later than 30 days after the Public Notice Date.

LOCATION OF DISCHARGE/RECEIVING WATER USE CLASSIFICATION

Republic Steel - Canton Hot Rolled Plant (Republic Steel - Canton) discharges to East Branch Nimishillen Creek via multiple outfalls between river miles 1.40 and 0.45, and to a culverted tributary, informally known as “Harding Creek”, to East Branch Nimishillen Creek. Figure 1 shows the approximate location of the facility.

This segment of East Branch Nimishillen Creek is described by Ohio EPA River Code: 17-463, Watershed Assessment Unit (WAU): 05040001-05-02, County: Stark, Ecoregion: Erie/Ontario Lake Hills & Plains. The East Branch Nimishillen Creek is designated for the following uses under Ohio’s WQS (OAC 3745-1-24): Warmwater Habitat, Industrial Water Supply, and Primary Contact Recreation. East Branch Nimishillen Creek combines with Middle Branch Nimishillen Creek (river mile 14.72) to form the Nimishillen Creek mainstem. The segment of Nimishillen Creek downstream of this point is described by Ohio River Code: 17-460, WAU: 05040001-05-04, County: Stark, Ecoregion: Erie/Ontario Lake Hills & Plains. Nimishillen Creek is designated for the following uses under Ohio’s WQS (OAC 3745-1-24): Warmwater Habitat, Agricultural Water Supply, Industrial Water Supply, and Primary Contact Recreation. Harding Creek is currently not designated with any specific uses in OAC Chapter 3745-1-24. The minimum water quality criteria that apply to undesignated waters are warmwater habitat aquatic life use, recreation use, and human health protection criteria associated with fish consumption.

Use designations define the goals and expectations of a waterbody. These goals are set for aquatic life protection, recreation use and water supply use, and are defined in the Ohio WQS (OAC 3745-1-07). The use designations for individual waterbodies are listed in rules -08 through -32 of the Ohio WQS. Once the goals are set, numeric WQS are developed to protect these uses. Different uses have different water quality criteria.

Use designations for aquatic life protection include habitats for coldwater fish and macroinvertebrates, warmwater aquatic life and waters with exceptional communities of warmwater organisms. These uses all meet the goals of the federal CWA. Ohio WQS also include aquatic life use designations for waterbodies which cannot meet the CWA goals because of human-caused conditions that cannot be remedied without causing fundamental changes to land use and widespread economic impact. The dredging and clearing of some small streams to support agricultural or urban drainage is the most common of these conditions. These streams are given Modified Warmwater or Limited Resource Water designations.

Recreation uses are defined by the depth of the waterbody and the potential for wading or swimming. Uses are defined for bathing waters, swimming/canoeing (Primary Contact Recreation) and wading only (Secondary Contact which are generally waters too shallow for swimming or canoeing).

Water supply uses are defined by the actual or potential use of the waterbody. Public Water Supply designations apply near existing water intakes so that waters are safe to drink with standard treatment. Most other waters are designated for agricultural water supply and industrial water supply.

FACILITY DESCRIPTION

Republic Steel – Canton produces carbon and alloy special bar quality steels. Republic Steel – Canton operates 24 hours per day, typically 5 days per week utilizing two 12-hour shifts and the occasional weekend process shifts. Currently, the facility has approximately 250 employees.

Republic Steel – Canton has the capacity to process 3,084 tons/ day from the Continuous Bloom Canton Facility (CBCF) casting and degassing operations, 3,064 tons/day from the Flex-Cast casting and degassing operations, and 2,042 tons/day from the CBCF hot rolling mill. Selenium steel heats are approximately 2 to 3 times per month with a total production of 100 to 120 heats per month. November 2021 was the last production month for the CBCF operations and there is with no expectation to resume. The industrial processes at the facility include the following (see Figure 4):

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- Electric Arc Furnace
- Ladle Metallurgy
- Vacuum Degassing
- Continuous Casting
- Hot Forming Mill
- Conditioning
- Saw Cutting and Finishing
- Ancillary Operations

The process operations at Republic Steel – Canton are classified under Standard Industrial Classification (SIC) category 3312, “Steel Works, Blast Furnaces and Rolling”. The process wastewaters generated from these operations are regulated under 40 CFR 420, “Iron and Steel Manufacturing Point Source Category”. The following subparts (see Attachments 1 & 2) are applicable to the manufacturing processes:

- 420.08 - “Non-process wastewater and stormwater”;
- 420.54 - “Vacuum Degassing Subcategory”;
- 420.64 - “Continuous Casting Subcategory”; and
- 420.74(b)(1) - “Hot Forming Subcategory”.

Production operations were indefinitely idled in August 2023. Republic Steel-Canton does not anticipate starting up any processes during the permit cycle but has requested reissuance of the permit renewal. As such, notification requirements and/or conditions have been included in the permit if production operations were to resume.

Republic Steel – Canton obtains potable water from the City of Canton Water Department. Sanitary wastewater is discharged to the City of Canton Water Pollution Control Center collection system.

Republic Steel – Canton is required to comply with a March 11, 2020, U.S. EPA Administrative Order on Consent (AOC) for failure to comply with its NPDES permit. Per the AOC, Republic Steel – Canton is required to perform the following actions: eliminate all unauthorized discharges; comply with the final effluent limitations for total residual chlorine and selenium at outfall 010, and copper at outfall 003; perform dry-weather monitoring of its stormwater outfalls and submit a status report; update its Stormwater Pollution Prevention Plan (SWPPP); and develop a monitoring and Operation & Maintenance (O&M) corrective action plan.

Quarterly status reports are submitted pursuant to the AOC regarding the compliance milestones. One such example was the elimination of the unauthorized discharge from the No.9 Furnace and FlexCast/CBCF slag cooling operation by allowing slag to naturally cool and remove the water hose system.

Republic Steel – Canton is performing Resource Conservation and Recovery Act (RCRA) Corrective Action activities under an August 2, 2004, U.S. EPA AOC. The cleanup status of the site is considered complete. The Corrective Action activity includes the removal of contaminated creek sediment from behind a low head dam constructed across East Branch Nimishillen Creek. Republic Steel – Canton is required to excavate 500 linear feet of sediment down to the natural creek bed. On September 1, 2022, Republic Steel – Canton received authorization for a new individual NPDES Permit (OH01516134, 3IN00408) for the discharge of decant water from the project area. The sediment removal project, originally intended to start on September 1, 2022, has been postponed.

DESCRIPTION OF EXISTING DISCHARGE

Republic Steel – Canton has 18 total outfalls. Process wastewater is treated at Republic Steel – Canton’s Water Quality Control Center (WQCC) and monitored at internal station 601 prior to discharging to final outfall 010. Two outfalls discharge non-contact cooling water, steam condensate, freeze protection water, stormwater and groundwater: outfalls 003 and 009. Outfall 011 discharges freeze protection lines, steam condensate and stormwater. Outfall 006 consists of steam condensate, stormwater and groundwater. The remaining 13 outfalls are associated with stormwater and groundwater.

During the current “idled” status, steelmaking process wastewaters are not being generated. However, existing scale pit water and accumulated building water continue to be pumped to the WQCC and treated prior to discharge via outfall 010. All other outfalls are limited to stormwater and groundwater discharges only.

Table 1 highlights the primary outfalls, internal monitoring station, wastewater sources, treatment processes, discharge/receiving streams and associated flows at Republic Steel – Canton. Stormwater outfalls are presented in Table 2. Figure 4 provides a flow schematic of the wastewater sources and supplies associated with Republic Steel – Canton.

Process wastewater at station 601 is treated by the following processes:

- Oil skimming/removal
- Mixing
- Chemical precipitation
- Coagulation
- Flocculation
- Sedimentation/clarification
- Pressure sand filtration

The average flow rate through internal station 601 is 1.20 million gallons per day (MGD).

Effluent violations reported for the period, January 2016 through March 2021, are listed in Table 3. Most of the effluent violations are associated with outfall 010 and are addressed under the US EPA AOC. For chlorine, city water leaks were believed to be the likely cause of the exceedances and have been repaired. For mercury and selenium, Republic Steel- Canton has submitted an antidegradation request for a general mercury variance and an increase to the selenium limit based on fish tissue sampling. Since implementing use of a metal scavenger chemical at the WQCC, there have been no further exceedances of the lead limit.

The average flow rates for outfalls 003, 009, 010, 011 and station 601 are shown in Table 4 for the period, January 2016 through March 2021.

Table 5 presents data compiled from the NPDES permit renewal application Form 2C.

Table 6 presents a summary of unaltered Discharge Monitoring Report (DMR). Data are presented for the period of January 2016 through March 2021; for outfalls 003, 009, 010, 011 and internal station 601. The current permit limits are provided for comparison. Data are also presented for stormwater outfalls based on a period of review from January 2016 through January 2022; outfalls 006, 008, 020, 022, 024, 025, 027 through 034.

Table 7 summarizes the chemical specific data for outfalls 003, 009, 010, and 011 by presenting the average and maximum PEQ values.

Table 8 summarizes the results of acute and chronic Whole Effluent Toxicity (WET) tests for outfall 010 using *Ceriodaphnia dubia* (water flea) as the test organism.

ASSESSMENT OF IMPACT ON RECEIVING WATERS

Pursuant to Section 303(d) of the Clean Water Act, each state is required to develop and submit a list to US EPA of its impaired and threatened waters (e.g. stream/river segments, lakes). For each water on the list, the state identifies the pollutant(s) causing the impairment, when known. The Nimishillen Creek watershed assessment unit, which includes East Branch Nimishillen Creek in the vicinity of Republic Steel - Canton, is listed as impaired for aquatic life, recreation, and human health on Ohio's 303(d) list.

The assessment for East Branch Nimishillen Creek can be found in the Tuscarawas River section of the interactive map in the following link:

<https://geo.epa.ohio.gov/portal/apps/webappviewer/index.html?id=d1fd3afc41514d348db3aa282765c654>

An assessment of the impact of a permitted point source on the immediate receiving waters includes an evaluation of the available chemical/physical, biological, and habitat data which have been collected by Ohio EPA pursuant to the Five-Year Basin Approach for Monitoring and NPDES Reissuance. Other data may be used provided it was collected in accordance with Ohio EPA methods and protocols as specified by the Ohio WQS and Ohio EPA guidance documents. Other information which may be evaluated includes, but is not limited to: NPDES permittee self-monitoring data; effluent and mixing zone bioassays conducted by Ohio EPA, the permittee, or U.S. EPA.

In evaluating this data, Ohio EPA attempts to link environmental stresses and measured pollutant exposure to the health and diversity of biological communities. Stresses can include pollutant discharges (permitted and unpermitted), land use effects, and habitat modifications. Indicators of exposure to these stresses include whole effluent toxicity tests, fish tissue chemical data, and fish health biomarkers (for example, fish blood tests).

Use attainment is a term which describes the degree to which environmental indicators are either above or below criteria specified by the Ohio WQS (OAC 3745-1). Assessing use attainment status for aquatic life uses primarily relies on the Ohio EPA biological criteria (OAC 3745-1-07; Table 7-1). These criteria apply to rivers and streams outside of mixing zones. Numerical biological criteria are based on measuring several characteristics of the fish and macroinvertebrate communities; these characteristics are combined into multimetric biological indices including the Index of Biotic Integrity and modified Index of Well-Being, which indicate the response of the fish community, and the Invertebrate Community Index, which indicates the response of the macroinvertebrate community. Numerical criteria are broken down by ecoregion, use designation, and stream or river size. Ohio has five ecoregions defined by common topography, land use, potential vegetation and soil type.

Three attainment status results are possible at each sampling location -full, partial, or non-attainment. Full attainment means that all of the applicable indices meet the biocriteria. Partial attainment means that one or more of the applicable indices fails meet the biocriteria. Nonattainment means that either none of the applicable indices meet the biocriteria or one of the organism groups indicates poor or very poor performance. An aquatic life use attainment table (see Table 9) is constructed based on the sampling results and is arranged from upstream to downstream and includes the sampling locations indicated by river mile, the applicable biological indices, the use attainment status (i.e., full, partial, or non), the Qualitative Habitat Evaluation Index, and comments and observations for each sampling location. The QHEI evaluates six general aspects of physical habitat that include channel substrate, instream cover, riparian characteristics, channel condition, pool/riffle quality, and gradient. For the warmwater habitat (WWH) aquatic life use designation, an overall QHEI score of 60 is targeted to provide reasonable certainty that habitat is not deficient to the point of precluding attainment of the biocriteria.

The Total Maximum Daily Load (TMDL) program, established under Section 303(d) of the Clean Water Act, focuses on identifying and restoring polluted rivers, streams, lakes and other surface water bodies. TMDLs are prepared for waters identified as impaired on the 303(d) list in the Integrated Report. A TMDL is a written, quantitative assessment of water quality problems in a water body and contributing sources of pollution. It specifies the amount a pollutant needs to be reduced to meet water quality standards (WQS), allocates pollutant load reductions, and provides the basis for taking actions needed to restore a water body. Ohio EPA typically focuses on watersheds in preparing TMDLs.

Ohio EPA conducted a biological and water quality survey of Nimishillen Creek and tributaries in 2003, 2004 and 2005 to identify pollutants impairing beneficial uses and to support the development of TMDLs for those pollutants. Causes of impairment include ammonia, sedimentation/siltation, flow regime modification, nutrients, natural limits and unknown causes. Sites both upstream and downstream of Republic Steel – Canton’s discharges were in non-attainment of the warmwater habitat use designation.

Based on the survey data, the “Total Maximum Daily Loads for the Nimishillen Creek Watershed” report was developed and subsequently approved by U.S. EPA on December 16, 2009. The TMDL report is available via the following link:

https://epa.ohio.gov/static/Portals/35/tmdl/NimishillenCreekTMDL_final_oct09_wo_app.pdf

Pollutants allocated in the TMDL include sediment, bacteria and phosphorus. As part of the TMDL, Ohio EPA developed phosphorus allocations for the larger point source dischargers of phosphorus in the watershed. Ohio EPA is implementing an adaptive implementation approach that includes an initial total phosphorus permit limit of 1.0 mg/L monthly average for municipal point sources including the City of Canton Water Reclamation Facility (WPCF) and City of Louisville wastewater treatment plant (WWTP). Phosphorus allocations for smaller point sources will be evaluated on a case-by-case basis in relation to the potential to impact the watershed both locally and further downstream. The total phosphorus concentration for the other facilities represents their current observed or assumed values, all of which are well below 1.0 mg/l already. Allocations for the other facilities (including Republic Steel – Canton) represent no expected reductions.

Republic Steel - Canton is a relatively small source of phosphorus to East Branch Nimishillen Creek in comparison to municipal wastewater treatment plant point sources. Ohio EPA recognizes that point source phosphorus reductions alone will not ensure the TMDL targets are met as a number of other forces, such as habitat, embeddedness, and flow alteration act on the biological community. Without addressing all impairments, complete restoration is unlikely. While a follow-up stream survey to the 2003-05 study has not been performed, the initial 1.0 mg/L limit applied to the Canton WPCF and Louisville WWTP represents a significant reduction in phosphorus load (approximately 60%). Future TMDL allocations will re-evaluate the total phosphorus load from Republic Steel - Canton. The Nimishillen basin is on schedule for a targeted study in 2025 and a second phase of the TMDL will be assessed.

The TMDL assigned a total phosphorus wasteload allocation for Republic Steel - Canton of 1.93 kg/day. The wasteload allocation and assumptions developed at the time were based on the observed, or assumed, discharge values. The allocation assumed no expected or additional loading reductions at Republic Steel – Canton would be necessary.

During 2012, Ohio EPA conducted a limited biological survey of East Branch Nimishillen Creek, which found partial attainment of the aquatic life use upstream of Republic Steel - Canton. The causes are low stream flows and sedimentation while the sources are drought conditions and other unknown factors. This report, “Biological and Water Quality Study of the East Branch Nimishillen Creek and Keim Run”, is available via the following link: <https://epa.ohio.gov/static/Portals/35/documents/J&LSteelTSD.pdf>

Republic Steel – Canton is required to conduct sediment removal from behind the low head dam constructed across East Branch Nimishillen Creek per the U.S. EPA RCRA corrective action.

According to the “Ohio 2022 Integrated Water Quality Monitoring and Assessment Report”, East Branch Nimishillen Creek continues to be listed as impaired, not supporting human health use because historical levels of PCBs or mercury in fish tissue exceed the applicable WQS. This report can be found at the following website:

<https://epa.ohio.gov/static/Portals/35/tmdl/2022intreport/Full-2022-IR.pdf>

SELENIUM FISH TISSUE COMPLIANCE DEMONSTRATION SAMPLING EFFORT

On March 3, 2021, Enviroscience, Inc. performed fish collection (electrofishing) on behalf of Republic Steel - Canton in East Branch Nimishillen Creek, downstream of outfall 010 and upstream of the confluence with Middle Branch Nimishillen Creek. Whole fish specimens (i.e. white sucker, bluegill and largemouth bass) were collected and muscle fillet composites were analyzed for total selenium, by species, at the Brooks Applied Laboratory, Bothell, WA. The purpose of the fish tissue sampling effort was in response to the March 11, 2020, U.S. EPA’s AOC to demonstrate compliance with instream selenium concentrations.

U.S. EPA’s published selenium fish tissue criterion in the document titled *Aquatic Life Ambient Water Quality Criterion for Selenium–Freshwater 2016 (revised 2021)*. The document is available via the following link: <https://www.epa.gov/system/files/documents/2021-08/selenium-freshwater2016-2021-revision.pdf>

The criterion includes a fish tissue element for egg-ovary, whole-body and/or muscle tissue. This is the latest scientific information that recommends the most sensitive toxic effects of selenium to aquatic life is driven by dietary exposures and the reproductive life-stages of egg-laying aquatic organisms. In other words, water quality criteria based on fish-tissue values more directly represent chronic adverse effects of selenium than the conventional water concentration approach used to protect aquatic life, because chronic selenium toxicity is primarily based on the food-chain bioaccumulation route, not on a water column route of exposure.

The results of Republic Steel – Canton’s March 2021 analyses, and the associated U.S. EPA criteria, are listed in the following table:

<u>Species</u>	<u>Sample Analyzed</u>	<u>Republic Steel, selenium (mg/kg) dry wt.</u>	<u>U.S. EPA Recommended Criterion (mg/kg) dry wt.</u>
White Sucker	Muscle (fillet), Multiple Fish Composite	1.86	11.3
Bluegill	Muscle (fillet), Multiple Fish Composite	0.777	11.3
Large Mouth Bass	Muscle (fillet), Multiple Fish Composite	1.02	11.3

The reported fish fillet composite analytical results in East Branch Nimishillen Creek were below U.S. EPA’s concentration of concern for muscle (skinless, boneless fillet). Republic Steel-Canton made a request under Ohio’s antidegradation rule provisions to utilize the fish tissue approach as a compliance measure for the selenium water column limitations. Given the current “idled” status of Republic Steel-Canton, this approach is not being considered at this time. Details are provided in the Reasonable Potential section under outfall 010.

DEVELOPMENT OF WATER-QUALITY-BASED EFFLUENT LIMITS

Determining appropriate effluent concentrations is a multiple-step process in which parameters are identified as likely to be discharged by a facility, evaluated with respect to Ohio water quality criteria, and examined to determine the likelihood that the existing effluent could violate the calculated limits.

Parameter Selection

Effluent data for the Republic Steel - Canton were used to determine what parameters should undergo WLA. The parameters discharged are identified by the data available to Ohio EPA DMR data submitted by the permittee, compliance sampling data collected by Ohio EPA, and any other data submitted by the permittee, such as priority pollutant scans required by the NPDES application or by pretreatment, or other special conditions in the NPDES permit. The sources of effluent data used in this evaluation are as follows:

Self-Monitoring Data (DMR)	January 2016 through March 2021 ¹ (Outfalls 003, 009, 010, 011 and internal station 601)
Self-Monitoring Data (DMR)	January 2016 through January 2022 (Stormwater outfalls 006, 008, 020, 022, 024, 025, 027 - 034)
Form 2C Data	2020

Statistical Outliers and Other Non-representative Data

The data were examined, and the following values were removed from the evaluation as non-representative data:

- Outfall 010; Total Filterable Residue – 10 mg/l on 12/18/19 and 0 mg/L on 6/5/19 were excluded as extremely low/unrepresentative outliers.

The average and maximum projected effluent quality (PEQ) values are presented in Table 7. For a summary of the screening results, refer to the parameter groupings at the end of this section.

This data is evaluated statistically, and PEQ values are calculated for each pollutant. Average PEQ (PEQ_{avg}) values represent the 95th percentile of monthly average data, and maximum PEQ (PEQ_{max}) values represent the 95th percentile of all data points (see Table 7).

The PEQ values are used according to Ohio rules to compare to applicable WQS and allowable WLA values for each pollutant evaluated. Initially, PEQ values are compared to the applicable average and maximum WQS. If both PEQ values are less than 25 percent of the applicable WQS, the pollutant does not have the reasonable potential to cause or contribute to exceedances of WQS, and no WLA is done for that parameter. If either PEQ_{avg} or PEQ_{max} is greater than 25 percent of the applicable WQS, a WLA is conducted to determine whether the parameter exhibits reasonable potential and needs to have a limit or if monitoring is required (see Table 12).

For more information on PEQ calculations, see Modeling Guidance #1 at the following webpage:
<https://epa.ohio.gov/static/Portals/35/guidance/model1.pdf>

¹ Additional DMR data through January 2022 was evaluated for mercury and whole effluent toxicity at outfall 010

Wasteload Allocation

For those parameters that require a WLA, the results are based on the uses assigned to the receiving waterbody in OAC 3745-1. Dischargers are allocated pollutant loadings/concentrations based on the Ohio WQS (OAC 3745-1). Most pollutants are allocated by a mass-balance method because they do not degrade in the receiving water. For free flowing streams, WLAs using this method are done using the following general equation: Discharger WLA = (downstream flow x WQS) - (upstream flow x background concentration). Discharger WLAs are divided by the discharge flow so that the allocations are expressed as concentrations.

The following dischargers to the East Branch Nimishillen Creek were considered interactive (see Figure 3):

- Louisville WWTP 3PD00033
- Republic Steel - Canton Plant 3ID00000 (outfalls 003, 009, 010, and 011)

The Louisville WWTP and Republic Steel - Canton outfalls were allocated together for most parameters due to the size of the plant discharges, the flows of the East Branch Nimishillen Creek and tributaries, and the relatively proximity of the discharge points. The exception was the WLAs for ammonia toxicity, which were evaluated separately for each facility because ammonia is considered a non-conservative parameter.

There are no current permit limits for ammonia - nitrogen. Therefore, the capacity of this parameter to maintain the WQS could not be evaluated.

The available assimilative capacity was distributed among them using the conservative substance wasteload allocation (CONSWLA) water quality model for conservative parameters. CONSWLA is the model Ohio EPA typically uses in multiple discharger situations. CONSWLA model inputs for flow are fixed at their critical low levels and inputs for effluent flow are fixed at their design or 50th percentile levels. Background concentrations are fixed at a representative value (generally a 50th percentile). A mass balancing method is then used to allocate effluent concentrations that maintain WQS under these conditions. This technique is appropriate when data bases are unavailable to generate statistical distributions for inputs and if the parameters modeled are conservative.

WLAs for direct discharges to lakes are done using the following equation for average criteria: $WLA = (11 \times \text{Water Quality Criteria}) - (10 \times \text{Background Concentration})$. Allocations for maximum criteria are set equal to the Inside Mixing Zone Maximum (IMZM) values.

The applicable waterbody uses for this facility's discharge and the associated stream design flows are as follows:

Aquatic life (Warmwater Habitat)		
Toxics (metals, organics, etc.)	Average	Annual 7Q10
	Maximum	Annual 1Q10
Ammonia	Average	Summer 30Q10
		Winter 30Q10
Wildlife		Annual 90Q10
Agricultural Water Supply		Harmonic mean flow
Human Health (nondrinking)		Harmonic mean flow

Allocations are developed using a percentage of stream design flow as specified in Table 11, and allocations cannot exceed the Inside Mixing Zone Maximum (IMZM) criteria.

The data used in the WLA are listed in Table 10 and Table 11. The WLA results to maintain all applicable criteria are presented in Table 12.

Whole Effluent Toxicity Wasteload Allocation

Whole effluent toxicity (WET) is the total toxic effect of an effluent on aquatic life measured directly with a toxicity test. Acute WET measures short term effects of the effluent while chronic WET measures longer term and potentially more subtle effects of the effluent.

WQS for WET are expressed in Ohio's narrative "free from" WQS rule [OAC 3745-1-04(D)]. These "free froms" are translated into toxicity units (TUs) by the associated WQS Implementation Rule (OAC 3745-2-09). WLAs can then be calculated using TUs as if they were water quality criteria.

The WLA calculations for WET are similar to those for aquatic life criteria - using the chronic toxicity unit (TU_c) and 7Q10 flow for the average and the acute toxicity unit (TU_a) and 1Q10 flow for the maximum. These values are the levels of effluent toxicity that should not cause instream toxicity during critical low-flow conditions. For Republic Steel - Canton, the WLA values are:

- Outfall 003; 1.0 TU_a and 6.27 TU_c
- Outfall 009; 1.0 TU_a and 30 TU_c
- Outfall 010; 1.0 TU_a and 3.83 TU_c
- Outfall 011; 1.0 TU_a and 134 TU_c

Although the above chronic toxicity WLA value for Outfall 010 is listed as 3.83 TU_c, the chronic toxicity limit for this outfall must remain at 2.44 TU_c. According to OAC 3745-33-05, increasing the toxicity limit to 3.83 TU_c would require an anti-degradation review and Republic Steel – Canton has not requested such an increase.

The chronic toxicity unit (TU_c) is defined as 100 divided by the estimate of the effluent concentration which causes a 25% reduction in growth or reproduction of test organisms (IC₂₅):

$$TU_c = 100/IC_{25}$$

This equation applies outside the mixing zone for warmwater, modified warmwater, exceptional warmwater, coldwater, and seasonal salmonid use designations except when the following equation is more restrictive (*Ceriodaphnia dubia* only):

$$TU_c = 100/\text{geometric mean of No Observed Effect Concentration and Lowest Observed Effect Concentration}$$

The acute toxicity unit (TU_a) is defined as 100 divided by the concentration in water having 50% chance of causing death to aquatic life (LC₅₀) for the most sensitive test species:

$$TU_a = 100/LC_{50}$$

This equation applies outside the mixing zone for all designated waters.

REASONABLE POTENTIAL/EFFLUENT LIMITS/MANAGEMENT DECISIONS

After appropriate effluent limits are calculated, the reasonable potential of the discharger to violate the WQS must be determined. Each parameter is examined and placed in a defined "group". Parameters that do not have a WQS or do not require a WLA based on the initial screening are assigned to either group 1 or 2. For the allocated parameters, the preliminary effluent limits (PEL) based on the most restrictive average and maximum WLAs are selected from Table 12. The average PEL (PEL_{avg}) is compared to the average PEQ (PEQ_{avg}) from Table 7, and the PEL_{max} is compared to the PEQ_{max}. Based on the calculated percentage of the allocated value

$[(PEQ_{avg} \div PEL_{avg}) \times 100, \text{ or } (PEQ_{max} \div PEL_{max}) \times 100]$, the parameters are assigned to group 3, 4, or 5. The groupings are listed in Table 13.

Federal and State laws/regulation require that dischargers meet both treatment technology-based limits and any more stringent standards needed to comply with state WQS. Permit limits are based on the more restrictive of the two. The listing in Table 10 reflects the hazard assessment (or “groupings”) performed according to the WLA procedures. Table 14 presents the final effluent limits and monitoring requirements proposed for Republic Steel - Canton outfall(s) 003, 009, 010 and 011, stormwater outfalls 006, 008, 020, 022, 024, 025, 027-034, internal monitoring station 601 and the basis for their recommendation. In addition to Ohio WQS, the limits include consideration of treatment technology-based limits, whole effluent toxicity reasonable potential evaluations, and other requirements of the NPDES rules. Unless otherwise indicated, the monitoring frequencies proposed in the permit are continued from the existing permit.

Outfall 003

Oil and Grease and pH

Limits proposed for pH and oil and grease are based on WQS (OAC 3745-1). pH is a continuation of existing permit limits.

Copper and Total Residual Chlorine

The Ohio EPA risk assessment (Table 13) places these parameters in group 5. This placement, as well as the data in Table 5, Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. For total residual chlorine and copper, the PEQs are greater than 100 percent of the respective WLA. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1). Due to the facility being indefinitely idled, the outfall is limited to stormwater and groundwater; therefore, only concentration-based limits are proposed at this time. Monitoring is proposed on a monthly basis.

The proposed limit for total residual chlorine is based on the WLA as limited by the Outside Mixing Zone Maximum (OMZM). The OMZM is a value calculated to avoid rapidly lethal conditions in the effluent mixing zone after the effluent and receiving water are reasonable well mixed. The effluent limit is less than the quantification level of 0.050 mg/L.

A 24-month schedule is proposed to meet final effluent limits (see details below).

Fluoride, Iron, Lead, Mercury, Selenium and Zinc

The Ohio EPA risk assessment (Table 13) places these parameters in group 5. This placement, as well as the data in Table 5, Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. Using the discretion allowed by the Director under OAC 3745-33-07(A)(5), monitoring rather than limits is proposed for these parameters. The PEQ values calculated may not be representative of actual levels in the effluent discharge. While the reported results for fluoride, lead, mercury, selenium, and zinc were above the respective WQS (actual value for iron was below the WQS), site conditions related to relocating the slag pile cooling area have changed since the sample collection date. The purpose of the proposed monitoring is to collect additional data on the frequency of occurrence and variability of the pollutants in the effluent.

Considering the magnitude of the PEQ compared to the WQS, a tracking provision is proposed in Part II of the permit that requires the permittee to notify Ohio EPA if a sample result exceeds the WQS (Table 10). If certain conditions are met, Republic Steel - Canton is required to take steps to reduce the discharge level of the exceeding pollutant.

Chromium and Total Filterable Residue (aka Total Dissolved Solids)

The Ohio EPA risk assessment (Table 13) places chromium and total filterable residue in groups 2 and 3, consecutively. This placement, as well as the data in Table 6 and Table 7, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Monitoring is proposed to continue at a quarterly frequency to document that these pollutants continue to remain at low levels.

Aluminum

The Ohio EPA risk assessment (Table 13) places aluminum in group 1. While there is no Ohio River Basin WQS for this parameter, there is a stormwater benchmark of 750 µg/L under the Iron and Steel-Making sector. The data in Table 5 exceeds the stormwater benchmark. Monitoring is proposed at once per quarter with a benchmark.

Barium

The Ohio EPA risk assessment (Table 13) places barium in group 2. This placement, as well as the data in Table 6 and Table 7, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. All reported data for barium were below detection. No new monitoring is proposed. Monitoring for barium is proposed to be removed. Information submitted with subsequent NPDES renewal applications will continue to provide effluent data for this pollutant.

Phosphorus

Based on best technical judgment (BTJ), monthly monitoring is proposed to continue for total phosphorus to maintain a nutrient data set for use in the TMDL implementation process.

Water temperature, Oil and Grease Severity, and Flow Rate

Monitoring is proposed to continue for temperature and flow in order to evaluate the effluent quality and for designing plant improvements and conducting future stream studies. Due to site history and the volume of the discharge, monitoring for flow is proposed to be increased to once per week. Monitoring requirements for Oil and Grease Severity is proposed to be replaced with the Oil and Grease sampling and hexane extraction test.

Outfall 009

pH

Limits for pH are proposed to continue based on WQS (OAC 3745-1).

Total Residual Chlorine and Copper

The Ohio EPA risk assessment (Table 13) places total residual chlorine and copper in group 5. This placement, as well as the data in Table 5, Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. For these parameters, the PEQ is greater than 100 percent of the WLA and certain conditions exist that increase the risk to the environment. The assessment for copper is based on one data point (Table 7) which is greater than the WQS. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1). The thirty-day average and daily maximum concentration limits for total residual chlorine and copper are based on the WLA. Due to the facility being indefinitely idled,

the outfall is limited to stormwater and groundwater; therefore, only concentration-based limits are proposed at this time. Monitoring is proposed to be increased to monthly.

The proposed limit for total residual chlorine is based on WLA as limited by the Outside Mixing Zone Maximum (OMZM). The effluent limits are less than the quantification level of 0.050 mg/L.

A 24-month schedule is proposed to meet final effluent limits, see details below.

Fluoride

The Ohio EPA risk assessment (Table 13) places this parameter in group 5. This placement, as well as the data in Table 5, Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. Using the discretion allowed by the Director under OAC 3745-33-07(A)(5), monitoring rather than limits is proposed. The assessment for fluoride is based on one data point (Table 7) which is less than the WQS. The PEQ values calculated (see Table 7) may not be representative of actual levels in the effluent discharge. The purpose of the proposed monitoring is to collect additional data on the frequency of occurrence and variability of the pollutant in the effluent.

Considering the magnitude of the PEQ compared to the WQS, a tracking provision is proposed in Part II of the permit that requires the permittee to notify Ohio EPA if a sample result exceeds the WQS (Table 10). If certain conditions are met, Republic Steel - Canton is required to take steps to reduce the discharge level of the exceeding pollutant.

Total Filterable Residue

The Ohio EPA risk assessment (Table 13) places total filterable residue in group 3. This placement, as well as the data in Table 6 and Table 7, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Monitoring is proposed to continue for total filterable residue at a quarterly frequency to document that it remains at low levels.

Barium and Chromium

The Ohio EPA risk assessment (Table 13) places chromium in group 3 and barium in group 2. This placement, as well as the data in Table 6 and Table 7, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. All reported data for barium were below detection. Only one value was reported for chromium which is well below the WLA. No new monitoring is proposed for chromium. Monitoring for barium is proposed to be removed. Information submitted with subsequent NPDES renewal applications will continue to provide effluent data for this pollutant.

Phosphorus

Based on best technical judgment (BTJ), monthly monitoring is proposed for total phosphorus.

Water temperature, Oil and Grease, and Flow Rate

Monitoring is proposed to continue in order to evaluate the effluent quality and for designing plant improvements and conducting future stream studies. Due to site history and the volume of the discharge, monitoring for flow is proposed to be increased to once per week. Monitoring requirements for Oil and Grease Severity is proposed to be replaced with the Oil and Grease sampling and hexane extraction test.

Outfall 010

Oil and Grease and pH

Limits for oil and grease and pH are proposed to continue based on WQS (OAC 3745-1).

Lead, Mercury, Selenium and Total Residual Chlorine

The Ohio EPA risk assessment (Table 13) places these parameters in group 5. This placement, as well as the data in Table 5, Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. For these parameters, the PEQs are greater than 100 percent of the respective WLA. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1). The limits proposed for chlorine (thirty-day average concentration limit), lead (thirty-day average and daily maximum concentration limit) and selenium are based on the WLA. A 24-month schedule is proposed to meet the lead and total residual chlorine final effluent limits, see details below.

Total Residual Chlorine

The daily maximum limit for chlorine is proposed to continue based on the antibacksliding provisions in OAC 3745-33-05(F). The average limit is based on the WLA as limited by the Outside Mixing Zone Maximum (OMZM).

Mercury

A general mercury variance is requested by Republic Steel – Canton under the provisions of antidegradation. (See discussion below regarding the mercury variance)

Selenium

Under the antidegradation provisions, Republic Steel - Canton requested an increase in the existing selenium thirty-day average water quality based limit (i.e. 5.8 ug/L), which is based on the instream (or water-column) water quality standard. Republic Steel - Canton made this request based on a comparative analysis of its March 2021 fish tissue data with U.S. EPA's recommended fish tissue criterion. Because the facility has indefinitely idled, the selenium request is not being considered at this time. The current selenium water quality based limit is proposed to continue based on anti-backsliding provisions in OAC 3745-33-05(F). The corresponding daily maximum limit is also proposed to be included.

Ammonia, Chloroform, Copper, Dichlorobromomethane, Fluoride, Iron, Total Filterable Residue and Zinc

The Ohio EPA risk assessment (Table 13) places these parameters in groups 2 and 3. This placement, as well as the data in Table 6 and Table 7, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Limits for zinc are proposed to be removed. Quarterly monitoring is proposed for ammonia, chloroform, dichlorobromomethane, fluoride and iron. Quarterly monitoring is proposed to continue for the other parameters to document that these pollutants continue to remain at low levels.

Barium

The Ohio EPA risk assessment (Table 13) places barium in group 2. This placement, as well as the data in Table 6 and Table 7, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. All reported data for barium were below

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detection. Monitoring for barium is proposed to be removed. Information submitted with subsequent NPDES renewal applications will continue to provide effluent data for this pollutant.

Flow and Water Temperature

Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment system. The discharge is a potential source of heat to the river. Discharge temperatures do not show concern to contribute to exceedances of the temperature WQS.

Phosphorus

Based on best technical judgment (BTJ), monthly monitoring is proposed for total phosphorus.

Mercury

To comply with mercury limits, Republic Steel - Canton has applied for coverage under the general mercury variance, OAC 3745-1-38(J). Based on the results of low-level mercury monitoring, the permittee has determined that its facility cannot meet the 30-day average WQBEL of 12 ng/L. However, the permittee believes that the facility will be able to achieve an annual average mercury effluent concentration of 12 ng/L. The variance application also demonstrated to the satisfaction of Ohio EPA that there is no readily apparent means of complying with the WQBEL without constructing prohibitively expensive end-of-pipe controls for mercury. Based on these factors, the permittee is eligible for coverage under the general mercury variance under OAC 3745-1-38(H). A condition in Part II of the NPDES permit lists the provisions of the mercury variance, and includes the following requirements:

- A variance-based monthly average effluent limit of 40.6 ng/L, which was developed from sampling data submitted by the permittee from January 2016 thru January 2022;
- A requirement that the permittee make reasonable progress to meet the WQBEL for mercury by implementing the plan of study, which has been developed as part of the Pollutant Minimization Program (PMP);
- Low-level mercury monitoring at internal station 601 and outfall 010;
- A requirement that the annual average mercury effluent concentration is less than or equal to 12 ng/L as specified in the plan of study;
- A summary of the elements of the plan of study;
- A requirement to submit an annual report on implementation of the PMP; and
- A requirement for submittal of a certification stating that all permit conditions related to implementing the plan of study and the PMP have been satisfied, and whether compliance with the monthly average WQBEL for mercury has been achieved.

Whole Effluent Toxicity Reasonable Potential

Based on evaluating the whole effluent toxicity (WET) data presented in Table 6, Table 8, and Attachment 4 under the provisions of OAC 3745-33-07(B), Republic Steel - Canton is placed in Category 2 (degree of toxicity is strongly suspected) with respect to chronic WET and Category 4 (degree of toxicity is not suspected) with respect to acute WET. The current WLA for outfall 010 is 1.0 TU_a and 3.83 TU_c, and would allow a slightly higher limit for chronic toxicity. Anti-backsliding provisions in the OAC prevent the imposition of less stringent limits than those in the existing permit unless specific conditions have been satisfied. In the case of the Republic Steel - Canton, none of those conditions have been satisfied, so the existing limits are proposed to continue. The anti-backsliding provisions of OAC 3745-33-05 require that an anti-degradation review must be completed before an existing permit limit can be made less stringent. The rule requires other conditions to be satisfied as well.

The chronic toxicity limits for water fleas of 1.0 TU_a and 2.44 TU_c are proposed to continue. Water fleas (*Ceriodaphnia dubia*) are expected to be the more sensitive species to the discharge rather than fathead minnows (*Pimephales promelas*). Monitoring is proposed to remain at twice per year.

Outfall 011

pH

Limits for pH are proposed to continue based on WQS (OAC 3745-1).

Total Filterable Residue

The Ohio EPA risk assessment (Table 13) places total filterable residue in group 5. This placement, as well as the data in Table 6 and Table 7, indicates that the reasonable potential to exceed WQS exists and limits are necessary to protect water quality. For this parameter, the PEQ is greater than 100 percent of the WLA and certain conditions exist that increase the risk to the environment. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1). The thirty-day average concentration limit for total filterable residue is based on the WLA.

A 24-month schedule is proposed to meet the final effluent limit, see details below.

Iron

The Ohio EPA risk assessment (Table 13) places iron in group 3. This placement, as well as the data in Table 6 and Table 7, support that this parameter does not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. Monitoring is proposed continue at the same frequency to document that this pollutant continues to remain at low levels.

Aluminum

The Ohio EPA risk assessment (Table 13) places aluminum in group 1. There is no Ohio River Basin WQS for this parameter, however there is a stormwater benchmark for the iron and steeling making sector. The data in Table 5 exceeds the stormwater benchmark. Monitoring is proposed to continue at once per quarter with a benchmark.

Phosphorus

Based on best technical judgment (BTJ), monthly monitoring is proposed for total phosphorus.

Flow Rate, Oil and Grease, and Water Temperature

Monitoring is proposed to continue in order to evaluate the effluent quality and for designing plant improvements and conducting future stream studies. Monitoring for oil and grease is proposed to continue to ensure compliance with the WQS.

Internal Monitoring Station 601

Total Suspended Solids (TSS), Oil and Grease, Lead and Zinc

The limits recommended for TSS, Oil and Grease, Lead and Zinc are based on the federal effluent limitation guidelines (ELGs) found in 40 CFR Parts 420.54, 420.64, 420.74(b)(1) and 420.08 (best professional judgement). All limits and calculations are shown in Attachment 1 and 2.

Flow and pH

Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment system. The pH level in the process wastewaters shall be within the range of 6.0 to 9.0. In accordance with the ELG (40 CFR 420.07) the pH level shall be monitored at the point at which the wastewater leaves the wastewater treatment facility. The pH water quality standards applied at final outfall 010 are protective of the ELGs.

Mercury

New monitoring for mercury is proposed at the internal station to support the mercury variance.

Outfalls 006, 008, 020, 022, 024, 025, 027 through 034

These discharges are limited to stormwater runoff associated with industrial activity. Outfall 006 also contains steam condensate, a non-process wastewater. See Table 2 for a list of all stormwater outfalls.

New benchmark concentrations are proposed for aluminum, copper, lead and zinc. The benchmarks for aluminum and zinc are consistent with the Industrial Stormwater Primary Metals - Sector F1 (Steel Works, Blast Furnaces, and Rolling and Finishing Mills) and apply to all stormwater outfalls. The benchmarks for copper and lead are based on the outside mixing zone maximum (OMZM) WQS. While these benchmarks are not limits, they are guidelines for a permittee to follow in reference to the concentrations of specific parameters in stormwater. The applicable benchmark concentrations are as follows:

Aluminum - 750 µg/L
Copper - 47 µg/L
Lead - 630 µg/L
Zinc - 360 µg/L

Monitoring for copper and lead are proposed to continue only at the stormwater outfalls where the data shows reasonable potential to contribute to a WQS exceedance. The following table denotes which outfalls trigger reasonable potential to exceed the OMZM. Shaded cells indicate reported data above the OMZM (refer to Tables 5 and 6 for reported data and Table 10 for the water quality standards). This assessment is based on a small dataset at each outfall (i.e. less than 10 sample results – except outfall 034 which had 10 results).

Based reasonable potential procedures and a sufficient dataset at outfall 034, limits for copper and zinc are proposed based on the OMZM. A 24-month compliance schedule is proposed to meet the final effluent limits.

For all other stormwater outfalls, using the discretion allowed by the Director under OAC 3745-33-07(A)(5), a benchmark rather than a limit is proposed for these parameters where actual data was reported above the OMZM. Note that no data was available for aluminum.

Outfall	Copper	Lead	Zinc
006			X
008	X		X
020	X	X	X
022	X		X
024	X		X
025			X
027			
028	X		X
029			
030	X	X	X
031	X	X	X
032	X	X	X
033	X		X
034	X	X	X

Monitoring for precipitation, dry days preceding precipitation event, and duration of discharge are proposed to be removed from all stormwater outfalls. Monitoring for pH and total suspended solids are proposed to be removed from most outfalls except those where the data show elevated results. Outfall 020 is the only outfall that has an average pH above the WQS at 9.54 S.U. (based on 2 samples). Outfalls 008, 020, 022, 024, 031 and 034 show a total suspended solids average ranging from 75 to 2,156 mg/L. A total suspended solid benchmark of 100 mg/L is proposed at these respective outfalls. Monitoring for the above respective parameters is proposed once per quarter for all stormwater outfalls.

OTHER REQUIREMENTS

Nimishillen Creek TMDL Report Tracking - Calculated Outfall 3ID00000099 has been added to the permit. This fictitious station will allow for reporting/tracking of the median annual total phosphorus load to the Nimishillen Creek watershed from Republic Steel - Canton.

Compliance Schedule

New Limit(s) - A 24-month compliance schedule is proposed for Republic Steel - Canton to meet new final effluent limitations for the following:

- Outfall 003: copper and total residual chlorine
- Outfall 009: copper and total residual chlorine
- Outfall 010: lead and total residual chlorine
- Outfall 011: total filterable residue
- Outfall 034: copper and zinc

Nimishillen Creek Watershed Total Maximum Daily Load (TMDL) - Annual status reports are proposed that summarize the facility's effort to reduce total phosphorus loads to Nimishillen Creek.

Selenium Compliance - Republic Steel - Canton shall evaluate selenium effluent data at outfall 010 while operations are idled and (1) submit a status report that demonstrates compliance is achieved and no further actions are necessary, or (2) submit an application for an individual variance from Ohio's water quality standards.**Selenium Pollutant Minimization Plan (PMP)**

Republic Steel – Canton is required to develop a PMP within 12 months following resumption of production operations that is designed to evaluate no further impact of selenium from outfalls 010 and 003 as specified in Part I.A. Annual reports are required each year on March 1st.

Operation Start-up Notification and Sampling

Prior to resuming production operations, notification must be provided to Ohio EPA within 3-months of the general timeframe for production and commencement of discharge. Additional notification must also be provided within 14 days of an initial discharge. No later than 60 days after a discharge has commenced, a full pollutant scan must be conducted and submitted to Ohio EPA for review of the associated final outfalls. Based on Ohio EPA’s review, a permit modification may be necessary.

Method Detection Limit Reporting

When submitting monitoring results in eDMR, the permittee must report all detected concentration values above the method detection limit (MDL), even if that value is below the quantification level, as indicated in Permit Guidance 9: *Limits below Quantification*. A detection above the MDL indicates the presence of a pollutant with strong confidence, which must be considered in reasonable potential analyses. Per OAC 3745-33-07(C)(2)(c), for the purpose of assessing compliance, any value reported below the quantification level shall be considered in compliance with an effluent limit.

A special condition is proposed in Part II to require a method detection limit for Total Phosphorus of 0.01 mg/L.

Sufficiently Sensitive Method

Part II of the permit includes a condition requiring the permittee to use laboratory analytical methods with a sufficiently sensitive MDL.

Outfall Signage

Part II of the permit includes requirements for the permittee to place and maintain a sign at each outfall to East Branch Nimishillen Creek providing information about the discharge. Signage at outfalls is required pursuant to OAC 3745-33-08(A).

Part III

Part III of the permit details standard conditions that include monitoring, reporting requirements, compliance responsibilities, and general requirements.

Storm Water Compliance

Parts IV, V, and VI have been included with the draft permit to ensure that any storm water flows from the facility site are properly regulated and managed.

Figure 1. Location of Republic Steel - Canton Plant

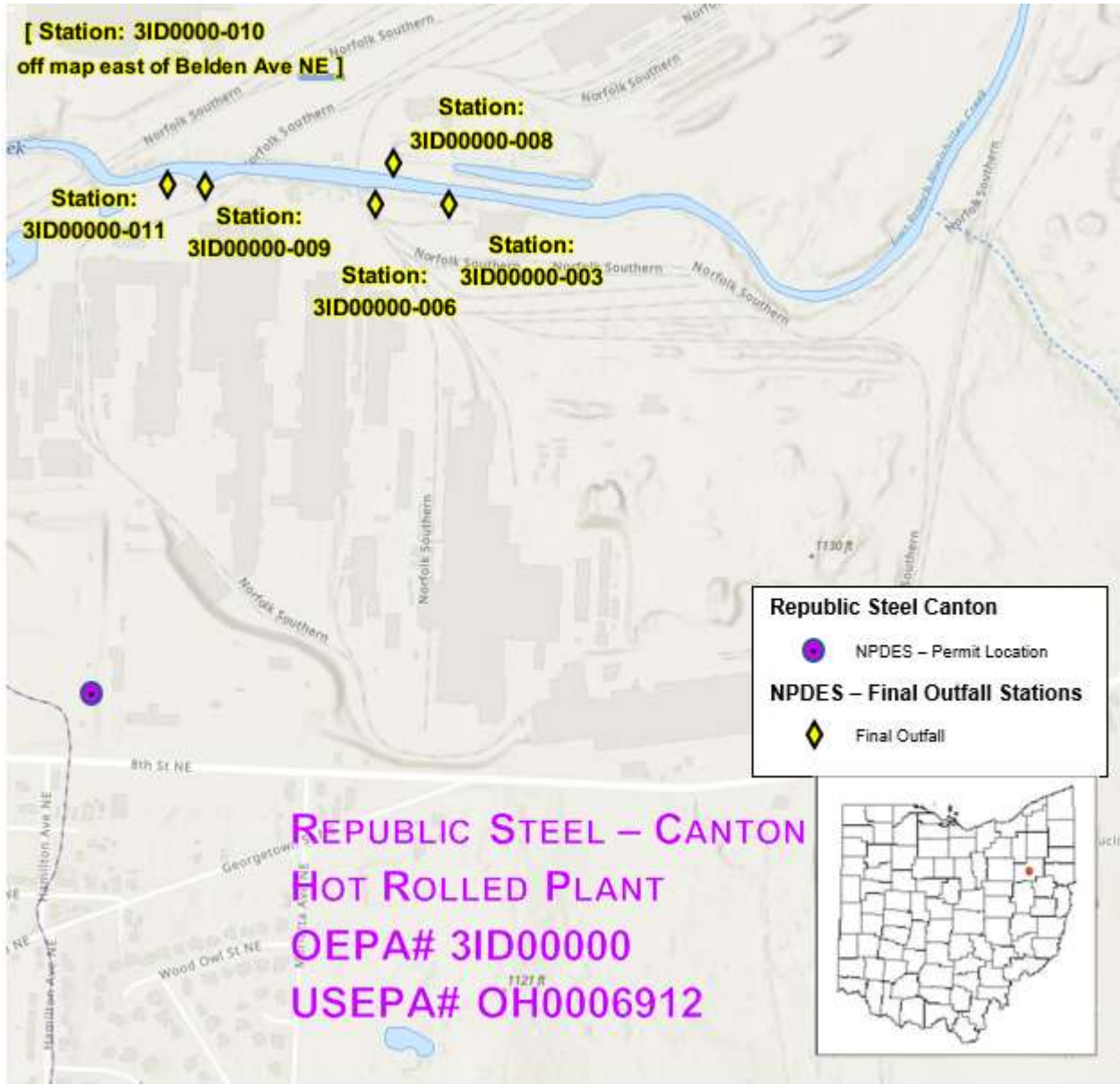


Figure 2. Location of Outfalls

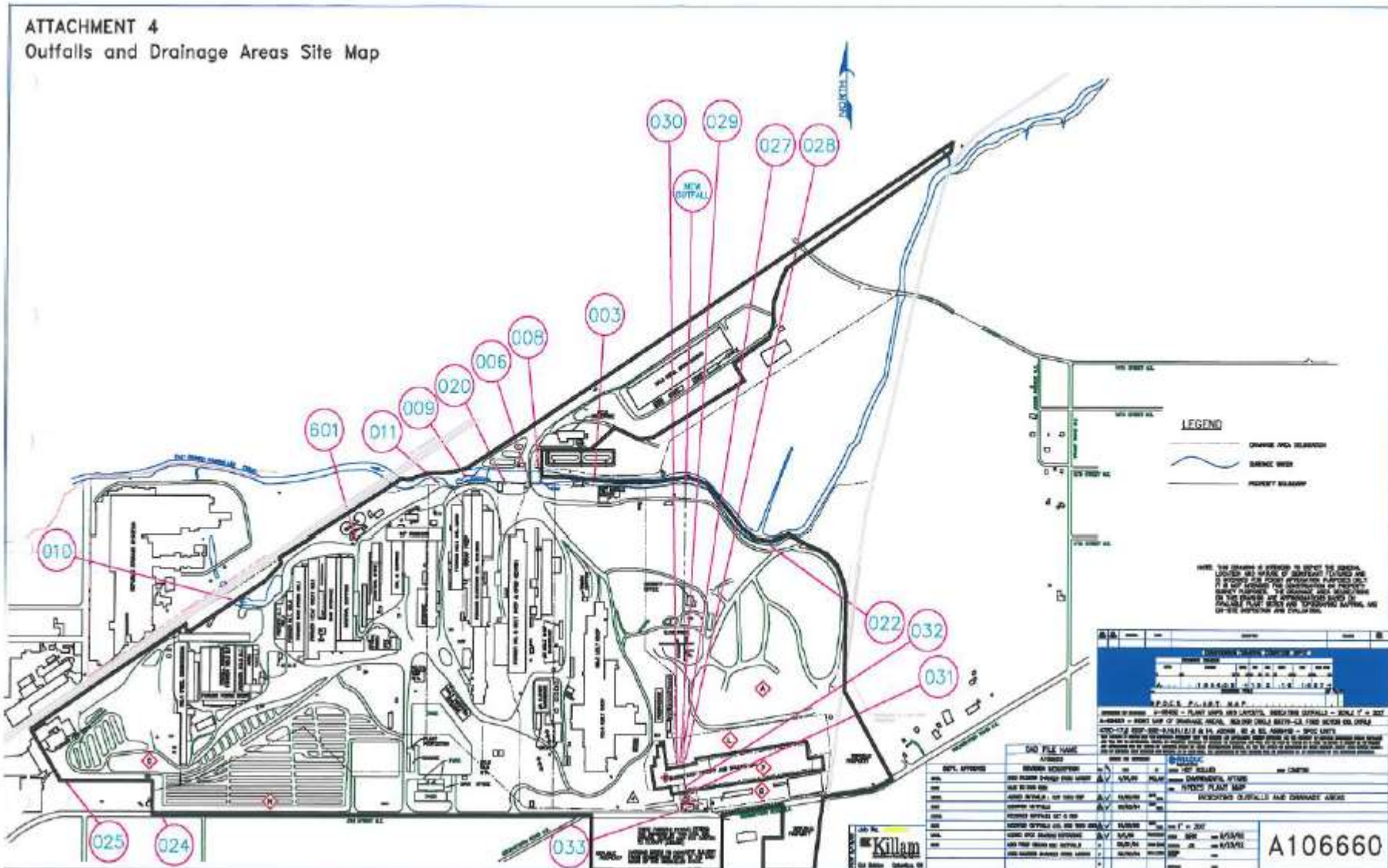


Figure 3. East Branch Nimishillen Creek Study Area

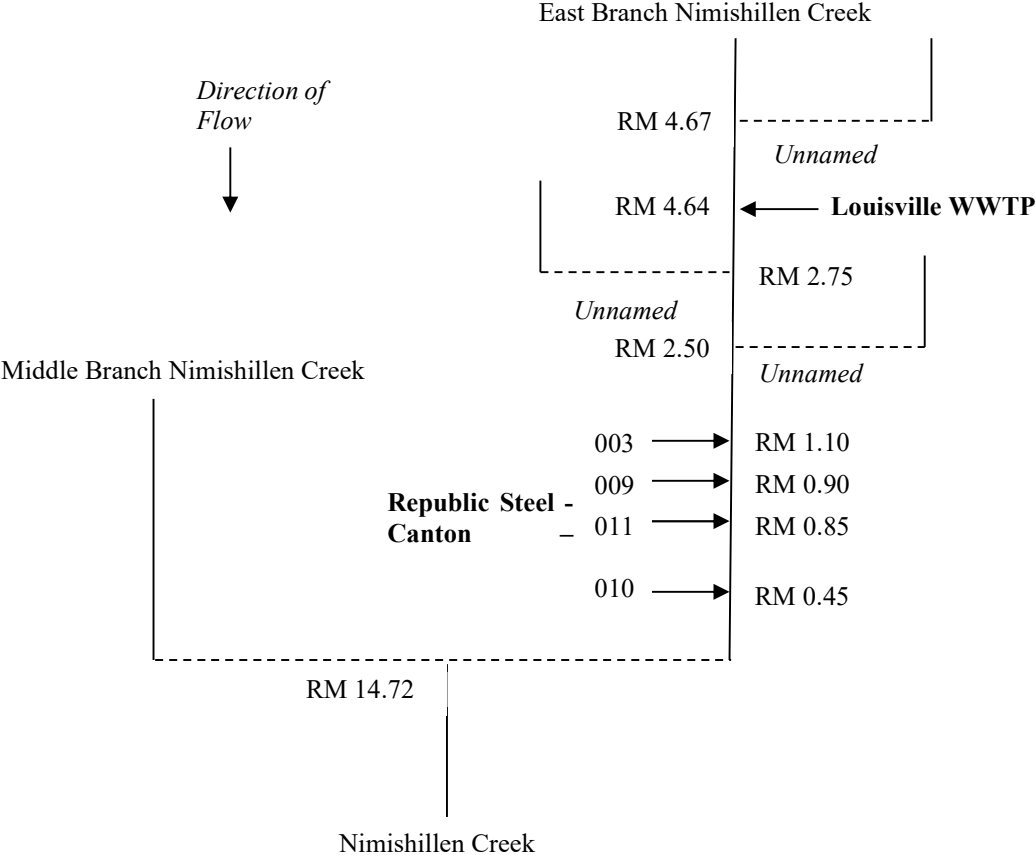


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows

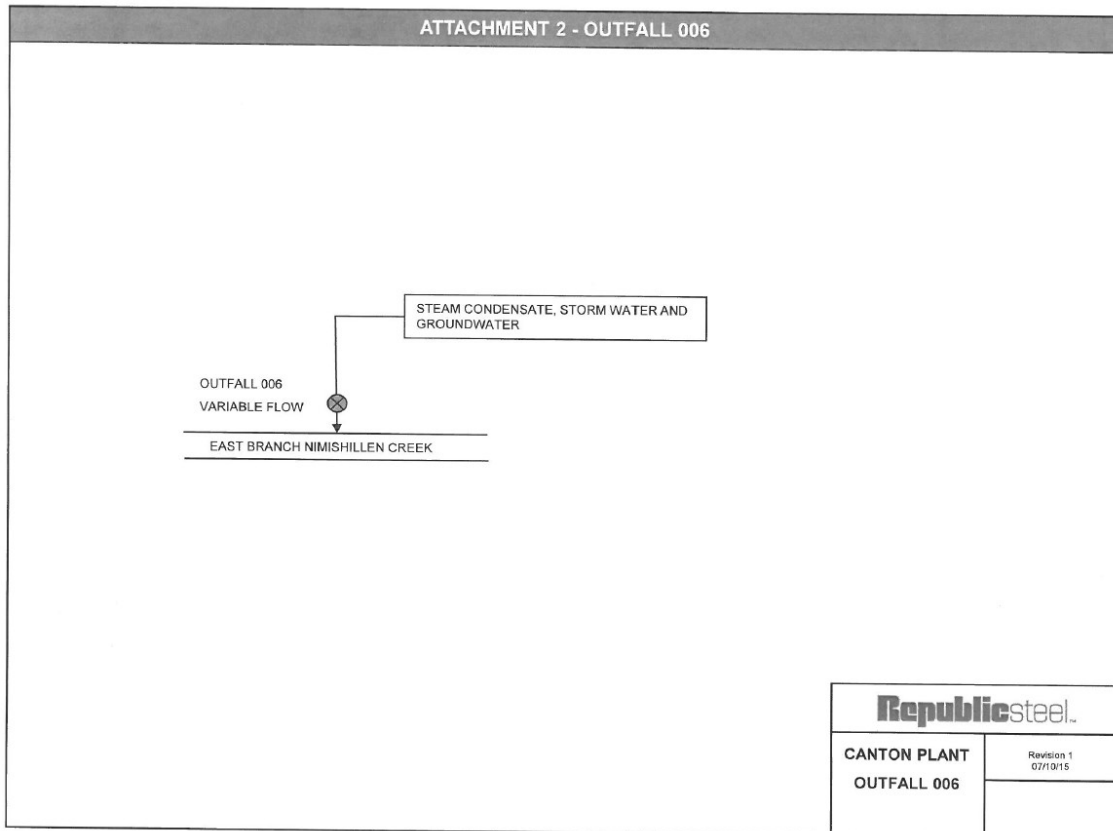
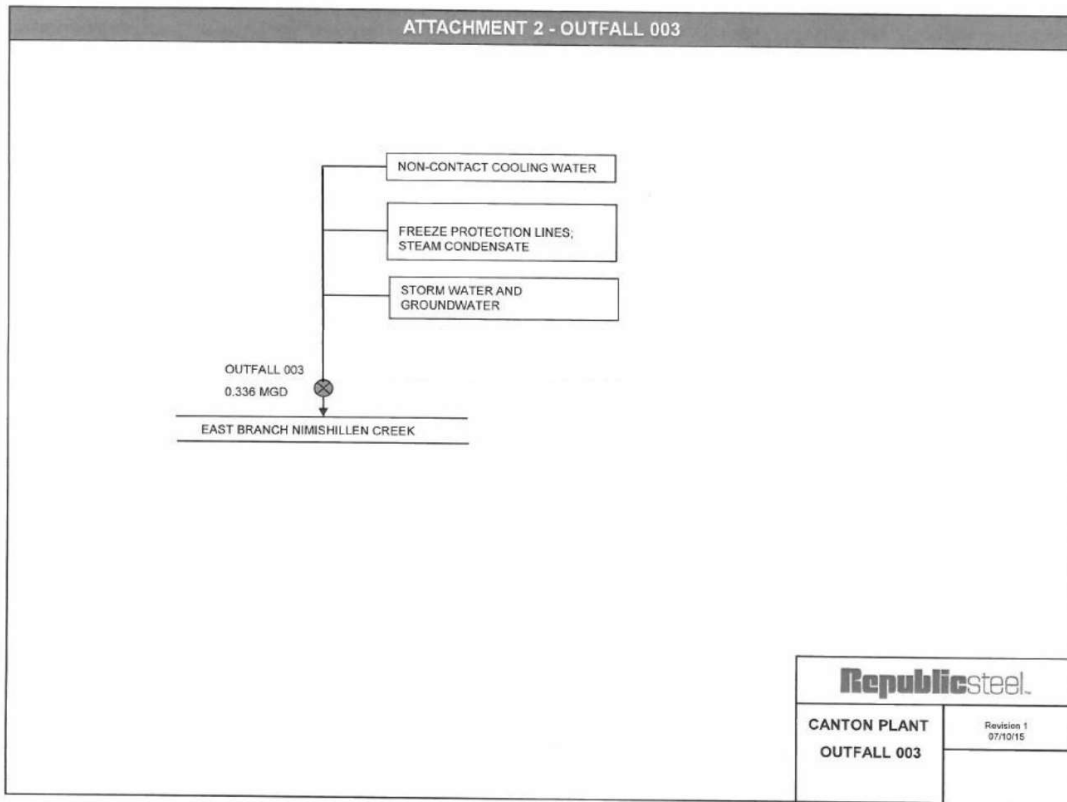


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows (continued)

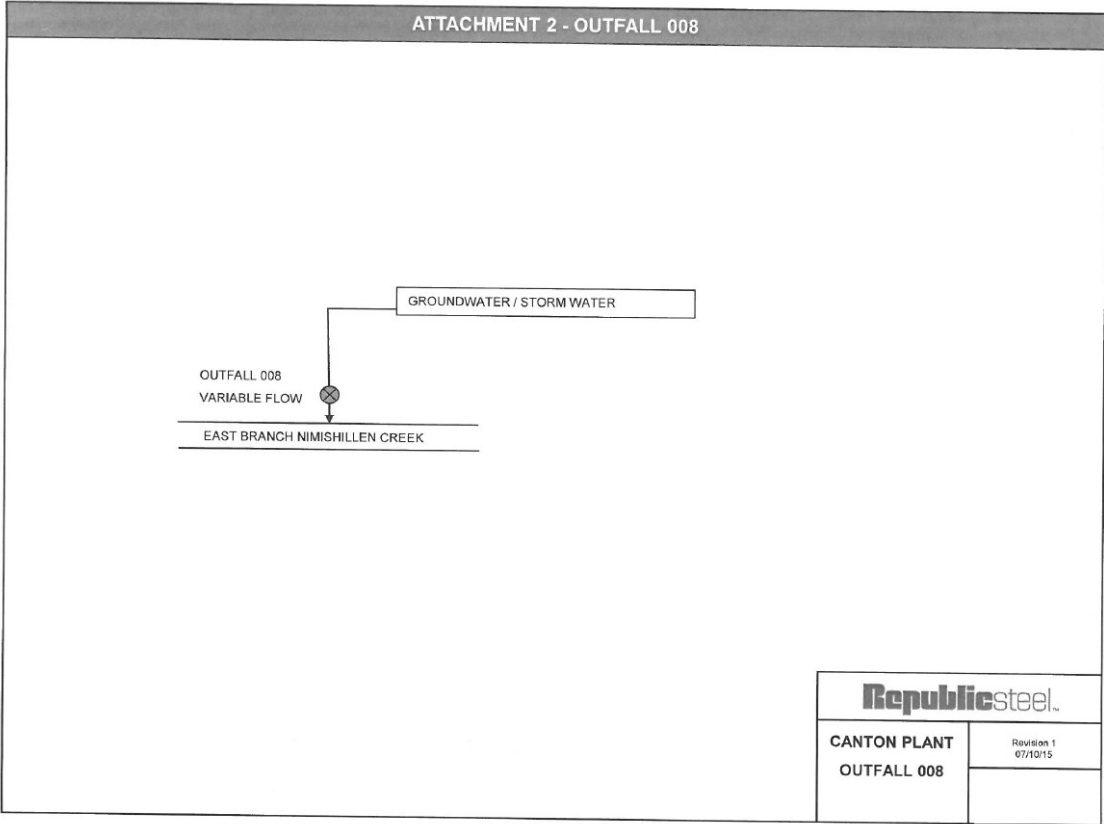


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows (continued)

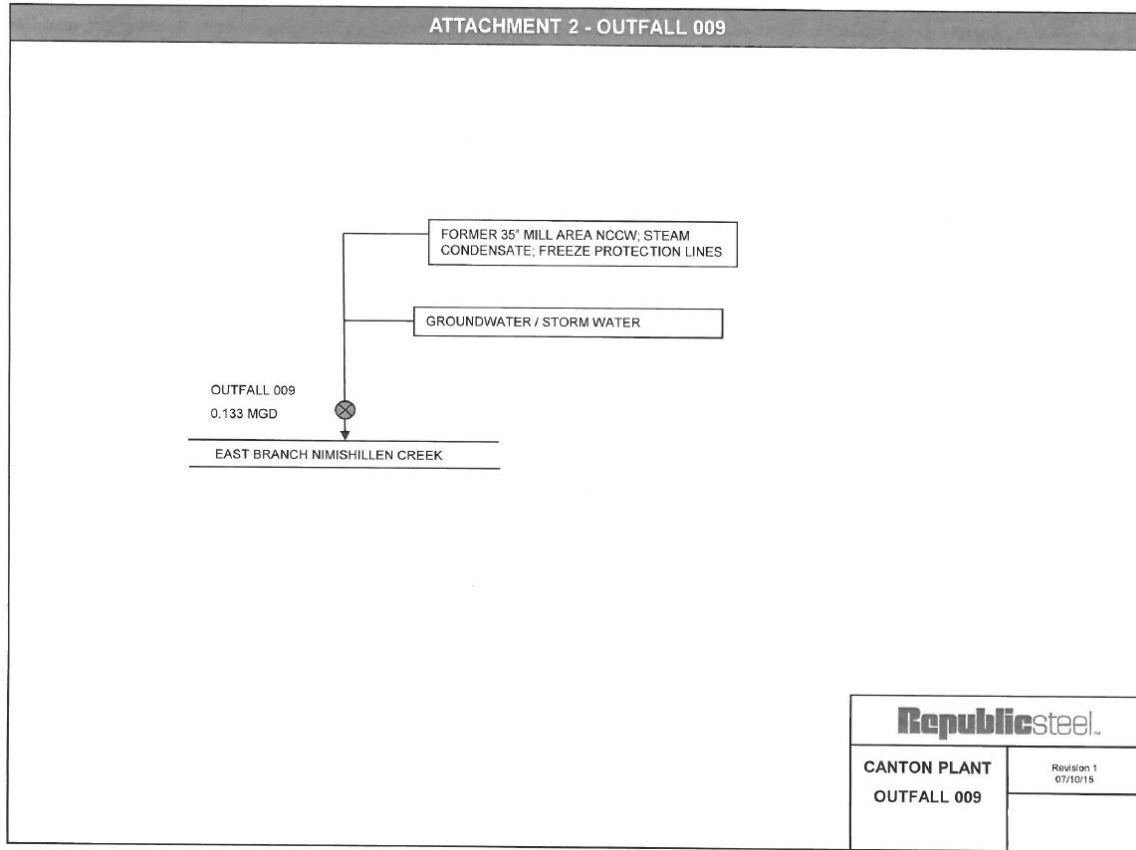


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows (continued)

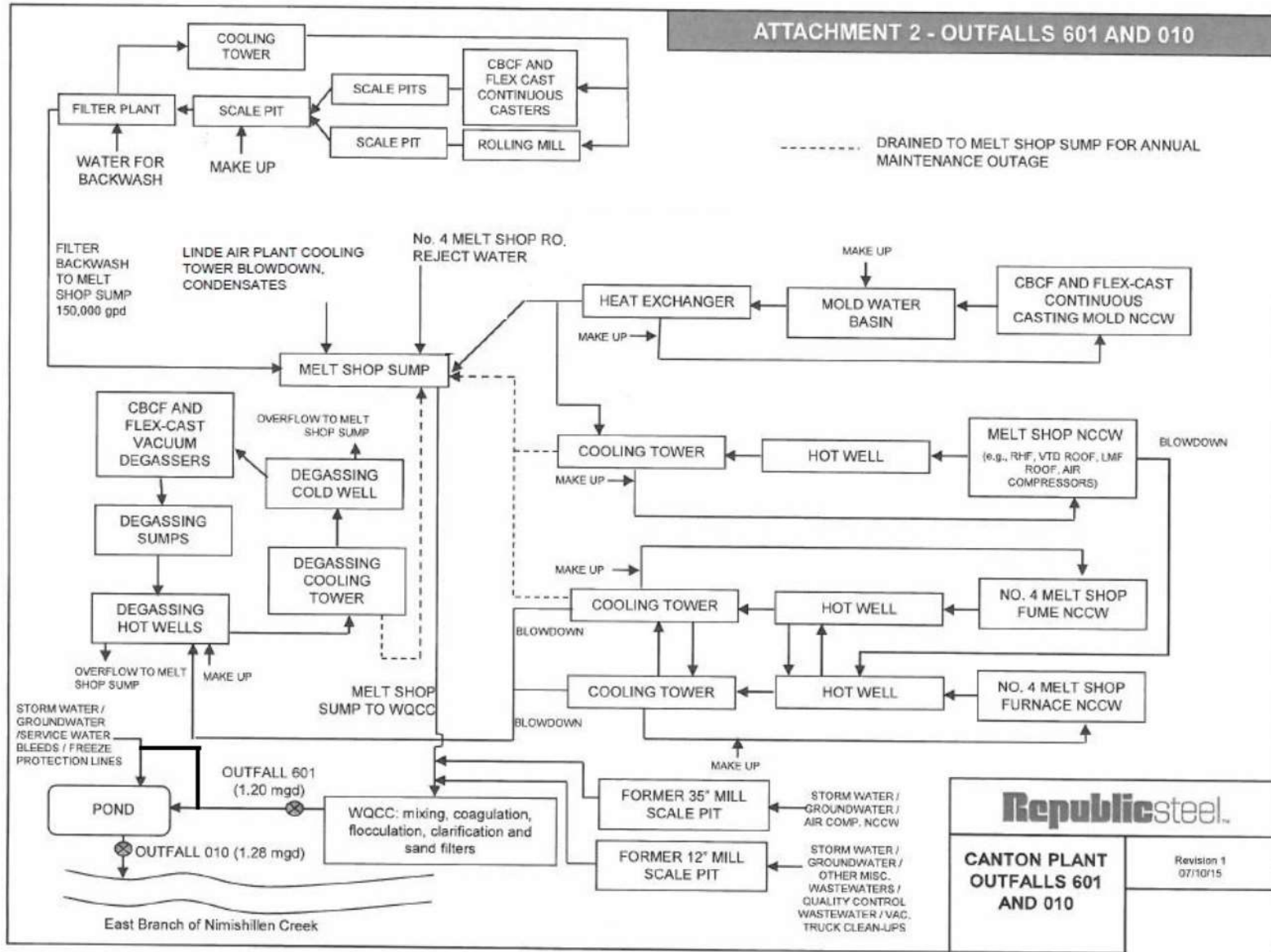


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows (continued)

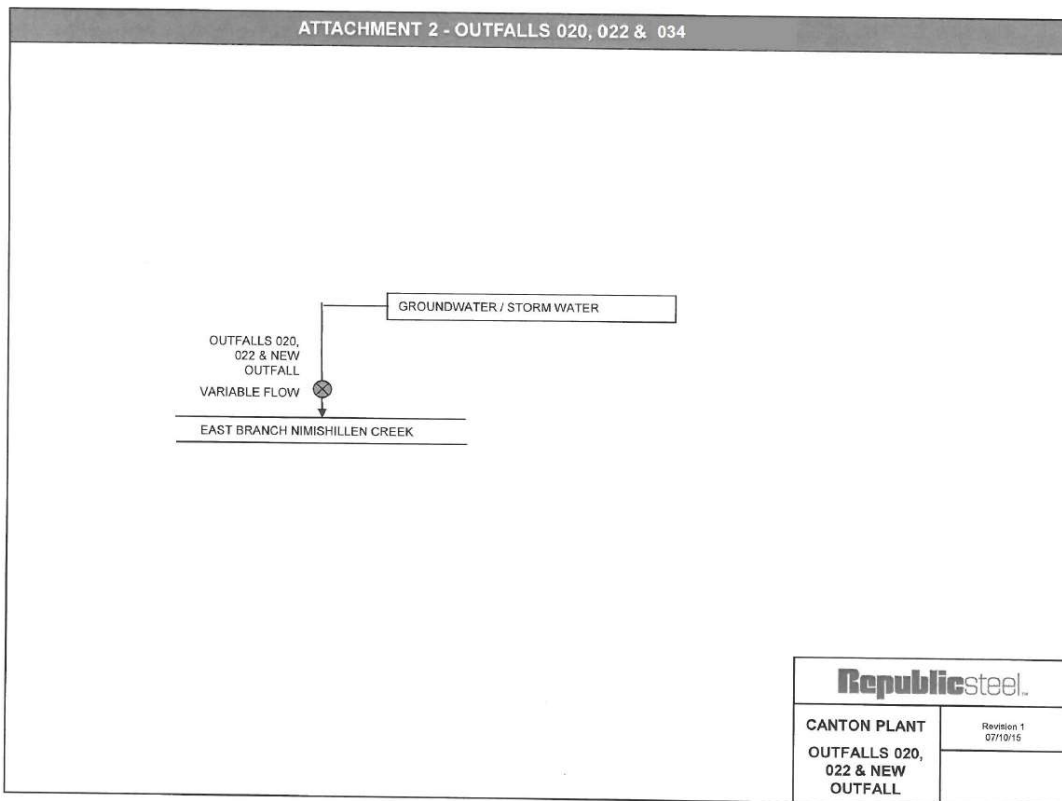
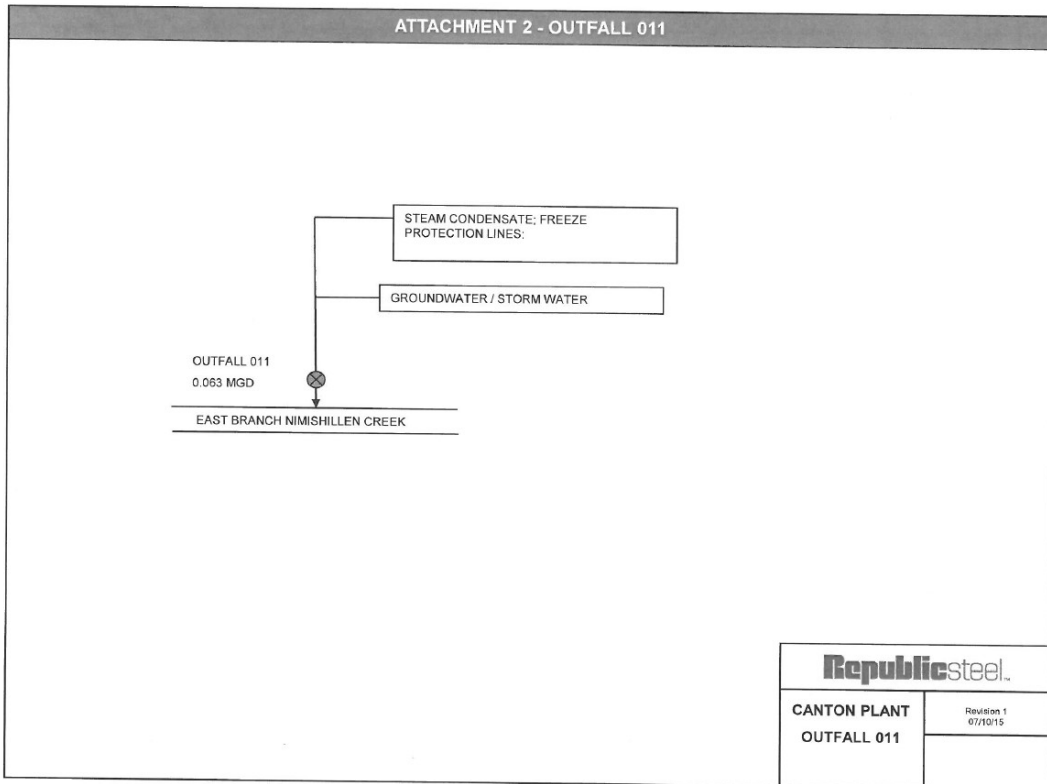


Figure 4. Diagram of Process Wastewater Flows, Treatment, and Non-Process Wastewater Flows (continued)

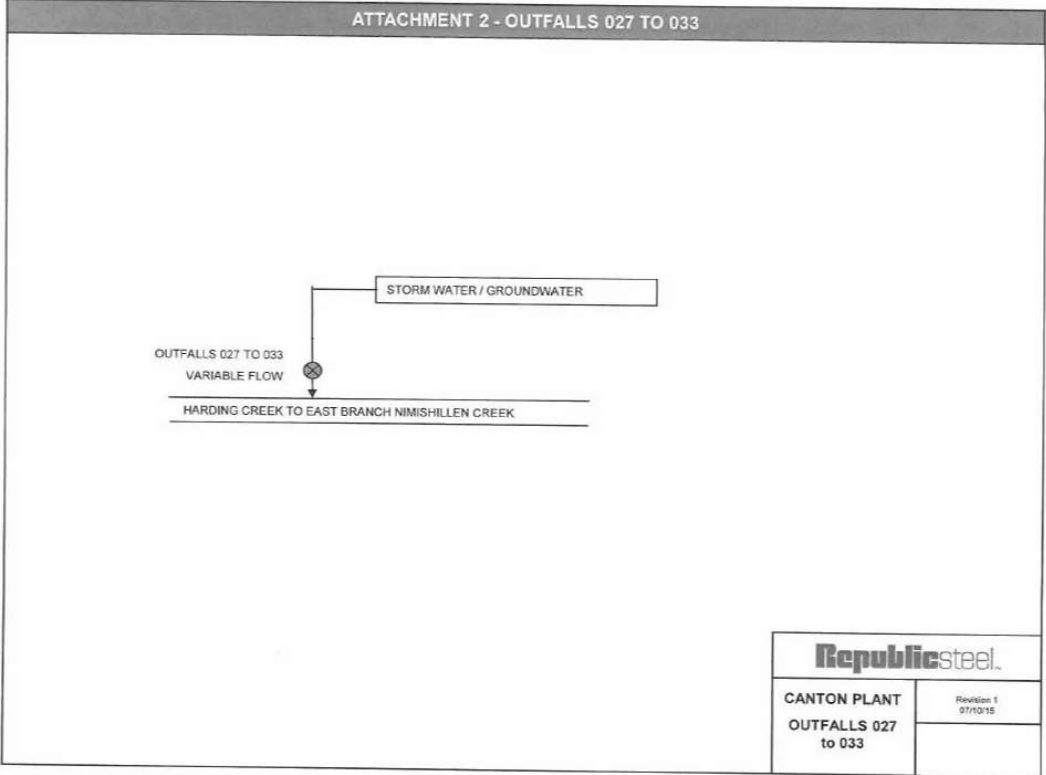
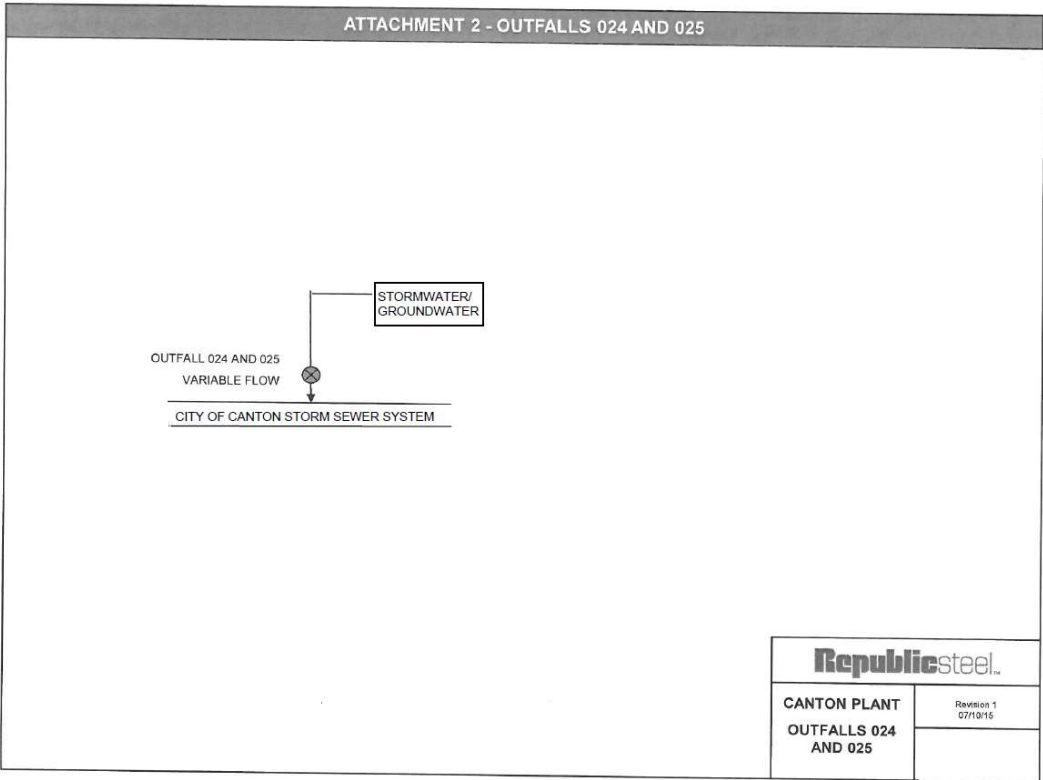


Table 1. Monitoring Stations, Wastewater Sources, Treatment Processes, Discharge Points, and Flow Rates

Station	Wastewater Source	Treatment	Receiving Stream	Average Flow Rate (MGD) ^b	95th Percentile of Monthly Average Flows (MGD) ^c
003 ^a	Non-contact cooling water (NCCW), freeze protection lines, steam condensate, stormwater, groundwater	NA	East Branch Nimishillen Creek	0.336	0.74
009	Non-contact cooling water (former 35' mill area), steam condensate, freeze protection lines, stormwater, groundwater	NA	East Branch Nimishillen Creek	0.133	0.16
010	Station 601 effluent, freeze protection lines, service water bleeds, stormwater and groundwater	NA	East Branch Nimishillen Creek	1.28	1.69
011	Freeze protection lines, steam condensate, stormwater	NA	East Branch Nimishillen Creek	0.063	0.036
601	Water quality control center (WQCC) effluent (melt shop NCCW, casting system, degassing system, hot rolling cooling water, condensates, scale pits, stormwater, groundwater, vacuum truck clean-up	Flocculation, pressure sand filtration, settling, chemical precipitation, coagulation	Outfall 010	1.20	

^a intermittent /seasonal discharge per NPDES application

^b Based on NPDES application Form 2C

^c Based on period from January 2016 through January 2021

Table 2. Stormwater and Groundwater Outfalls at Republic Steel - Canton

Station #	Operations located within drainage area	Receiving Stream	Sample location
003 ^a	No 3. Melt shop building, No.4 melt shop (LMF and Flex-Cast baghouses), locomotive vehicle repair shop, melt shop and CBCF truck hopper alloy and flux unloading stations, western portion of bloom cast facility (CBCF)	East Branch Nimishillen Creek	Pipe along stream
006 ^b	Former No. 2 melt shop building (not operable), No. 4 melt shop building and No.3 melt shop baghouse (not operable)	East Branch Nimishillen Creek	Pipe along stream
008	CBCF finishing side. No.5 steel conditioning boiler house	East Branch Nimishillen Creek	Pipe along stream
009 ^a	Former blooming mill. Scrap preparation	East Branch Nimishillen Creek	Pipe along stream
010 ^a	12” finishing and QVL, met lab, No.4 steel conditioning and shipping and associated buildings, WQCC area	East Branch Nimishillen Creek	Pipe along stream
011 ^a	12” mill building, other buildings for steel storage and empty tote storage	East Branch Nimishillen Creek	Pipe along stream
020	Scrap pile and vacant buildings	East Branch Nimishillen Creek	Pipe along stream
022	Slag processing, dewatered mill scale storage	East Branch Nimishillen Creek	Pipe along stream
024	Steel storage yard	City of Canton Storm Sewer System	Sheet flow
025	Roadway drainage (no operations)	City of Canton Storm Sewer System	Pipe in manhole
027	CBCF scale pit area	Harding Creek	Catch basin
028	CBCF scale pit area	Harding Creek	Catch basin
029	CBCF scale pit area	Harding Creek	Catch basin
030	CBCF roof drainage	Harding Creek	Pipe inside building
031	Cast-roll west end lowbay building and cast-roll south side lowbay building. Truck loading/unloading	Harding Creek	Catch basin
032	CBCF roof drainage	Harding Creek	Pipe inside building
033	Cast-roll south side lowbay building.	Harding Creek	Catch basin
034	Roadway drainage, metal/equipment storage and railroad track drainage (newly constructed channel)	East Branch Nimishillen Creek	sheet flow

^a = Commingled with non-process wastewater: NCCW and/or steam condensate. Refer to Table 1.

^b = Commingled with non-process wastewater: steam condensate. Refer to Figure 4.

Table 3. Effluent Violations for Outfalls 010 and 601

Outfall/ Station	Parameter	2016	2017	2018	2019	2020	2021*
010	Chlorine, Total Residual	0	0	2	5	0	0
010	Chronic Toxicity, <i>Ceriodaphnia dubia</i>	0	0	1	0	2	0
010	Mercury, Total (Low Level)	0	0	1	3	9	1
010	Oil and Grease, Hexane	0	0	0	1	1	0
010	Selenium, Total Recoverable	0	0	4	7	8	0
010	Zinc, Total Recoverable	0	0	0	1	0	0
010	pH	0	1	0	0	0	0
601	Lead, Total Recoverable	0	0	2	0	4	0
601	Total Suspended Solids	0	0	2	0	0	0
	Total	0	1	12	17	24	1

*Based on period from January 2016 through March 2021

Table 4. Average Annual Effluent Flow Rates

Outfall/ Station	Year	Annual Flow in MGD		
		50th Percentile	95th Percentile	Maximum
003	2016	0.15	0.37	0.37
	2017	0.37	0.73	1.09
	2018	0.37	0.772	1.1
	2019	0.37	1.16	1.59
	2020	0.25	0.433	0.51
	2021*	0.268	0.3598	0.37
009	2016	0.086	0.101	0.108
	2017	0.065	0.216	0.216
	2018	0.072	0.083	0.086
	2019	0.079	0.506	0.79
	2020	0.049	0.079	0.079
	2021*	0.0515	0.07625	0.079
010	2016	1.0	1.2	2.1
	2017	1.12	2.34	3.73
	2018	1.08	1.78	7.96
	2019	1.04	1.75	10.6
	2020	1.0	1.82	3.0
	2021*	0.9	1.2	1.4
011	2018	0.036	0.036	0.036
	2019	0.036	0.036	0.036
	2020	0.001	0.007	0.007
	2021*	0.058	0.0778	0.08
601	2016	1.0	1.2	1223.5
	2017	0.867	1.02	7.099
	2018	0.836	1.22	6152
	2019	0.787	1.12	1.89
	2020	0.612	1.4	6.5
	2021*	0.9154	0.9154	0.9154

* Based on period from January 2016 through March 2021

MGD = million gallons per day

Table 5. Effluent Characterization Based on Form 2C and 2F Data

Form 2C		
Parameter	Units	Concentration
<u>Outfall 003</u>		
Biological Oxygen Demand	mg/L	4.7
Chemical Oxygen Demand	mg/L	17
Total Organic Carbon	mg/L	6.0
Total Suspended Solids	mg/L	21
Ammonia	mg/L	< 0.20
Flow Rate	MGD	0.3204
Temperature (Winter)	°F	48.6
Temperature (Summer)	°F	72.5
pH	S.U.	8.4
Chlorine, Total Residual	mg/L	0.00
Color		30
Fluoride	mg/L	2.9
Nitrate-Nitrite (as N)	mg/L	0.21
Sulfate (as SO4)	mg/L	210
Oil and Grease	mg/L	< 4.8
Phosphorus (as P), Total	mg/L	0.38
Aluminum	µg/L	1900
Barium	µg/L	< 200
Boron	µg/L	110
Iron	µg/L	1800
Magnesium	µg/L	26000
Manganese	µg/L	1900
Molybdenum	µg/L	62
Chromium	µg/L	18
Copper	µg/L	110
Lead	µg/L	9100
Mercury	µg/L	270
Selenium	µg/L	12
Zinc	µg/L	2400
<u>Outfall 009</u>		
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	< 10
Total Organic Carbon	mg/L	1.2
Total Suspended Solids	mg/L	< 4.0
Ammonia	mg/L	< 0.20

Form 2C		
Parameter	Units	Concentration
Flow Rate	MGD	0.0389
Temperature (Winter)	°F	59.2
Temperature (Summer)	°F	71.6
pH	S.U.	7.76
Chlorine, Total Residual	mg/L	0.02
Color		5.0
Fluoride	mg/L	1.2
Nitrate-Nitrite (as N)	mg/L	0.096
Oil and Grease	mg/L	0.0
Phosphorus (as P), Total	mg/L	0.38
Sulfate (as SO4)	mg/L	91
Sulfite (as SO3)	mg/L	< 5.0
Barium	µg/L	< 200
Boron	µg/L	< 100
Magnesium	µg/L	21000
Manganese	µg/L	47
Molybdenum	µg/L	78
Chromium	µg/L	18
Copper	µg/L	110
<u>Outfall 010</u>		
Biological Oxygen Demand	mg/L	7.6
Chemical Oxygen Demand	mg/L	27
Total Organic Carbon	mg/L	8.5
Total Suspended Solids	mg/L	5.0
Ammonia	mg/L	< 0.20
Flow Rate	MGD	0.583
Temperature (Winter)	°F	53.4
Temperature (Summer)	°F	77.9
pH	S.U.	8.25
Chlorine, Total Residual	mg/L	0.01
Color		10
Fluoride	mg/L	3.0
Nitrate-Nitrite (as N)	mg/L	0.33
Oil and Grease	mg/L	< 5.1
Phosphorus (as P), Total	mg/L	0.11
Sulfate (as SO4)	mg/L	140
Sulfite (as SO3)	mg/L	< 5.0
Aluminum	µg/L	< 200

Form 2C		
Parameter	Units	Concentration
Barium	µg/L	< 200
Boron	µg/L	130
Iron	µg/L	190
Magnesium	µg/L	28000
Manganese	µg/L	190
Molybdenum	µg/L	< 40
Antimony	µg/L	< 10
Arsenic	µg/L	< 10
Beryllium	µg/L	< 5.0
Cadmium	µg/L	< 2.0
Chromium	µg/L	< 5.0
Copper	µg/L	< 25
Lead	µg/L	66
Mercury	ng/l	5.3
Nickel	µg/L	< 40
Selenium	µg/L	9.1
Silver	µg/L	< 5.0
Thallium	µg/L	< 10
Zinc	µg/L	< 50
Cyanide, Total	mg/L	< 0.010
Phenols	mg/L	< 0.040
Chloroform	µg/L	3.0
Dichlorobromomethane	µg/L	1.1
Outfall 011		
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	< 10
Total Organic Carbon	mg/L	2.3
Total Suspended Solids	mg/L	11
Ammonia	mg/L	< 0.20
Flow Rate	MGD	0.00216
Temperature (Winter)	°F	53.1
Temperature (Summer)	°F	68.36
pH	S.U.	7.98
Oil and Grease	mg/L	< 5.3
Phosphorus (as P), Total	mg/L	< 0.10
Sulfate (as SO4)	mg/L	89
Sulfite (as SO3)	mg/L	< 5.0
Aluminum	µg/L	1700

Form 2C		
Parameter	Units	Concentration
Barium	µg/L	< 200
Boron	µg/L	< 100
Cobalt	µg/L	< 10
Iron	µg/L	1600
Magnesium	µg/L	24000
Manganese	µg/L	19
Titanium	µg/L	< 50
Station 601		
Biological Oxygen Demand	mg/L	7.3
Chemical Oxygen Demand	mg/L	24
Total Organic Carbon	mg/L	8.1
Total Suspended Solids	mg/L	< 4.0
Ammonia	mg/L	< 0.20
Flow Rate	MGD	0.482
Temperature (Winter)	°F	62.2
Temperature (Summer)	°F	--
pH	S.U.	8.5
Fluoride	mg/L	3.4
Nitrate-Nitrite (as N)	mg/L	0.32
Oil and Grease	mg/L	< 5.5
Phosphorus (as P), Total	mg/L	0.19
Sulfate (as SO4)	mg/L	150
Boron	µg/L	120
Magnesium	µg/L	27000
Manganese	µg/L	170
Antimony	µg/L	< 10
Arsenic	µg/L	< 10
Beryllium	µg/L	< 5.0
Cadmium	µg/L	< 2.0
Chromium	µg/L	< 5.0
Copper	µg/L	< 25
Lead	µg/L	75
Mercury	µg/l	< 0.20
Nickel	µg/L	< 40
Selenium	µg/L	< 15
Silver	µg/L	< 5.0
Thallium	µg/L	< 10
Zinc	µg/L	< 50

Form 2C		
Parameter	Units	Concentration
Cyanide, Total	mg/L	< 0.010
Phenols	mg/L	< 0.040
Chlorodibromomethane	µg/L	1.1
Chloroform	µg/L	3.7
Dichlorobromomethane	µg/L	1.3

Form 2F		
Parameter	Unit	Concentration
<u>Outfall 006</u>		
Oil and Grease	mg/L	< 4.8
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	14
Total Suspended Solids	mg/L	65
Total Nitrogen	mg/L	< 3.0
Oil and Grease	mg/L	< 4.8
Total Phosphorus	mg/L	< 0.10
pH	S.U.	8.81
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	34
Copper	µg/L	< 25
Lead	µg/L	76
Zinc	µg/L	1300
<u>Outfall 008</u>		
Oil and Grease	mg/L	< 4.8
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	21
Total Suspended Solids	mg/L	170
Total Nitrogen	mg/L	< 3.0
Total Phosphorus	mg/L	0.15
pH	S.U.	9.14
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	87
Copper	µg/L	< 25
Lead	µg/L	63
Zinc	µg/L	130

Form 2F		
Parameter	Unit	Concentration
<u>Outfall 020</u>		
Oil and Grease	mg/L	< 4.8
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	13
Total Suspended Solids	mg/L	88
Total Nitrogen	mg/L	< 3.0
Total Phosphorus	mg/L	0.11
pH	S.U.	9.11
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	43
Copper	µg/L	< 25
Lead	µg/L	39
Zinc	µg/L	270
<u>Outfall 024</u>		
Oil and Grease	mg/L	< 4.8
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	36
Total Suspended Solids	mg/L	270
Total Nitrogen	mg/L	< 3.0
Total Phosphorus	mg/L	0.22
pH	S.U.	8.94
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	150
Copper	µg/L	49
Lead	µg/L	140
Zinc	µg/L	410

<u>Outfall 033</u>		
Oil and Grease	mg/L	< 4.8
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	17
Total Suspended Solids	mg/L	210

Total Nitrogen	mg/L	< 3.0
Total Phosphorus	mg/L	< 0.10
pH	S.U.	8.81
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	58
Copper	µg/L	25
Lead	µg/L	39
Zinc	µg/L	320
<u>Outfall 034</u>		
Oil and Grease	mg/L	< 5.0
Biological Oxygen Demand	mg/L	< 2.0
Chemical Oxygen Demand	mg/L	15
Total Suspended Solids	mg/L	5
Total Nitrogen	mg/L	< 3.0
Total Phosphorus	mg/L	< 0.10
pH	S.U.	7.56
Arsenic	µg/L	< 10
Cadmium	µg/L	< 2.0
Chromium	µg/L	46
Copper	µg/L	< 25
Lead	µg/L	35
Zinc	µg/L	110

Outfalls 006, 008, 020, 024, 033, and 034 sample date of 5/7/2020.

Outfalls 003, 009, 010, 011, 601 sample period of December 1 to December 30, 2020

of samples = 1 for all parameters

Table 6. Effluent Characterization Using Self-Monitoring Data

Outfall/ Station	Parameter	Units	Current Permit Limits		# Obs.	Percentiles		Data Range ^a
			30 day	Daily		50 th	95 th	
003	Water Temperature	°F	Monitoring Only		56	63.1	77.8	16.3 - 85.5
	pH	S.U.	--	6.5 - 9.0	56	8.2	8.84	7.44 - 8.92
	Phosphorus, Total	mg/L	Monitoring Only		49	.29	.588	0 - .63
	Barium, TR	µg/L	Monitoring Only		14	--	--	< 200
	Chromium, TR	µg/L	Monitoring Only		14	12.5	21.4	0 - 24
	Copper, TR	µg/L	Monitoring Only		15	41	125	0 - 160
	Oil and Grease Severity	Units	Monitoring Only		56	0	1	0 - 1
	Flow Rate	MGD	Monitoring Only		55	.37	.684	.03 - 1.59
	Chlorine, Total Residual	mg/L	Monitoring Only		28	.045	.777	0 - .98
	Residue, Total Filterable	mg/L	Monitoring Only		14	645	765	430 - 830
006	Total Precipitation	Inches	Monitoring Only		6	.795	.96	.31 - .98
	Dry Days Preceding Precipitation Event	days	Monitoring Only		6	2.5	7	0 - 7
	pH	S.U.	Monitoring Only		6	7.7	8.72	6.3 - 8.72
	Total Suspended Solids	mg/L	Monitoring Only		6	23	74	5 - 78
	Zinc, TR	µg/L	Monitoring Only		6	185	878	0 - 1100
	Lead, TR	µg/L	Monitoring Only		6	16.3	59.8	0 - 69
	Copper, TR	µg/L	Monitoring Only		6	--	--	< 25
	Duration of Discharge	Hours	Monitoring Only		6	8	8	6 - 8
008	Total Precipitation	Inches	Monitoring Only		3	.5	.77	.48 - .8
	Dry Days Preceding Precipitation Event	days	Monitoring Only		3	4	6.7	4 - 7
	pH	S.U.	Monitoring Only		2	8.43	8.47	8.39 - 8.47
	Total Suspended Solids	mg/L	Monitoring Only		2	145	177	110 - 180
	Zinc, TR	µg/L	Monitoring Only		3	230	293	200 - 300
	Lead, TR	µg/L	Monitoring Only		3	90	90.9	57 - 91
	Copper, TR	µg/L	Monitoring Only		3	35	62.9	29 - 66
	Duration of Discharge	Hours	Monitoring Only		2	5.5	5.95	5 - 6
009	Water Temperature	°F	Monitoring Only		56	59.8	72.4	44.2 - 77
	pH	S.U.	--	56	7.74	8.06	7.09 - 8.2	
	Phosphorus, Total	mg/L	Monitoring Only		49	< .1	.13	0 - .26
	Barium, TR	µg/L	Monitoring Only		14	--	--	< 200
	Oil and Grease Severity	Units	Monitoring Only		56	--	--	< 200
	Flow Rate	MGD	Monitoring Only		55	.072	.145	.024 - .79

Outfall/ Station	Parameter	Units	Current Permit Limits		# Obs.	Percentiles		Data Range ^a
			30 day	Daily		50 th	95 th	
	Chlorine, Total Residual	mg/L	Monitoring Only		14	.055	.235	0 - .3
	Residue, Total Filterable	mg/L	Monitoring Only		14	465	726	400 - 830
010	Water Temperature	°F	Monitoring Only		268	63.8	79.7	33 - 84.6
	pH	S.U.	--	6.5 - 9.0	268	8.25	8.77	6.78 - 9.1
	Residue, Total Dissolved	mg/L	Monitoring Only		2	750	759	740 - 760
	Total Suspended Solids	mg/L	Monitoring Only		132	< 4	13	0 - 38
	Oil and Grease - 2016-2016	mg/L	15	20	29	< 5.5	< 5.5	0 - 9.4
	Oil and Grease - 2016-2021	mg/L	--	10	239	< 4.8	< 4.8	0 - 30
	Nitrogen, Ammonia	mg/L	Monitoring Only		59	< .2	.024	0 - .38
	Phosphorus, Total	mg/L	Monitoring Only		61	.14	.32	0 - .47
	Fluoride, Total (F)	mg/L	Monitoring Only		7	2.3	3.7	1.3 - 3.7
	Selenium, TR	kg/day	0.0374	--	52	.0255	.2	0 - .804
	Selenium, TR - 2016-2021	µg/L	5.8	--	54	6.58	49	0 - 97
	Selenium, TR - 2016-2016	µg/L	Monitoring Only		7	< 5	28.7	0 - 41
	Barium, TR	µg/L	Monitoring Only		53	--	--	< 200
	Zinc, TR - All	kg/day	--	2.97	52	< .17	.942	0 - 4.34
	Zinc, TR - All	µg/L	--	461	54	< 50	214	0 - 300
	Zinc, TR - Quarterly	µg/L	Monitoring Only		2	--	--	< 50
	Lead, TR	µg/L	Monitoring Only		61	40	160	0 - 290
	Copper, TR	µg/L	Monitoring Only		54	--	--	< 25
	Flow Rate	MGD	Monitoring Only		1792	1.03	1.98	.0392 - 10.6
	Chlorine, Total Residual - 2016-2021	mg/L	--	0.022	62	< .01	.089	0 - .12
	Chlorine, Total Residual - 2016-2016	mg/L	Monitoring Only		8	.01	.073	0 - .08
	Mercury, Total - All	kg/day	0.00008	0.011	52	.0000286	.000207	.00000036 - .00054
	Mercury, Total - All	ng/L	12	1700	54	6.4	44.1	.95 - 88
	Mercury, Total - Quarterly	ng/L	Monitoring Only		2	13.9	13.9	22.1
	Acute Toxicity, Ceriodaphnia dubia - March and Sep.	TUa	--	1.0	8	< .2	.13	0 - .2
	Acute Toxicity, Ceriodaphnia dubia - Quarterly	TUa	--	1.0	2	--	--	< .2

Outfall/ Station	Parameter	Units	Current Permit Limits		# Obs.	Percentiles		Data Range ^a
			30 day	Daily		50 th	95 th	
	Chronic Toxicity, Ceriodaphnia dubia - March and Sep.	TUc	2.44	--	8	1.45	4.3	0 - 4.3
	Chronic Toxicity, Ceriodaphnia dubia - Quarterly	TUc	2.44	--	2	--	--	< .2
	Residue, Total Filterable	mg/L	Monitoring Only		18	625	610	956
011	Water Temperature	°F	Monitoring Only		24	60.3	70.2	44.8 - 71.1
	pH	S.U.	--	6.5 - 9.0	24	7.63	7.9	7.1 - 8.75
	Oil and Grease	mg/L	Monitoring Only		24	< 4.8	< 4.8	0 - 5.3
	Phosphorus, Total	mg/L	Monitoring Only		24	< .1	.109	0 - .14
	Iron, TR	µg/L	Monitoring Only		6	1050	4580	0 - 5100
	Aluminum, TR	µg/L	Monitoring Only		6	360	1680	0 - 1700
	Flow Rate	MGD	Monitoring Only		24	.036	.036	.001 - .08
	Residue, Total Filterable	mg/L	Monitoring Only		6	595	1180	520 - 1300
020	Total Precipitation	Inches	Monitoring Only		3	.5	.77	.48 - .8
	Dry Days Preceding Precipitation Event	days	Monitoring Only		3	4	6.7	4 - 7
	pH	S.U.	Monitoring Only		2	9.54	9.58	9.49 - 9.58
	Total Suspended Solids	mg/L	Monitoring Only		2	1900	1900	1900 - 1900
	Zinc, TR	µg/L	Monitoring Only		3	4500	4950	480 - 5000
	Lead, TR	µg/L	Monitoring Only		3	820	838	99 - 840
	Copper, TR	µg/L	Monitoring Only		3	410	509	57 - 520
	Duration of Discharge	Hours	Monitoring Only		2	5.5	5.95	5 - 6
022	Total Precipitation	Inches	Monitoring Only		3	.8	1.48	.5 - 1.56
	Dry Days Preceding Precipitation Event	days	Monitoring Only		3	4	6.7	2 - 7
	pH	S.U.	Monitoring Only		2	8.74	8.84	8.62 - 8.85
	Total Suspended Solids	mg/L	Monitoring Only		2	380	560	180 - 580
	Zinc, TR	µg/L	Monitoring Only		3	720	1870	700 - 2000
	Lead, TR	µg/L	Monitoring Only		3	75	179	69 - 190
	Copper, TR	µg/L	Monitoring Only		3	43	103	40 - 110
	Duration of Discharge	Hours	Monitoring Only		2	5.5	5.95	5 - 6
024	Total Precipitation	Inches	Monitoring Only		5	.8	.996	.36 - 1

Outfall/ Station	Parameter	Units	Current Permit Limits		# Obs.	Percentiles		Data Range ^a
			30 day	Daily		50 th	95 th	
	Dry Days Preceding Precipitation Event	days	Monitoring Only		5	3	7	0 - 7
	pH	S.U.	Monitoring Only		5	8.51	8.69	7.11 - 8.71
	Total Suspended Solids	mg/L	Monitoring Only		5	50	334	33 - 380
	Lead, Total (Pb)	µg/L	Monitoring Only		5	45	93.2	19 - 100
	Zinc, TR	µg/L	Monitoring Only		5	100	410	73 - 430
	Copper, TR	µg/L	Monitoring Only		5	< 25	32.8	0 - 41
	Duration of Discharge	Hours	Monitoring Only		5	8	8	6 - 8
031	Total Precipitation	Inches	Monitoring Only		2	.35	.485	.2 - .5
	Dry Days Preceding Precipitation Event	days	Monitoring Only		2	5.5	6.85	4 - 7
	pH	S.U.	Monitoring Only		2	8.86	8.96	8.75 - 8.97
	Total Suspended Solids	mg/L	Monitoring Only		2	2160	4090	12 - 4300
	Zinc, TR	µg/L	Monitoring Only		2	2960	5520	110 - 5800
	Lead, TR	µg/L	Monitoring Only		2	3710	6940	120 - 7300
	Copper, TR	µg/L	Monitoring Only		2	265	504	0 - 530
	Duration of Discharge	Hours	Monitoring Only		2	6	6.9	5 - 7
032	Zinc, TR	µg/L	Monitoring Only		1	1200	1200	1200 - 1200
	Lead, TR	µg/L	Monitoring Only		1	7600	7600	7600 - 7600
	Copper, TR	µg/L	Monitoring Only		1	110	110	110 - 110
033	Total Precipitation	Inches	Monitoring Only		2	.35	.485	.2 - .5
	Dry Days Preceding Precipitation Event	days	Monitoring Only		2	5.5	6.85	4 - 7
	pH	S.U.	Monitoring Only		2	8.65	8.76	8.53 - 8.77
	Total Suspended Solids	mg/L	Monitoring Only		2	5.5	10.5	0 - 11
	Zinc, TR	µg/L	Monitoring Only		2	--	--	< 50
	Lead, TR	µg/L	Monitoring Only		2	10.5	20	0 - 21
	Copper, TR	µg/L	Monitoring Only		2	--	--	< 25
	Duration of Discharge	Hours	Monitoring Only		2	6	6.9	5 - 7
034	Total Precipitation	Inches	Monitoring Only		9	.48	.908	.11 - .98
	Dry Days Preceding Precipitation Event	days	Monitoring Only		9	3	7.6	0 - 8
	pH	S.U.	Monitoring Only		9	7.77	8.61	6.9 - 8.62
	Total Suspended Solids	mg/L	Monitoring Only		9	8	310	0 - 350

Outfall/ Station	Parameter	Units	Current Permit Limits		# Obs.	Percentiles		Data Range ^a
			30 day	Daily		50 th	95 th	
	Zinc, TR	µg/L	Monitoring Only		9	< 50	546	0 - 590
	Lead, TR	µg/L	Monitoring Only		9	34	252	0 - 260
	Copper, TR	µg/L	Monitoring Only		9	< 25	59.4	0 - 75
	Duration of Discharge	Hours	Monitoring Only		8	8	18.4	5 - 24
601	pH	S.U.	Monitoring Only		268	8.34	8.82	7.1 - 9.19
	Total Suspended Solids - 2016-2021	kg/day	68.1	188	119	< 13.9	25.7	0 - 2280
	Total Suspended Solids - 2016-2016	kg/day	77.3	213	15	< 16.7	28.3	0 - 30.7
	Oil and Grease - 2016-2021	kg/day	--	43.2	118	< 18.5	< 18.5	0 - 21.7
	Oil and Grease - 2016-2016	kg/day	--	59.6	15	--	--	< 19.1
	Zinc, TR - 2016-2016	kg/day	0.94	2.81	15	.296	.65	0 - .681
	Zinc, TR - 2016-2021	kg/day	1.00	2.87	119	< .173	.365	0 - .92
	Lead, TR - 2016-2021	kg/day	0.62	1.84	116	.121	.84	0 - 3.6
	Lead, TR - 2016-2016	kg/day	0.62	1.87	7	.143	.237	.104 - .246
	Flow Rate	MGD	Monitoring Only		2122	1865	.842	1.2

* = For minimum pH, 5th percentile shown in place of 50th percentile

^a Outfalls 003, 009, 010, 011 and internal station 601 are based on a period of review from January 2016 through March 2021. Stormwater outfalls are based on a period of review from January 2016 through January 2022. Stormwater outfalls are only included above if assessed under the reasonable potential section where data showed an exceedance of water quality criteria.

All values are based on annual records unless otherwise indicated.

TR = Total Recoverable

Table 7. Projected Effluent Quality

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Outfall 003					
Self-Monitoring (DMR) Data					
Barium	µg/L	15	0	--	--
Chlorine - Total Residual	mg/L	15	10	1.073	1.47
Chromium - TR	µg/L	15	14	22.9	36.82
Copper - TR	µg/L	16	12	121	207
Phosphorus	mg/L	50	39	0.53	0.795
Total Filterable Residue	mg/L	15	15	807	969
Form 2C Data					
Aluminum	µg/L	1	1	8599	11780
Fluoride	mg/L	1	1	13.13	17.98
Iron	µg/L	1	1	8147	11160
Lead	µg/L	1	1	41187	56420
Mercury	µg/L	1	1	1222020	1674000
Selenium	µg/L	1	1	54.31	74.4
Zinc	µg/L	1	1	10862	14880
Outfall 009					
Self-Monitoring (DMR) Data					
Barium	µg/L	15	0	--	--
Chlorine - Total Residual	mg/L	15	11	0.329	0.45
Phosphorus	mg/L	50	4	0.19	0.26
Total Filterable Residue	mg/L	15	15	663	829
Form 2C Data					
Fluoride	mg/L	1	1	5.43	7.44
Chromium - TR	µg/L	1	1	81.47	111.6
Copper - TR	µg/L	1	1	498	682
Outfall 010					
Self-Monitoring (DMR) Data					
Ammonia (Summer)	mg/L	20	0	--	--
Ammonia (Winter)	mg/L	17	1	0.388	0.532
Barium	µg/L	54	0	--	--
Chlorine - Total Residual	mg/L	71	35	0.101	0.134
Copper - TR	µg/L	55	0	--	--
Fluoride	mg/L	7	7	5.402	7.4
Lead - TR	µg/L	62	59	146.5	232
Mercury - TR	ng/L	57	57	37.85	59.33
Phosphorus	mg/L	62	44	0.282	0.412
Selenium - TR	µg/L	62	37	43.56	65.16
Total Filterable Residue	mg/L	19	15	896	1156
Zinc - TR	µg/L	57	21	154.5	242.9

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Form 2C					
Iron	µg/L	1	1	860	1178
Chloroform	µg/L	1	1	13.58	18.6
Dichlorobromomethane	µg/L	1	1	4.98	6.82
Outfall 011					
Self-Monitoring (DMR) Data					
Aluminum	µg/L	6	4	2606	3570
Iron - TR	µg/L	6	5	7818	10710
Phosphorus	mg/L	24	3	0.133	0.182
Total Filterable Residue	mg/L	6	6	1993	2730

BCC = Bioaccumulative Chemical of Concern
 DMR = Discharge Monitoring Report
 MDL = analytical laboratory method detection limit
 PEQ = projected effluent quality
 TR = total recoverable

* Based on time period of January 2016 through March 2021

Table 8. Summary of Acute and Chronic Toxicity Results for Outfall 010

<i>Ceriodaphnia Dubia</i>		
Date	TU _a	TU _c
1/30/2016	AA (0.2)	1.2
3/28/2016	AA (0.2)	AA (1.0)
6/17/2016	AA (0.2)	AA (0.2)
9/30/2016	AH ()	AH ()
3/31/2017	AA (0.2)	AA (1.0)
9/25/2017	AA (0.2)	1.69
3/26/2018	AA (0.2)	1.2
9/12/2018	AA (0.2)	4.3
3/29/2019	AA (0.20)	1
9/11/2019	0.2	1
3/11/2020	AA (0.2)	2.58
9/25/2020	AA (0.2)	4.3
3/29/2021	AA (0.2)	AA (1.0)
9/11/2021	AA (0.2)	20

AA = non-detection; analytical method detection limit of 0.2 TU_a, 1.0 TU_c

AH = no sample taken. Renewed permit 31D00000*TD (effective August 1, 2016) reduced sampling from quarterly to semi-annually.

TU_a = acute toxicity unit

TU_c = chronic toxicity unit

Based on time period of January 2016 through January 2022

Table 9. Use Attainment Table for the East Branch Nimishillen Creek Study Area

Location	Year(s)	River Mile	AL Use Designation	Attainment Status	Causes of Impairment	Sources of Impairment
E. Br. Nimishillen at Meese Rd.	2003-04	8.6	WWH	PARTIAL	Unknown	Not Listed
E. Br. Nimishillen at SR 153	2003-04	6.4	WWH	NON	Organic Enrichment/DO	Not Listed
E. Br. Nimishillen Upst. Louisville WWTP	2003-04	5.9	WWH	NON	Nutrients Unknown	Not Listed
E. Br. Nimishillen Dst Louisville WWTP at Back Rd.	2003-04	4.2	WWH	NON	Nutrients Ammonia	Not Listed
E. Br. Nimishillen at Harmont Rd.	2003-05	1.9	WWH	PARTIAL/ NON	Nutrients Ammonia	Not Listed
E. Br. Nimishillen at Cook Park	2005	0.1	WWH	NON	Nutrients Flow alteration	Not Listed

WWH = Warmwater Habitat

Upst = Upstream

Dst = Downstream

WWTP = Wastewater Treatment Plant

Table 10. Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Aluminum	µg/L	--	--	--	--	--
Ammonia (Summer)	mg/L	--	--	1.7	--	--
Ammonia (Winter)	mg/L	--	--	4.4	--	--
Barium ^P	µg/L	--	--	640	2700	10000
Bromodichloromethane [*]	µg/L	270	--	--	--	--
Chlorine – Total Residual ^D	mg/L	--	--	0.011	0.019	0.038
Chloroform [*]	µg/L	20000	--	140	1300	2600
Chromium - TR ^D	µg/L	--	100	250	5200	10000
Copper - TR ^D	µg/L	1300	500	28	47	94
Fluoride	mg/L	--	2	--	--	--
Iron - TR	µg/L	--	5000	--	--	--
Lead - TR ^D	µg/L	--	100	33	630	1300
Mercury - TR (BCC)	ng/L	12	10000	910	1700	--
Selenium - TR ^D	µg/L	11000	50	5	62	120
Total Filterable Residue ^D	mg/L	--	--	1500	--	--
Zinc - TR ^D	µg/L	69000	25000	360	360	710

^D This parameter was found in the effluent of another discharger in this segment and was modeled interactively.

^P WQS based on pH

^{*} A WLA was not developed for these parameters as only 1 sample result was reported under Form 2C. A risk assessment was completed.

TR = Total Recoverable

BCC = Bioaccumulative Chemical of Concern

Table 11. Instream Conditions and Discharger Flow

Parameter	Units		Value	Basis
<u>E. Br. Nimishillen Creek Flows above Louisville</u>				
1Q10	cfs	annual	2.14	USGS gage #03117500; 1939-2020 data
7Q10	cfs	annual	2.38	USGS gage #03117500; 1939-2020 data
30Q10	cfs	summer	2.88	USGS gage #03117500; 1939-2019 data
	cfs	winter	6.54	USGS gage #03117500; 1938-2020 data
Harmonic Mean Flow	cfs	annual	11.59	USGS gage #03117500; 1939-2021 data
Mixing Assumption	%	average	100	Stream-to-discharge ratio
	%	maximum	100	Stream-to-discharge ratio
Instream Hardness	mg/L	annual	361	STORET; 10 values, 0 <MDL, 2004-06
<u>Republic Steel - Canton – Canton Hot Rolled</u>				
Outfall 003	cfs (mgd)	average	1.15 (0.74)	95 th percentile of monthly average flows
Outfall 009	cfs (mgd)	average	0.25 (0.16)	95 th percentile of monthly average flows
Outfall 010	cfs (mgd)	average	2.62 (1.69)	95 th percentile of monthly average flows
Outfall 011	cfs (mgd)	average	0.06 (0.04)	95 th percentile of monthly average flows
Louisville WWTP	cfs (mgd)	design	3.09 (2.0)	NPDES permit application
<u>Background Water Quality for E. Br. Nimishillen Creek</u>				
Ammonia (Summer)	mg/L	annual	0.09	DMR Louisville 801; 20 values, 0 <MDL, 2016-21
Ammonia (Winter)	mg/L	annual	0.08	DMR Louisville 801; 17 values, 0 <MDL, 2016-21
Cadmium - TR	µg/L	annual	0	STORET; 11 values, 11 <MDL, 2003-04
Chlorine - Total Residual	mg/L	annual	0	No representative data available.
Chromium - TR	µg/L	annual	0	STORET; 11 values, 11 <MDL, 2003-04
Chromium, Dissolved Hexavalent	µg/L	annual	0	No representative data available.
Copper - TR	µg/L	annual	5	STORET; 11 values, 10 <MDL, 2003-04
Cyanide - free	µg/L	annual	0	No representative data available.
Fluoride	mg/L	annual	0	No representative data available.
Iron	µg/L	annual	395	STORET; 11 values, 0 <MDL, 2003-04
Lead - TR	µg/L	annual	1	STORET; 11 values, 9 <MDL, 2003-04
Mercury - TR (BCC)	ng/L	annual	0	STORET; 6 values, 6 <MDL, 2003-06
Nickel - TR	µg/L	annual	0	STORET; 11 values, 11 <MDL, 2003-06
Nitrate-N + Nitrite-N	mg/L	annual	1.12	STORET; 11 values, 0 <MDL, 2003-06
Selenium - TR	µg/L	annual	0	STORET; 11 values, 11 <MDL, 2003-06
Total Filterable Residue	mg/L	annual	396	STORET; 11 values, 0 <MDL, 2003-06
Zinc - TR	µg/L	annual	5	STORET; 11 values, 8 <MDL, 2003-06

STORET = US EPA STOrage and RETrieval database

DMR = Discharge Monitoring Report

NPDES = National Pollutant Discharge Elimination System

TR = Total Recoverable

USGS = United States Geological Survey

BCC = Bioaccumulative Chemical of Concern

MDL = Method Detection Limit

Table 12. Summary of Effluent Limits to Maintain Applicable Water Quality Criteria

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Outfall 003						
Aluminum	µg/L	--	--	--	--	--
Barium *	µg/L	--	--	640	2700	10000
Chlorine - Total Residual	mg/L	--	--	0.016	0.026	0.038
Chromium – TR ^B	µg/L	--	419	414	8269	10000
Copper - TR	µg/L	5436 ^A	2083 ^A	44	72	94
Fluoride *	mg/L	--	2	--	--	--
Iron – TR *	µg/L	--	5000	--	--	--
Lead – TR *	µg/L	--	100	33	630	1300
Mercury – TR (BCC) *	ng/L	12	10000	910	1700	--
Phosphorous	mg/L	--	--	--	--	--
Selenium – TR *	µg/L	11000	50	5	62	120
Total Filterable Residue	mg/L	--	--	1942	--	--
Zinc – TR *	µg/L	69000	25000	360	360	710
Outfall 009						
Barium	µg/L	--	--	640	2700	10000
Fluoride *	mg/L	--	2	--	--	--
Chlorine - Total Residual	mg/L	--	--	0.016	0.026	0.038
Chromium - TR ^B	µg/L	--	419	414	8269	10000
Copper - TR	µg/L	5463 ^A	2083 ^A	44	72	94
Phosphorous	mg/L	--	--	--	--	--
Total Filterable Residue	mg/L	--	--	1942	--	--
Outfall 010						
Ammonia (Summer)	mg/L	--	--	6.84	--	--
Ammonia (Winter)	mg/L	--	--	25.33	--	--
Barium	µg/L	--	--	640	2700	10000
Bromodichloromethane *	µg/L	270	--	--	--	--
Chlorine – Total Residual	mg/L	--	--	0.016	0.026	0.038
Chloroform *	µg/L	20000	--	140	1300	2600
Copper -TR	µg/L	1300	--	28	47	94
Fluoride	mg/L	--	16	--	--	--
Iron – TR *	µg/L	--	5000	--	--	--
Lead - TR	µg/L	--	375	58	1104	1300
Mercury - TR (BCC) ^C	ng/L	12	10000 ^A	910	1700	3400

Phosphorous	mg/L	--	--	--	--	--
Selenium - TR ^B	µg/L	41419 ^A	188	8.9	109	120
Total Filterable Residue	mg/L	--	--	1942	--	--
Zinc - TR	µg/L	97882 ^A	94117 ^A	635	628	710
Outfall 011						
Aluminum	µg/L	--	--	--	--	--
Iron	µg/L	--	1476000	--	--	--
Phosphorous	mg/L	--	--	--	--	--
Total Filterable Residue	mg/L	--	--	1942	--	--

^A Allocation must not exceed the Inside Mixing Zone Maximum

^B Parameter would not require a WLA based on reasonable potential procedures, but allocation requested by Permits Group.

^C Bioaccumulative Chemical of Concern (BCC), WQS must be met at end-of-pipe, unless the requirements for an exclusion are met as listed in 3745-2-05(A)(2)(e)(ii)

* A WLA was not developed for these parameters as only 1 sample result was reported under Form 2C. A risk assessment was completed.

TR = Total Recoverable; WQS = water quality standard; WLA = wasteload allocation;
 PEL = preliminary effluent limit; PEQ = projected effluent quality

Table 13. Parameter Assessment

Table 13a

Outfall 003

Group 1: Due to a lack of numeric criteria, the following parameters were not evaluated at this time.

Aluminum

Group 2: PEQ < 25 percent of WQS or all data below minimum detection limit. WLA not required. No limit recommended; monitoring optional.

Barium

Chromium

Group 3: PEQ_{max} < 50 percent of maximum PEL and PEQ_{avg} < 50 percent of average PEL. No limit recommended; monitoring optional.

Total Filterable Residue

Group 4: PEQ_{max} ≥ 50 percent, but < 100 percent of the maximum PEL or PEQ_{avg} ≥ 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameter meets the criteria of this group.

Group 5: Maximum PEQ ≥ 100 percent of the maximum PEL or average PEQ ≥ 100 percent of the average PEL, or either the average or maximum PEQ is between 75 and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.

Limits to Protect Numeric Water Quality Criteria

Parameter	Units	Period	Recommended Effluent Limits	
			Average	Maximum
Chlorine – Total Residual	mg/L	annual	0.016	0.026
Copper	µg/L	annual	44	72
Fluoride*	mg/L	annual	2	--
Iron *	µg/L	annual	5000	--
Lead *	µg/L	annual	33	630
Mercury *	ng/L	annual	12	1700
Selenium *	µg/L	annual	5	62
Zinc *	µg/L	annual	360	360

* A WLA was not developed for these parameters as only 1 sample result was reported under Form 2C. The data for lead, mercury, selenium and zinc was submitted after the model completion. Using the discretion allowed by the Director under OAC 3745-33-07(A)(5), monitoring rather than limits is proposed for these parameters.

Table 13. Parameter Assessment
Table 13b

Outfall 009

Group 1: Due to a lack of numeric criteria, the following parameters were not evaluated at this time.

Group 2: PEQ < 25 percent of WQS or all data below minimum detection limit. WLA not required. No limit recommended; monitoring optional.

Barium

Group 3: PEQ_{max} < 50 percent of maximum PEL and PEQ_{avg} < 50 percent of average PEL. No limit recommended; monitoring optional.

Chromium

Total Filterable Residue

Group 4: PEQ_{max} ≥ 50 percent, but < 100 percent of the maximum PEL or PEQ_{avg} ≥ 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameter meets the criteria of this group.

Group 5: Maximum PEQ ≥ 100 percent of the maximum PEL or average PEQ ≥ 100 percent of the average PEL, or either the average or maximum PEQ is between 75 and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.

Limits to Protect Numeric Water Quality Criteria

Parameter	Units	Period	Recommended Effluent Limits	
			Average	Maximum
Chlorine – Total Residual	mg/L	annual	0.016	0.026
Copper	µg/L	annual	44	72
Fluoride*	mg/L	annual	2	--

* A WLA was not developed for this parameter as only 1 sample result was reported under Form 2C. Using the discretion allowed by the Director under OAC 3745-33-07(A)(5), monitoring rather than limits is proposed this parameter.

BCC = Bioaccumulative Chemical of Concern

Table 13. Parameter Assessment

Table 13c

Outfall 010

Group 1: Due to a lack of numeric criteria, the following parameters were not evaluated at this time.

Group 2: PEQ < 25 percent of WQS or all data below minimum detection limit. WLA not required. No limit recommended; monitoring optional.

Ammonia (summer)	Ammonia (winter)	Barium
Chloroform*	Copper	
Dichlorobromomethane*	Iron*	

Group 3: PEQ_{max} < 50 percent of maximum PEL and PEQ_{avg} < 50 percent of average PEL. No limit recommended; monitoring optional.

Total Filterable Residue	Fluoride	Zinc
--------------------------	----------	------

Group 4: PEQ_{max} ≥ 50 percent, but < 100 percent of the maximum PEL or PEQ_{avg} ≥ 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameter meets the criteria of this group.

Group 5: Maximum PEQ ≥ 100 percent of the maximum PEL or average PEQ ≥ 100 percent of the average PEL, or either the average or maximum PEQ is between 75 and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.

Limits to Protect Numeric Water Quality Criteria

Parameter	Units	Period	Recommended Effluent Limits	
			Average	Maximum
Chlorine – Total Residual	mg/L	annual	0.016	0.026
Lead	µg/L	annual	58	1104
Mercury (BCC)	ng/L	annual	12	1700
Selenium	µg/L	annual	8.9	109

BCC = Bioaccumulative Chemical of Concern

* A WLA was not developed for these parameters as only 1 sample result was reported under Form 2C. Using the discretion allowed by the Director under OAC 3745-33-07(A)(5), monitoring rather than limits is proposed this parameter.

Table 13. Parameter Assessment

Table 13d

Outfall 011

Group 1: Due to a lack of numeric criteria, the following parameters were not evaluated at this time.

Aluminum

Group 2: PEQ < 25 percent of WQS or all data below minimum detection limit. WLA not required. No limit recommended; monitoring optional.

No parameter meets the criteria of this group.

Group 3: PEQ_{max} < 50 percent of maximum PEL and PEQ_{avg} < 50 percent of average PEL. No limit recommended; monitoring optional.

Iron

Group 4: PEQ_{max} ≥ 50 percent, but < 100 percent of the maximum PEL or PEQ_{avg} ≥ 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameter meets the criteria of this group.

Group 5: Maximum PEQ ≥ 100 percent of the maximum PEL or average PEQ ≥ 100 percent of the average PEL, or either the average or maximum PEQ is between 75 and 100 percent of the PEL and certain conditions that increase the risk to the environment are present. Limit recommended.

Limits to Protect Numeric Water Quality Criteria

Parameter	Units	Period	Recommended Effluent Limits	
			Average	Maximum
Total Filterable Residue	mg/L	annual	1942	--

Table 14. Final Effluent Limits

Parameter	Units	Concentration		Loading (kg/day) ^a		Basis ^b
		30 Day	Daily	30 Day	Daily	
		Average	Maximum	Average	Maximum	
Outfall 003						
Water Temperature	°F	----- Monitor -----				M ^c
pH	S.U.	6.5 - 9.0		--	--	WQS
Phosphorus	mg/L	----- Monitor -----				M
Oil and Grease	mg/L	--	10	--	--	WQS
Aluminum	µg/L	----- Monitor -----				M
Chromium	µg/L	----- Monitor -----				M
Copper	µg/L	44	72	--	--	WLA
Fluoride	mg/L	----- Monitor -----				RP
Iron	µg/L	----- Monitor -----				RP
Lead	µg/L	----- Monitor -----				RP
Mercury	ng/L	----- Monitor -----				RP
Selenium	µg/L	----- Monitor -----				RP
Zinc	µg/L	----- Monitor -----				RP
Flow Rate	MGD	----- Monitor -----				M ^c
Chlorine, Total Residual	mg/L	0.016	0.026	--	--	WLA
Total Filterable Residue	mg/L	----- Monitor -----				M
Outfall 006						
Aluminum	µg/L	----- Monitor -----				M
Zinc	µg/L	----- Monitor -----				M
Outfall 008						
Aluminum	µg/L	----- Monitor -----				M
Copper	µg/L	----- Monitor -----				M
Total Suspended Solids	mg/L	----- Monitor -----				M
Zinc	µg/L	----- Monitor -----				M
Outfall 009						
Water Temperature	°F	----- Monitor -----				M ^c
pH	S.U.	6.5 - 9.0		--	--	WQS
Phosphorus	mg/L	----- Monitor -----				M
Oil and Grease	mg/L	--	10	--	--	WQS

Parameter	Units	Concentration		Loading (kg/day) ^a		Basis ^b
		30 Day	Daily	30 Day	Daily	
		Average	Maximum	Average	Maximum	
Copper	µg/L	44	72	--	--	WLA
Fluoride	mg/L	----- Monitor -----				RP
Flow Rate	MGD	----- Monitor -----				M ^c
Chlorine, Total Residual	mg/L	0.016	0.026	--	--	WLA
Total Filterable Residue	mg/L	----- Monitor -----				M
Outfall 010						
Water Temperature	°F	----- Monitor -----				M ^c
pH	S.U.	6.5 - 9.0		--	--	WQS
Oil and Grease	mg/L	--	10	--	--	WQS
Ammonia	mg/L	----- Monitor -----				M
Chloroform	µg/L	----- Monitor -----				M
Copper	µg/L	----- Monitor -----				M
Dichlorobromomethane	µg/L	----- Monitor -----				M
Fluoride	mg/L	----- Monitor -----				M
Iron	µg/L	----- Monitor -----				M
Lead	µg/L	58	1104	0.37	7.1	WLA
Selenium	µg/L	5.8	109	0.0371	0.697	ABS/WLA
Zinc	µg/L	----- Monitor -----				M
Phosphorus	mg/L	----- Monitor -----				M
Flow Rate	MGD	----- Monitor -----				M ^c
Chlorine, Total Residual	mg/L	0.016	0.022	--	--	WLA/ABS
Mercury	ng/L	40.6	1700	0.00026	0.011	VAR/WQS
Total Filterable Residue	mg/L	----- Monitor -----				M
<u>Whole Effluent Toxicity</u>						
Chronic, <i>Ceriodaphnia Dubia</i>	TU _c	--	2.44	--	--	ABS/WET
Acute, <i>Ceriodaphnia Dubia</i>	TU _a	--	1.0	--	--	WET
Outfall 011						
Water Temperature	°F	----- Monitor -----				M ^c
pH	S.U.	6.5 - 9.0		--	--	WQS

Parameter	Units	Concentration		Loading (kg/day) ^a		Basis ^b
		30 Day	Daily	30 Day	Daily	
		Average	Maximum	Average	Maximum	
Oil and Grease	mg/L	----- Monitor -----				M
Aluminum	µg/L	----- Monitor -----				M
Phosphorus	mg/L	----- Monitor -----				M
Iron	µg/L	----- Monitor -----				M
Flow Rate	MGD	----- Monitor -----				M ^c
Total Filterable Residue	mg/L	1942	--	--	--	WLA
Outfalls 020, 030, 031, 032						
Aluminum	µg/L	----- Monitor -----				M
Copper	µg/L	----- Monitor -----				M
Lead	µg/L	----- Monitor -----				M
Total Suspended Solids	mg/L	----- Monitor -----				M
pH ^d	S.U.	----- Monitor -----				M ^c
Zinc	µg/L	----- Monitor -----				M
Outfalls 022 and 024						
Aluminum	µg/L	----- Monitor -----				M
Copper	µg/L	----- Monitor -----				M
Total Suspended Solids	mg/L	----- Monitor -----				M
Zinc	µg/L	----- Monitor -----				M
Outfalls 025, 027, 028, 029, 033						
Aluminum	µg/L	----- Monitor -----				M
Zinc	µg/L	----- Monitor -----				M
Outfall 034						
Aluminum	µg/L	----- Monitor -----				M
Copper	µg/L	--	47	--	--	RP/WQS
Total Suspended Solids	mg/L	----- Monitor -----				M
Zinc	µg/L	--	360	--	--	RP/WQS
Internal Monitoring Station 601						
pH	S.U.	----- Monitor -----				M ^c
Total Suspended Solids	mg/L	--	--	68.1	188	NSPS/BPJ
Oil and Grease	mg/L	--	--	--	43.1	NSPS/BPJ

Parameter	Units	Concentration		Loading (kg/day) ^a		Basis ^b
		30 Day	Daily	30 Day	Daily	
		Average	Maximum	Average	Maximum	
Zinc	µg/L	--	--	0.93	2.76	NSPS/BPJ
Lead	µg/L	--	--	0.62	1.84	NSPS/BPJ/ABS
Mercury	ng/L	----- Monitor -----				M
Flow Rate	MGD	----- Monitor -----				M ^c

^a Effluent loadings are based on the 95th percentile of the monthly average flows: Outfall 010 = 1.69 MGD

^b Definitions: ABS = Antidegradation Rule (OAC 3745-33-05(F) and 40 CFR Part 122.44(l))
AD = Antidegradation requirements met under OAC 3745-1-05
BPJ = Best Professional Judgement: 40 CFR 420.08 – “Non-process wastewater and storm water”
BTJ = Best Technical Judgment
CFR = Code of Federal Regulation
NSPS = New Source Performance Standards: 40 CFR 420.54 – “Vacuum Degassing”, 40 CFR 420.64 – “Continuous Casting”, 40 CFR 420.74(b)(1) – “Hot Forming”
M = BTJ of Permit Guidance 2: Determination of Sampling Frequency Formula for Industrial Waste Discharges
OAC = Ohio Administrative Code
RP = Reasonable Potential for requiring water quality-based effluent limits and monitoring requirements in permits (OAC 3745-33-07(A))
VAR = Mercury variance (OAC 3745-1-38(J))
WLA = Wasteload Allocation procedures (OAC 3745-2)
WQS = Ohio Water Quality Standards (OAC 3745-1)

^c Monitoring of flow and other indicator parameters is specified to assist in the evaluation of effluent quality and treatment plant performance.

^d pH monitoring only applies to outfall 020

Attachment 1. Applicable Federal Effluent Limitation Guidelines, Station 601

40 CFR 420 – Iron and Steel Manufacturing Point Source Category

Subpart E, Vacuum Degassing Subcategory

40 CFR 420.54 – New Source Performance Standards

kg/1,000 kg of product (or pounds per 1,000 lb. of product)

Parameter	Loading Limits	
	Daily Maximum	30-day Average
Total Suspended Solids	0.00730	0.00261
Lead	0.0000939	0.0000313
Zinc	0.000141	0.0000469
pH	6.0 – 9.0 S.U.	

Subpart F, Continuous Casting Subcategory

40 CFR 420.64 – New Source Performance Standards

kg/1,000 kg of product (or pounds per 1,000 lb. of product)

Parameter	Loading Limits	
	Daily Maximum	30-day Average
Total Suspended Solids	0.00730	0.00261
Oil and Grease	0.00313	0.00104
Lead	0.0000939	0.0000313
Zinc	0.000141	0.0000469
pH	6.0 – 9.0 S.U.	

Subpart G, Hot Forming Subcategory

40 CFR 420.74(b)(1) – New Source Performance Standards, Section Mills, Carbon

Parameter	Loading Limits	
	Daily Maximum	30-day Average
Total Suspended Solids	0.0334	0.0125
Oil and Grease	0.00834	
Lead*	0.000250	0.0000834
Zinc*	0.000375	0.000125
pH	6.0 – 9.0 S.U.	

* Development Document for Effluent Limitations Guidelines and Standards for the Iron and Steel Manufacturing Point Source Category, Volume IV, “Hot Forming Subcategory”, Alternative BAT Effluent Limitations, Table X-1, EPA 440/1-82/024, May 1982.

General Provisions

40 CFR 420.08 – Non-process wastewater and storm water

Based on Best Professional Judgement (BPJ)

Iron and Steelmaking BPJ^a

Parameter	Loading Limits (mg/L)	
	Daily Maximum	30-day Average
Total Suspended Solids	70	25
Oil and Grease	30	10
Lead	0.90	0.30
Zinc	1.35	0.45

^a Development Document for Effluent Limitations Guidelines and Standards for the Iron and Steel Manufacturing Point Source Category, Volume III, “Continuous Casting Subcategory”, NSPS Alternative 2, Table XI-1, EPA 440/1-82/024, May 1982

Reverse Osmosis BPJ

Parameter	Loading Limits	
	Daily Maximum	30-day Average
Total Suspended Solids	70	25
Lead ^b	0.406	0.281
Zinc ^c	0.125	0.086

^b Limits based on PEQ values of Republic Steel – Canton’s Station 601

^c BPJ concentrations for zinc based on PEQ values for Cleveland Electric Illuminating Eastlake Plant outfall 003 (water plant/boiler blowdown - settling/high rate filtration treatment) 1/92-8/97 (250 data points, all >MDL)

Attachment 2. Calculation of Loading Limits for Station 601 Using Federal Effluent Limitation Guidelines

Process Wastewater

Republic Steel - Canton Hot Rolled Plant is subject to the Federal Effluent Limitation Guidelines (ELG) found in 40 CFR Parts 420.54, 420.64, and 420.74(b)(1). These limits are based on the production rate of the operations. More details can be found in Attachment 1.

The production and applicable ELG of each operation is summarized in the table below:

Operation	Federal Effluent Guidelines	Production (tons/day)
CBCF Vacuum Degasser	420.54	3,084
Flex-Cast Vacuum Degasser	420.54	3,064
CBCF Continuous Caster	420.64	3,084
Flex-Cast Continuous Caster	420.64	3,064
CBCF Hot Rolling Mill	420.74(b)(1)	2,042

The loading limit is calculated based on each ELG as:

$$\text{Loading} \left(\frac{\text{kg}}{\text{day}} \right) = \text{ELG} \left(\frac{\text{lb}}{1,000 \text{ lbs}} \right) * \text{Production} \left(\frac{\text{tons}}{\text{day}} \right) * \frac{2,000 \text{ lbs}}{\text{ton}} * \frac{1 \text{ kg}}{2.2 \text{ lbs}}$$

The loading limit of each parameter can be calculated using the information from Attachment 1. An example of the calculation for lead of the daily maximum allowable loading from CBCF vacuum degassing is as follows:

$$\text{Lead Loading} = 0.0000939 \left(\frac{\text{lb}}{1,000 \text{ lbs}} \right) * 3,084 \left(\frac{\text{tons}}{\text{day}} \right) * \frac{2,000 \text{ lbs}}{\text{ton}} * \frac{1 \text{ kg}}{2.2 \text{ lbs}} = 0.2627 \frac{\text{kg}}{\text{day}}$$

Non-Categorical Process Wastewater and Process Area Stormwater

Non-process wastewater and process area storm water are combined with the process wastewater before discharging to Station 601. According to 40 CFR 420.08, these flows are subject to BPJ limits and will be considered when calculating the effluent limits.

Iron and Steelmaking BPJ

Flows exposed to iron and steelmaking operations are listed below:

Discharge Type	Flow (MGD)	Description
Quality Control	0.058	Water contacts steel during straightening and inspection (40 gpm); non-process wastewater
Plant Clean-Up	0.020	Water accumulates in process areas and must be removed (up to four 5,000 gal vac trucks); non-process wastewater
Process Area Storm Water	0.012	Based on drainage area of approximately 9,100 square feet at the Water Quality Control Center sludge handling area and areas surrounding scale pits, and 1 year 24 hour rain event of 2.2".
Total Flow	0.090 MGD	

Reverse Osmosis BPJ

The reverse osmosis rejection water from the No. 4 Melt Shop discharges 0.077 MGD. This flow is not exposed to iron and steel manufacturing operations.

The allowable loading for the non-process wastewater and process area stormwater can be calculated by using the following equation:

$$\text{Loading} \left(\frac{\text{kg}}{\text{day}} \right) = \text{Water Quality Standard} \left(\frac{\text{mg}}{\text{L}} \right) * \text{Flow} \left(\frac{\text{gal}}{\text{day}} \right) * \frac{3.785 \text{ L}}{\text{gal}} * \frac{1 \text{ kg}}{10^6 \text{ mg}}$$

The total loadings for total suspended solids, oil and grease, lead, and zinc are listed below.

Operation	Loading Limit (kg/day)							
	Total Suspended Solids		Oil and Grease		Lead		Zinc	
	Daily Max.	30-Day Avg.	Daily Max.	30-Day Avg.	Daily Max.	30-Day Avg.	Daily Max.	30-Day Avg.
CBCF Vacuum Degasser	20.424	7.302	--	--	0.263	0.088	0.394	0.131
Flex-Cast Vacuum Degasser	20.291	7.255	--	--	0.261	0.087	0.392	0.130
CBCF Continuous Caster	20.424	7.302	8.757	2.910	0.263	0.088	0.394	0.131
Flex-Cast Continuous Caster	20.291	7.255	8.700	2.910	0.261	0.087	0.392	0.130
CBCF Hot Rolling Mill	61.873	23.156	15.450	--	0.463	0.154	0.695	0.232
Non-Process Wastewaters and Process Area Stormwater								
Iron and Steelmaking BPJ	23.846	8.516	10.220	3.407	0.307	0.102	0.460	0.153
Reverse Osmosis	20.401	7.286	--	--	0.118	0.082	0.036	0.025
Total	187.549	68.072	43.126	9.207	1.935	0.688	2.764	0.933

Attachment 3. List of Approved Boiler/Cooling Water System Additives

Additives	Additive Use	Discharge Conc. (mg/L)	Approval Date
AF1440	Anti-foaming for non-contact, fume, and furnace cooling water systems	1.68	August 22, 2013
BC9532	Cleaning agent for contact cooling water system to backwash sand filters	0.288	August 22, 2013
AF3561	Anti-foaming for non-contact, fume, furnace, and contact cooling water systems	3.36	August 22, 2013
RL9004	Antiscalant for non-contact cooling water system	0.36	February 24, 2016
BL122	Oxygen scavenger	0.001	February 24, 2016
BL1342	Scale inhibitor	0.019	February 24, 2016
RL9004	Reverse Osmosis Scale Inhibitor	0.540	July 29, 2016
BL126	Dechlorinating Agent for RO and Nano Filter	0.007	July 29, 2016
CL4075	Contact Cooling Water Scale Inhibitor	0.184	July 29, 2016
CT709	Contact Cooling Water Scale Inhibitor	0.36	July 29, 2016
CL4800	Contact Cooling Water Scale Inhibitor	0.31	July 29, 2016
P873L	Contact Cooling Water Coagulant	0.005	July 29, 2016
C2189T	Contact Cooling Water Adjunct Oxidizing Biocide	0.00	July 29, 2016
CL450	Contact Cooling Water Adjunct Bio Dispersant	0.104	July 29, 2016
FO180	Contact & Noncontact Cooling Water Adjunct Antifoam	3.36	July 29, 2016
CL3857	Cooling Water Scale Inhibitor & Dispersant	0.67	July 29, 2016
CL1427	Noncontact Cooling Water Corrosion Inhibitor	0.174	July 29, 2016
CL4123	Noncontact Cooling Water Admiralty Metals Corrosion Inhibitor	0.47	July 29, 2016
P893L	WQCC Water Coagulant	0.0099	July 29, 2016
P817E	WQCC Anionic Flocculent	0.0029	July 29, 2016
CL206	Mold System Closed Cooling Water Non-Oxidizing Biocide	0.0135	July 29, 2016
CL2150	Mold System Closed Cooling Water Non-Oxidizing Biocide	0.0863	July 29, 2016
UCLC400	Mold Water Corrosion Inhibitor	1.024	July 29, 2016
CL5695	Ion Exchange Resin Cleaner	0.311	July 29, 2016
CL280	Mold system closed cooling water	2.01	August 9, 2017
CL4123	EMS closed loop system	0.48	November 29, 2017
CL2880	EMS closed loop system	0.16	November 29, 2017
SF502	Cooling water system	0.050	November 19, 2020

Attachment 4. Whole Effluent Toxicity – Outfall 010

Hazard Category Summary

	<i>Ceriodaphnia dubia</i> (Water flea)		<i>Pimephales promelas</i> (Fathead minnow)	
	Acute	Chronic	Acute	Chronic
Effluent Toxicity (Table A)	4	2	--	--
Overall Categorization	2		--	

Hazard Categories: 1: Toxicity adequately documented; 2: Toxicity strongly suspected; 3: Toxicity possible; 4: No toxicity

Table A. Effluent Toxicity

	Water flea		Fathead minnow	
	Acute	Chronic	Acute	Chronic
WLA	1.0	3.83	--	--
# of tests	13	13	--	--
Maximum value	0.2	20	--	--
Per cent of tests > WLA	0%	23%	--	--
Geometric mean	0.105	1.30	--	--
Average Exceedance (Geomean * Per cent of tests > WLA)	0	0.299	--	--
Average Exceedance / WLA	0	0.078	--	--

Attribute Evaluated - <i>Chronic water flea</i>	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of toxicity problem	Adequately Documented	Strongly Suspected	Possible	None
(A) Effluent toxicity				
.....(1) Minimum number of tests	3	1	0 or 1	0 or 1
.....(2) Percent of tests > WLA	> 30	20 to 30	10 to 20	< 10
.....(3) Average exceedance ¹				
.....(a) Chronic	> 0.3 x WLA	≥ 0.3 x WLA	≥ 0.2 x WLA	< 0.2 x WLA
.....(4) Maximum TU value	≥ 3 x WLA	≥ 1 x WLA	≥ 1 x WLA	< 1 x WLA

Attribute Evaluated - <i>Acute water flea</i>	Hazard Category 1	Hazard Category 2	Hazard Category 3	Hazard Category 4
Degree of toxicity problem	Adequately Documented	Strongly Suspected	Possible	None
(A) Effluent toxicity				
.....(1) Minimum number of tests	3	1	0 or 1	0 or 1
.....(2) Per cent of tests > WLA	> 30	20 to 30	10 to 20	< 10
.....(3) Average exceedance ¹				
.....(a) Acute ²	> 0.3	≥ 0.3	≥ 0.2	< 0.2
.....(4) Maximum TU value	≥ 3 x WLA	≥ 1 x WLA	≥ 1 x WLA	< 1 x WLA

¹ Compare (percent exceedances x geometric mean TU) to table factor.

² Use 0.3 x WLA for situations where AIM exists.

Addendum 1. Acronyms

ABS	Anti-backsliding
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BPJ	Best professional judgment
BPT	Best Practicable Control Technology Currently Available
BTJ	Best technical judgment
CFR	Code of Federal Regulations
CONSWLA	Conservative substance wasteload allocation
CWA	Clean Water Act
CWIS	Cooling water intake structure
DMR	Discharge Monitoring Report
DMT	Dissolved metal translator
ELG	Federal effluent limitation guideline
gpm	Gallons per minute
IMZM	Inside mixing zone maximum
MDL	Analytical method detection limit
MGD	Million gallons per day
NPDES	National Pollutant Discharge Elimination System
NSPS	New source performance standards
OAC	Ohio Administrative Code
Ohio EPA	Ohio Environmental Protection Agency
ORC	Ohio Revised Code
ORSANCO	Ohio River Valley Water Sanitation Commission
PEL	Preliminary effluent limit
PEQ	Projected effluent quality
PMP	Pollution Minimization Program
PPE	Plant performance evaluation
SIC	Standard Industrial Classification
TBEL	Technology-based effluent limit
TMDL	Total Daily Maximum Load
TRE	Toxicity reduction evaluation
TU	Toxicity unit
U.S. EPA	United States Environmental Protection Agency
WET	Whole effluent toxicity
WLA	Wasteload allocation
WQBEL	Water-quality-based effluent limit
WQS	Water Quality Standards