Ohio EPA Permit No.: 0IE00010*MD
Application No: OH0010910

Action Date: April 23, 2024
Effective Date: June 1, 2024
Expiration Date: May 31, 2029

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

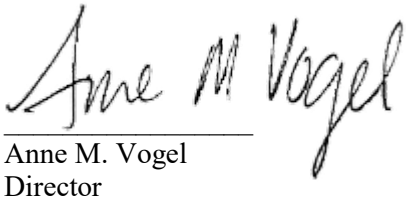
In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et. seq., hereinafter referred to as the "Act"), and the Ohio Water Pollution Control Act (Ohio Revised Code Section 6111),

Titanium Metals Corporation Toronto Plant

is authorized by the Ohio Environmental Protection Agency, hereinafter referred to as "Ohio EPA," to discharge from the Titanium Metals Corporation Toronto Plant facility, located at 100 Titanium Way, Toronto, Ohio, Jefferson County, and discharging to Jeddo Run and the Ohio River in accordance with the conditions specified in Parts I, II, III, IV, V, and VI of this permit.

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: 62

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning on the effective date of this permit and lasting until the end of the 48th month, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IE00010001. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Initial

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
99983 - Zinc, Total - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly

Notes for Station Number 0IE00010001:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to non-contact cooling water, storm water runoff, steam condensates, and miscellaneous non-process wastewaters.

c. Total Residual Chlorine - See Part I, C and Part II, Item H.

d. 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 in accordance with footnote (e). 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
Zinc	430 mg/L

e. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

f. Quarterly benchmark monitoring for total recoverable zinc shall be conducted in accordance with Part V of this permit and reported under parameter code "99983 - Zinc, Total - ug/l."

g. Corrective Action Reports must be submitted to Ohio EPA Southeast 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 on the 37th month of this permit and lasting through the 48th month, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IE00010001. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Interim

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	0.038	-	-	-	-	-	-	1/Month	Grab	All
99983 - Zinc, Total - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly

Notes for Station Number 0IE00010001:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to non-contact cooling water, storm water runoff, steam condensates, and miscellaneous non-process wastewaters.

c. Total Residual Chlorine - See Part I, C and Part II, Item H.

d. 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 in accordance with footnote (e). 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
Zinc	430 mg/L

e. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

f. Quarterly benchmark monitoring for total recoverable zinc shall be conducted in accordance with Part V of this permit and reported under parameter code “99983 - Zinc, Total - ug/l.”

g. Corrective Action Reports must be submitted to Ohio EPA Southeast 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 37th month 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 0IE00010001. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 001 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01119 - Copper, Total Recoverable - ug/l	54	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
50060 - Chlorine, Total Residual - mg/l	0.038	-	-	-	-	-	-	1/Month	Grab	All
99983 - Zinc, Total - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly

Notes for Station Number 0IE00010001:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to non-contact cooling water, storm water runoff, steam condensates, and miscellaneous non-process wastewaters.

c. Total Residual Chlorine - See Part I, C and Part II, Item H.

d. 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 in accordance with footnote (e). 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
Zinc	430 mg/L

e. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

f. Quarterly benchmark monitoring for total recoverable zinc shall be conducted in accordance with Part V of this permit and reported under parameter code "99983 - Zinc, Total - ug/l."

g. Corrective Action Reports must be submitted to Ohio EPA Southeast 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 end of the 48th month, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IE00010002. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 002 - Initial

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	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
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All

Notes for Station Number 0IE00010002:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to storm water runoff.

c. 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 in accordance with footnote (d). 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
Zinc	430 mg/L

d. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

e. Corrective Action Reports must be submitted to Ohio EPA Southeast 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 49th month 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 0IE00010002. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 002 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	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
01119 - Copper, Total Recoverable - ug/l	54	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All

Notes for Station Number 0IE00010002:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to storm water runoff.

c. 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 in accordance with footnote (d). 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
Zinc	430 mg/L

d. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

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

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

6. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge in accordance with the following limitations and monitoring requirements from outfall 0IE00010003. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 003 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	24hr Composite	Quarterly
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Month	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
99987 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly

Notes for Station Number 0IE00010003:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to non-contact cooling water, storm water runoff, steam condensates, and miscellaneous non-process wastewaters.

c. 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 in accordance with footnote (d). 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
Copper	54 µg/L
Zinc	430 µg/L

d. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

e. Quarterly benchmark monitoring for total recoverable copper shall be conducted in accordance with Part V of this permit and reported under parameter code “99987 - Copper, Total Recoverable - ug/l.”

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

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

7. 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 0IE00010004. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 004 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total Estimate	All

Notes for Station Number 0IE00010004:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. This outfall is limited to non-contact cooling water, storm water runoff, steam condensates, and miscellaneous non-process wastewaters.

c. 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 in accordance with footnote (d). 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
Copper	58 µg/L
Zinc	460 µg/L

d. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

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

PART I, A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

8. 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 0IE00010006. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Final Outfall - 006 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00400 - pH - S.U.	9.0	6.5	-	-	-	-	-	1 / 2 Weeks	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	-	-	-	1/Month	Grab	All
00900 - Hardness, Total (CaCO3) - mg/l	-	-	-	-	-	-	-	1 / 2 Weeks	24hr Composite	All
01094 - Zinc, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
01119 - Copper, Total Recoverable - ug/l	-	-	-	-	-	-	-	1/Quarter	Grab	Quarterly
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All

Notes for Station Number 0IE00010006:

a. Sampling shall be performed when discharging. If there are no discharges during the entire month, eDMR users should select the No Discharge checkbox on the data entry form and pin the eDMR.

b. 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 in accordance with footnote (c). 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
Copper	69 µg/L
Zinc	540 µg/L

c. During the first eight quarterly monitoring periods of this permit, you shall select a total of four quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall occur during each of the selected quarterly monitoring periods (Q1-Q4) unless your facility is always inactive and unstaffed for a particular quarterly monitoring period. After collection of quarterly samples, you shall average your four monitoring values and compare to the benchmark concentration.

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

PART I, A. INTERNAL MONITORING REQUIREMENTS

9. 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 0IE00010602. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Internal Monitoring Station - 602 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	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	-	-	-	-	109.41	-	52.17	1/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	53.30	-	31.91	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	99.14	-	43.55	1/Week	24hr Composite	All
00720 - Cyanide, Total - mg/l	-	-	-	-	0.22	-	0.12	1/Week	Grab	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	44.35	-	19.63	1/Week	24hr Composite	All
01051 - Lead, Total (Pb) - ug/l	-	-	-	-	0.30	-	0.15	1/Week	24hr Composite	All
01092 - Zinc, Total (Zn) - ug/l	-	-	-	-	1.09	-	0.60	1/Week	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
51600 - pH Range Excursion, Maximum Duration - Minutes	60	-	-	-	-	-	-	1/Day	Maximum	All
61941 - pH, Maximum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
61942 - pH, Minimum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
82581 - pH Range Excursions,	0	-	-	-	-	-	-	1/Day	Total	All
82582 - pH Range Excursions, Monthly Total Duration - Minutes	446	-	-	-	-	-	-	1/Month	Total	All

Notes for station 0IE00010602:

a. These discharge requirements are effective when there is no discharge resulting from processes covered under the 40 CFR 471 Subpart I, Zirconium-Hafnium forming subcategory.

b. Report in accordance with station 620 when the discharge limitations and monitoring requirements for both the Zirconium-Hafnium and the 40 CFR 471

Subpart F, Titanium forming subcategories apply. At these times, use the 'AH' data code on the monthly operating report for station 602 and explain in the remarks section.

c. pH, see part II, Item E.

- Report the maximum and minimum pH each day.
- 82582 is the total duration in minutes of all pH excursions for the month. Only report one value for the month. If no excursions occurred, report 0.
- 51600 is the duration in minutes of the longest pH excursion on each day. If no excursions occurred, report 0.
- 82581 is the number of pH excursions each day that exceeded 60 minutes in duration. If no such excursions occurred, report 0.

PART I, A. INTERNAL MONITORING REQUIREMENTS

10. 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 0IE00010620. See Part II, OTHER REQUIREMENTS, for locations of effluent sampling.

Table - Internal Monitoring Station - 620 - Final

Effluent Characteristic	Discharge Limitations							Monitoring Requirements		
Parameter	Concentration Specified Units				Loading* kg/day			Measuring Frequency	Sampling Type	Monitoring Months
	Maximum	Minimum	Weekly	Monthly	Daily	Weekly	Monthly			
00010 - Water Temperature - C	-	-	-	-	-	-	-	1/Week	Grab	All
00530 - Total Suspended Solids - mg/l	-	-	-	-	95.92	-	45.57	1/Week	24hr Composite	All
00552 - Oil and Grease, Hexane Extr Method - mg/l	-	-	-	-	46.69	-	28.06	1/Week	Grab	All
00610 - Nitrogen, Ammonia (NH3) - mg/l	-	-	-	-	96.22	-	42.31	1/Week	24hr Composite	All
00720 - Cyanide, Total - mg/l	-	-	-	-	0.21	-	0.09	1/Week	Grab	All
00951 - Fluoride, Total (F) - mg/l	-	-	-	-	43.03	-	19.07	1/Week	24hr Composite	All
01034 - Chromium, Total (Cr) - ug/l	-	-	-	-	0.005	-	0.002	1/Week	24hr Composite	All
01051 - Lead, Total (Pb) - ug/l	-	-	-	-	0.30	-	0.142	1/Week	24hr Composite	All
01067 - Nickel, Total (Ni) - ug/l	-	-	-	-	0.020	-	0.010	1/Week	24hr Composite	All
01092 - Zinc, Total (Zn) - ug/l	-	-	-	-	1.04	-	0.43	1/Week	24hr Composite	All
50050 - Flow Rate - MGD	-	-	-	-	-	-	-	1/Day	24hr Total	All
51600 - pH Range Excursion, Maximum Duration - Minutes	60	-	-	-	-	-	-	1/Day	Maximum	All
61941 - pH, Maximum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
61942 - pH, Minimum - S.U.	-	-	-	-	-	-	-	1/Day	Continuous	All
82581 - pH Range Excursions,	0	-	-	-	-	-	-	1/Day	Total	All
82582 - pH Range Excursions, Monthly Total Duration - Minutes	446	-	-	-	-	-	-	1/Month	Total	All

Notes for station 0IE00010620:

a. These discharge requirements are effective when there are discharges resulting from processes covered under the 40 CFR 471 Subpart I, Zirconium-Hafnium forming subcategory.

b. Report in accordance with station 602 when discharges result solely from processes covered by 40 CFR 471 Subpart F, Titanium forming subcategory. At these times, use the 'AH' data code on the monthly operating report for station 620 and explain in the remarks section.

c. pH, see part II, Item E.
- Report the maximum and minimum pH each day.
- 82582 is the total duration in minutes of all pH excursions for the month. Only report one value for the month. If no excursions occurred, report 0.
- 51600 is the duration in minutes of the longest pH excursion on each day. If no excursions occurred, report 0.
- 82581 is the number of pH excursions each day that exceeded 60 minutes in duration. If no such excursions occurred, report 0.

PART I, C. - SCHEDULE OF COMPLIANCE

Milestone Summary Report

Section	Report	Event Code	Due Date
New Final Effluent Limits for Total Residual Chlorine	Submit First Annual Report	90199	12 months after the permit effective date
New Final Effluent Limits for Copper	Submit First Annual Report	90199	12 months after the permit effective date
New Final Effluent Limits for Total Residual Chlorine	Submit Second Report	90299	24 months after the permit effective date
New Final Effluent Limits for Copper	Submit Second Report	90299	24 months after the permit effective date
New Final Effluent Limits for Total Residual Chlorine	Final Compliance w/ Eff Limits	5699	36 months after the permit effective date
New Final Effluent Limits for Copper	Submit Third Annual Report	90399	36 months after the permit effective date
New Final Effluent Limits for Copper	Final Compliance w/ Eff Limits	5699	48 months after the permit effective date

1. New Final Effluent Limits for Total Residual Chlorine

The permittee shall attain compliance with the new final effluent limit for total residual chlorine at outfall 0IE00010001 as soon as possible but not later than the dates in the following schedule.

a. No later than 12 months after the permit effective date, the permittee shall submit to the Ohio EPA Southeast District Office a report on the progress toward attaining compliance with the new final effluent limit for total residual chlorine. At a minimum, the report shall include effluent data from the previous twelve months and a summary of all activities completed to reduce pollutant levels. [Event Code 90199]

b. No later than 24 months after the permit effective date, the permittee shall submit to the Ohio EPA Southeast District Office a report on the progress toward attaining compliance with the new final effluent limit for total residual chlorine. At a minimum, the report shall include effluent data from the previous twelve months and a summary of all activities completed to reduce pollutant levels. [Event Code 90299]

c. No later than 36 months after the permit effective date, the permittee shall attain compliance with the new final effluent limit for total residual chlorine. The permittee shall notify the Ohio EPA Southeast District Office within 14 days of attaining compliance. [Event Code 05699].

2. New Final Effluent Limits for Copper

The permittee shall attain compliance with the new final effluent limits for copper at outfalls 0IE00010001 and 0IE00010002 as soon as possible but not later than the dates in the following schedule:

a. No later than 12 months after the permit effective date, the permittee shall submit to the Ohio EPA Southeast District Office a report on the progress toward attaining compliance with the new final effluent limits for copper. At a minimum, the report shall include effluent data from the previous twelve months and a summary of all activities completed to reduce pollutant levels. [Event Code 90199]

b. No later than 24 months after the permit effective date, the permittee shall submit to the Ohio EPA Southeast District Office a report on the progress toward attaining compliance with the new final effluent limits for copper. At a minimum, the report shall include effluent data from the previous twelve months and a summary of all activities completed to reduce pollutant levels. [Event Code 90299]

c. No later than 36 months after the permit effective date, the permittee shall submit to the Ohio EPA Southeast District Office a report on the progress toward attaining compliance with the new final effluent limits for copper. At a minimum, the report shall include effluent data from the previous twelve months and a summary of all activities completed to reduce pollutant levels. [Event Code 90399]

d. No later than 48 months after the permit effective date, the permittee shall attain compliance with the new final effluent limits for copper. The permittee shall notify the Ohio EPA Southeast District Office within 14 days of attaining compliance. [Event Code 05699]

PART II - OTHER REQUIREMENTS

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

Sampling Station	Description of Location
0IE00010001	Final Outfall. Non-contact cooling water, storm water, steam condensate and miscellaneous non-process water. Sample to be collected at the 15-inch metal pipe before discharging to Jeddo Run. (Lat: 40N 26' 59"; Long: 80W 36' 34")
0IE00010002	Stormwater Outfall. Sample to be collected from the pipe located 160 feet east of the Titanium Way bridge before discharging to Jeddo Run. (Lat: 40N 26' 58"; Long: 80W 36' 33")
0IE00010003	Final Outfall. Non-contact cooling water, storm water, steam condensate and miscellaneous non-process water. Sample to be collected from the pipe located 80 feet east of the railroad bridge before discharging to Jeddo Run. (Lat: 40N 26' 57"; Long: 80W 36' 30")
0IE00010004	Final Outfall. Non-contact cooling water, storm water, steam condensate and miscellaneous non-process water. Sample to be collected from the pipe located 120 feet north of the river pump house before discharging to the Ohio River. (Lat: 40N 26' 49"; Long: 80W 36' 29")
0IE00010006	Final Outfall. Includes internal outfall 602, process wastewater treatment plant, miscellaneous non-process water, non-contact cooling waters including United Hot Rolling Mill, steam condensate, storm water, compressed air dryer condensate, deaeration, boiler blowdown and water softener discharges. Sample to be collected from pipe located 50 feet from the south end of the extrusion building before discharging to the Ohio River. (Lat: 40N 26' 40"; Long: 80W 36' 37")
0IE00010602	Descale pickle line bath and rinse, strip pickle line bath and rinse, descale pickle line fume scrubber, strip pickle line fume scrubber, CVA rinse, sheet pickling, forge quench blowdown, CA3 annealing line contact cooling water blowdown via acid pickling baths, billet pickling, United Hot Rolling Mill contact cooling water and miscellaneous water. Sampling data shall be reported under this station only when the discharge consists solely of wastewater from titanium forming operations. Sample to be collected from the wastewater treatment plant prior to entering the outfall 0IE00010006 sewer. (Lat: 40N 26' 43"; Long: 80W 36' 32")
0IE00010620	This station is actually outfall 0IE00010602 and consists of the discharges listed for station 602 and zirconium-hafnium pickle line bath and rinse water. Sampling data shall be reported under this station only when the discharge consists of a combination of titanium forming and zirconium-hafnium wastewaters.

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. 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.

D. 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

E. pH Excursion

At outfalls 0IE00010602 and 0IE00010620, where pH is monitored continuously, the permittee shall maintain the pH of the discharge within the range of 7.5 to 10.0 S.U. Any incident in which the pH exceeds the range specified in the permit shall be considered an "excursion". Excursions from the range are permitted subject to the following limitations and conditions:

1. The total duration of excursions (total time above or below the limit) shall not exceed 7 hours and 26 minutes in a calendar month.

2. No individual excursion from the range of pH values (consecutive time above or below a limit) shall exceed 60 minutes.

3. The permittee shall report each month for each monitoring station where pH is monitored continuously the following:

a. the number of pH excursions;
b. the duration of each excursion;
c. the date of each excursion; and
d. the total time of all excursions combined.

4. For reporting purposes on eDMR, the permittee shall report as follows:

a. For daily pH values, report both the highest and lowest pH value for that day.
b. For the parameter "pH Range Excursions, Monthly Total Duration (minutes)" report the total duration of excursions for the entire calendar month on Day 1.
c. For the parameter "pH Range Excursion, Maximum Duration (minutes)" report, the duration of the longest excursion on each day of occurrence. If no such excursions occurred during the month, report "0" on Day 1.

d. For the parameter "pH Range Excursions > 60 Minutes (Number/Day)" report the number of excursions each day that exceeded 60 minutes in duration. If no such excursions occurred during the month, report "0" on Day 1.

F. 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.

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

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:

Parameter	PQL	ML
Chlorine, Total Residual	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. Notification to Public Water Supply Operators.

1. As required by the Ohio Administrative Code 3745-33-08(F), permits for facilities designated by the director as major discharges, in the following locations, shall require the permittee to notify the public water supply operator as soon as practicable after a discharge begins that results from a spill, separate sewer overflow, bypass, upset, or combined sewer overflow that reaches waters of the state:

a. Discharges within three thousand feet of a public water supply intake located in a lake; or

b. Discharges within ten stream miles upstream of a public water supply intake located in a reservoir or any other surface water of the state.

2. Public water supply operators meeting the criteria in Part II, Item J.1 above for the Titanium Metals Corporation are:

a. City of Steubenville Water Filtration Plant
1565 University Blvd., Steubenville, OH 43952
(740) 283-6000

b. Weirton City Water Plant
3031 Birch Drive, Weirton, WV 26062
(304) 797-8566

3. Within 6 months of the effective date of this permit, the permittee shall develop notification procedures between the wastewater system operator and public water supply operators listed above in Part II, Item J.2 that defines the specific notification requirements to the public water supply operator and what constitutes notification "as soon as practicable."

J. Outfall Signage

The permittee shall maintain a permanent sign 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.

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 *E.coli* bacteria limitations shall be determined using the geometric mean.

"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-sub/edmr

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:

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 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. Inactive and unstaffed facilities covered under Sectors D (Asphalt Paving and Roofing Materials and Lubricant Manufacturing), E (Glass, Clay, Cement, Concrete, and Gypsum Products) and J (Non-Metallic Mineral Mining and Dressing), are not required to meet the "no industrial materials or activities exposed to stormwater" standard to be eligible for this exception from routine inspections, consistent with the requirements established in relevant sector requirements.

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 001, 002, 003, 004, and 006 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.

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

1. 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
  - Fueling stations;
  - Vehicle and equipment maintenance and/or cleaning areas;
  - Loading/unloading areas;
  - Locations used for the treatment, storage, or disposal of wastes;
  - Liquid storage tanks;
  - Processing and storage areas;
  - 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;
  - Transfer areas for substances in bulk;
  - Machinery; and
  - 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 001, 002, 003, 004, and 006, 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 the first 8 quarterly monitoring periods of your permit coverage, you shall select a total of 4 quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, one benchmark sampling event shall be taken during each of the selected 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 quarterly samples, you shall average the values and compare that value to the benchmark. 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 during the next 8 quarterly monitoring periods, you shall select a total of 4 quarterly monitoring periods and perform benchmark monitoring. Over this 2-year period, 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 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:

iii. 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.

iv. 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

v. 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 Titanium Metals Corporation

Public Notice No.: 194391
Public Notice Date: January 18, 2024
Comment Period Ends: February 17, 2024

Ohio EPA Permit No.: 0IE00010*MD
Application No.: OH0010910

Name and Address of Applicant:
Titanium Metals Corporation
100 Titanium Way
Toronto, OH 43964

Name and Address of Facility Where Discharge Occurs:
Titanium Metals Corporation Toronto Plant
100 Titanium Way
Toronto, OH 43964
Jefferson County

Receiving Water: Jeddo Run, Ohio River

Subsequent Stream Network: 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. No antidegradation review was necessary.

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.

Outfall 001

New daily maximum effluent limits are proposed for copper and total residual chlorine because of reasonable potential to exceed WQS. A 48-month compliance schedule is proposed for the facility to achieve compliance with the new copper limits. A 36-month compliance schedule is proposed for the facility to achieve compliance with the new chlorine limit. Details are in Part I, C of the permit.

Increased monitoring is proposed for zinc because recent sampling data indicates reasonable potential to exceed WQS.

Limits are proposed to be removed for oil and grease because effluent data does not indicate reasonable potential to exceed WQS. Monitoring is proposed to continue at the same frequency.

Outfall 002

The facility no longer discharges process water through this outfall. The effluent shall only contain stormwater associated with industrial activity. As a result of this change, monitoring requirements and limits are proposed to be removed for temperature, pH, oil and grease, and hardness.

A new daily maximum effluent limit is proposed for copper because of reasonable potential to exceed WQS. A 48-month compliance schedule is proposed for the facility to achieve compliance with the new limit. Details are in Part I, C of the permit.

Outfall 003

Limits are proposed to be removed for oil and grease because effluent data does not indicate reasonable potential to exceed WQS. Monitoring is proposed to continue at the same frequency.

Outfall 004

New monitoring is proposed for total suspended solids to be consistent with the facility's other stormwater-containing outfalls.

Limits are proposed to be removed for oil and grease because effluent data does not indicate reasonable potential to exceed WQS. Monitoring is proposed to continue at a reduced frequency of quarterly.

Outfall 006

Limits are proposed to be removed for oil and grease because effluent data does not indicate reasonable potential to exceed WQS. Monitoring is proposed to continue at a reduced frequency of monthly.

Monitoring requirements are proposed to be removed for fluoride and mercury because recent sampling data do not indicate reasonable potential to exceed WQS.

Monitoring requirements are proposed to be removed for manganese because current WQS do not contain criteria for this pollutant. Toxicity testing of the effluent do not indicate impacts to aquatic life as a result of manganese in the discharge.

Whole effluent toxicity (WET) monitoring is proposed to be removed from the permit as recent tests do not indicate adverse impacts to aquatic life.

Internal Monitoring Station 602

Lower categorical effluent limits are proposed for total cyanide and zinc based on updated production values and the applicable effluent limitation guidelines (ELGs) in 40 CFR 471, Subpart F.

Internal Monitoring Station 620

Lower categorical effluent limits are proposed for chromium and nickel based on updated production values and the applicable effluent limitation guidelines (ELGs) in 40 CFR 471, Subparts F and I.

In Part II of the permit, special conditions are included that address downstream public water supply notification and outfall signage.

Stormwater Benchmarks

Updated stormwater benchmarks are proposed for each permitted outfall. Benchmark values are based on the inside mixing zone maximum (IMZM) criteria in OAC 3745-1-35 and the applicable effluent/instream hardness for each discharge.

Updates are proposed to Parts IV, V and VI to maintain consistency with the renewed Industrial Stormwater Multi-Sector General Permit. The main changes include the following: benchmark sampling to be taken within the first 8 quarters (2 years); quarterly sample collection during any month of the quarter; and submission of a corrective action report for benchmark exceedances.

Table of Contents

Page
INTRODUCTION 1
SUMMARY OF PERMIT CONDITIONS 2
PROCEDURES FOR PARTICIPATION IN THE FORMULATION OF FINAL DETERMINATIONS 6
INFORMATION REGARDING CERTAIN WATER QUALITY BASED EFFLUENT LIMITS 6
LOCATION OF DISCHARGE/RECEIVING WATER USE CLASSIFICATION 8
FACILITY DESCRIPTION 8
DESCRIPTION OF EXISTING DISCHARGE 9
ASSESSMENT OF IMPACT ON RECEIVING WATERS 9
DEVELOPMENT OF WATER-QUALITY-BASED EFFLUENT LIMITS 10
REASONABLE POTENTIAL/EFFLUENT LIMITS/MANAGEMENT DECISIONS 12
OTHER REQUIREMENTS 17

List of Figures

Figure 1. Location of TIMET 18
Figure 2. Water Balance Diagram 19

List of Tables

Table 1. Monitoring Stations, Wastewater Sources, and Discharge Points 20
Table 2. Effluent Limit Violations 21
Table 3. Average Annual Effluent Flow Rates 21
Table 4. Effluent Characterization Based on Form 2C Data 23
Table 5. Effluent Characterization for Outfall 006 Using Ohio EPA Data 24
Table 6. Effluent Characterization Using Self-Monitoring Data 26
Table 7. Projected Effluent Quality 28
Table 8. Summary of Acute and Chronic Toxicity Results 31
Table 9. Water Quality Criteria in the Study Area 32
Table 10. Instream Conditions and Discharger Flow 34
Table 11. Summary of Effluent Limits to Maintain Applicable Water Quality Criteria 36
Table 12. Parameter Assessment 38
Table 13. Final Effluent Limits 42

List of Attachments

Attachment 1. Applicable Federal Effluent Limitation Guidelines 45
Attachment 2. List of Approved Treatment Additives 52
Attachment 3. Whole Effluent Toxicity Reasonable Potential Analysis 53

List of Addendums

Addendum 1. Acronyms 54

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 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 Chris Monroe, (614) 644-2007, Christopher.Monroe@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: https://epa.ohio.gov/static/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

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

Titanium Metals Corporation Toronto Plant (TIMET) discharges to Jeddo Run at River Miles (RMs) 0.1 (outfalls 001, 002) and 0.07 (outfall 003). The facility also discharges to the Ohio River at RM 920.8 (outfall 006) and 920.85 (outfall 004), which is approximately Ohio River Mile Point 60. Figure 1 shows the approximate location of the facility.

This segment of the Ohio River is described by Ohio EPA River Code: 25-650, U.S. EPA River Reach #: 05030101, County: Jefferson, Ecoregion: Western Allegheny Plateau. The Ohio River is designated for the following uses under Ohio's WQS (OAC 3745-1-32): Warmwater Habitat (WWH), Agricultural Water Supply (AWS), Industrial Water Supply (IWS), Public Water Supply (PWS), and Bathing Waters (BW).

Jeddo Run is described Ohio EPA River Code: 06-086, Hydrologic Unit Code: 05030101-11-06, County: Jefferson, Ecoregion: Western Allegheny Plateau. Jeddo Run is designated for the following uses under Ohio's WQS (OAC 3745-1-13): Coldwater habitat (CWH), AWS, IWS, and Primary Contact Recreation (PCR).

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

TIMET manufactures titanium, titanium alloy sheet, strip, bar, and plate, and zirconium/ hafnium sheet, strip, bar, and plate. The industrial processes at the facility include (see Figure 2):

- Forging
- Rolling
- Pickling
- Grinding
- Welding
- Annealing
- Extruding
- Cutting

The process operations at TIMET are classified in the Standard Industrial Classification (SIC) category 3356, Nonferrous Metals Forming. The process wastewaters generated from these operations are regulated under 40 CFR 471, "Non-Ferrous Metals Forming Point Source Category," Subpart F, "Titanium Forming Subcategory" and Subpart I, "Zirconium/Hafnium Subcategory."

TIMET obtains groundwater from a private well for non-contact cooling water (forge shop, hydraulic systems, pickling, annealing, and AC units), forge quench recycling, pickling rinse, annealing, and wet scrubbing.

TIMET is covered under the following additional permit(s): 06-41-18-0064 (Title V).

DESCRIPTION OF EXISTING DISCHARGE

TIMET has four process outfalls. Table 1 highlights the primary outfalls, internal monitoring stations, wastewater sources, and discharge/receiving streams at TIMET. Figure 2 provides a flow schematic of the wastewater sources and supplies associated with TIMET Process wastewater is treated by the following processes:

- Equalization
- Chemical precipitation
- Flocculation
- Settling (clarification)
- Sand filtration
- Post neutralization

Sanitary waste is discharged to the City of Toronto Wastewater Plant.

Effluent violations can be found on Table 2.

The average flow rates for the permit cycle for outfalls 001, 002, 003, 004, and 006 are shown on Table 3.

Table 4 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 March 2018 to February 2023, and current permit limits are provided for comparison.

Table 7 summarizes the chemical specific data for all final outfalls by presenting the average and maximum PEQ values.

Table 8 summarizes the results of acute and chronic WET tests of the final effluent.

ASSESSMENT OF IMPACT ON RECEIVING WATERS

The Hardin Run-Ohio River watershed assessment unit, which includes Jeddo Run in the vicinity of TIMET, is not listed as impaired on Ohio's 303(d) list.

The full Integrated Report is available through the Ohio EPA, Division of Surface Water website at: https://epa.ohio.gov/divisions-and-offices/surface-water/reports-data/ohio-integrated-water-quality-monitoring-and-assessment-report

TIMET discharges directly to the Ohio River in the Pike Island dam pool. Water quality monitoring on the Ohio River is performed by the Ohio River Valley Water Sanitation Commission (ORSANCO). This information can be found in the *2022 Biennial Assessment of Ohio River Water Quality Conditions (305b) Report* and/or biological survey results/pool reports.

The Biennial Report can be found at this website – https://www.orsanco.org/publications/biennial-assessment-305b-report/.

The most recent pool report can be found here – https://www.orsanco.org/publications/pool-assessments/.

ORSANCO evaluates the river for four uses: aquatic life, contact recreation impairment, public water supply, and fish consumption. Every pool of the Ohio River has been assessed as fully supporting the aquatic life and public water supply uses. The segment of the Ohio River that TIMET discharges to is impaired for contact recreation due to bacteria. ORSANCO data shows mile points 40.2 to 82.2 not supporting recreational use. The Ohio River is also classified as partially supporting fish consumption due to historical PCB and dioxin data, but fully supporting the use for mercury. This indicates that TIMET is not contributing to the impairments in the Ohio River because sanitary wastewater is directed to a municipal facility and the site is not a known source of PCBs/dioxin. No new limits are recommended at this time.

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 TIMET 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)	March 2018 through February 2023
NPDES application Form 2C data	March 2018 through July 2022

Statistical Outliers and Other Non-representative Data

The data were examined and the following value was removed from the evaluation to give a more reliable PEQ:

Outfall 001
Oil and Grease – 24.3 mg/L, 8/6/20, uncharacteristically high value.
Zinc – 1,100 µg/L, 6/6/19, uncharacteristically high value.

Outfall 006
Oil and Grease – 29 mg/L, 4/28/22, uncharacteristically high value.

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).

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.

Outfalls 001, 002 and 003 discharge to Jeddo Run. However, the lower portion of Jeddo Run near the facility is at a lower elevation of the Ohio River and is backwater for the river. Therefore, for modeling purposes, all outfalls were treated as direct discharges to the Ohio River.

The outfalls to Jeddo Run (001, 002, and 003) were allocated together for most parameters due the relatively close proximity of the outfalls. Outfalls 001 and 002 were allocated together for antimony and lead. Outfalls 001 and 003 were allocated together for titanium. The WLA for chlorine was done separately for outfall 001 because it was unique to the waste stream.

The direct discharges to the Ohio River (004 and 006) were allocated together for several parameters due the relatively close proximity of the outfalls. The exceptions were the aluminum, antimony, arsenic, bis(2-ethylhexyl) phthalate, cadmium, chloride, copper, diethyl phthalate, molybdenum, nitrate plus nitrite, selenium, strontium, titanium, total filterable residue, and zinc WLAs, which were done separately for each outfall because they were unique to each waste stream.

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

Aquatic life (Warmwater Habitat)		
Toxics (metals, organics, etc.)	Average	10% of annual 7Q10
	Maximum	1% of annual 7Q10
Agricultural Water Supply		10% of harmonic mean flow
Human Health (carcinogens)		10% of harmonic mean flow
Human Health (non-carcinogens)		100% of 7Q10

Allocations are developed using a percentage of stream design flow as specified in Table 10, and allocations cannot exceed the Inside Mixing Zone Maximum (IMZM) criteria.

The data used in the WLA are listed in Table 9 and Table 10. The WLA results to maintain all applicable criteria are presented in Table 11.

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 tests measure survival and mortality of the test organism over a short time period (48- or 96-hours). Chronic WET tests measure survival and mortality, as well as effects on growth and reproduction over a longer period of the test organism's life.

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 (i.e. TUa and TUc) for use in NPDES permits by the associated WQS Implementation Rule (OAC 3745-2-09). The translation results in numeric values of 0.3 TUa and 1.0 TUc. WLAs can then be calculated using these values as if they were water quality criteria.

There are two separate reasonable potential procedures in Ohio - one for the Lake Erie watershed and one for the Ohio River watershed. Dischargers in the Ohio River watershed are assessed using OAC 3745-33-07(B). Dischargers in the Lake Erie watershed are assessed in accordance with the "Great Lakes Water Quality Initiative Implementation Procedures" contained in 40 CFR Part 132, Appendix F, Procedure 6.

The WLA calculations for WET are similar to those for aquatic life criteria - using the chronic toxicity unit (TUc) and 7Q10 flow for the average and the acute toxicity unit (TUa) and 1Q10 flow for the maximum. WET WLAs are based on meeting the values of 0.3 TUa and 1.0 TUc downstream of the discharge, and include any available dilution. These values are the levels of effluent toxicity that should not cause instream toxicity during critical low-flow conditions. WLAs for acute toxicity are capped at 1.0 TUa unless the discharger demonstrates that an Area-of-Initial-Mixing (AIM) exists under OAC 3745-1-06, or that one of the factors in OAC 3745-33-07(B)(5)-(9) allows a higher TUa limit to be granted. For the purposes of establishing WET limitations, the values of 1.0 TUa and 1.0 TUc are the most restrictive limitations that can be applied in NPDES permits [OAC 3745-33-07(B)(10)].

For TIMET, the WLA value for outfall 006 is 1.0 TUa.

The chronic toxicity unit (TUc) 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):

$$TUc = 100/IC25$$

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):

TUc = 100/geometric mean of No Observed Effect Concentration and Lowest Observed Effect Concentration

The acute toxicity unit (TUa) 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:

$$TUa = 100/LC50$$

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 11. 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 [($PEQ_{avg} \div PEL_{avg}$) X 100, or ($PEQ_{max} \div PEL_{max}$) X 100)], the parameters are assigned to group 3, 4, or 5. The groupings are listed in Table 12.

The final effluent limits are determined by evaluating the groupings in conjunction with other applicable rules and regulations. Table 13 presents the final effluent limits and monitoring requirements proposed for TIMET

outfalls 001, 002, 003, 004, 006, and internal monitoring stations 602 and 620, and the basis for their recommendation. Unless otherwise indicated, the monitoring frequencies proposed in the permit are continued from the existing permit.

Outfall 001

pH
Limits proposed for pH are based on provisions of OAC 3745-1-35.

Copper and Total Residual Chlorine
The Ohio EPA risk assessment (Table 12) places copper and total residual chlorine in group 5. This placement, as well as the data in Table 4, Table 5, and Table 6, 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. Pollutants that meet this requirement must have permit limits under OAC 3745-33-07(A)(1). The daily maximum concentration limits for these parameters are based on the inside mixing zone maximum criteria. Loading limits are not proposed because this discharge has variable flows due to influence from stormwater. Monitoring for copper is proposed to increase to a frequency of monthly.

Zinc
The Ohio EPA risk assessment (Table 12) places zinc in group 4. This placement, as well as the data in Table 4, Table 5, and Table 6, 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 for Group 4 pollutants (where PEQ exceeds 50 percent of the WLA) is required by OAC 3745-33-07(A)(2). Monitoring for zinc is proposed to increase to a frequency of monthly.

Mercury
The Ohio EPA risk assessment (Table 12) places mercury in group 4. This placement, as well as the data in Table 4, Table 5, and Table 6, 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 for Group 4 pollutants (where PEQ exceeds 50 percent of the WLA) is required by OAC 3745-33-07(A)(2). However, in this case the grouping has been based on a single result that is significantly lower than the applicable water quality criterion. Using the Director's discretion allowed by OAC 3745-33-07(A)(6), monitoring is not proposed.

Antimony, Arsenic, Barium, Boron, Chromium, Cobalt, Fluoride, Iron, Lead, Molybdenum, Nickel, Nitrate+Nitrite, and Tin
The Ohio EPA risk assessment (Table 12) places antimony, arsenic, barium, boron, chromium, cobalt, fluoride, iron, lead, molybdenum, nickel, nitrate+nitrite, and tin in groups 2 and 3. This placement, as well as the data in Table 4, Table 5, and Table 6, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No new monitoring is proposed.

Flow Rate, Temperature, Total Suspended Solids (TSS), and Oil and Grease
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

Hardness
Based on best technical judgment, monitoring is proposed for hardness. The purpose of the monitoring is to obtain data on the hardness of the effluent for determining metals criteria to apply within the mixing zone.

Outfall 002

Copper

Sampling at outfall 002 yielded analytical results for copper that exceed the IMZM criteria for this parameter. This indicates that these discharges have the potential to contribute to acute toxicity in the immediate vicinity of the outfall. A daily maximum concentration limit is proposed to be protective of the IMZM. Part I, C of the permit includes a 48-month compliance schedule to meet the new limits.

Zinc
Monitoring is proposed to continue for zinc based on best technical judgement. Sector-specific benchmark monitoring is required for this pollutant by the Multi-Sector General Permit for industrial stormwater.

Flow Rate
Monitoring for this parameter is proposed to continue in order to evaluate the performance of the treatment plant.

Outfall 003

pH
Limits proposed for pH are based on provisions of OAC 3745-1-35.

Copper
The Ohio EPA risk assessment (Table 12) places copper in group 4. This placement, as well as the data in Table 4, Table 5, and Table 6, 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 for Group 4 pollutants (where PEQ exceeds 50 percent of the WLA) is required by OAC 3745-33-07(A)(2).

Arsenic, Barium, Boron, Chromium, Cobalt, Fluoride, Iron, Molybdenum, Nickel, Nitrate+Nitrite, and Tin
The Ohio EPA risk assessment (Table 12) places arsenic, barium, boron, chromium, cobalt, fluoride, iron, molybdenum, nickel, nitrate+nitrite, and tin in groups 2 and 3. This placement, as well as the data in Table 4, Table 5, and Table 6, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No new monitoring is proposed.

Zinc
Monitoring is proposed to continue for zinc based on best technical judgement. Sector-specific benchmark monitoring is required for this pollutant by the Multi-Sector General Permit for industrial stormwater.

Flow Rate, Oil and Grease, Temperature, and Total Suspended Solids (TSS)
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

Hardness
Based on best technical judgment, monitoring is proposed for hardness. The purpose of the monitoring is to obtain data on the hardness of the effluent for determining metals criteria to apply within the mixing zone.

Outfall 004

pH
Limits proposed for pH are based on provisions of OAC 3745-1-35.

Barium, Boron, Cobalt, Fluoride, Iron, Mercury, Molybdenum, Nickel, and Tin
The Ohio EPA risk assessment (Table 12) places barium, boron, cobalt, fluoride, iron, mercury, molybdenum, nickel, and tin in groups 2 and 3. This placement, as well as the data in Table 4, Table 5, and Table 6, support

that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No new monitoring is proposed.

Copper and Zinc
Monitoring is proposed to continue for copper and zinc based on best technical judgement. Sector-specific benchmark monitoring is required for these pollutants by the Multi-Sector General Permit for industrial stormwater.

Flow Rate, Oil and Grease, and Temperature
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

Outfall 006

pH
Limits proposed for pH are based on provisions of OAC 3745-1-35.

Antimony, Arsenic, Barium, Bis(2-ethylhexyl) Phthalate, Boron, Cadmium, Cobalt, Diethyl Phthalate, Fluoride, Iron, Mercury, Nickel, Nitrate+Nitrite, Selenium, Strontium, Tin, and Total Filterable Residue
The Ohio EPA risk assessment (Table 12) places antimony, arsenic, barium, bis(2-ethylhexyl) phthalate, boron, chromium, cobalt, diethyl phthalate, fluoride, iron, mercury, nickel, nitrate+nitrite, selenium, strontium, tin, and total filterable residue in groups 2 and 3. This placement, as well as the data in Table 4, Table 5, and Table 6, support that these parameters do not have the reasonable potential to contribute to WQS exceedances, and limits are not necessary to protect water quality. No new monitoring is proposed. Monitoring is proposed to be removed for fluoride and mercury.

Copper and Zinc
Monitoring is proposed to continue for copper and zinc based on best technical judgement. Sector-specific benchmark monitoring is required for these pollutants by the Multi-Sector General Permit for industrial stormwater.

Flow Rate, Temperature, Total Suspended Solids (TSS), and Oil and Grease
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

Hardness
Based on best technical judgment, monitoring is proposed for hardness. The purpose of the monitoring is to obtain data on the hardness of the effluent for determining metals criteria to apply within the mixing zone.

Internal Monitoring Station 602/620

Ammonia, Chromium, Cyanide, Fluoride, Lead, Nickel, Oil and Grease, pH, Total Suspended Solids (TSS), and Zinc
Federal effluent guideline limitations (ELGs) are based on available treatment technology. Monitoring and limits are proposed based on the federal effluent limitation guidelines (ELGs) found in 40 CFR Part 471. ELGs are applied at this outfall to ensure that these treatment standards are met prior to combining with other waste streams. If monitoring was not done at this location, it would not be possible to verify compliance with these standards due to dilution. Federal rules at 40 CFR 125.3(f) prohibit attaining these standards by dilution.

Applicable limits are listed in Attachment 1 and have been derived from the following sections of the ELGs, based on available technology:

40 CFR Part 471.61 – Best practicable control technology currently available (BPT)
40 CFR Part 471.62 – Best available technology economically achievable (BAT)
40 CFR Part 471.63 – New source performance standards (NSPS)

Requirements for internal monitoring station 602 apply when there are discharges resulting from processes covered by 40 CFR 471, Subpart F – Titanium. Internal monitoring station 620 will only be utilized when there are also discharges resulting from processes covered by 40 CFR 471, Subpart I – Zirconium/Hafnium forming.

Treatment technology-based limits are based on milligrams of pollutant allowed to be discharged per off-kilogram of production. The plant production rates used are the maximum 30-day average rates for the past five years. The mass limits are found in 40 CFR 471 and the loadings are calculated by multiplying these values by the production and converting the resulting mass back to kilograms.

Using 30-day TSS limits for outfall 602 as an example, the TSS limits were calculated:

Process	*Calculation*	*Result (kg/day)*
4000 Ton Press [471.63(h)]	(1.95 mg/off-kg X 164,031 kg/day)/1000000	0.278
Descale pickle [471.61(m)/62(m)]	(4.06 mg/off-kg X 52137 kg/day)/1000000	0.191
Strip pickle [471.61(m)/62(m)]	(4.06 mg/off-kg X 15067 kg/day)/1000000	0.058
Descale pickle [471.61(n)/62(n)]	(570 mg/off-kg X 52137 kg/day)/1000000	26.8
Strip pickle [471.61(n)/62(n)]	(570 mg/off-kg X 15067 kg/day)/1000000	8.147
Sheet and Plate pickle [471.63(m)]	(4.06 mg/off-kg X 151779 kg/day)/1000000	0.89
Sheet and Plate pickle [471.63(n)]	(57 mg/off-kg X 151779 kg/day)/1000000	12.5
Descale and strip scrub [471.61(o)/62(o)]	(41.8 mg/off-kg X 67204 kg/day)/1000000	2.563
Sheet scrub [471.63(o)]	(4.18 mg/off-kg X 219259 kg/day)/1000000	0.917
Continuous vacuum annealing spent bath [471.63(p)]	(4.68 mg/off-kg X 27339 kg/day)/1000000	0.136
Continuous vacuum annealing rinse [471.63(q)]	(5.38 mg/off-kg X 27339 kg/day)/1000000	0.157
Misc. wastewaters [471.63(x)]	(0.63 mg/off-kg X 410353 kg/day)/1000000	0.285
Total		**52.9**

The complete set of calculations for outfalls 602 and 620 can be found in Attachment 1.

Flow Rate and Temperature
Monitoring for these parameters is proposed to continue in order to evaluate the performance of the treatment plant.

Whole Effluent Toxicity Reasonable Potential
Based on evaluating the WET data presented in Table 8 and other pertinent data under the provisions of OAC 3745-33-07(B), TIMET is placed in Category 4 with respect to WET. The monitoring requirement is proposed to be removed from the permit.

Additional Monitoring Requirements
Additional monitoring requirements proposed at the final effluent, influent and upstream/downstream stations are included for all facilities in Ohio and vary according to the type and size of the discharge. In addition to

permit compliance, this data is used to assist in the evaluation of effluent quality and treatment plant performance and for designing plant improvements and conducting future stream studies.

OTHER REQUIREMENTS

Compliance Schedule

New Limits - A 48-month compliance schedule is proposed for TIMET to meet the new daily max concentration limits for copper at outfalls 001 and 002. A 36-month compliance schedule is proposed for TIMET to meet the new daily max concentration limit for total residual chlorine at outfall 001. Details are in Part I, C of the permit.

Outfall Signage

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

Public Water Supply Notification

An addition to OAC 3745-33-08 requires that permittees discharging wastewater within ten miles of a downstream public water supply intake located on the same waterway must develop and implement notification procedures in conjunction with the downstream public water supply operator in the event of a spill, separate sewer overflow, bypass or upset that reaches waters of the state. Since the City of Steubenville and City of Weirton (WV) operate public water supply intakes within ten miles downstream from TIMET, an item in Part II of the permit requires the development of notification procedures within six months after the effective date of the permit.

Part III

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

Stormwater Compliance

Parts IV, V, and VI have been included with the draft permit to ensure that any stormwater flows from the facility site are properly regulated and managed. As an alternative to complying with Parts IV, V, and VI, TIMET may seek permit coverage under the general permit for industrial stormwater (permit # OHR000007) or submit a "No Exposure Certification." Parts IV, V, and VI will be removed from the final permit if: 1) TIMET submits a Notice of Intent (NOI) for coverage under the general permit for industrial stormwater or submits a No Exposure Certification, 2) Ohio EPA determines that the facility is eligible for coverage under the general permit or meets the requirements for a No Exposure Certification, and 3) the determination by Ohio EPA can be made prior to the issuance of the final permit.

Benchmark monitoring for copper and zinc for outfalls 001, 002, 003, 004, and 006 is proposed in accordance with the stormwater language. See Part V for more details.

Figure 1. Location of TIMET

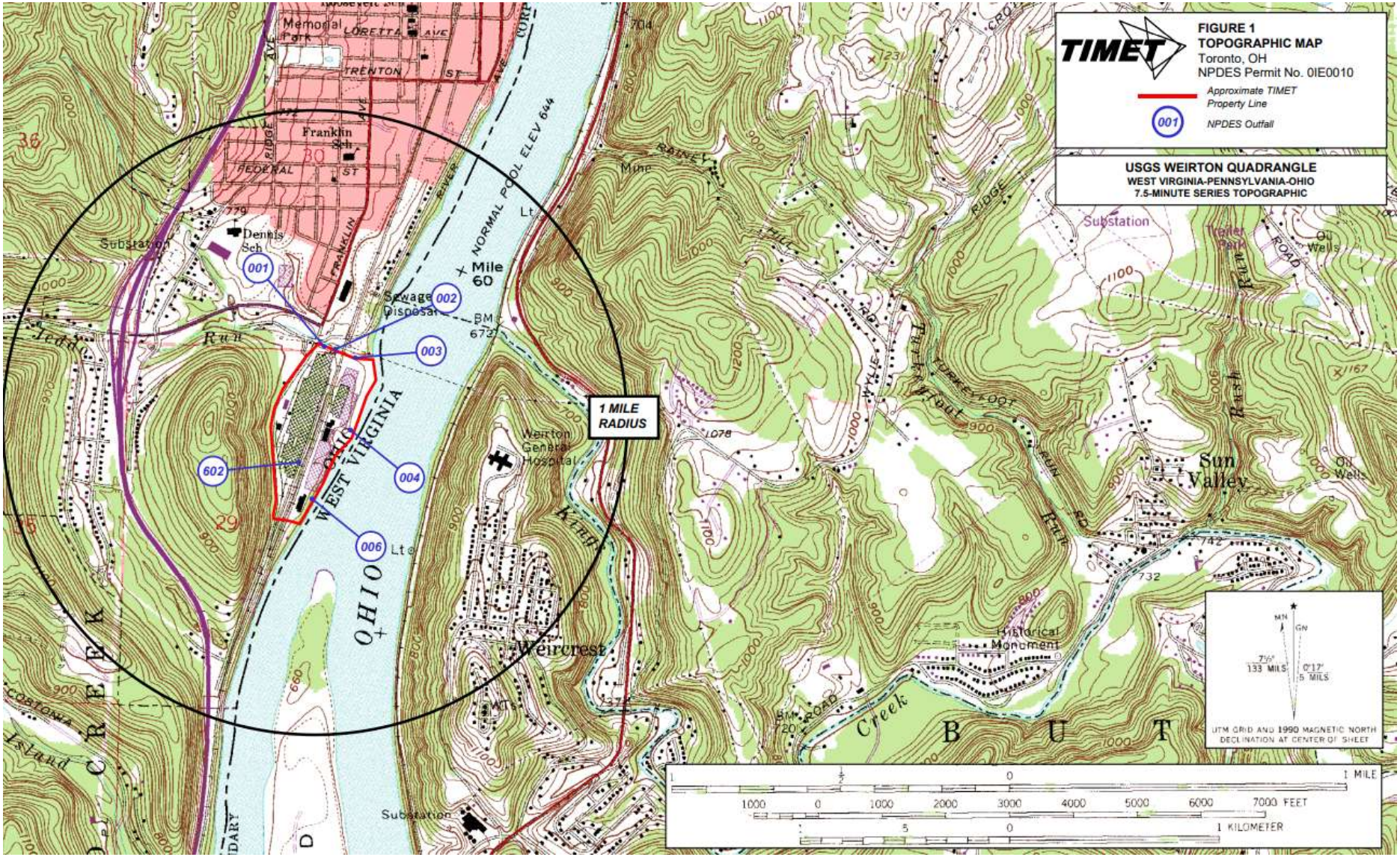
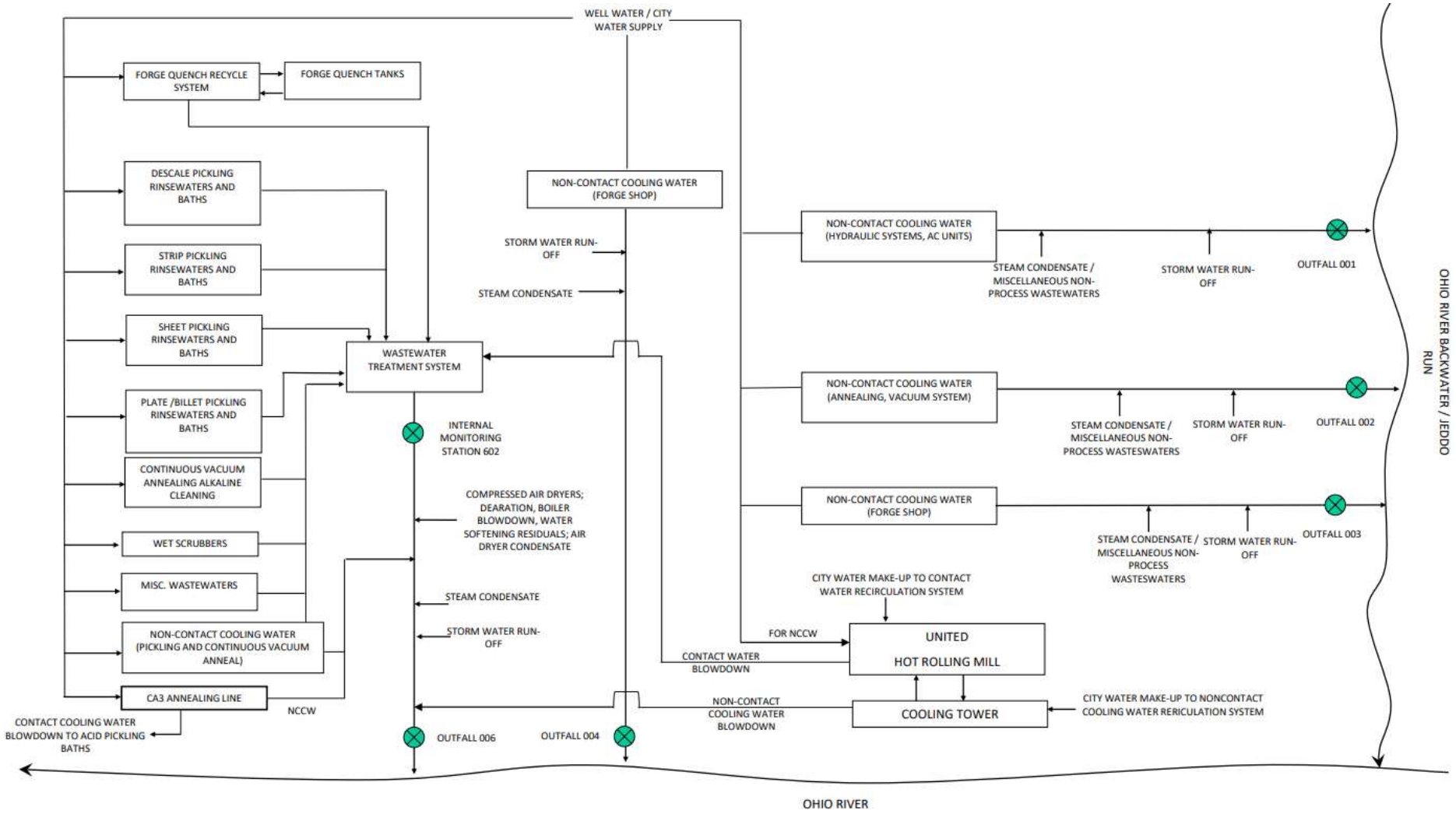


Figure 2. Water Balance Diagram



*Outfall 002 no longer receives process wastewater. This discharge is now permitted as a stormwater-only outfall.

Table 1. Monitoring Stations, Wastewater Sources, and Discharge Points

Station #	Wastewater Source	Discharge/ Receiving Stream
001	Non-contact cooling water, storm water, steam condensate, misc. non-process wastewater	Jeddo Run
002	Stormwater	Jeddo Run
003	Non-contact cooling water, storm water, steam condensate, misc. non-process wastewater	Jeddo Run
004	Non-contact cooling water, storm water, steam condensate, misc. non-process wastewater	Ohio River
006	Non-contact cooling water, wastewater treatment plant (Outfall 602), steam condensate, storm water run-off, compressed air dryers, deaeration, boiler blowdown, water softener, air dryer condensate, misc. non-process wastewater	Ohio River
602	Forge quench blowdown, surface treatment spent baths and rinse waters (descale pickling, strip pickling, sheet pickling, plate/ billet pickling), alkaline cleaning spent bath and rinse waters (continuous vacuum annealing), wet air pollution control scrubbers, miscellaneous wastewaters	Outfall 006
620	Includes lists shown in 602. This monitoring station is used in lieu of 602 when wastewaters include zirconium-hafnium pickle line bath and rinse waters.	Outfall 006

Table 2. Effluent Limit Violations

Outfall	Parameter	2018	2019	2020	2021	2022	2023
	Oil and Grease	0	0	2	0	0	0
001	pH	0	2	3	0	0	1
002	pH	0	0	1	0	1	0
	Oil and Grease	0	0	0	0	1	0
006	pH	0	0	0	1	0	0
Total		0	2	6	1	2	1

DMR data reported March 2018 – February 2023

Table 3. Average Annual Effluent Flow Rates

	Flow Rate (Million Gallons per Day)					
Outfall	Year	# obs	Average	Median	95th Percentile	Maximum
	2018	306	0.028533	0.017	0.0685	0.655
	2019	365	0.022523	0.018	0.069	0.135
	2020	366	0.028711	0.022	0.07775	0.45
	2021	365	0.087052	0.018	0.5706	0.999
	2022	365	0.024915	0.02	0.0686	0.188
001	2023	59	0.020186	0.016	0.0494	0.081
	2018	306	0.002281	0.001	0.007	0.038
	2019	365	0.013137	0.001	0.0668	0.48
	2020	366	0.003306	0.001	0.009	0.135
	2021	365	0.004518	0.002	0.007	0.56
	2022	365	0.006923	0.001	0.0248	0.174
002	2023	59	0.003458	0.003	0.0062	0.025
	2018	306	0.140611	0.131	0.2075	1.307
	2019	365	0.772556	0.221	0.4894	192
	2020	366	0.130617	0.079	0.43	0.768
	2021	365	0.394734	0.183	1.172	3.995
	2022	365	0.392849	0.37	0.8096	1.007
003	2023	59	0.218102	0.218	0.247	0.257
	2018	306	0.663775	0.65	0.72925	0.993
	2019	365	0.662847	0.65	0.7304	0.809
	2020	366	0.759981	0.66	1.255	3.02
	2021	365	0.744082	0.65	1.096	2.66
	2022	365	0.768266	0.65	1.358	3.26
004	2023	59	0.749322	0.65	1.133	1.61
	2018	306	0.537122	0.521	0.9165	1.834
	2019	365	0.39614	0.367	0.663	1.074
	2020	366	0.32609	0.2975	0.56275	1.439

Outfall	Flow Rate (Million Gallons per Day)					
	Year	# obs	Average	Median	95th Percentile	Maximum
006	2021	365	0.396188	0.295	0.8914	1.229
	2022	365	0.353247	0.301	0.689	1.563
	2023	59	0.361237	0.307	0.8248	0.937

MGD = million gallons per day
DMR data reported March 2018 – February 2023

Table 4. Effluent Characterization Based on Form 2C Data

Parameter	Units	Concentration
Outfall 001		
Aluminum	µg/L	410
Antimony	µg/L	0.35
Arsenic	µg/L	0.53
Barium	µg/L	37
Boron	µg/L	79
Chlorine, Total Residual	mg/L	0.12
Chromium	µg/L	1.9
Cobalt	µg/L	0.12
Fluoride	mg/L	1.4
Iron	µg/L	190
Lead	µg/L	0.5
Manganese	µg/L	14
Mercury	ng/L	1.5
Molybdenum	µg/L	2.7
Nickel	µg/L	0.98
Nitrate + Nitrite	mg/L	2.6
Sulfate	mg/L	65
Tin	µg/L	2.9
Titanium	µg/L	29
Outfall 003		
Aluminum	µg/L	13
Arsenic	µg/L	0.42
Barium	µg/L	88
Boron	µg/L	90
Chromium	µg/L	0.73
Cobalt	µg/L	0.12
Fluoride	mg/L	0.6
Iron	µg/L	52
Manganese	µg/L	200
Mercury	ng/L	0.62
Molybdenum	µg/L	2.3
Nickel	µg/L	0.62
Nitrate + Nitrite	mg/L	1.3
Sulfate	mg/L	72
Tin	µg/L	4.6
Titanium	µg/L	6.9

Parameter	Units	Concentration
Outfall 004		
Barium	µg/L	80
Boron	µg/L	82
Cobalt	µg/L	0.12
Fluoride	mg/L	0.53
Iron	µg/L	41
Manganese	µg/L	150
Mercury	ng/L	0.29
Molybdenum	µg/L	1.6
Nickel	µg/L	0.39
Sulfate	mg/L	70
Tin	µg/L	3.4
Outfall 006		
Aluminum	µg/L	140
Arsenic	µg/L	0.45
Barium	µg/L	58
Boron	µg/L	110
Cobalt	µg/L	0.16
Iron	µg/L	80
Molybdenum	µg/L	10
Nickel	µg/L	0.83
Nitrate + Nitrite	mg/L	27
Sulfate	mg/L	67
Tin	µg/L	3.4
Titanium	µg/L	9.8
Zinc	µg/L	6.4

Table 5. Effluent Characterization for Outfall 006 Using Ohio EPA Data

Parameter	Units	11/1/2022
Aluminum	mg/L	188
Ammonia	mg/L	2.14
Antimony	µg/L	0.483
Arsenic	µg/L	0.431
Barium	µg/L	51.2
Bis(2-ethylhexyl) Phthalate	µg/L	1.82
Boron	µg/L	94.8
Cadmium	µg/L	0.050
Chloride	mg/L	158

Chromium	µg/L	0.438
Cobalt	µg/L	0.134
Copper	µg/L	3.02
Diethyl Phthalate	µg/L	2.7
Fluoride	mg/L	3.57
Iron	µg/L	97
Lead	µg/L	0.188
Manganese	µg/L	56.4
Mercury	µg/L	AA
Nickel	µg/L	5.77
Nitrate + Nitrite	mg/L	12.9
Phosphorus	mg/L	0.127
Selenium	µg/L	0.916
Strontium	µg/L	270
Sulfate	mg/L	64.6
Total Filterable Residue	mg/L	532
Zinc	µg/L	10

AA = not-detected (analytical method detection limit)
NA = not applicable

Table 6. Effluent Characterization Using Self-Monitoring Data

Outfall	Parameter	Unit	Current Limits		# Obs	Percentiles		Data Range
			30 Day	Daily		50th	95th	
001	Water Temperature	°C	Monitoring Only		236	21.6	27.8	3.8 - 30.5
	pH	S.U.	--	6.5 - 9.0	236	8.06	8.92	6.75 - 9.54
	Total Suspended Solids	mg/L	Monitoring Only		20	7.8	132	0 - 170
	Oil and Grease	mg/L	15	20	59	< 1.4	6.33	0 - 24.3
	Hardness, Total (CaCO3)	mg/L	Monitoring Only		20	85	250	0 - 620
	Zinc, TR	µg/L	Monitoring Only		20	45.5	511	23 - 1100
	Copper, TR	µg/L	Monitoring Only		20	< 4.1	46.8	0 - 81
	Flow Rate	MGD	Monitoring Only		1798	.019	.0912	.001 - .999
002	Water Temperature	°C	Monitoring Only		109	14.8	25.3	.1 - 27.3
	pH	S.U.	--	6.5 - 9.0	109	7.93	8.72	6.38 - 9.3
	Oil and Grease	mg/L	Monitoring Only		54	< 1.4	< 1.4	0 - 9.9
	Hardness, Total (CaCO3)	mg/L	Monitoring Only		53	120	200	0 - 260
	Zinc, TR	µg/L	Monitoring Only		54	56	234	0 - 380
	Copper, TR	µg/L	Monitoring Only		55	44	129	0 - 210
	Flow Rate	MGD	Monitoring Only		1798	.001	.0152	.001 - .56
003	Water Temperature	°C	Monitoring Only		234	18.8	25.3	2.9 - 29.7
	pH	S.U.	--	6.5 - 9.0	234	7.95	8.24	6.76 - 8.81
	Total Suspended Solids	mg/L	Monitoring Only		20	3.4	15.9	0 - 32
	Oil and Grease	mg/L	15	20	20	< 1.4	.27	0 - 5.4
	Hardness, Total (CaCO3)	mg/L	Monitoring Only		59	210	241	15 - 570
	Zinc, TR	µg/L	Monitoring Only		20	< 2.7	40.7	0 - 54
	Copper, TR	µg/L	Monitoring Only		104	< 4.1	< 4.1	0 - 55
	Flow Rate	MGD	Monitoring Only		1798	.157	.799	.001 - 192
004	Water Temperature	°C	Monitoring Only		222	17.8	24.1	10.1 - 27
	pH	S.U.	--	6.5 - 9.0	222	7.8	8.31	6.6 - 8.93
	Oil and Grease	mg/L	15	20	58	< 1.4	< 1.4	0 - 7.1
	Zinc, TR	µg/L	Monitoring Only		19	--	--	< 2.7
	Copper, TR	µg/L	Monitoring Only		19	--	--	< 4.1
	Flow Rate	MGD	Monitoring Only		1798	.65	1.06	.65 - 3.26
006	Water Temperature	°C	Monitoring Only		234	22.3	28.4	7.87 - 185
	pH	S.U.	--	6.5 - 9.0	120	7.8	8.54	6.62 - 21.3
	Total Suspended Solids	mg/L	Monitoring Only		116	3.6	25.8	0 - 94
	Oil and Grease	mg/L	15	20	234	< 1.4	6.1	0 - 29
	Hardness, Total (CaCO3)	mg/L	Monitoring Only		116	260	493	10 - 1100
	Fluoride, Total (F)	mg/L	Monitoring Only		60	4.1	10.1	1.1 - 18
	Manganese, Total (Mn)	µg/L	Monitoring Only		117	97	492	0 - 7100
	Copper, TR	µg/L	Monitoring Only		21	< 4.1	< 4.1	0 - 3
	Flow Rate	MGD	Monitoring Only		1798	.337	.801	.003 - 1.83
	Mercury, Total	ng/L	Monitoring Only		5	.76	1.78	0 - 1.9

Outfall	Parameter	Unit	Current Limits		# Obs	Percentiles		Data Range
			30 Day	Daily		50th	95th	
	Acute Toxicity, *Ceriodaphnia dubia*	TUa	Monitoring Only		5	< .2	.48	0 - .6
	Acute Toxicity, *Pimephales promelas*	TUa	Monitoring Only		5	< .2	.16	0 - .2

* = For minimum pH, 5th percentile shown in place of 50th percentile.
DMR data reported March 2018 – February 2023

Table 7. Projected Effluent Quality

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Outfall 001					
Aluminum	µg/L	1	1	1856	2542
Antimony	µg/L	1	1	1.584	2.17
Arsenic - TR	µg/L	1	1	2.399	3.286
Barium	µg/L	1	1	167.5	229.4
Boron	µg/L	1	1	357.6	489.8
Chlorine, Total Residual	mg/L	1	1	0.5431	0.744
Chromium - TR	µg/L	1	1	8.599	11.78
Cobalt	µg/L	1	1	0.5431	0.744
Copper - TR	µg/L	20	2	82.78	113.4
Fluoride	mg/L	1	1	6.336	8.68
Iron - TR	µg/L	1	1	859.9	1178
Lead - TR	µg/L	1	1	2.263	3.1
Manganese - TR	µg/L	1	1	63.36	86.8
Mercury	ng/L	1	1	6.789	9.3
Molybdenum	µg/L	1	1	12.22	16.74
Nickel - TR	µg/L	1	1	4.435	6.076
Nitrate-N + Nitrite-N	mg/L	1	1	11.77	16.12
Oil and Grease	mg/L	59	5	5.256	7.2
Sulfates	mg/L	1	1	294.2	403
Tin	µg/L	1	1	13.13	17.98
Titanium	µg/L	1	1	131.3	179.8
Zinc - TR	µg/L	19	19	165.4	287.1
Outfall 002					
Copper - TR	µg/L	56	37	124.7	197.6
Zinc - TR	µg/L	55	50	173.1	275.3
Outfall 003					
Aluminum	µg/L	1	1	58.84	80.6
Arsenic - TR	µg/L	1	1	1.901	2.604
Barium	µg/L	1	1	398.3	545.6
Boron	µg/L	1	1	407.3	558
Chromium - TR	µg/L	1	1	3.304	4.526
Cobalt	µg/L	1	1	0.5431	0.744
Copper - TR	µg/L	105	1	36.14	49.5
Fluoride	mg/L	1	1	2.716	3.72
Iron - TR	µg/L	1	1	235.4	322.4
Manganese - TR	µg/L	1	1	905.2	1240
Mercury	ng/L	1	1	2.806	3.844
Molybdenum	µg/L	1	1	10.41	14.26
Nickel - TR	µg/L	1	1	2.806	3.844
Nitrate-N + Nitrite-N	mg/L	1	1	5.884	8.06

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Oil and Grease	mg/L	20	1	5.519	7.56
Sulfates	mg/L	1	1	325.9	446.4
Tin	µg/L	1	1	20.82	28.52
Titanium	µg/L	1	1	31.23	42.78
Zinc - TR	µg/L	20	6	55.19	75.6
Outfall 004					
Barium	µg/L	1	1	362.1	496
Boron	µg/L	1	1	371.1	508.4
Cobalt	µg/L	1	1	0.5431	0.744
Copper - TR	µg/L	19	0	--	--
Fluoride	mg/L	1	1	2.399	3.286
Iron - TR	µg/L	1	1	185.6	254.2
Manganese - TR	µg/L	1	1	678.9	930
Mercury	ng/L	1	1	1.313	1.798
Molybdenum	µg/L	1	1	7.242	9.92
Nickel - TR	µg/L	1	1	1.765	2.418
Oil and Grease	mg/L	59	1	5.183	7.1
Sulfates	mg/L	1	1	316.8	434
Tin	µg/L	1	1	15.39	21.08
Zinc - TR	µg/L	19	0	--	--
Outfall 006					
Aluminum	µg/L	2	2	521.5	714.4
Antimony	µg/L	2	1	1.34	1.835
Arsenic - TR	µg/L	2	2	1.248	1.71
Barium	µg/L	2	2	160.9	220.4
Bis(2-ethylhexyl) Phthalate	µg/L	1	1	8.237	11.28
Boron	µg/L	2	2	305.1	418
Cadmium - TR	µg/L	1	1	0.2263	0.31
Chlorides	mg/L	1	1	715.1	979.6
Cobalt	µg/L	2	2	0.4438	0.608
Copper - TR	µg/L	22	2	3.891	5.33
Diethyl phthalate	µg/L	2	1	7.49	10.26
Fluoride	mg/L	62	62	8.6	12.73
Iron - TR	µg/L	2	2	269.1	368.6
Manganese - TR	µg/L	120	119	441.9	675.6
Mercury	ng/L	5	3	3.19	4.37
Nickel - TR	µg/L	2	2	16.01	21.93
Nitrate-N + Nitrite-N	mg/L	2	2	74.9	102.6
Oil and Grease	mg/L	237	19	4.957	6.79
Sulfates	mg/L	2	2	185.9	254.6
Selenium - TR	µg/L	2	1	2.541	3.481
Strontium	µg/L	1	1	1222	1674
Tin	µg/L	1	1	15.39	21.08

Parameter	Units	Number of Samples	Number > MDL	PEQ Average	PEQ Maximum
Titanium	µg/L	1	1	44.35	60.76
Total Filterable Residue	mg/L	1	1	2408	3298
Zinc - TR	µg/L	2	2	27.74	38

MDL = analytical method detection limit
PEQ = projected effluent quality

Table 8. Summary of Acute and Chronic Toxicity Results

	Ceriodaphnia Dubia	*Pimephales Promelas*
Date	**Acute (Tu_a)**	**Acute (Tu_a)**
8/2/2018	AA (0.2)	0.2
8/1/2019	AA (0.2)	AA (0.2)
8/1/2020	AA (0.2)	AA (0.2)
8/1/2021	0.6	AA (0.2)
8/4/2022	AA (0.2)	AA (0.2)
11/2/2022	AA (0.2)	AA (0.2)

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

Table 9. Water Quality Criteria in the Study Area

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum	
		Human Health	Agri-culture	Aquatic Life	Aquatic Life	
Aluminum	µg/L	--	--	--	--	--
Antimony	µg/L	5.6	--	190	900	1800
Arsenic - TR	µg/L	50	100	150	340	680
Barium	µg/L	1000	--	640	2700	--
Bis(2-ethylhexyl) Phthalate	µg/L	3.2[c]	--	8.4	1100	2100
Boron	µg/L	--	--	3900	33000	65000
Cadmium - TR	µg/L	--	50	2.5	4.5	--
Chlorides	mg/L	--	--	--	--	--
Chlorine, Total Residual	mg/L	--	--	0.011	0.019	0.038
Chromium - TR	µg/L	--	100	86	1800	--
Cobalt	µg/L	--	--	24	220	440
Copper - TR	µg/L	--	500	9.3	14	--
Diethyl phthalate	µg/L	600	--	220	980	2000
Fluoride	mg/L	1	2	--	--	--
Iron - TR	µg/L	--	5000	--	--	--
Lead - TR	µg/L	--	100	6.4	120	--
Manganese - TR	µg/L	--	--	--	--	--
Mercury	ng/L	12	10000	910	1700	3400
Molybdenum	µg/L	--	--	20000	190000	370000
Nickel - TR	µg/L	610	200	52	470	--
Nitrate-N + Nitrite-N	mg/L	10	100	--	--	--
Selenium - TR	µg/L	170	50	5	62	--
Strontium	µg/L	--	--	21000	54000	--
Sulfates	mg/L	--	--	--	--	--
Tin	µg/L	--	--	180	1600	3200
Titanium	µg/L	--	--	--	--	--
Total Filterable Residue	mg/L	--	--	1500	--	--
Zinc - TR	µg/L	7400	25000	120	120	--
Jeddo Run IMZM						
Barium	µg/L	--	--	--	--	10000
Chromium - TR	µg/L	--	--	--	--	6400
Copper - TR	µg/L	--	--	--	--	54
Nickel - TR	µg/L	--	--	--	--	1700
Zinc - TR	µg/L	--	--	--	--	430
Ohio River IMZM						
Barium	µg/L	--	--	--	--	5500
Copper - TR	µg/L	--	--	--	--	28
Nickel - TR	µg/L	--	--	--	--	940
Zinc - TR	µg/L	--	--	--	--	240
Outfall 004 IMZM						

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum Aquatic Life	
		Human Health	Agri-culture	Aquatic Life		
Barium	µg/L	--	--	--	--	11000
Copper - TR	µg/L	--	--	--	--	58
Nickel - TR	µg/L	--	--	--	--	1800
Zinc - TR	µg/L	--	--	--	--	460
Outfall 006 IMZM						
Barium	µg/L	--	--	--	--	13000
Cadmium - TR	µg/L	--	--	--	--	27
Copper - TR	µg/L	--	--	--	--	69
Nickel - TR	µg/L	--	--	--	--	2100
Selenium - TR	µg/L	--	--	--	--	120
Strontium	µg/L	--	--	--	--	380000
Zinc - TR	µg/L	--	--	--	--	540

Table 10. Instream Conditions and Discharger Flow

Parameter	Units	Season	Value	Basis
Stream Flows				
7Q10	cfs	annual	5880	ORSANCO PCS; 2019
Harmonic Mean	cfs	annual	20500	ORSANCO PCS; 2019
Mixing Assumption	%	average	10	(***WLAs for non-carcinogens are developed using 100 percent of the 7Q10.)
		maximum	1	
Hardness, Ohio River	mg/L	annual	100	ORSANCO bimonthly data; Pike Island; 3/18-11/22; median
Hardness, Jeddo Run	mg/L	annual	202	Flow-weighted avg of median effluent values from outfalls 001/002/003
Hardness, Outfall 004	mg/L	annual	215	TIMET Supplemental Effluent Data; n=4; 2023; median
Hardness, Outfall 006	mg/L	annual	260	Effluent hardness data; n=118; median
Outfall 001 flow	cfs	annual	0.076	95th Percentile of Monthly Flow Averages
Outfall 002 flow	cfs	annual	0.034	95th Percentile of Monthly Flow Averages
Outfall 003 flow	cfs	annual	1.41	95th Percentile of Monthly Flow Averages
Outfall 004 flow	cfs	annual	1.28	95th Percentile of Monthly Flow Averages
Outfall 006 flow	cfs	annual	1.12	95th Percentile of Monthly Flow Averages
Background Water Quality				
Aluminum	µg/L		223	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median
Antimony	µg/L		0.1	ORSANCO; 2018-2022; n=27; 13<MDL; Clean Metals (New Cumberland); median
Arsenic - TR	µg/L		0.5	ORSANCO; 2018-2022; n=27; 23<MDL; Clean Metals (New Cumberland); median
Barium	µg/L		37	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median
Bis(2-ethylhexyl) Phthalate	µg/L		0	No representative data available.
Boron	µg/L		0	No representative data available.
Cadmium - TR	µg/L		0	ORSANCO; 2018-2022; n=27; 27<MDL; Clean Metals (New Cumberland)
Chlorides	mg/L		28.2	ORSANCO; 2000-2022; n=136; 0<MDL; Bimonthly data (New Cumberland); median
Chlorine, Total Residual	mg/L		0	No representative data available.
Chromium - TR	µg/L		0.5	ORSANCO; 2018-2022; n=27; 22<MDL; Clean Metals (New Cumberland); median
Cobalt	µg/L		0	No representative data available.
Copper - TR	µg/L		2.6	ORSANCO; 2018-2022; n=27; 1<MDL; Clean Metals (New Cumberland); median
Diethyl phthalate	µg/L			No representative data available.
Fluoride	mg/L		0	No representative data available.
Iron - TR	µg/L		440	ORSANCO; 2018-2022; n=27; 0<MDL; Clean

Parameter	Units	Season	Value	Basis
				Metals (New Cumberland); median
Lead - TR	µg/L		0.5	ORSANCO; 2018-2022; n=27; 22<MDL; Clean Metals (New Cumberland); median
Manganese - TR	µg/L		70.9	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median
Mercury	ng/L		0.75	ORSANCO; 2018-2022; n=27; 14<MDL; Clean Metals (New Cumberland); median
Molybdenum	µg/L		0	No representative data available.
Nickel - TR	µg/L		2.37	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median
Nitrate-N + Nitrite-N	mg/L		0.85	ORSANCO; 2000-2022; n=134; 2<MDL; Bimonthly data (New Cumberland); median
Selenium - TR	µg/L		0	ORSANCO; 2018-2022; n=27; 27<MDL; Clean Metals (New Cumberland)
Strontium	µg/L		116	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median
Sulfates	mg/L		61.5	ORSANCO; 2000-2022; n=136; 0<MDL; Bimonthly data (New Cumberland); median
Tin	µg/L		0	No representative data available.
Titanium	µg/L		0	No representative data available.
Total Filterable Residue	mg/L		190	ORSANCO; 2000-2022; n=64; 0<MDL; Bimonthly data (New Cumberland); median
Zinc - TR	µg/L		4.62	ORSANCO; 2018-2022; n=27; 0<MDL; Clean Metals (New Cumberland); median

MDL = analytical method detection limit
n = number of samples

Table 11. 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		
Outfalls 001, 002, 003 Interactive						
Aluminum	µg/L	--	--	--	--	--
Arsenic - TR	µg/L	191814	134489	58067	13492	680
Barium	µg/L	3731689	--	234244	105865	10000
Boron	µg/L	--	--	1514771	1311429	65000
Chromium - TR	µg/L	--	134489	33209	71513	6400
Cobalt	µg/L	--	--	9322	8743	440
Copper - TR	µg/L	--	672308	2605	456	54
Fluoride	mg/L	3875	2703	--	--	--
Iron - TR	µg/L	--	6163914	--	--	--
Manganese - TR	µg/L	--	--	--	--	--
Mercury	ng/L	12	10000	910	1700	3400
Molybdenum	µg/L	--	--	7768056	7550654	370000
Nickel - TR	µg/L	2354586	267127	19279	18586	1700
Nitrate-N + Nitrite-N	mg/L	35457	134016	--	--	--
Sulfates	mg/L	--	--	--	--	--
Tin	µg/L	--	--	69913	63584	3200
Zinc - TR	µg/L	28657311	33784737	44819	4590	430
Outfalls 001 and 002 Interactive						
Antimony	µg/L	426576	--	1473021	698847	1800
Chlorine, Total Residual	mg/L	--	--	85	15	0.038
Lead - TR	µg/L	--	2690566	45766	92802	600
Titanium	µg/L	--	--	--	--	--
Outfalls 001 and 003 Interactive						
Titanium	µg/L	--	--	--	--	--
Outfall 001						
Chlorine, Total Residual	mg/L	--	--	85	15	0.038
Outfalls 004 and 006 Interactive						
Barium	µg/L	2359073	--	148295	67908	--
Boron	µg/L	--	--	958883	841062	65000
Cobalt	µg/L	--	--	5901	5607	440
Fluoride	mg/L	2450	1709	--	--	--
Iron - TR	µg/L	--	3897891	--	--	--
Manganese - TR	µg/L	--	--	--	--	--
Mercury	ng/L	12	10000	910	1700	3400
Nickel - TR	µg/L	1488498	168918	12205	11921	--
Sulfates	mg/L	--	--	--	--	--

Parameter	Units	Outside Mixing Zone Criteria				Inside Mixing Zone Maximum
		Average			Maximum	
		Human Health	Agri-culture	Aquatic Life	Aquatic Life	
Tin	µg/L	--	--	44256	40779	3200
Outfall 004						
Barium	µg/L	--	--	--	--	11000
Copper	µg/L	--	--	--	--	58
Molybdenum	µg/L	--	--	9177452	8889580	370000
Nickel	µg/L	--	--	--	--	1800
Zinc	µg/L	--	--	--	--	460
Outfall 006						
Aluminum	µg/L	--	--	--	--	--
Antimony	µg/L	28956	--	100146	48267	1800
Arsenic - TR	µg/L	260600	182693	78841	18210	680
Bis(2-ethylhexyl) Phthalate	µg/L	5876	--	4430	59000	2100
Cadmium - TR	µg/L	--	91805	1318	241	27
Chlorides	mg/L	--	--	--	--	--
Copper - TR	µg/L	--	913283	3536	614	69
Diethyl phthalate	µg/L	3158777	--	116020	52564	2000
Nitrate-N + Nitrite-N	mg/L	48172	182051	--	--	--
Selenium - TR	µg/L	894987	91805	2637	3325	120
Strontium	µg/L	--	--	11013563	2890254	380000
Titanium	µg/L	--	--	--	--	--
Total Filterable Residue	mg/L	--	--	691035	--	--
Zinc - TR	µg/L	38933937	45894241	60852	6193	540

Table 12. Parameter Assessment

Outfall 001

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

Aluminum	Manganese - TR	Sulfates
Titanium		

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

Arsenic - TR	Boron	Chromium - TR
Cobalt	Iron - TR	Molybdenum
Nickel - TR	Tin	

Group 3: PEQmax < 50 percent of maximum PEL and PEQavg < 50 percent of average PEL.
No limit recommended; monitoring optional.

Antimony	Barium	Fluoride
Lead - TR	Nitrate-N + Nitrite-N	

Group 4: PEQmax >= 50 percent, but < 100 percent of the maximum PEL or
PEQavg >= 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

Mercury	Zinc - TR

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

		Recommended Effluent Limits	
Parameter	*Units*	*Average*	*Maximum*
Chlorine, Total Residual	mg/L	--	0.038
Copper - TR	µg/L	--	54

PEL = preliminary effluent limit
PEQ = projected effluent quality
WLA = wasteload allocation
WQS = water quality standard

Outfall 003

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

Aluminum	Manganese - TR	Sulfates
Titanium		

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

Arsenic - TR	Boron	Chromium - TR
Cobalt	Iron - TR	Mercury
Molybdenum	Nickel - TR	Tin

Group 3: PEQmax < 50 percent of maximum PEL and PEQavg < 50 percent of average PEL.
No limit recommended; monitoring optional.

Barium	Fluoride	Nitrate-N + Nitrite-N
Zinc - TR		

Group 4: PEQmax >= 50 percent, but < 100 percent of the maximum PEL or
PEQavg >= 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

Copper - TR

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

		Recommended Effluent Limits	
Parameter	*Units*	*Average*	*Maximum*

No parameters fit this group

Outfall 004

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

Manganese - TR	Sulfates

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

Boron	Cobalt	Copper - TR
Iron - TR	Mercury	Molybdenum
Nickel - TR	Tin	Zinc - TR

Group 3: PEQmax < 50 percent of maximum PEL and PEQavg < 50 percent of average PEL.
No limit recommended; monitoring optional.

Barium	Fluoride

Group 4: PEQmax >= 50 percent, but < 100 percent of the maximum PEL or
PEQavg >= 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameters fit 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

		Recommended Effluent Limits	
Parameter	*Units*	*Average*	*Maximum*

No parameters fit this group

Outfall 006

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

Aluminum	Manganese - TR	Sulfates
Titanium	Chlorides	

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

Antimony	Arsenic - TR	Boron
Cadmium - TR	Cobalt	Diethyl Phthalate
Iron - TR	Strontium	Tin

Group 3: PEQmax < 50 percent of maximum PEL and PEQavg < 50 percent of average PEL.
No limit recommended; monitoring optional.

Barium	Bis(2-ethylhexyl) Phthalate	Copper - TR
Fluoride	Mercury	Nickel - TR
Nitrate-N + Nitrite-N	Selenium - TR	Total Filterable Residue
Zinc - TR		

Group 4: PEQmax >= 50 percent, but < 100 percent of the maximum PEL or
PEQavg >= 50 percent, but < 100 percent of the average PEL. Monitoring is appropriate.

No parameters fit 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

		Recommended Effluent Limits	
Parameter	*Units*	*Average*	*Maximum*

No parameters fit this group

Table 13. Final Effluent Limits

Parameter	Units	Concentration		Loading (kg/day)[a]		Basis[b]
		30 Day Average	Daily Maximum	30 Day Average	Daily Maximum	
Outfall 001						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH	S.U.	6.5 - 9.0		--	--	WQS
Total Suspended Solids	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Oil and Grease	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Hardness	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Zinc	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				RP
Copper	µg/L	--	54	--	--	WLA
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Chlorine, Total Residual	mg/L	--	0.038	--	--	WLA/IMZM
Outfall 002						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH	S.U.	6.5 - 9.0		--	--	WQS
Total Suspended Solids	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Oil and Grease	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Hardness	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Zinc	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				RP
Copper	µg/L	--	54	--	--	WLA
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Mercury	ng/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				RP
Outfall 003						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH	S.U.	6.5 - 9.0		--	--	WQS
Total Suspended Solids	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Oil and Grease	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Zinc	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Copper	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				RP
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Outfall 004						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH	S.U.	6.5 - 9.0		--	--	WQS
Total Suspended Solids	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Oil and Grease	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Hardness	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ

Parameter	Units	Concentration		Loading (kg/day)[a]		Basis[b]
		30 Day Average	Daily Maximum	30 Day Average	Daily Maximum	
Zinc	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Copper	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Outfall 006						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH	S.U.	6.5 - 9.0		--	--	WQS
Total Suspended Solids	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Oil and Grease	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Hardness	mg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Zinc	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Copper	µg/L	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BTJ
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
Internal Monitoring Station 602						
Total Suspended Solids	mg/L	--	--	52.17	109.41	BPT/BAT/NSPS
Oil and Grease	mg/L	--	--	31.91	53.30	BPT/BAT/NSPS
Ammonia	mg/L	--	--	43.55	99.14	BPT/BAT/NSPS
Cyanide, Total	mg/L	--	--	0.12	0.22	BPT/BAT/NSPS
Fluoride	mg/L	--	--	19.63	44.35	BPT/BAT/NSPS
Lead, Total	µg/L	--	--	0.15	0.30	BPT/BAT/NSPS
Zinc, Total	µg/L	--	--	0.60	1.09	BPT/BAT/NSPS
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH Range Excursion	Mins	--	60	--	--	40 CFR 401.17
pH, Maximum	S.U.	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BPT/BAT/NSPS
pH, Minimum	S.U.	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BPT/BAT/NSPS
pH Range Excursions, > 60 Minutes	#/Day	0	--	--	--	40 CFR 401.17
pH Range Excursions, Monthly Total Duration	Mins	446	--	--	--	40 CFR 401.17
Internal Monitoring Station 620						
Water Temperature	°C	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				
Total Suspended Solids	mg/L	--	--	45.57	95.92	BPT/BAT/NSPS
Oil and Grease	mg/L	--	--	28.06	46.69	BPT/BAT/NSPS
Ammonia	mg/L	--	--	42.31	96.22	BPT/BAT/NSPS
Cyanide, Total	mg/L	--	--	0.09	0.21	BPT/BAT/NSPS
Fluoride	mg/L	--	--	19.07	43.03	BPT/BAT/NSPS
Chromium, Total	µg/L	--	--	0.002	0.005	BPT/BAT/NSPS

Parameter	Units	Concentration		Loading (kg/day)[a]		Basis[b]
		30 Day Average	Daily Maximum	30 Day Average	Daily Maximum	
Lead, Total	µg/L	--	--	0.142	0.30	BPT/BAT/NSPS
Nickel, Total	µg/L	--	--	0.01	0.02	BPT/BAT/NSPS
Zinc, Total	µg/L	--	--	0.43	1.04	BPT/BAT/NSPS
Flow Rate	MGD	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				M[c]
pH Range Excursion	Mins	--	60	--	--	40 CFR 401.17
pH, Maximum	S.U.	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BPT/BAT/NSPS
pH, Minimum	S.U.	- - - - - - - - - - - - Monitor - - - - - - - - - - - -				BPT/BAT/NSPS
pH Range Excursions, > 60 Minutes	#/Day	0	--	--	--	40 CFR 401.17
pH Range Excursions, Monthly Total Duration	Mins	446	--	--	--	40 CFR 401.17

[b] Definitions:

BAT = Best Available Technology Economically Achievable, 40 CFR Part 471, "Subpart F – Titanium Forming Subcategory" and "Subpart I – Zirconium-Hafnium Forming Subcategory"
BPJ = Best Professional Judgment
BPT = Best Practicable Control Technology Currently Available, 40 CFR Part 471, "Subpart F – Titanium Forming Subcategory" and "Subpart I – Zirconium-Hafnium Forming Subcategory"
BTJ = Best Technical Judgment
CFR = Code of Federal Regulations
M = BEJ of Permit Guidance 2: Determination of Sampling Frequency Formula for Industrial Waste Discharges
NPDES = National Pollutant Discharge Elimination System
NSPS = New Source Performance Standards, 40 CFR Part 471, "Subpart F – Titanium Forming Subcategory" and "Subpart I – Zirconium-Hafnium Forming Subcategory"
OAC = Ohio Administrative Code
RP = Reasonable Potential for requiring water quality-based effluent limits and monitoring requirements in permits (OAC 3745-33-07(A))
WLA = Wasteload Allocation procedures (OAC 3745-2)
WLA/IMZM = Wasteload Allocation limited by Inside Mixing Zone Maximum
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.

Attachment 1. Applicable Federal Effluent Limitation Guidelines

Outfall 602 Effluent Guideline Calculations

4000 Ton press [471.63(h)]
Production (kg/day): 142648

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.012	0.00171	0.029	0.00414
Lead	0.02	0.00285	0.042	0.00599
Zinc	0.061	0.00870	0.146	0.02083
Ammonia	5.86	0.83592	13.3	1.89722
Fluoride	2.64	0.37659	5.95	0.84876
Oil & Grease	1.2	0.17118	2	0.28530
TSS	1.95	0.27816	4.1	0.58486
pH	7.5 to 10	NA	NA	NA

Sheet & Plate Pickle [471.63(m)]
Production (kg/day): 210829

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00548	0.061	0.01337
Lead	0.042	0.00921	0.088	0.01929
Zinc	0.127	0.02785	0.304	0.06665
Ammonia	12.2	2.67496	27.7	6.07347
Fluoride	5.49	1.20373	12.4	2.71881
Oil & Grease	2.5	0.54815	4.16	0.91212
TSS	4.06	0.89019	8.53	1.87028
pH	7.5 to 10	NA	NA	NA

Descale pickle [471.61(m)/62(m)]
Production (kg/day): 47017

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00118	0.061	0.00287
Lead	0.042	0.00197	0.088	0.00414
Zinc	0.127	0.00597	0.304	0.01429
Ammonia	12.2	0.57361	27.7	1.30237
Fluoride	5.49	0.25812	12.4	0.58301
Oil & Grease	2.5	0.11754	4.16	0.19559
TSS	4.06	0.19089	8.53	0.40106
pH	7.5 to 10	NA	NA	NA

Strip pickle [471.61(m)/62(m)]
Production (kg/day): 14293

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00036	0.061	0.00087
Lead	0.042	0.00060	0.088	0.00126
Zinc	0.127	0.00182	0.304	0.00435
Ammonia	12.2	0.17437	27.7	0.39592
Fluoride	5.49	0.07847	12.4	0.17723
Oil & Grease	2.5	0.03573	4.16	0.05946
TSS	4.06	0.05803	8.53	0.12192
pH	7.5 to 10	NA		NA

Descale pickle [471.61(n)/62(n)]

Production (kg/day): 47017

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.351	0.01650	0.847	0.03982
Lead	0.584	0.02746	1.23	0.05783
Zinc	1.78	0.08369	4.27	0.20076
Ammonia	171	8.03991	389	18.28961
Fluoride	77.1	3.62501	174	8.18096
Oil & Grease	351	16.50297	584	27.45793
TSS	570	26.79969	1200	56.42040
pH	7.5 to 10	NA	NA	NA

Strip pickle [471.61(n)/62(n)]

Production (kg/day): 14293

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.351	0.00502	0.847	0.01211
Lead	0.584	0.00835	1.23	0.01758
Zinc	1.78	0.02544	4.27	0.06103
Ammonia	171	2.44410	389	5.55998
Fluoride	77.1	1.10199	174	2.48698
Oil & Grease	351	5.01684	584	8.34711
TSS	570	8.14701	1200	17.15160
pH	7.5 to 10	NA	NA	NA

Sheet & Plate Pickle [471.63(n)]

Production (kg/day): 210829 + 8430

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.351	0.07696	0.847	0.18571
Lead	0.584	0.12805	1.23	0.26969
Zinc	1.78	0.39028	4.27	0.93624
Ammonia	171	37.49329	389	85.29175
Fluoride	77.1	16.90487	174	38.15107
Oil & Grease	35.1	7.69599	58.4	12.80473
TSS	57	12.49776	120	26.31108
pH	7.5 to 10	NA	NA	NA

Descale and strip scrub [471.61(o)/62(o)]

Production (kg/day): 61310

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.026	0.00159	0.062	0.00380
Lead	0.043	0.00264	0.09	0.00552
Zinc	0.131	0.00803	0.313	0.01919
Ammonia	12.6	0.77251	28.5	1.74734
Fluoride	5.68	0.34824	12.8	0.78477
Oil & Grease	25.7	1.57567	42.8	2.62407
TSS	41.8	2.56276	87.8	5.38302
pH	7.5 to 10	NA	NA	NA

Continuous vacuum annealing spent bath [471.63(p)]

Production (kg/day): 29116

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.03	0.00087	0.07	0.00204
Lead	0.048	0.00140	0.101	0.00294
Zinc	0.147	0.00428	0.351	0.01022
Ammonia	14.1	0.41054	32	0.93171
Fluoride	6.34	0.18460	14.3	0.41636
Oil & Grease	2.88	0.08385	4.8	0.13976
TSS	4.68	0.13626	9.84	0.28650
pH	7.5 to 10	NA	NA	NA

Continuous vacuum annealing rinse [471.63(q)]

Production (kg/day): 29116

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.033	0.00096	0.08	0.00233
Lead	0.055	0.00160	0.116	0.00338
Zinc	0.169	0.00492	0.403	0.01173
Ammonia	16.2	0.47168	36.8	1.07147
Fluoride	7.29	0.21226	16.4	0.47750
Oil & Grease	3.31	0.09637	5.52	0.16072
TSS	5.38	0.15664	11.3	0.32901
pH	7.5 to 10	NA	NA	NA

Misc. wastewaters [471.63(x)]

Production (kg/day): 452333

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.004	0.00181	0.01	0.00452
Lead	0.007	0.00317	0.014	0.00633
Zinc	0.02	0.00905	0.048	0.02171
Ammonia	1.9	0.85943	4.32	1.95408
Fluoride	0.856	0.38720	1.93	0.87300
Oil & Grease	0.389	0.17596	0.648	0.29311
TSS	0.63	0.28497	1.33	0.60160
pH	7.5 to 10	NA	NA	NA

Sheet scrub [471.63(o)]

Production (kg/day): 219259

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.026	0.00570	0.062	0.01359
Lead	0.043	0.00943	0.09	0.01973
Zinc	0.131	0.02872	0.313	0.06863
Ammonia	12.6	2.76266	28.5	6.24888
Fluoride	5.68	1.24539	12.8	2.80652
Oil & Grease	2.57	0.56350	4.28	0.93843
TSS	4.18	0.91650	8.78	1.92509
pH	7.5 to 10	NA	NA	NA

Outfall 620 Effluent Guideline Calculations

4000 Ton press [471.63(h)]
Production (kg/day): 142648

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.012	0.00171	0.029	0.00414
Lead	0.02	0.00285	0.042	0.00599
Zinc	0.061	0.00870	0.146	0.02083
Ammonia	5.86	0.83592	13.3	1.89722
Fluoride	2.64	0.37659	5.95	0.84876
Oil & Grease	1.2	0.17118	2	0.28530
TSS	1.95	0.27816	4.1	0.58486
pH	7.5 to 10	NA	NA	NA

Sheet & Plate Pickle [471.63(m)]
Production (kg/day): 210829 + 8430

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00548	0.061	0.01337
Lead	0.042	0.00921	0.088	0.01929
Zinc	0.127	0.02785	0.304	0.06665
Ammonia	12.2	2.67496	27.7	6.07347
Fluoride	5.49	1.20373	12.4	2.71881
Oil & Grease	2.5	0.54815	4.16	0.91212
TSS	4.06	0.89019	8.53	1.87028
pH	7.5 to 10	NA	NA	NA

Descale pickle [471.61(m)/62(m)]
Production (kg/day): 47017

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00118	0.061	0.00287
Lead	0.042	0.00197	0.088	0.00414
Zinc	0.127	0.00597	0.304	0.01429
Ammonia	12.2	0.57361	27.7	1.30237
Fluoride	5.49	0.25812	12.4	0.58301
Oil & Grease	2.5	0.11754	4.16	0.19559
TSS	4.06	0.19089	8.53	0.40106
pH	7.5 to 10	NA	NA	NA

Strip pickle [471.61(m)/62(m)]
Production (kg/day): 4717

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.025	0.00012	0.061	0.00029
Lead	0.042	0.00020	0.088	0.00042
Zinc	0.127	0.00060	0.304	0.00143
Ammonia	12.2	0.05755	27.7	0.13066
Fluoride	5.49	0.02590	12.4	0.05849
Oil & Grease	2.5	0.01179	4.16	0.01962
TSS	4.06	0.01915	8.53	0.04024
pH	7.5 to 10	NA		NA

Descale pickle [471.61(n)/62(n)]

Production (kg/day): 47017

Parameter	30-day Limit (mg/off-kg)	30-day Calc. (kg/day)	Daily Limit (mg/off-kg)	Daily Calc. (kg/day)
Cyanide	0.351	0.01650	0.847	0.03982
Lead	0.584	0.02746	1.23	0.05783
Zinc	1.78	0.08369	4.27	0.20076
Ammonia	171	8.03991	389	18.28961
Fluoride	77.1	3.62501	174	8.18096
Oil & Grease	351	16.50297	584	27.45793
TSS	570	26.79969	1200	56.42040
pH	7.5 to 10	NA	NA	NA

Strip pickle [471.61(n)/62(n)]

Production (kg/day): 4717

Parameter	30-day Limit (mg/off-kg)	30-day Calc. (kg/day)	Daily Limit (mg/off-kg)	Daily Calc. (kg/day)
Cyanide	0.351	0.00176	0.847	0.00425
Lead	0.584	0.00293	1.23	0.00618
Zinc	1.78	0.00894	4.27	0.02144
Ammonia	171	0.85876	389	1.95356
Fluoride	77.1	0.38720	174	0.87383
Oil & Grease	351	1.76272	584	2.93285
TSS	570	2.86254	1200	6.02640
pH	7.5 to 10	NA	NA	NA

Sheet & Plate Pickle [471.63(n)]

Production (kg/day): 210829 + 8430

Parameter	30-day Limit (mg/off-kg)	30-day Calc. (kg/day)	Daily Limit (mg/off-kg)	Daily Calc. (kg/day)
Cyanide	0.351	0.07696	0.847	0.18571
Lead	0.584	0.12805	1.23	0.26969
Zinc	1.78	0.39028	4.27	0.93624
Ammonia	171	37.49329	389	85.29175
Fluoride	77.1	16.90487	174	38.15107
Oil & Grease	35.1	7.69599	58.4	12.80473
TSS	57	12.49776	120	26.31108
pH	7.5 to 10	NA	NA	NA

Descale and strip scrub [471.61(o)/62(o)]

Production (kg/day): 51734

Parameter	30-day Limit (mg/off-kg)	30-day Calc. (kg/day)	Daily Limit (mg/off-kg)	Daily Calc. (kg/day)
Cyanide	0.026	0.00135	0.062	0.00321
Lead	0.043	0.00222	0.09	0.00466
Zinc	0.131	0.00678	0.313	0.01619
Ammonia	12.6	0.65185	28.5	1.47442
Fluoride	5.68	0.29385	12.8	0.66220
Oil & Grease	25.7	1.32956	42.8	2.21422
TSS	41.8	2.16248	87.8	4.54225
pH	7.5 to 10	NA	NA	NA

Continuous vacuum annealing spent bath [471.63(p)]

Production (kg/day): 29116

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.03	0.00087	0.07	0.00204
Lead	0.048	0.00140	0.101	0.00294
Zinc	0.147	0.00428	0.351	0.01022
Ammonia	14.1	0.41054	32	0.93171
Fluoride	6.34	0.18460	14.3	0.41636
Oil & Grease	2.88	0.08385	4.8	0.13976
TSS	4.68	0.13626	9.84	0.28650
pH	7.5 to 10	NA	NA	NA

Continuous vacuum annealing rinse [471.63(q)]

Production (kg/day): 29116

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.033	0.00096	0.08	0.00233
Lead	0.055	0.00160	0.116	0.00338
Zinc	0.169	0.00492	0.403	0.01173
Ammonia	16.2	0.47168	36.8	1.07147
Fluoride	7.29	0.21226	16.4	0.47750
Oil & Grease	3.31	0.09637	5.52	0.16072
TSS	5.38	0.15664	11.3	0.32901
pH	7.5 to 10	NA	NA	NA

Zirconium/hafnium [471.93(h)]

Production (kg/day): 9576

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Chromium	0.06	0.00058	0.15	0.00144
Cyanide	0.04	0.00039	0.099	0.00095
Nickel	0.43	0.00414	0.653	0.00625
Ammonia	20.00	0.19152	45.3	0.43379
Fluoride	8.98	0.08599	20	0.19152
Oil & Grease	4.08	0.03907	6.8	0.06512
TSS	6.63	0.06349	14	0.13406
pH	7.5 to 10	NA	NA	NA

Zirconium/hafnium [471.93(i)]

Production (kg/day): 9576

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Chromium	0.16	0.00153	0.391	0.00374
Cyanide	0.11	0.00102	0.258	0.00247
Nickel	1.13	0.01082	1.71	0.01637
Ammonia	52.10	0.49891	119	1.13954
Fluoride	23.50	0.22504	52.9	0.50657
Oil & Grease	10.70	0.10246	17.8	0.17045
TSS	17.30	0.16566	36.4	0.34857
pH	7.5 to 10	NA	NA	NA

Misc. wastewaters [471.63(x)]
Production (kg/day): 452333

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.004	0.00181	0.01	0.00452
Lead	0.007	0.00317	0.014	0.00633
Zinc	0.02	0.00905	0.048	0.02171
Ammonia	1.9	0.85943	4.32	1.95408
Fluoride	0.856	0.38720	1.93	0.87300
Oil & Grease	0.389	0.17596	0.648	0.29311
TSS	0.63	0.28497	1.33	0.60160
pH	7.5 to 10	NA	NA	NA

Sheet scrub [471.63(o)]
Production (kg/day): 219259

Parameter	*30-day Limit (mg/off-kg)*	*30-day Calc. (kg/day)*	*Daily Limit (mg/off-kg)*	*Daily Calc. (kg/day)*
Cyanide	0.026	0.00570	0.062	0.01359
Lead	0.043	0.00943	0.09	0.01973
Zinc	0.131	0.02872	0.313	0.06863
Ammonia	12.6	2.76266	28.5	6.24888
Fluoride	5.68	1.24539	12.8	2.80652

Final ELG Limitations

	Outfall 602 Loadings	
	kg/day	
Parameter	**30-day**	**Daily**
Cyanide	0.118	0.285
Lead	0.197	0.414
Zinc	0.599	1.436
Ammonia	57.51	130.8
Fluoride	25.93	58.51
Oil & Grease	32.58	54.22
TSS	52.92	111.4

	Outfall 620 Loadings	
	kg/day	
Parameter	**30-day**	**Daily**
Cyanide	0.116	0.279
Lead	0.190	0.400
Zinc	0.579	1.389
Ammonia	57.130	126.641
Fluoride	25.392	57.296
Oil & Grease	28.531	47.473
TSS	46.334	97.530
Chromium	0.002	0.005
Nickel	0.015	0.023

Attachment 2. List of Approved Treatment Additives

Additive	Outfall	Ohio EPA Approval
Suez GN7112	002	July 10, 2020 DFFOs
Suez NT4207	002	July 10, 2020 DFFOs
Suez NX1106	002	July 10, 2020 DFFOs
Suez NT4207	006	July 10, 2020 DFFOs
Suez NX1106	006	July 10, 2020 and July 17, 2021 DFFOs
Suez BL6501	006	July 10, 2020 DFFOs
AP25	006	July 10, 2020 DFFOs
OS5300	006	July 10, 2020 DFFOs
AF1090	006	July 10, 2020 DFFOs
Suez GN7112	006	July 17, 2021 DFFOs
AF3566	006	November 18, 2021 DFFOs

Attachment 3. Whole Effluent Toxicity Reasonable Potential Analysis

Whole effluent toxicity testing for outfall 0IE00010006 produced only non-detection results for acute toxicity in *Pimephales promelas*, and therefore fall under Hazard Category 4. The reasonable potential analyses were only performed for acute toxicity to *Ceriodaphnia dubia.*

Hazard Category Summary

	Ceriodaphnia dubia	***Pimephales promelas***
	Acute	**Acute**
	Outfall 006	**Outfall 006**
Effluent Toxicity (Table A)	4	4

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

Table A. Effluent Toxicity

	Ceriodaphnia dubia	***Pimephales promelas***
	Outfall 006	**Outfall 006**
WLA	1.0	1.0
# of tests	6	6
Maximum value	0.6	--
Percent of tests >WLA	0	--
Geometric mean	0.24	--
Average Exceedance (Geomean * Percent of tests >WLA)	0.14	--
Average Exceedance / WLA	0.14	--

Attribute Evaluated	**Hazard Category 1**	**Hazard Category 2**	**Hazard Category 3**	**Hazard Category 4**
Degree of Toxicity	Adequately Documented	Strongly Suspected	Possible	None
(1) Minimum number of tests	3 Cd/Pp	1	0 or 1	0 or 1
(2) Percent of tests >WLA	>30	20 to 30	10 to 20	10 Cd/Pp
(3) Average Exceedance/WLA[1] (Tables B and C data not available)				
(a) Acute[2]	> 0.3	≥ 0.3	≥ 0.2	< 0.2 Cd/Pp
(4) Maximum TU value	≥(3xWLA)	≥WLA	≥WLA	<WLA Cd/Pp

[1] Compare (per cent 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