



State Pollutant Discharge Elimination System (SPDES) DISCHARGE PERMIT

SIC Code:	3471	NAICS Code:	334417	SPDES Number:	NY0003824
Discharge Class (CL):	03	DEC Number:	4-1250-00018/00156		
Toxic Class (TX):	T	Effective Date (EDP):	EDP		
Major-Sub Drainage Basin:	06-01	Expiration Date (ExDP):	ExDP		
Water Index Number:	SR (portion 7)	Item No.:	930-7	Modification Dates (EDPM): -	
Compact Area:	SRBC				

This SPDES permit is issued in compliance with Title 8 of Article 17 of the Environmental Conservation Law of New York State and in compliance with the Clean Water Act, as amended, (33 U.S.C. '1251 et.seq.)

PERMITTEE NAME AND ADDRESS					
Name:	Amphenol Corporation			Attention:	Environmental Health and Safety Manager
Street:	358 Hall Avenue				
City:	Wallingford			State:	CT Zip Code: 06492
Email:	mcady@amphenol-aao.com			Phone:	607-563-5765

is authorized to discharge from the facility described below:

FACILITY NAME, ADDRESS, AND PRIMARY OUTFALL												
Name:	Amphenol Corporation - Aerospace Operations											
Address / Location:	40-60 Delaware Avenue						County:	Delaware				
City:	Sidney				State:	NY		Zip Code:	13838			
Facility Location:	Latitude:	42 ° 18 ' 26 " N			& Longitude:	75 ° 24 ' 3 " W						
Primary Outfall No.:	001	Latitude:	42 ° 18 ' 57 " N			& Longitude:	75 ° 24 ' 18 " W					
Wastewater Description:	Electroplating process wastewater	Receiving Water:	Susquehanna River			NAICS:	334417		Class:	B	Standard:	B

and the additional outfalls listed in this permit, in accordance with: effluent limitations; monitoring and reporting requirements; other provisions and conditions set forth in this permit; and 6 NYCRR Part 750-1 and 750-2.

This permit and the authorization to discharge shall expire on midnight of the expiration date shown above and the permittee shall not discharge after the expiration date unless this permit has been renewed or extended pursuant to law. To be authorized to discharge beyond the expiration date, the permittee shall apply for permit renewal not less than 180 days prior to the expiration date shown above.

DISTRIBUTION:

CO BWP - Permit Coordinator
BWP – Permit Writer
CO BWC - SCIS
RWE
RPA
EPA Region II
Health District
SRBC

Permit Administrator:			
Address:	625 Broadway Albany, NY 12233-1750		
Signature:		Date:	//

Contents

SUMMARY OF ADDITIONAL OUTFALLS.....	3
DEFINITIONS.....	4
PERMIT LIMITS, LEVELS AND MONITORING: Outfall 01A & 01B.....	5
PERMIT LIMITS, LEVELS AND MONITORING: Outfall 01C & 001.....	6
PERMIT LIMITS, LEVELS AND MONITORING: Outfall 002.....	8
PERMIT LIMITS, LEVELS AND MONITORING: Outfalls 005, 006, 007, 008.....	9
SPECIAL CONDITIONS – SOLVENT MANAGEMENT PLAN.....	12
STORMWATER POLLUTION PREVENTION REQUIREMENTS.....	13
BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES.....	14
MERCURY MINIMIZATION PROGRAM (MMP) - Type III.....	16
DISCHARGE NOTIFICATION REQUIREMENTS.....	18
SCHEDULE OF COMPLIANCE.....	19
MONITORING LOCATIONS.....	20
MONITORING LOCATIONS (CONTINUED).....	21
GENERAL REQUIREMENTS.....	22
RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS.....	23
D. Schedule of Additional Submittals:.....	23

SUMMARY OF ADDITIONAL OUTFALLS

Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
01A	Cyanide bearing baths and rinses	334417	NA	NA
Receiving Water: Susquehanna via Outfall 001				Class: NA
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
01B	Hexavalent chromium bearing baths and rinses	334417	NA	NA
Receiving Water: Susquehanna via Outfall 001				Class: NA
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
01C	Low pH baths and rinses	334417	NA	NA
Receiving Water: Outfall Susquehanna via Outfall 001 – no monitoring or sampling at 01C				Class: NA
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
002	Stormwater	334417	42 ° 18 ' 27 " N	75 ° 24 ' 5 " W
Receiving Water: Tributary 147				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
005	Stormwater	334417	42 ° 18 ' 25 " N	75 ° 23 ' 53 " W
Receiving Water: Tributary 147				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
006	Stormwater	334417	42 ° 18 ' 24 " N	75 ° 23 ' 54 " W
Receiving Water: Tributary 147				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
007	Stormwater	334417	42 ° 18 ' 22 " N	75 ° 23 ' 58 " W
Receiving Water: Tributary 147				Class: C
Outfall	Wastewater Description	NAICS Code	Outfall Latitude	Outfall Longitude
008	Stormwater	334417	42 ° 18 ' 34 " N	75 ° 23 ' 54 " W
Receiving Water: Tributary 147				Class: C

DEFINITIONS

TERM	DEFINITION
7-Day Geo Mean	The highest allowable geometric mean of daily discharges over a calendar week.
7-Day Average	The average of all daily discharges for each 7-days in the monitoring period. The sample measurement is the highest of the 7-day averages calculated for the monitoring period.
12-Month Rolling Average (12 MRA)	The current monthly value of a parameter, plus the sum of the monthly values over the previous 11 months for that parameter, divided by the number of months for which samples were collected in the 12-month period.
30-Day Geometric Mean	The highest allowable geometric mean of daily discharges over a calendar month, calculated as the antilog of: the sum of the log of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Action Level	Action level means a monitoring requirement characterized by a numerical value that, when exceeded, triggers additional permittee actions and department review to determine if numerical effluent limitations should be imposed.
Compliance Level / Minimum Level	A compliance level is an effluent limitation. A compliance level is given when the water quality evaluation specifies a Water Quality Based Effluent Limit (WQBEL) below the Minimum Level. The compliance level shall be set at the Minimum Level (ML) for the most sensitive analytical method as given in 40 CFR Part 136, or otherwise accepted by the Department.
Daily Discharge	The discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for the purposes of sampling. For pollutants 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.
Daily Maximum	The highest allowable Daily Discharge.
Daily Minimum	The lowest allowable Daily Discharge.
Effective Date of Permit (EDP or EDPM)	The date this permit is in effect.
Effluent Limitations	Effluent limitation means any restriction on quantities, quality, rates and concentrations of chemical, physical, biological, and other constituents of effluents that are discharged into waters of the state.
Expiration Date of Permit (ExDP)	The date this permit is no longer in effect.
Instantaneous Maximum	The maximum level that may not be exceeded at any instant in time.
Instantaneous Minimum	The minimum level that must be maintained at all instants in time.
Monthly Average	The highest allowable average of daily discharges over a calendar month, calculated as the sum of each of the daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
Outfall	The terminus of a sewer system, or the point of emergence of any waterborne sewage, industrial waste or other wastes or the effluent therefrom, into the waters of the State.
Range	The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.
Receiving Water	The classified waters of the state to which the listed outfall discharges.
Sample Frequency / Sample Type / Units	See NYSDEC's "DMR Manual for Completing the Discharge Monitoring Report for the SPDES" for information on sample frequency, type and units.

PERMIT LIMITS, LEVELS AND MONITORING: Outfall 01A & 01B

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01A	Electroplating process water: cyanide bearing baths and rinses	Outfall 001	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Total Cyanide	Monthly Average	0.65	mg/L			Weekly	24-hr. Comp.		X	1
	Daily Maximum	1.20	mg/L							

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
01B	Electroplating process water: hexavalent chromium bearing baths and rinses	Outfall 001	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Total Cadmium	Monthly Average	Monitor	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L							
Hexavalent Chromium	Monthly Average	0.050	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	0.10	mg/L							
Total Chromium	Daily Maximum	0.50	mg/L			Weekly	24-hr. Comp.		X	
Total Copper	Daily Maximum	Monitor	mg/L			Weekly	24-hr. Comp.		X	
Total Cyanide	Monthly Average	Monitor	mg/L			Weekly	24-hr. Comp.		X	1
	Daily Maximum	Monitor	mg/L							
Total Iron	Monthly Average	2.0	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	4.0	mg/L							
Total Lead	Monthly Average	0.20	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	0.40	mg/L							
Total Manganese	Monthly Average	1.0	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	2.0	mg/L			Weekly	24-hr. Comp.		X	
Total Nickel	Monthly Average	Monitor	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L							
Total Silver	Monthly Average	Monitor	mg/L			Weekly	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L							
Total Zinc	Daily Maximum	Monitor	mg/L			Weekly	24-hr. Comp.		X	

PERMIT LIMITS, LEVELS AND MONITORING: Outfall 01C & 001

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING						
01C	Electroplating process water: low pH baths and rinses	Outfall 001	EDP	ExDP						
PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS			FN	
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.		Eff.
NO MONITORING REQUIRED										

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING						
001	Electroplating process water	Susquehanna River	EDP	ExDP						
PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS			FN	
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.		Eff.
Flow	Monthly Average	Monitor	MGD			Continuous	Recorder		X	
	Daily Maximum	Monitor	MGD			Continuous	Recorder		X	
pH	Daily Minimum	6.0	SU			2/week	Grab		X	
	Daily Maximum	9.0	SU							X
Temperature	Monthly Average	Monitor	°F			2/week	Grab		X	
	Daily Maximum	90	°F			2/week	Grab		X	
Total Suspended Solids (TSS)	Monthly Average	31	mg/L	26	lbs/d	2/week	24-hr. Comp.		X	
	Daily Maximum	60	mg/L	55	lbs/d	2/week	24-hr. Comp.		X	
Settleable Solids	Daily Maximum	0.1	mL/L			2/week	Grab		X	
Ammonia (as N)	Monthly Average	Monitor	mg/L			2/week	24-hr. Comp.		X	
Total Kjeldahl Nitrogen (TKN) (as N)	Monthly Average	Monitor	mg/L	Monitor	lbs/d	2/week	24-hr. Comp.		X	
Nitrate (NO ₃) (as N)	Monthly Average	Monitor	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	
Nitrite (NO ₂) (as N)	Monthly Average	Monitor	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L			2/week	24-hr. Comp.		X	
Total Nitrogen (as N)	Monthly Average	Monitor	mg/L	Monitor	lb/d	2/week	Calculated		X 3	
	Monthly Total			Monitor	lb/mo	1/month	Calculated		X 4	
	12 Month Rolling Total			90,000	lb/yr	1/month	Calculated		X 5, 6	
Total Phosphorus (as P)	Monthly Average	Monitor	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	
	Monthly Total			Monitor	lb/mo	1/month	Calculated		X 7	
	12 Month Rolling Total			761	lb/yr	1/month	Calculated		X 8	
Total Mercury	Daily Maximum	50	ng/L			Quarterly	Grab		X 9	
	12 MRA	20	ng/L			Quarterly	Calculated		X 9,10	

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Total Aluminum	Monthly Average	Monitor	mg/L	4.4	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	Monitor	mg/L	8.8	lb/d	2/week	24-hr. Comp.		X	
Total Cadmium	Monthly Average	0.26	mg/L	0.28	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.28	mg/L	0.30	lb/d	2/week	24-hr. Comp.		X	
Hexavalent Chromium	Monthly Average	Monitor	mg/L	0.11	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.81	mg/L	0.22	lb/d	2/week	24-hr. Comp.		X	
Total Chromium	Monthly Average	1.71	mg/L	1.9	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	2.77	mg/L	3.0	lb/d	2/week	24-hr. Comp.		X	
Total Copper	Monthly Average	Monitor	mg/L	2.2	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.90	mg/L	0.97	lb/d	2/week	24-hr. Comp.		X	
Free Cyanide	Daily Maximum	Monitor	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	1
Total Cyanide	Monthly Average	900	mg/L	0.60	lb/d	2/week	24-hr. Comp.		X	1
	Daily Maximum	Monitor	mg/L	1.2	lb/d	2/week	24-hr. Comp.		X	
Total Lead	Monthly Average	0.43	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.67	mg/L	Monitor	lb/d	2/week	24-hr. Comp.		X	
Total Nickel	Monthly Average	2.38	mg/L	2.6	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	3.98	mg/L	4.3	lb/d	2/week	24-hr. Comp.		X	
Total Silver	Monthly Average	0.24	mg/L	0.26	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	0.43	mg/L	0.47	lb/d	2/week	24-hr. Comp.		X	
Total Zinc	Monthly Average	1.48	mg/L	1.6	lb/d	2/week	24-hr. Comp.		X	
	Daily Maximum	2.61	mg/L	2.8	lb/d	2/week	24-hr. Comp.		X	
Oil & Grease	Monthly Average	Monitor	mg/L			2/week	Grab		X	
	Daily Maximum	15	mg/L			2/week	Grab		X	
Total Toxic Organics	Daily Maximum	2.13	mg/L			2/week	24-hr. Comp.		X	1,2
Total Residual Chlorine	Daily Maximum	Monitor	mg/L			2/week	Grab		X	
Sulfite (as SO ₃)	Daily Maximum	Monitor	mg/L			2/week	24-hr. Comp.		X	
Color	Daily Maximum	Monitor	PCU			2/week	24-hr. Comp.		X	
Total Beryllium	Daily Maximum	Monitor	mg/L			2/week	24-hr. Comp.		X	
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote	15	TUa			Quarterly	See footnote		X	9,11
WET - Acute Vertebrate	See footnote	15	TUa			Quarterly	See footnote		X	9,11
WET - Chronic Invertebrate	See footnote	100	TUc			Quarterly	See footnote		X	9,11
WET - Chronic Vertebrate	See footnote	100	TUc			Quarterly	See footnote		X	9,11

Footnotes on Page 9

PERMIT LIMITS, LEVELS AND MONITORING: Outfall 002

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
002	Stormwater	Tributary 147 to Susquehanna River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	GPD			Monthly	Estimate		X	12
pH	Daily Minimum	6.5	SU			Monthly	Grab		X	12
	Daily Maximum	8.5	SU							12
Temperature	Daily Maximum	Monitor	°F			Monthly	Grab		X	12
trans-1,2-Dichloroethylene	Daily Maximum	10	µg/L			Monthly	Grab		X	12
Trichloroethylene	Daily Maximum	10	µg/L			Monthly	Grab		X	12
Total Aluminum	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Total Barium	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Total Cadmium	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Total Chromium	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Total Nickel	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Total Zinc	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
Hardness	Daily Maximum	Monitor	µg/L			Monthly	Grab		X	12
WHOLE EFFLUENT TOXICITY (WET) TESTING		Limit	Units	Action Level	Units	Sample Frequency	Sample Type	Inf.	Eff.	FN
WET - Acute Invertebrate	See footnote	0.3	TUa			Monthly	See footnote		X	11
WET - Acute Vertebrate	See footnote	0.3	TUa			Monthly	See footnote		X	11
WET - Chronic Invertebrate	See footnote	1.0	TUc			Monthly	See footnote		X	11
WET - Chronic Vertebrate	See footnote	1.0	TUc			Monthly	See footnote		X	11

Footnotes on Page 9

PERMIT LIMITS, LEVELS AND MONITORING: Outfalls 005, 006, 007, 008

OUTFALL	DESCRIPTION	RECEIVING WATER	EFFECTIVE	EXPIRING
005, 006, 007, 008	Stormwater	Tributary 147 to Susquehanna River	EDP	ExDP

PARAMETER	EFFLUENT LIMITATION					MONITORING REQUIREMENTS				FN
	Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
								Inf.	Eff.	
Flow	Daily Maximum	Monitor	GPD			Semi-annual	Estimate		X	12,13
pH	Daily Minimum	6.5	SU			Semi-annual	Grab		X	12,13
	Daily Maximum	8.5	SU							
Temperature	Daily Maximum	Monitor	°F			Semi-annual	Grab		X	12,13
Oil & Grease	Daily Maximum	15	mg/L			Semi-annual	Grab		X	1,12, 13

FOOTNOTES:

- At least 8 individual manual grab samples must be collected over the course of 24 hours analyzed separately and the concentrations averaged. Alternatively, grab samples may be collected in the field and composited in the laboratory and analyzed as a single sample if the results are equivalent to the arithmetic averaging of individual grab samples. Where effluent flows do not vary more than 10 percent over the course of composite sample collection, composite samples may be composed of equal size grab samples taken at equal time intervals. Where effluent flows do vary more than 10 percent over the course of sample collection, composite samples must be flow-proportioned.
- Upon approval of the Solvent Management Plan, the permittee may, in lieu of required monitoring for TTO, certify with each DMR that the facility is implementing the approved Solvent Management Plan and that no dumping of concentrated toxic organics has occurred during the reporting period. In lieu of monitoring for Total Toxic Organics, the permittee may make the following certification as a comment on the DMR: *Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organics (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic management plan submitted to the permitting authority.* If certifying instead of sampling, enter NODI 9 on the DMR for the parameter.
- Total Nitrogen (as N) = [Total Kjeldahl Nitrogen (TKN), as N] + [Nitrite (NO₂), as N] + [Nitrate (NO₃), as N].
- Total Nitrogen (as N), monthly total (lb/mo) is calculated as the monthly average load (lb/d) multiplied by the number of days in the month.
- Total Nitrogen (as N), 12-month rolling total (lb/yr) is calculated as the current month load added to the month loads from the previous eleven months.
- This is a final effluent limitation. See Schedule of Compliance for interim effluent limitation.
- Total Phosphorus (as P), month total (lb/mo) is calculated as the monthly average load (lb/d) multiplied by the number of days in the month.
- Total Phosphorus (as P), 12-month rolling total (lb/yr) is calculated as the current month load added to the month loads from the previous eleven months.

Footnotes continued on next page

9. Quarterly samples shall be collected in calendar quarters (Q1 – January 1st to March 31st; Q2 – April 1st to June 30th; Q3 – July 1st to September 30th; Q4 – October 1st to December 31st).
10. The 12-month rolling average for mercury is defined as the sum of the current month's monthly average concentration added to the quarterly averages from the eleven previous months, divided by the number of months for which samples were collected in the 12-month period.

11. Whole Effluent Toxicity (WET) Testing:

Testing Requirements – Chronic WET testing is required, but report both the acute and chronic results. Testing shall be performed in accordance with 40 CFR Part 136 and TOGS 1.3.2 unless prior written approval has been obtained from the Department. The test species shall be Ceriodaphnia dubia (water flea - invertebrate) and Pimephales promelas (fathead minnow - vertebrate). Receiving water collected upstream from the discharge should be used for dilution. All tests conducted should be static-renewal (two 24-hr composite samples with one renewal for Acute tests and three 24-hr composite samples with two renewals for Chronic tests). The appropriate dilution series should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test may be required. WET testing shall be coordinated with the monitoring of chemical and physical parameters limited by this permit so that the resulting analyses are also representative of the sample used for WET testing. The ratio of critical receiving water flow to discharge flow (i.e., dilution ratio) is 50:1 for acute, and 100:1 for chronic for Outfall 001 and 1:1 for acute, and 1:1 for chronic for Outfall 002.

Monitoring Period - WET testing shall be performed quarterly (calendar quarters) at Outfall 001 and monthly at Outfall 002 for the duration of the permit.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: $TU_a = (100)/(48\text{-hr LC50})$ [note that Acute data is generated by both Acute and Chronic testing] and $TU_c = (100)/(7\text{-day NOEC})$ or $(100)/(7\text{-day IC25})$ when Chronic testing has been performed or $TU_c = (TU_a) \times (10)$ when only Acute testing has been performed and is used to predict Chronic test results, where the 48-hr LC50, 7-day NOEC and/or IC25 are all expressed in % effluent. This must be done, including the Chronic prediction from the Acute data, for both species unless otherwise directed. For Chronic results, report the most sensitive endpoint (i.e., survival, growth and/or reproduction) corresponding to the lowest 7-day NOEC or IC25 and resulting highest TUc. For Acute results, report a TUa of 0.3 if there is no statistically significant mortality in 100% effluent as compared to the control. Report a TUa of 1.0 if there is statistically significant mortality in 100% effluent as compared to the control, but insufficient mortality to generate a 48-hr LC50. Also, in the absence of a 48-hr LC50, use 1.0 TUa for the Chronic prediction from the Acute data, and report a TUc of 10.0.

The complete test report including all bench sheets, statistical analyses, reference toxicity data, daily average flow at the time of sampling and other appropriate supporting documentation, shall be submitted within 60 days following the end of each test period with your WET DMR and to the WET@dec.ny.gov email address. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48-hr LC50 for Acute tests and/or TUc, NOEC, IC25, and most sensitive endpoints for Chronic tests, should also be included at the beginning of the test report.

WET Testing Action Level Exceedances - If an action level is exceeded then the Department may require the permittee to conduct additional WET testing including Acute and/or Chronic tests. Additionally, the permittee may be required to perform a Toxicity Identification/Reduction Evaluation (TI/RE) in accordance with Department guidance. Enforceable WET limits may also apply. The permittee shall be notified in writing by their Regional DEC office of additional requirements. The written notification shall include the reason(s) why such testing, TI/RE and/or limits are required.

Footnotes continued on next page

12. **Stormwater Sampling**

All stormwater sampling shall be in accordance with the New York State Department of Environmental Conservation SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity Permit Number GP-0-23-001, which states:

A minimum of one grab sample must be taken from the *stormwater discharge associated with industrial activity* resulting from a storm event with at least 0.1 inch of precipitation (defined as a "measurable" event), providing the interval from the preceding measurable storm is at least 72 hours. The 72-hour storm interval is waived if the preceding measurable storm did not result in a *stormwater discharge* (e.g., a storm event in excess of 0.1 inches may not result in a *stormwater discharge* at some facilities), or if the *owner or operator* is able to document that less than a 72 hour interval is representative for local storm events during the sampling period.

The grab sample must be taken during the first 30 minutes (or as soon thereafter as practical, but not to exceed one [1] hour) of the *discharge*. If the sampled *discharge* commingles with non-stormwater water, the *owner or operator* must attempt to sample the *stormwater discharge* before it mixes.

13. Semi-annual samples shall be collected in Period 1 (January 1st through June 30th) and Period 2 (July 1st through December 31st) during a calendar year.

SPECIAL CONDITIONS – SOLVENT MANAGEMENT PLAN

1. The permittee shall submit, for Department approval, an initial solvent management plan by EDP + 1 month that specifies the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the wastewater.
2. The Solvent Management Plan shall be reviewed, annually, and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment annually to the December Discharge Monitoring Report (DMR), that the review has been completed. All Solvent Management plan revisions must be maintained on site. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.

DRAFT

STORMWATER POLLUTION PREVENTION REQUIREMENTS

Stormwater discharges at this facility cannot obtain coverage under the current Multi-Sector General Permit (MSGP) (GP-0-23-001); however, the permit includes select requirements consistent with the MSGP.

The permittee shall develop and maintain a Stormwater Pollution Prevention Plan (SWPPP). **The SWPPP shall be developed by EDP + 6 months and maintained onsite.** At a minimum, the SWPPP must contain:

1. Pollution prevention team
2. General site description
3. Potential pollutant sources
4. Spills and releases
5. General location map
6. Site map
7. Stormwater controls
8. Monitoring and sampling data
9. Permit documents and department correspondence
10. Inspection schedule and documentation
11. Corrective action documentation
12. Monitoring and reporting

BEST MANAGEMENT PRACTICES (BMPs) FOR INDUSTRIAL FACILITIES

Note that for some facilities, especially those with few employees or limited industrial activities, some of the below BMPs may not be applicable. It is acceptable in these cases to indicate "Not Applicable" for the portion(s) of the BMP Plan that do not apply to your facility, along with an explanation.

1. **General** - The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage. The BMP plan shall be documented in narrative form and shall include the 13 minimum BMPs and any necessary plot plans, drawings, or maps. Other documents already prepared for the facility such as a Safety Manual or a Spill Prevention, Control and Countermeasure (SPCC) plan may be used as part of the plan and may be incorporated by reference. A copy of the current BMP plan shall be submitted to the Department as required in item (2.) below and a copy must be maintained at the facility and shall be available to authorized Department representatives upon request.
2. **Compliance Deadlines** – The initial BMP plan was received by the Department on 11/23/2009. The BMP plan **shall be reviewed annually** and shall be modified whenever (a) changes at the facility materially increase the potential for releases of pollutants; (b) actual releases indicate the plan is inadequate, or (c) a letter from the Department identifies inadequacies in the plan. The permittee shall certify in writing, as an attachment to the December Discharge Monitoring Report (DMR), that the annual review has been completed. Subsequent modifications to or renewal of this permit does not reset or revise these deadlines unless a new deadline is set explicitly by such permit modification or renewal.
3. **Facility Review** - The permittee shall review all facility components or systems (including but not limited to material storage areas; in-plant transfer, process, and material handling areas; loading and unloading operations; storm water, erosion, and sediment control measures; process emergency control systems; and sludge and waste disposal areas) where materials or pollutants are used, manufactured, stored or handled to evaluate the potential for the release of pollutants to the waters of the State. In performing such an evaluation, the permittee shall consider such factors as the probability of equipment failure or improper operation, cross-contamination of storm water by process materials, settlement of facility air emissions, the effects of natural phenomena such as freezing temperatures and precipitation, fires, and the facility's history of spills and leaks. The relative toxicity of the pollutant shall be considered in determining the significance of potential releases. The review shall address all substances present at the facility that are identified in the SPDES application Form NY-2C (available at https://www.dec.ny.gov/docs/water_pdf/ny2cfillable.pdf) or that are required to be monitored for by the SPDES permit.
4. **13 Minimum BMPs:** Whenever the potential for a release of pollutants to State waters is determined to be present, the permittee shall identify BMPs that have been established to prevent or minimize such potential releases. Where BMPs are inadequate or absent, appropriate BMPs shall be established. In selecting appropriate BMPs, the permittee shall consider good industry practices and, where appropriate, structural measures such as secondary containment and erosion/sediment control devices and practices. USEPA guidance for development of stormwater elements of the BMP is available in *Developing Your Stormwater Pollution Prevention Plan A Guide for Industrial Operators*, February 2009, EPA 833-B-09-002. As a minimum, the plan shall include the following BMPs:

- | | | |
|-------------------------------------|---|---------------------------------|
| 1. BMP Pollution Prevention Team | 6. Security | 10. Spill Prevention & Response |
| 2. Reporting of BMP Incidents | 7. Preventive Maintenance | 11. Erosion & Sediment Control |
| 3. Risk Identification & Assessment | 8. Good Housekeeping | 12. Management of Runoff |
| 4. Employee Training | 9. Materials/Waste Handling, Storage, & Compatibility | 13. Street Sweeping |
| 5. Inspections and Records | | |

BMPs FOR INDUSTRIAL FACILITIES (continued)

5. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater from Construction Activity to Surface Waters** - A SWPPP shall be developed prior to commencing any construction activity that will result in soil disturbance of one or more acres of uncontaminated area¹. (Note: the disturbance threshold is 5000 SF in the New York City East of Hudson Watershed). The SWPPP shall conform to the current version of the SPDES General Permit for Stormwater Discharges from Construction Activity (CGP), including the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*. The permittee shall submit a copy of the SWPPP and any amendments thereto to the local governing body and any other authorized agency having jurisdiction or regulatory control over the construction activity **at least 30 days prior to soil disturbance**. The SWPPP shall be maintained on-site and submitted to the Department only upon request. When a SWPPP is required, a properly completed *Notice of Intent* (NOI) form shall be submitted (available at www.dec.ny.gov/chemical/43133.html) prior to soil disturbance. Note that submission of the NOI is required for informational purposes; the permittee is not eligible for and will not obtain coverage under any SPDES general permit for stormwater discharges. SWPPPs must be developed for subsequent site disturbances in accordance with the above requirements. The permittee is responsible for ensuring that the provisions of each SWPPP are properly implemented.
6. **Required Sampling For "Hot Spot" Identification** - Development of the BMP plan shall include sampling of waste stream segments for the purpose of pollutant "hot spot" identification. The economic achievability of effluent limits will not be considered until plant site "hot spot" sources have been identified, contained, removed or minimized through the imposition of site specific BMPs or application of internal facility treatment technology. For the purposes of this permit condition a "hot spot" is a segment of an industrial facility (including but not limited to soil, equipment, material storage areas, sewer lines etc.) which contributes elevated levels of problem pollutants to the wastewater and/or stormwater collection system of that facility. For the purposes of this definition, problem pollutants are substances for which treatment to meet a water quality or technology requirement may, considering the results of waste stream segment sampling, be deemed unreasonable. For the purposes of this definition, an elevated level is a concentration or mass loading of the pollutant in question which is sufficiently higher than the concentration of that same pollutant at the compliance monitoring location so as to allow for an economically justifiable removal and/or isolation of the segment and/or B.A.T. treatment of wastewaters emanating from the segment.

¹ Uncontaminated area means soils which are free of contamination by any toxic or non-conventional pollutants identified in the tables of SPDES Application Form NY-2C. Disturbance of any size contaminated area(s) and the resulting discharge of contaminated stormwater is not authorized by this permit unless the discharge is under State or Federal oversight as part of a remedial program or after review by the Regional Water Engineer; nor is such discharge authorized by any SPDES general permit for stormwater discharges.

MERCURY MINIMIZATION PROGRAM (MMP) - Type III

1. General - The permittee must develop, implement, and maintain a mercury minimization program (MMP), containing the elements set forth below, to reduce mercury effluent levels with the goal of achieving the WQBEL of 0.7 ng/L.
2. MMP Elements - The MMP must be a written document and must include any necessary drawings or maps of the facility and/or collection system. Other related documents already prepared for the facility may be used as part of the MMP and may be incorporated by reference. At a minimum, the MMP must include the following elements as described in detail below:
 - a. Monitoring - Monitoring at outfalls, influent and other locations tributary to compliance points shall be performed using either USEPA Method 1631 or another sufficiently sensitive method, as approved under 40 CFR Part 136². Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate. Monitoring must be coordinated so that the results can be effectively compared between locations.

Minimum required monitoring is as follows:

- i. Plant Influent and/or Effluent – The permittee must collect samples at the location(s) and frequency as specified in the SPDES permit limitations table.
 - ii. Key Locations and Potential Mercury Sources – The permittee must sample *key locations*, chosen to identify *potential mercury sources*, at least annually.
 - iii. Decreased Monitoring Requirements - Facilities with EEQ at or below 12 ng/L are eligible for the following:
 - 1) Reduced requirements, through a permittee-initiated permit modification
 - a) Conduct influent monitoring, sampling semi-annually, in lieu of monitoring within the collection system, such as at *key locations*; and
 - b) Conduct effluent compliance sampling semi-annually.
 - 2) If a facility with reduced requirements reports discharges above 12 ng/L for two of four consecutive effluent samples, the Department may undertake a Department-initiated modification to remove the allowance of reduced requirements.
 - 3) Under the decreased permit requirements, the facility must continue to conduct an annual status report, as applicable in accordance with 2.c of this MMP, to determine if any waste streams have changed.
 - iv. Additional monitoring must be completed as required elsewhere in this permit (e.g., locations tributary to compliance points).
- b. Control Strategy - The control strategy must contain the following minimum elements:
- i. Monitoring and Inventory/Inspections
 - 1) Monitoring shall be performed as described in 2.a above. As mercury sources are found, the permittee must track down and minimize these sources.
 - 2) The permittee must inventory and/or inspect users of its system as necessary to support the MMP.
 - a) *Potential mercury sources*
 1. The permittee must maintain an inventory of *potential mercury sources*.
 2. The permittee must inspect *potential mercury sources* once every five years. Alternatively, the permittee may develop and implement an outreach program³ which informs users of their responsibilities as *potential mercury sources*. The permittee must conduct the outreach program at least once every five years. The outreach program should be supported by a subset of site inspections.
 3. A file shall be maintained containing documentation demonstrating compliance with 2.b.i.2)a) above. This file shall be available for review by the Department representatives and copies shall be provided upon request.

² Outfall monitoring must be conducted using the methods specified in Table 8 of *DOW 1.3.10*.

³ For example, the outreach program could include education about sources of mercury and what to do if a mercury source is found.

MERCURY MINIMIZATION PROGRAM (MMP) – Type III (Continued)

- ii. Equipment and Materials – Equipment and materials (e.g., thermometers, thermostats) used by the permittee, which may contain mercury, must be evaluated by the permittee. As equipment and materials containing mercury are updated/replaced, the permittee must use mercury-free alternatives, if possible.
 - iii. Bulk Chemical Evaluation – For chemicals, used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee must obtain a manufacturer's certificate of analysis, a chemical analysis performed by a certified laboratory, and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. If possible, the permittee must only use bulk chemicals utilized in the wastewater treatment process which contain <10 ppb mercury.
- c. **Status Report - An annual** status report must be developed and maintained on site, in accordance with the [Schedule of Additional Submittals](#), summarizing:
- i. All MMP monitoring results for the previous reporting period;
 - ii. A list of known and *potential mercury sources*
 - 1) If the permittee meets the criteria for MMP Type IV, the permittee must notify the Department for a permittee-initiated modification;
 - iii. All actions undertaken, pursuant to the control strategy, during the previous reporting period;
 - iv. Actions planned, pursuant to the control strategy, for the upcoming reporting period; and
 - v. Progress towards achieving a dissolved mercury concentration of 0.70 ng/L in the effluent (e.g., summarizing reductions in effluent concentrations as a result of the control strategy implementation and/or installation/modification of a treatment system).

The permittee must maintain a file with all MMP documentation. The file must be available for review by Department representatives and copies must be provided upon request in accordance with 6 NYCRR 750-2.1(i) and 750-2.5(c)(4).

3. MMP Modification - The MMP must be modified whenever:
- a. Changes at the facility increase the potential for mercury discharges;
 - b. Effluent discharges exceed the current permit limitation(s); or
 - c. A letter from the Department identifies inadequacies in the MMP.

The Department may use information in the status reports, as applicable in accordance with 2.c of this MMP, to determine if the permit limitations and MMP Type is appropriate for the facility.

DEFINITIONS:

Key location – a location within the collection/wastewater system (e.g. including but not limited to a specific manhole/access point, tributary sewer/wastewater connection, or user discharge point) identified by the permittee as a potential mercury source. The permittee may adjust key locations based upon sampling and/or best professional judgement.

Potential mercury source – a source identified by the permittee that may reasonably be expected to have total mercury contained in the discharge. Some potential mercury sources include switches, fluorescent lightbulbs, cleaners, degreasers, thermometers, batteries, hauled wastes, universities, hospitals, laboratories, landfills, Brownfield sites, or raw material storage.

DISCHARGE NOTIFICATION REQUIREMENTS

- (a) The permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit, unless the Permittee has obtained a waiver in accordance with the Discharge Notification Act (DNA). Such signs shall be installed before initiation of any new discharge location.
- (b) Subsequent modifications to or renewal of this permit does not reset or revise the deadline set forth in (a) above, unless a new deadline is set explicitly by such permit modification or renewal.
- (c) The Discharge Notification Requirements described herein do not apply to outfalls from which the discharge is composed exclusively of storm water, or discharges to ground water.
- (d) The sign(s) shall be conspicuous, legible and in as close proximity to the point of discharge as is reasonably possible while ensuring the maximum visibility from the surface water and shore. The signs shall be installed in such a manner to pose minimal hazard to navigation, bathing or other water related activities. If the public has access to the water from the land in the vicinity of the outfall, an identical sign shall be posted to be visible from the direction approaching the surface water.

The signs shall have **minimum** dimensions of eighteen inches by twenty-four inches (18" x 24") and shall have white letters on a green background and contain the following information:

<p>N.Y.S. PERMITTED DISCHARGE POINT</p> <p>SPDES PERMIT No.: NY_____</p> <p>OUTFALL No. : _____</p>
<p>For information about this permitted discharge contact:</p>
<p>Permittee Name: _____</p>
<p>Permittee Contact: _____</p>
<p>Permittee Phone: () - ### - #####</p>
<p>OR:</p>
<p>NYSDEC Division of Water Regional Office Address:</p>
<p>NYSDEC Division of Water Regional Phone: () - ### - #####</p>

- (e) Upon request, the permittee shall make available electronic or hard copies of the sampling data to the public. In accordance with the RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS page of your permit, each DMR shall be maintained (either electronically or as a hard copy) on record for a period of five years.
- (f) The permittee shall periodically inspect the outfall identification sign(s) in order to ensure they are maintained, are still visible, and contain information that is current and factually correct. Signs that are damaged or incorrect shall be replaced within 3 months of inspection.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Compliance Action	Compliance Date ⁴
001	<u>JOINT OUTFALL AGREEMENT (6 NYCRR 750-2.9(a)(4))</u> The permittee shall enact a joint outfall agreement with the Village of Sidney WPCP (NY0029271) outlining the operation and maintenance responsibilities of the shared Outfall 001 and submit a certification that the agreement has been enacted by EDP + 6 months.	EDP + 6 months
001	<u>SOLVENT MANAGEMENT PLAN</u> The permittee shall submit a solvent management plan in accordance with requirements laid out in the SPECIAL CONDITIONS – SOLVENT MANAGEMENT PLAN section of this permit.	EDP + 1 month
002	<u>STORMWATER SYSTEM ASSESSMENT</u> The permittee shall televise the stormwater system and conduct an elevation survey. A report detailing the results of the elevation survey and a complete stormwater map shall be submitted by EDP + 6 months. The report may include points of infiltration and a plan for separating the stormwater system from groundwater infiltration, if infiltration is identified.	EDP + 6 months
002	<u>REPRESENTATIVE OUTFALL LOCATION</u> The permittee shall determine a sampling location that is representative of the effluent free from ambient water backflow. By EDP + 8 months, the permittee shall submit a plan to relocate the sampling location or outfall pipe. Upon completion of the outfall relocation, the permittee shall submit an updated monitoring locations map.	EDP + 8 months

Unless noted otherwise, the above actions are one-time requirements.

OUTFALL	PARAMETER	INTERIM EFFLUENT LIMIT					MONITORING REQUIREMENTS				Notes
		Type	Limit	Units	Limit	Units	Sample Frequency	Sample Type	Location		
									Inf.	Eff.	
001	Total Nitrogen	12-Month Rolling Total	134,000	lbs/yr			1/Month	Calculated		X	1, 2

Notes:
1. Interim limit expire 12/31/2024.
2. See permit footnote for this calculation.

b) The permittee shall submit a written notice of compliance or non-compliance with each of the above schedule dates no later than 14 days following each elapsed date, unless conditions require more immediate notice as prescribed in 6 NYCRR Part 750-1.2(a) and 750-2. All such compliance or non-compliance notification shall be sent to the locations listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS. Each notice of non-compliance shall include the following information:

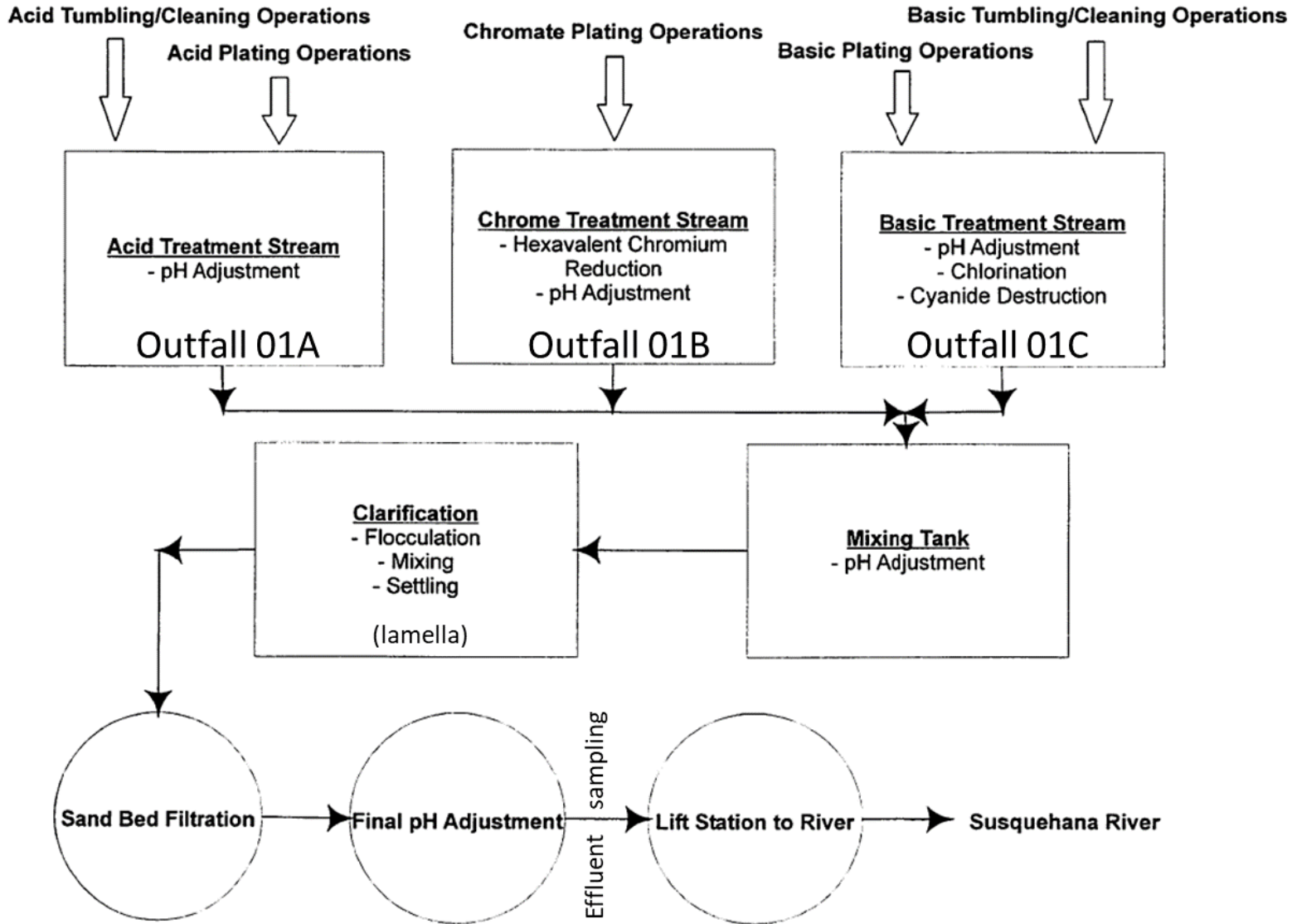
1. A short description of the non-compliance;
2. A description of any actions taken or proposed by the permittee to comply with the elapsed schedule requirements without further delay and to limit environmental impact associated with the non-compliance;
3. Any details which tend to explain or mitigate an instance of non-compliance; and
4. An estimate of the date the permittee will comply with the elapsed schedule requirement and an assessment of the probability that the permittee will meet the next scheduled requirement on time.

c) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer and to the Bureau of Water Permits.

⁴ 6 NYCRR 750-1.14 (a)

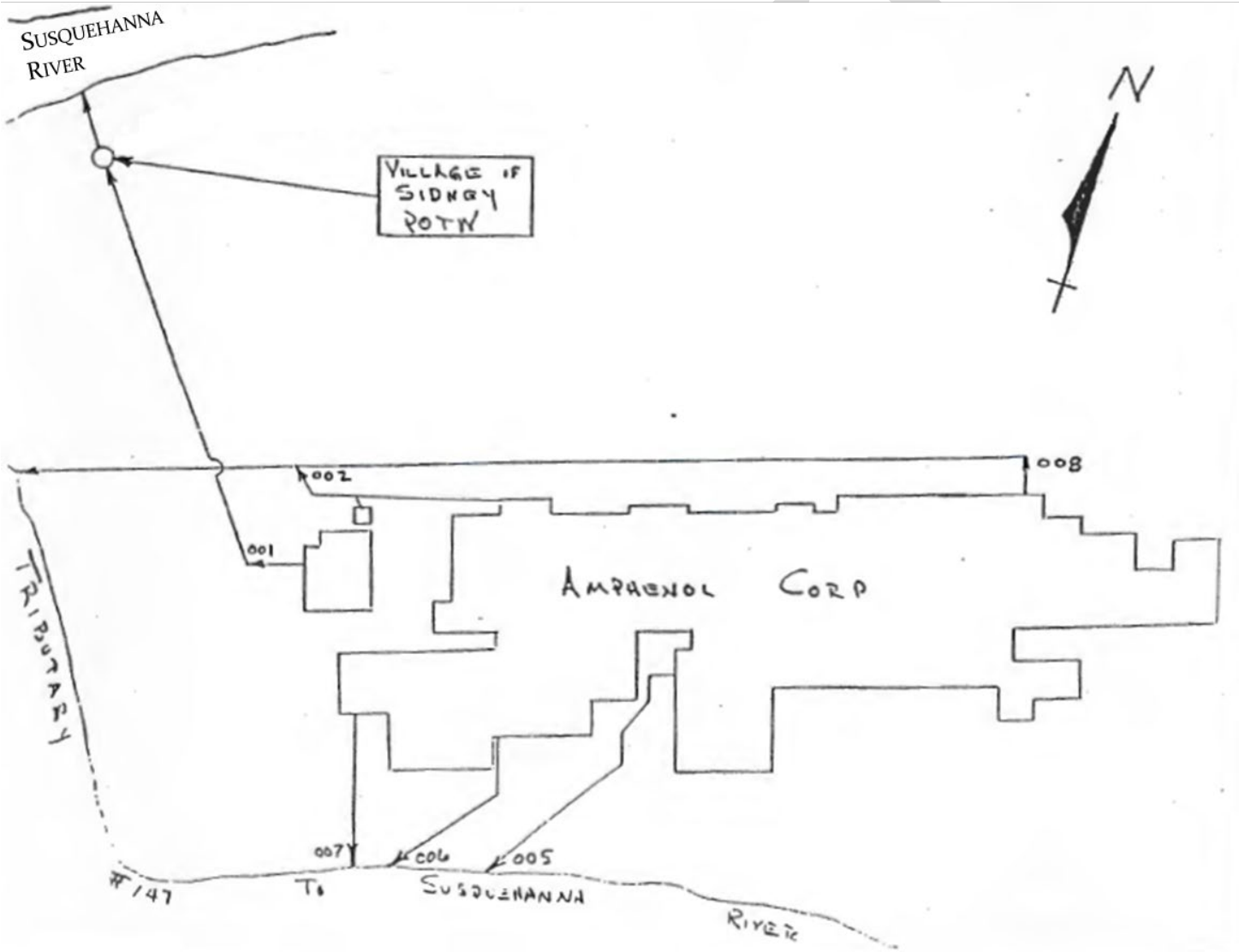
MONITORING LOCATIONS

The permittee shall take samples and measurements, to comply with the monitoring requirements specified in this permit, at the locations(s) specified below:



MONITORING LOCATIONS (CONTINUED)

Sampling for Outfall 002 must occur at Manhole A or another representative location upstream in the collection system and free from surface water influence.



GENERAL REQUIREMENTS

- A. The regulations in 6 NYCRR Part 750 are hereby incorporated by reference and the conditions are enforceable requirements under this permit. The permittee shall comply with all requirements set forth in this permit and with all the applicable requirements of 6 NYCRR Part 750 incorporated into this permit by reference, including but not limited to the regulations in paragraphs B through H as follows:
- B. General Conditions
- | | |
|--|---|
| 1. Duty to comply | 6 NYCRR 750-2.1(e) & 2.4 |
| 2. Duty to reapply | 6 NYCRR 750-1.16(a) |
| 3. Need to halt or reduce activity not a defense | 6 NYCRR 750-2.1(g) |
| 4. Duty to mitigate | 6 NYCRR 750-2.7(f) |
| 5. Permit actions | 6 NYCRR 750-1.1(c), 1.18, 1.20 & 2.1(h) |
| 6. Property rights | 6 NYCRR 750-2.2(b) |
| 7. Duty to provide information | 6 NYCRR 750-2.1(i) |
| 8. Inspection and entry | 6 NYCRR 750-2.1(a) & 2.3 |
- C. Operation and Maintenance
- | | |
|-----------------------------------|--------------------------------------|
| 1. Proper Operation & Maintenance | 6 NYCRR 750-2.8 |
| 2. Bypass | 6 NYCRR 750-1.2(a)(17), 2.8(b) & 2.7 |
| 3. Upset | 6 NYCRR 750-1.2(a)(94) & 2.8(c) |
- D. Monitoring and Records
- | | |
|---------------------------|--|
| 1. Monitoring and records | 6 NYCRR 750-2.5(a)(2), 2.5(a)(6), 2.5(c)(1), 2.5(c)(2), & 2.5(d) |
| 2. Signatory requirements | 6 NYCRR 750-1.8 & 2.5(b) |
- E. Reporting Requirements
- | | |
|---|-----------------------------------|
| 1. Reporting requirements for non-POTWs | 6 NYCRR 750-2.5, 2.6, 2.7, & 1.17 |
| 2. Anticipated noncompliance | 6 NYCRR 750-2.7(a) |
| 3. Transfers | 6 NYCRR 750-1.17 |
| 4. Monitoring reports | 6 NYCRR 750-2.5(e) |
| 5. Compliance schedules | 6 NYCRR 750-1.14(d) |
| 6. 24-hour reporting | 6 NYCRR 750-2.7(c) & (d) |
| 7. Other noncompliance | 6 NYCRR 750-2.7(e) |
| 8. Other information | 6 NYCRR 750-2.1(f) |
- F. Sludge Management
The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.
- G. SPDES Permit Program Fee
The permittee shall pay to the Department an annual SPDES permit program fee within 30 days of the date of the first invoice, unless otherwise directed by the Department, and shall comply with all applicable requirements of ECL 72-0602 and 6 NYCRR Parts 480, 481 and 485. Note that if there is inconsistency between the fees specified in ECL 72-0602 and 6 NYCRR Part 485, the ECL 72-0602 fees govern.
- H. Water Treatment Chemicals (WTCs)
New or increased use and discharge of a WTC requires prior Department review and authorization. At a minimum, the permittee must notify the Department in writing of its intent to change WTC use by submitting a completed *WTC Notification Form* for each proposed WTC. The Department will review that submittal and determine if a SPDES permit modification is necessary or whether WTC review and authorization may proceed outside of the formal permit administrative process. The majority of WTC authorizations do not require SPDES permit modification. In any event, use and discharge of a WTC shall not proceed without prior authorization from the Department. Examples of WTCs include biocides, coagulants, conditioners, corrosion inhibitors, defoamers, deposit control agents, flocculants, scale inhibitors, sequestrants, and settling aids.
1. WTC use shall not exceed the rate explicitly authorized by this permit or otherwise authorized by the Department.
 2. The permittee shall maintain a logbook of all WTC use, noting for each WTC the date, time, exact location, and amount of each dosage, and, the name of the individual applying or measuring the chemical. The logbook must also document that adequate process controls are in place to ensure excessive levels of WTCs are not used.
 3. The permittee shall submit a completed WTC Annual Report Form each year that they use and discharge WTCs. This form shall be submitted in electronic format and attached to either the December DMR or the annual monitoring report required below. The *WTC Notification Form and WTC Annual Report Form* are available from the Department's website at: <http://www.dec.ny.gov/permits/93245.html>

RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS

- A. The monitoring information required by this permit shall be retained for a period of at least five years from the date of the sampling for subsequent inspection by the Department or its designated agent.
- B. Discharge Monitoring Reports (DMRs): Completed DMR forms shall be submitted for each 1 month reporting period in accordance with the DMR Manual available on Department's website.

DMRs must be submitted electronically using the electronic reporting tool (NetDMR) specified by NYSDEC. Instructions on the use of NetDMR can be found at <https://www.dec.ny.gov/chemical/8461.html>. **Hardcopy paper DMRs will only be received at the address listed below, directed to the Bureau of Water Compliance, if a waiver from the electronic submittal requirements has been granted by DEC to the facility.**

The first monitoring period begins on the effective date of this permit, and, unless otherwise required, the reports are due no later than the 28th day of the month following the end of each monitoring period.

- C. Additional information required to be submitted by this permit shall be summarized and reported to the RWE and Bureau of Water Permits at the following addresses:

Department of Environmental Conservation
Division of Water, Bureau of Water Permits
625 Broadway, Albany, New York 12233-3505 Phone: (518) 402-8111

Department of Environmental Conservation
Regional Water Engineer, Region 4
1130 North Westcott Road, Schenectady, New York, 12306-2014 Phone: (518) 357-2045

- D. Schedule of Additional Submittals:

The permittee shall submit the following information to the Regional Water Engineer and to the Bureau of Water Permits, unless otherwise instructed:

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001 & 002	<u>WHOLE EFFLUENT TOXICITY (WET) TESTING</u> WET testing shall be performed as required in the footnote of the permit limits table. The toxicity test report including all information requested of this permit shall be attached to your WET DMRs and sent to the WET@dec.ny.gov email address.	Within 60 days following the end of each monitoring period
001	<u>WATER TREATMENT CHEMICAL (WTC) ANNUAL REPORT FORM</u> The permittee shall submit a completed WTC Annual Report Form each year that Water Treatment Chemicals are used. The form shall be attached to the December DMR.	January 28 th , annually
	<u>MERCURY MINIMIZATION PLAN</u> The permittee must complete and maintain onsite an annual mercury minimization status report in accordance with the requirements of this permit.	Maintained Onsite EDP + 12 months, annually thereafter

Outfall(s)	SCHEDULE OF ADDITIONAL SUBMITTALS - Required Action	Due Date
001	<p><u>SOLVENT MANAGEMENT PLAN</u> Annually, the permittee shall review and modify, as necessary, the Solvent Management plan as required in the Special Conditions. The permittee shall certify in writing, as an attachment to the December DMR, that the review has been completed. All Solvent Management plan revisions must be maintained on site.</p>	January 28 th , annually
001	<p><u>EMERGING CONTAMINANT SHT-TERM MONITORING</u> The permittee shall collect grab samples of both the influent and effluent from the facility's treatment system(s) associated with the identified outfall for Per-and Polyfluoroalkyl Substances (PFAS) utilizing EPA draft analytical method 1633 and 1,4-Dioxane (1,4-D) utilizing EPA Method 8270D SIM or 8270E SIM. The samples must represent normal discharge conditions and treatment operations and shall be obtained on a monthly basis for at least 3 consecutive months.</p> <p>The results shall be reported through the "Emerging Contaminants Survey for Industrial Facilities" found at: https://www.dec.ny.gov/chemical/127939.html.</p> <p>The permittee shall initiate track down of potential sources by completing the "Emerging Contaminants Investigation Checklist for Industrial Facilities" available at the above link.</p> <p>The Department may periodically request updates and/or additional monitoring to check progress on track down investigations. Elements of the checklist may be used as permit conditions in future permit modifications.</p>	<p>EDP + 6 months</p> <p>Within 90 days of DEC written notification</p>
002, 005, 006, 007, 008	<p><u>STORMWATER POLLUTION PREVENTION PLAN (SWPPP)</u> Permittee shall develop a SWPPP in accordance with the minimum requirements in the Stormwater Pollution Prevention Requirements.</p>	<p>Maintained Onsite EDP + 6 months</p>

Unless noted otherwise, the above actions are one-time requirements.

- E. Monitoring and analysis shall be conducted using sufficiently sensitive test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.
- F. More frequent monitoring of the discharge(s), monitoring point(s), or waters of the State than required by the permit, where analysis is performed by a certified laboratory or where such analysis is not required to be performed by a certified laboratory, shall be included in the calculations and recording of the data on the corresponding DMRs.
- G. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.
- H. Unless otherwise specified, all information recorded on the DMRs shall be based upon measurements and sampling carried out during the most recently completed reporting period.
- I. Any laboratory test or sample analysis required by this permit for which the State Commissioner of Health issues certificates of approval pursuant to section 502 of the Public Health Law shall be conducted by a laboratory which has been issued a certificate of approval. Inquiries regarding laboratory certification should be directed to the New York State Department of Health, Environmental Laboratory Accreditation Program.

Permittee: Amphenol Corporation
Facility: Amphenol Corporation - Aerospace Operations
SPDES Number: NY0003824
USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
Permit Writer: Catherine G. Winters
Water Quality Reviewer: Catherine G. Winters
Full Technical Review

SPDES Permit Fact Sheet Amphenol Corporation Amphenol Corporation - Aerospace Operations NY0003824



Contents

Summary of Permit Changes	4
Administrative History	6
Facility Information	6
Site Overview	8
Enforcement History	12
Existing Effluent Quality	12
Interstate Water Pollution Control Agencies	12
Additional Site-Specific Concerns	12
Receiving Water Information	12
Impaired Waterbody Information	14
Toxics Reduction Strategy	14
Critical Receiving Water Data & Mixing Zone	15
Permit Requirements	16
USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility	16
Whole Effluent Toxicity (WET) Testing	16
Anti-backsliding	20
Antidegradation	20
Discharge Notification Act Requirements	20
Best Management Practices (BMPs) for Industrial Facilities	20
Stormwater Pollution Prevention Requirements	20
Mercury	21
Schedule of Compliance	21
Emerging Contaminant Monitoring	21
Schedule of Additional Submittals	22
Special Conditions	22
OUTFALL AND RECEIVING WATER SUMMARY TABLE	23
POLLUTANT SUMMARY TABLES	23
Outfall 01A	23
Outfall 01B	25
Outfall 01C	28
Outfall 001	29
Outfall 002	41
Outfall 005	44
Outfall 006	45
Outfall 007	46

Outfall 008.....	47
USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS	48
Appendix: Regulatory and Technical Basis of Permit Authorizations.....	49
Regulatory References.....	49
Outfall and Receiving Water Information	49
Interstate Water Pollution Control Agencies	50
Existing Effluent Quality.....	50
Permit Requirements.....	50

Summary of Permit Changes

A State Pollutant Discharge Elimination System (SPDES) EBPS permit renewal has been drafted for the AMPHENOL CORPORATION - AEROSPACE OPERATIONS. The changes to the permit are summarized below:

Updated

- Permit format, definitions, and general conditions
- WIN to include the item number
- Permittee address and contact information
- Outfall 001 coordinates
- Summary of Additional Outfalls
- Outfall 001 sample frequencies to 2/week in accordance with TOGS 1.2.1
- Outfall 001 temperature sampling type
- Chesapeake Bay TMDL limitations and incorporation of existing requirements for total nitrogen, TKN, nitrate, nitrite, and total phosphorus to the permit limits table
- Outfalls 002, 005, 006, 007, 008 pH limits to a minimum of 6.5 and a maximum of 8.5
- Outfall 001 WET sampling frequency to quarterly every year
- Outfall 002 WET sampling frequency to monthly every year
- Outfalls 002, 005, 006, 007, 008 wastewater descriptions
- Outfalls 002, 005, 006, 007, 008 temperature limitations to monitoring
- Facility diagram and monitoring locations
- Mercury minimization program requirements to Type III

Added

- WET limitations to Outfalls 001 and 002 (previously action levels)
- Internal Outfall 01A, which includes limitations for total cyanide
- Internal Outfall 01B, which includes limitations for hexavalent chromium, total chromium, total iron, total lead, and total manganese, and monitoring for total copper, total cadmium, total cyanide, total nickel, total silver, and total zinc
- Internal Outfall 01C, where no monitoring is required
- Outfall 001
 - TSS, total cadmium, total chromium, total copper, total cyanide, total lead, total nickel, total silver, total zinc, and oil & grease monthly average and/or daily maximum concentration limitations
 - Hexavalent chromium daily maximum concentration limitation and monthly average monitoring
 - Settleable solids limitation
 - 12-MRA mercury limitation
 - Free cyanide daily maximum monitoring
 - Total lead load monitoring
 - Total toxic organics daily maximum concentration limitation
 - TRC daily maximum monitoring
 - Sulfite, color, and total beryllium daily maximum monitoring
- Stormwater Pollution Prevention Plan (SWPPP) requirement
- Outfall 002
 - Total aluminum, total barium, total cadmium, total chromium, total copper, total lead, total nickel, total zinc, and hardness concentration monitoring
- Solvent management plan requirement
- Schedule of compliance to meet final total nitrogen 12-month rolling total limitation

Permittee: Amphenol Corporation
Facility: Amphenol Corporation - Aerospace Operations
SPDES Number: NY0003824
USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
Permit Writer: Catherine G. Winters
Water Quality Reviewer: Catherine G. Winters
Full Technical Review

- Schedule of additional submittals
- Emerging contaminant short-term monitoring

Reduced

- Outfall 001 total cadmium, total chromium, total copper, total nickel, total silver, and total zinc load limitations
- Outfall 001 acute WET action levels based on updated dilution ratios (now 50:1)
- Outfalls 005, 006, 007, and 008 Flow, pH, temperature, and oil & grease sampling frequency

Removed

- Previous format of Chesapeake Bay TMDL Implementation tables and sub-aggregate language
- Outfall 001 mercury monthly average monitoring and daily maximum load limitation
- Outfall 001 monitoring and/or actions levels for chloroform, methylene chloride, and trichloroethylene.

This factsheet summarizes the information used to determine the effluent limitations (limits) and other conditions contained in the permit. General background information including the regulatory basis for the effluent limitations and other conditions are in the [Appendix](#) linked throughout this factsheet.

Administrative History

- 2/1/2009 The last full technical review was performed and the SPDES permit became effective with a new five-year term and expiration date of 1/31/2014. The 2009 permit, along with all subsequent modifications, has formed the basis of this permit.
- 9/01/2014 Permit was renewed for 5-year term and modified to include Chesapeake Bay TMDL requirements.
- 2/25/2019 The Amphenol Corporation submitted a timely and sufficient application for permit renewal.
- 8/31/2019 The current permit was extended pursuant to SAPA¹.
- 7/16/2020 Department issued a Request for Information (RFI) to modify and renew the SPDES permit due to the facility's EBPS score². At the time of the RFI, the facility had an EBPS score of 125 and ranking of 304.
- 11/4/2020 The Amphenol Corporation submitted a NY-2C permit application.

The Notice of Complete Application, published in the [Environmental Notice Bulletin](#) and newspapers, contains information on the public notice process.

Facility Information

This is an industrial electroplating facility (SIC code 3471). Industrial operations have been on site since the 1880s. In 1986, primary operations at the site shifted to the manufacturing of electrical connectors. The electroplating process was installed in the 1960s. Regular plating tank replacements have occurred over the years, but there have been no changes to the process since the 1960s. The processes that take place at the plating facility include both electrolytic and electroless plating. The facility plates gold, copper, nickel, silver, cadmium, tin lead, zinc, PTFE teflon, or brass on a variety of base metals including stainless steel, brass, carbon steel, copper, aluminum, or PEEK. After two devastating 100-year flood events, in 2006 and 2011, Amphenol began relocating manufacturing operations offsite. As of 2015, the only activity that remains at 40-60 Delaware Ave is electroplating. The old manufacturing structure was demolished in 2019.

Effluent from Outfall 001 consists of process wastewater. Process water is sourced from the remediated West Well, supplemented by municipal water when needed. Process waste is combined from three internal outfalls with unique waste streams. Figure 1 depicts the three process waste streams that are individually treated prior to combined settling and filtration. The first waste stream consists of cyanide bearing baths and rinses (Outfall 01A), the second consists of hexavalent chromium bearing baths and rinses (Outfall 01B), and the third consists of low pH baths and rinses (Outfall 01C). The cyanide waste is destructed and chlorinated. The hexavalent chromium waste stream undergoes reduction and settling. The pH of the acid wastewater stream is adjusted, cyanide is converted to carbon and nitrogen, and hexavalent chromium is converted to trivalent chromium and then neutral chromium. Then all three waste streams are mixed, pH adjusted, flocculated and clarified, passed through a sand filter, and undergo final pH adjustment.

¹ State Administrative Procedures Act Section 401(2) and 6 NYCRR 621.11(f)

² Pursuant to 6 NYCRR 750-1.18 and NYS Environmental Benefit Permit Strategy (EBPS)

Effluent sampling for Outfall 001 occurs prior to transport to Keith Clark Park where Village of Sidney municipal wastewater and Outfall 001 effluent converge. The combined wastewater is then diffused into the Susquehanna River.

Figure 2 below is a detailed depiction of the three internal outfall waste treatment processes. Tanks 1 A - 5 are considered "pretreatment" for the three waste streams from the plating building - acid, cyanide, and chromium. All pretreatment is done via pH adjustment, process control is done with online oxidation-reduction potential (ORP) meters which control the pH. The cyanide waste stream is treated in Tanks 1A, 1B, 1C and 2A and 2B. Cyanide is treated in three stages: 1) cyanide converted to cyanate with addition of sodium hypochlorite to increase pH in Tank 1A and 1B; 2) in tank 2A and 2B, more sodium hypochlorite is added to completely destruct the cyanate to carbon and nitrogen; 3) destruction reactions continue in Tank 1C, no additional chemicals are added. The wastewater then flows to Tank 4B. Chromium is treated in the Tank 3 group. Sulfur dioxide is used to convert hexavalent chrome to trivalent chromium, and then trivalent chromium is converted to neutral chromium. The pH is maintained at 10.5 - 12. Metabisulfite can be added to the channel between Tanks 3C and 4B if necessary. Acid is treated in Tanks 4A and 4B. Tank 4A is an acid equalization tank, receiving influent flow directly from plating. Flow from Tank 4A discharges to Tank 4B. Tank 4B is a mixing tank that receives flow from the other tanks, as well as the sand filter backwash. The acid containing wastewater from 4A and sodium hydroxide are used to reach the set point pH in 4B of 6.7. Flow then discharges to Tank 5 where the wastewater is pumped to the clarifier/WWTP for final treatment with two stages of coagulant additions for metals and phosphorus removal.

Stormwater runoff is discharged through Outfalls 002, 005, 006, 007, and 008. These outfalls are tested monthly for oil and grease, pH, and temperature. Outfall 002 is also tested for halogenated hydrocarbons as a part of various remediation projects at the site.

On August 1, 2023, the permittee informed DEC that the reverse osmosis reject water was discovered to join the effluent after the current effluent sampling location. On September 6, 2023, the permittee provided notice that the reverse osmosis reject water was rerouted to Tank 4B in the treatment system. No further action will be required in this permit.

Site Overview

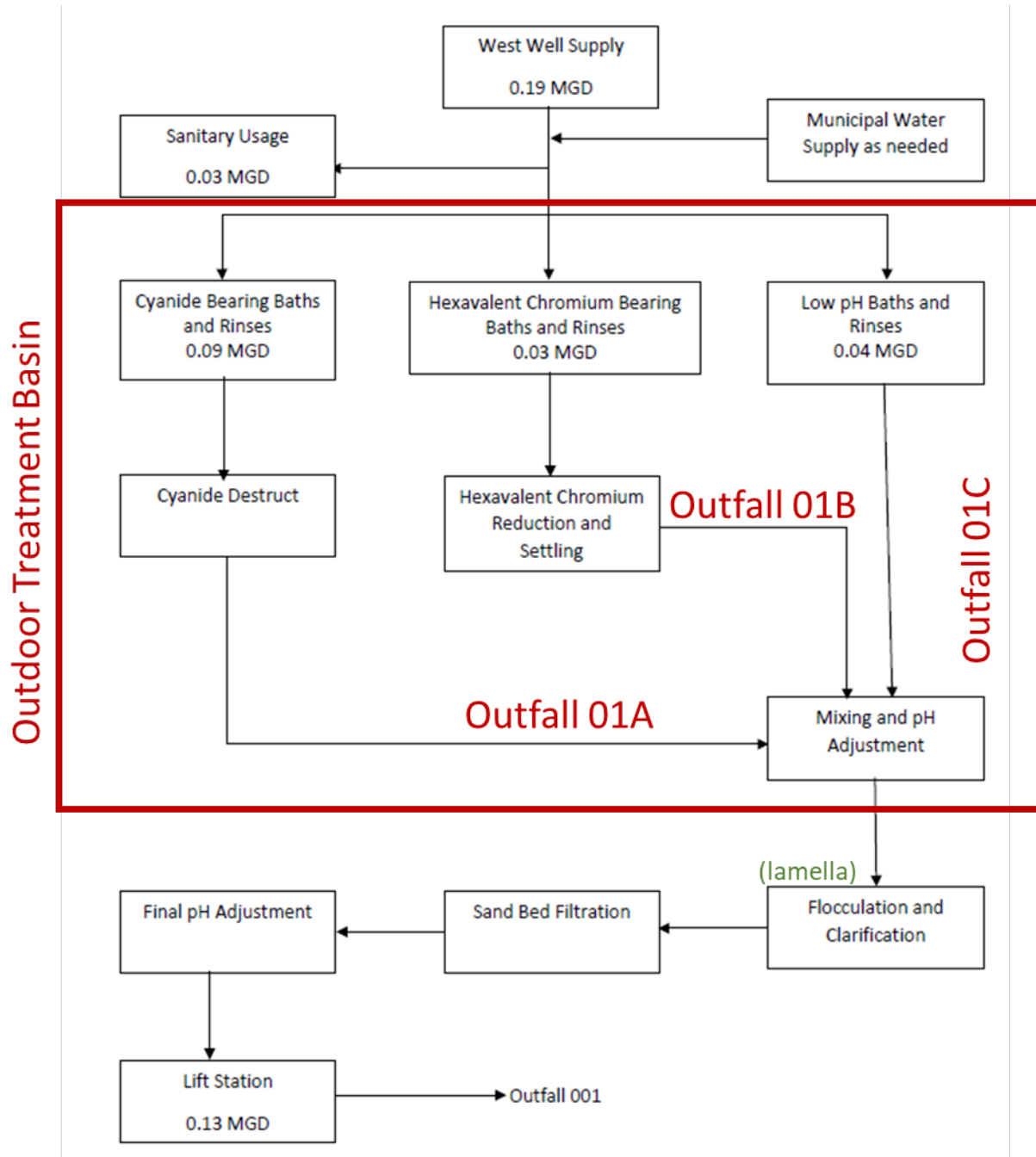


Figure 1. Process flow diagram for Outfall 001.

Outdoor Treatment Basin Diagram

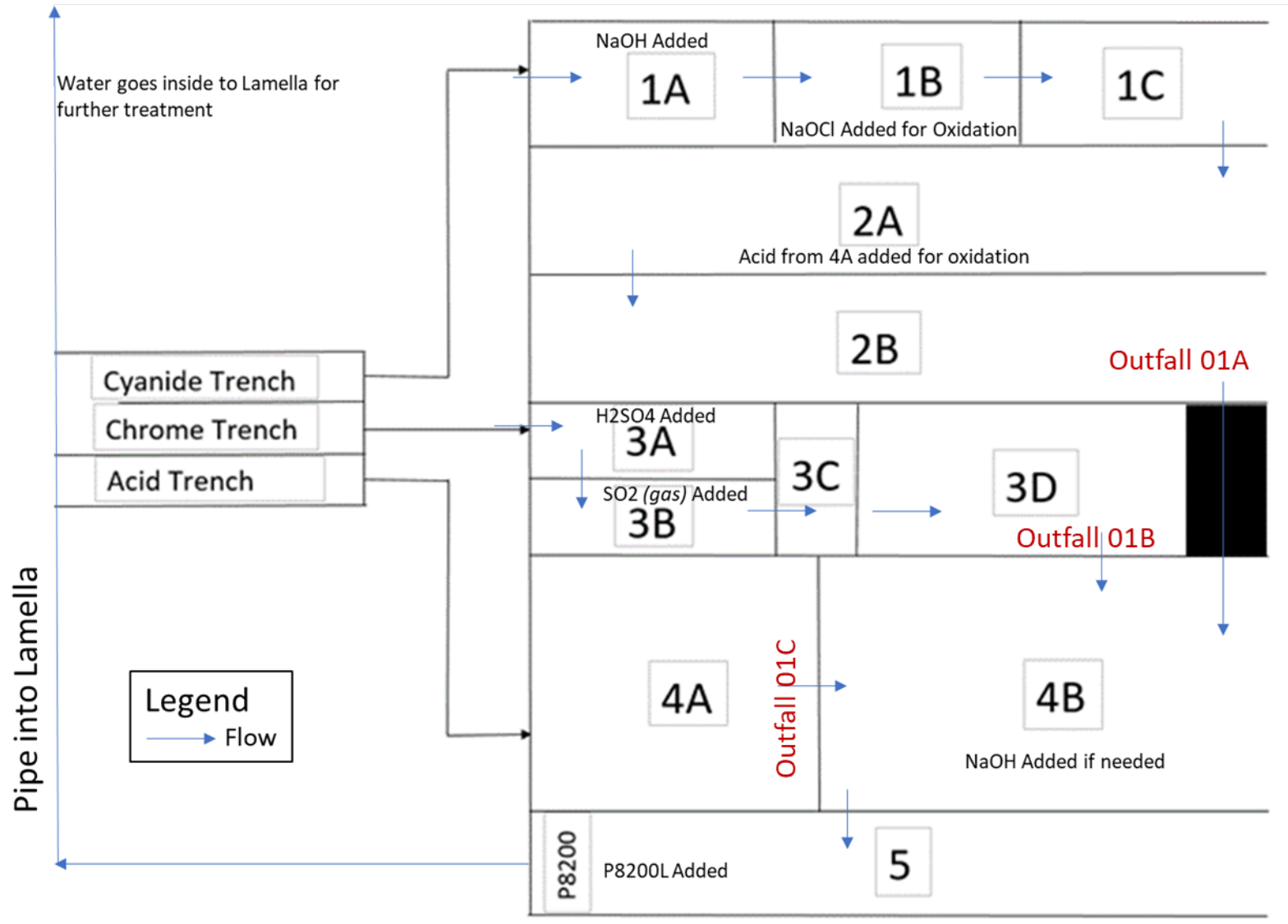


Figure 2. Detailed view of outdoor treatment basin.

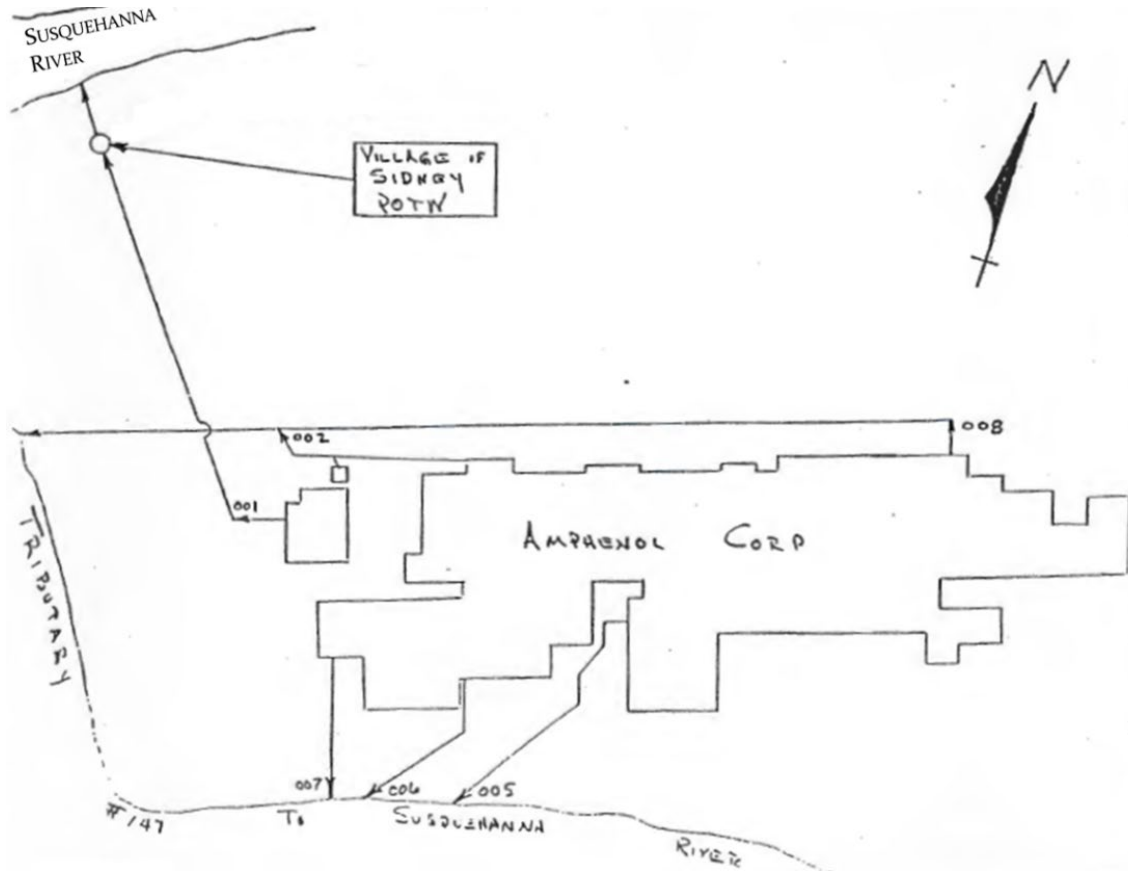


Figure 3. All stormwater outfalls (002, 005, 006, 007, 008) discharge to Tributary 147, an intermittent stream.

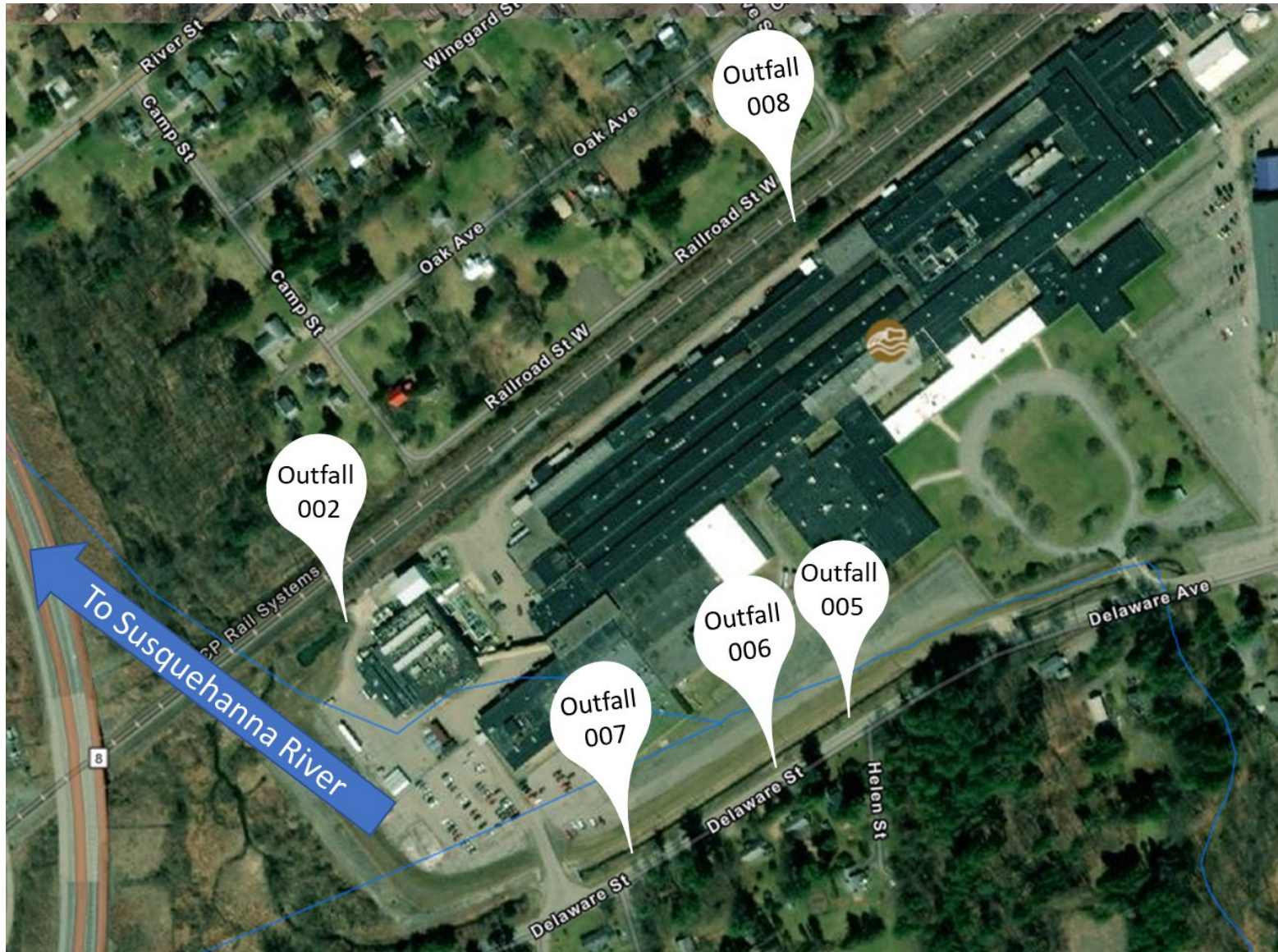


Figure 4. Satellite view of facility with stormwater outfalls labeled.

Enforcement History

Compliance and enforcement information can be found on the EPA's [Enforcement and Compliance History Online \(ECHO\)](#) website.

Existing Effluent Quality

The [Pollutant Summary Table](#) (PST) presents the existing effluent quality and effluent limitations. The existing effluent quality was determined from Discharge Monitoring Reports submitted by the permittee for the period 5/1/2017 to 5/31/2022, unless otherwise noted in the PST. [Appendix Link](#)

Interstate Water Pollution Control Agencies

All outfalls are located within the Chesapeake Bay watershed and Susquehanna River Basin Commission (SRBC) compact area, which places additional requirements in the SPDES permit. [Appendix Link](#)

Additional Site-Specific Concerns

Effluent from Outfall 001 comingles with the effluent from the Village of Sidney WPCP prior to entering the Susquehanna River. Effluent sampling for the Amphenol permit (NY0003824) is sampled prior to leaving the Amphenol site.

Receiving Water Information

The facility discharges via the following outfalls:

Outfall No.	SIC Code	Wastewater Type	Receiving Water
001	3471	Process water	Susquehanna River, Class B
002	3471	Stormwater	Tributary 147, Class C
005, 006, 007, 008	3471	Stormwater	Tributary 147, Class C

Reach Description:

The Susquehanna River (SR (portion 7)) is part of the Chesapeake Bay watershed. Amphenol Aerospace effluent from Outfall 001 comingles with the effluent from the Village of Sidney WPCP (NY0029271) prior to discharge into the Susquehanna River. The segment of the Susquehanna River at the point of discharge is Class B. USGS Gage 01500500 is approximately 6 miles upstream of Outfall 001 in the Susquehanna River.

Tributary 147 is Class C and flows into the Susquehanna River.

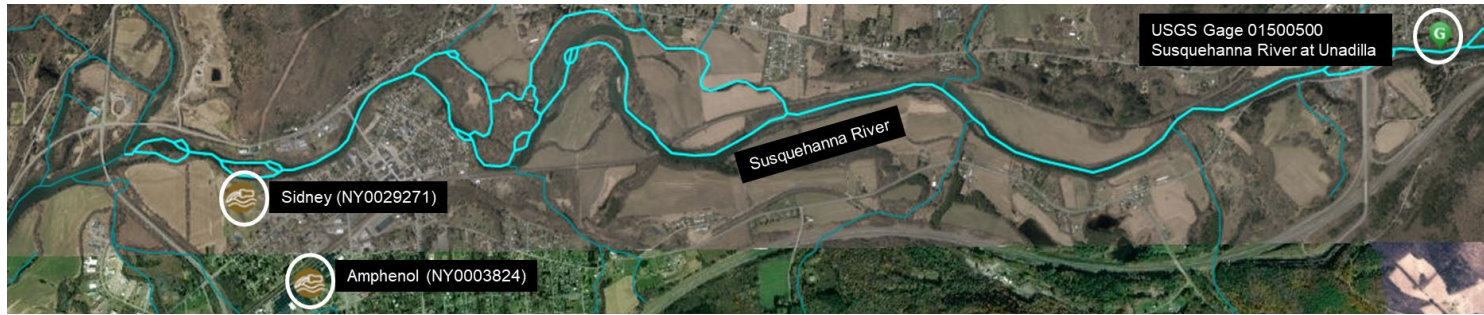


Figure 5. USGS Gage 01500500 at Unadilla is located upstream of the joint outfall pipe where Amphenol (001) and the Village of Sidney discharge treated effluent into the Susquehanna River.

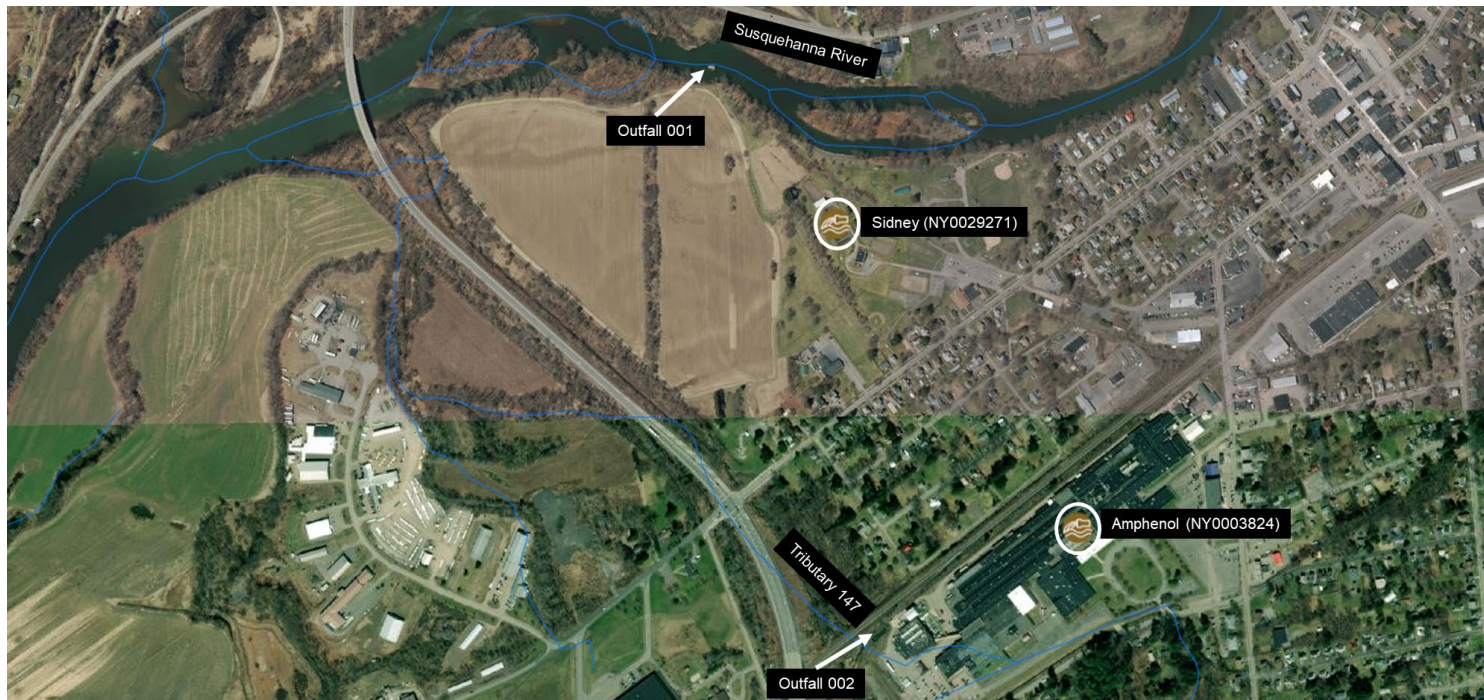


Figure 6. Aerial view of the Village of Sidney WPCP Outfall 001 and Amphenol Aerospace Outfall 001 which discharge to the Susquehanna River, and Amphenol Outfall 002 which discharges to Tributary 147.

See the [Outfall and Receiving Water Summary Table](#) and [Appendix](#) for additional information.

Impaired Waterbody Information

Neither the Susquehanna River (PWL No. 0601-0020) nor Tributary 147 (PWL No. 0601-0154) are listed on the 2018 [New York State Section 303\(d\) List](#) of Impaired/Total Maximum Daily Load (TMDL) waters; however, this waterbody segment is located within the Chesapeake Bay Watershed and is subject to the applicable requirements of the [Chesapeake Bay TMDL](#) and New York's Phase III Watershed Implementation Plan (Phase III WIP) for the TMDL³, as discussed below.

Chesapeake Bay TMDL Watershed Information

The Amphenol Corporation is considered a "Bay-Significant" industrial facility because its total nitrogen loads exceed 27,000 pounds per year and total phosphorus loads exceed 3,800 pounds per year. In accordance with the Phase III WIP, these nitrogen and phosphorus loads warrant discharge limits and effluent monitoring for these parameters.

The Amphenol Corporation is required to sample and report Total Phosphorus as P, as well as Total Kjeldahl Nitrogen (TKN) as N, Nitrite (NO₂) as N, Nitrate (NO₃) as N, and to calculate Total Nitrogen as N. The Total Nitrogen and Total Phosphorus 12-month loads (TN 12-ML and TP 12-ML respectively) are defined as the sum of the current month loads added to the month loads from the eleven previous months for Nitrogen and Phosphorus, respectively. See the Pollutant Summary Table for a discussion on the derivation of Total Nitrogen and Total Phosphorus effluent limits.

The Water Quality Based Effluent Limits (WQBELs) below are set by DEC in accordance with the Phase II and III WIP.

WIP II Interim Limits Effective through 12/31/2024

Total Nitrogen (as N) 12-month Load (TN 12-ML): 134,000 lb/year

WIP III Final Limits Effective 1/1/2025

Total Nitrogen (as N) 12-month Load (TN 12-ML): 90,000 lb/year

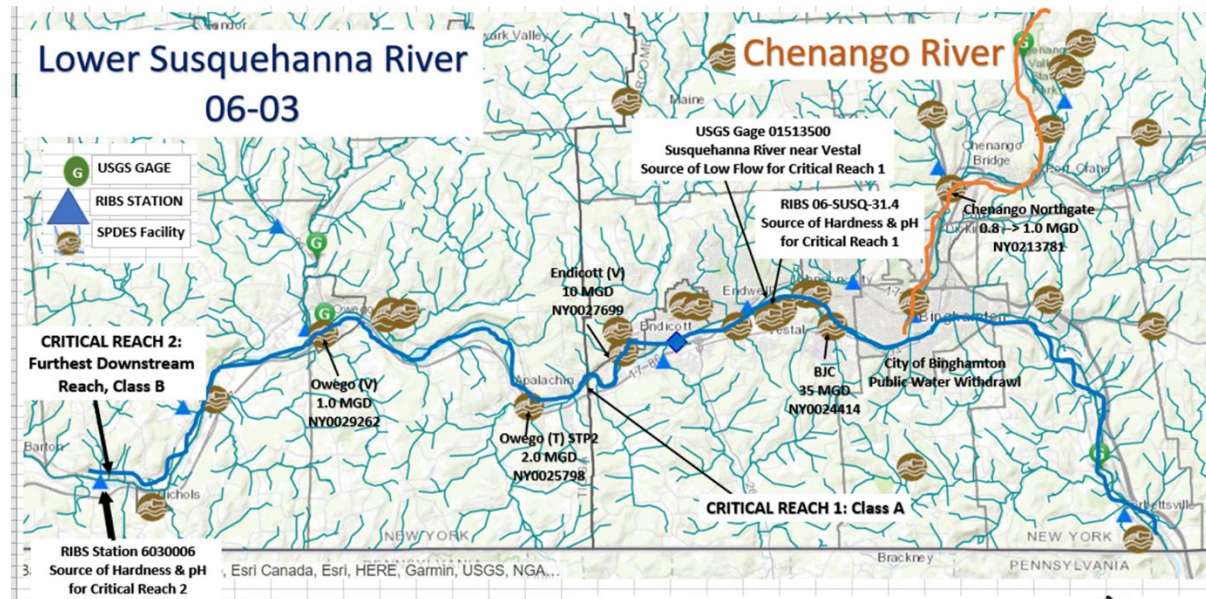
WIP III Final Limits Currently Effective

Total Phosphorus (as P) 12-month Load (TP 12-ML): 761 lb/year

Toxics Reduction Strategy

The Department conducted a watershed analysis for the Susquehanna River Watershed in 2022. The critical reaches for the Susquehanna River Watershed are the headwaters downstream to the Class A portion that ends at the Town of Endicott and from downstream of Endicott to the end of the Susquehanna River in NY near the Town of Nichols (Class B). The WMDL analysis is used in addition to the Department's individual facility review to ensure that the cumulative impacts from various point source discharges do not exceed the waste assimilative capacity (WAC) of the critical reaches. The following pollutants were found to be water quality limiting in the Susquehanna River and a watershed maximum daily load is being added or maintained: bis(2-ethylhexyl) phthalate, iron, cyanide, thallium, phenolic compounds, silver, lead, and copper.

³ <https://www.dec.ny.gov/lands/33279.html>



See the [Outfall and Receiving Water Summary Table](#) and [Appendix](#) for additional information.

Critical Receiving Water Data & Mixing Zone

Outfall 001

The low flow condition for the Susquehanna River was obtained from a drainage basin ratio analysis with USGS gage station 01500500, Susquehanna River at Unadilla located at 42.3155, -75.4037. The 1Q10, 7Q10 and 30Q10 flows at the gage were found from the USGS SW Toolbox software and an analysis of data from 1939 to 2020.

DRAINAGE BASIN RATIO	1Q10	7Q10	30Q10	
Gage Name	Susquehanna River at Unadilla			
Gage ID Number	1500500			
Low Flow at Gage (cfs)	72	84	103	SW Toolbox
Drainage Area at Gage (mi ²)	982	982	982	USGS gage webpage
Drainage Area at Facility (mi ²)	1030	1030	1030	Streamstats
Drainage Basin Ratio (facility / gage)	1.0	1.0	1.0	
Calculated Flow at Facility (cfs)	75.83	88.30	107.66	

The 1Q10, 7Q10, and 30Q10 flows were used to calculate the acute, chronic, and human, aesthetic, wildlife (HEW) dilution ratios, respectively. Consistent with TOGS 1.3.1 for large rivers, the acute and chronic dilution ratios are limited to a max of 50:1 and 100:1, respectively.

$$\text{Dilution Ratio} = (\text{Facility Flow} + \text{Low Flow}) / \text{Facility Flow}$$

Outfall No.	Acute Dilution Ratio A(A)	Chronic Dilution Ratio A(C)	Human, Aesthetic, Wildlife Dilution Ratio (HEW)	Basis
001	50:1	100:1	100:1	TOGS 1.3.1
002	1:1	1:1	1:1	TOGS 1.3.1 ISEL Limits
005	1:1	1:1	1:1	
006	1:1	1:1	1:1	
007	1:1	1:1	1:1	
008	1:1	1:1	1:1	

Outfalls 002, 005, 006, 007, 008

Intermittent stream effluent limits (ISEL) have been applied because Tributary 147 is a headwater stream and ISEL have been historically required at these outfalls. Consistent with TOGS 1.3.1, the water quality standards will be applied as end-of-pipe limitations with no mixing or dilution.

Critical receiving water data are listed in the [Pollutant Summary Table](#) at the end of this fact sheet. [Appendix Link](#)

Permit Requirements

The technology based effluent limitations ([TBELs](#)), water quality-based effluent limitations ([WQBELs](#)), [Existing Effluent Quality](#) and a discussion of the selected effluent limitation for each pollutant present in the discharge are provided in the [Pollutant Summary Table](#).

USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

Best Practicable Control Technology Currently Available (BPT), Best Conventional Pollutant Control Technology (BCT), Best Available Technology Economically Achievable (BAT), and New Source Performance Standards (NSPS) limitations are based on [Effluent Limitation Guidelines](#) developed by USEPA for specific industries⁴. The applicable effluent guidelines and limits are listed at the end of the Pollutant Summary Table in the USEPA ELG Calculation Table. [Appendix Link](#)

Whole Effluent Toxicity (WET) Testing

An evaluation of the discharge indicates the potential for toxicity based on the following criteria:

Outfall 001

- Previous WET testing indicated a problem. (#6)
- There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five. (#4)
- There is the presence of substances in the effluent for which ambient water quality criteria do not exist. (#1)

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see data below). It was determined that there is the potential for toxicity in the effluent and acute and chronic WET limits are being added to the permit. Given the degree of acute and chronic toxicity observed historically at this Outfall, as well as the reduction in available dilution, the permit requires chronic only WET testing, which is consistent with previous letter directed requirements from the Department. Samples will be collected quarterly on an annual basis. WET testing limits of 15 TU_a and 100 TU_c have been included in the permit for each species for Outfall 001. The acute action level for each species represent the acute dilution ratio times a factor of 0.3. The chronic limits represent the chronic dilution ratio.

⁴ As promulgated under 40 CFR Parts 405 - 471

Outfall 001 (using draft WET ALs of 15.0 TUa & 100.0 TUc)

Outfall	Test Date	¹ MSS 48H LC50 (%Effluent)	² MSS TUa	³ TUa Action Level	⁴ MSS Survival 20% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/IC25 (%Effluent)	⁹ MSS NOEC/IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
001	09/22	>20.0% (F)	<5.0 (F)	15.0	100% (F)	Pass	<13.0	No	5.0% (I)/5.9% (I)	20.0 (I)/17.0 (I)	100.0	Pass/Pass	44.2	No
001	12/22	84.1% (F)	1.2 (F)	15.0	35% (F)	Pass	3.1	No	10.0% (I)/7.4% (I)	10.0 (I)/13.5 (I)	100.0	Pass/Pass	35.1	No
001	03/23	3.5% (I)	28.6 (I)	15.0	0% (I)	Fail	74.4	Yes	1.25% (I)/1.7% (I)	80.0 (I)/58.8 (I)	100.0	Pass/Pass	152.9	Yes
001	06/23	35.4% (F)	2.8 (F)	15.0	0% (F)	Pass	7.3	No	2.5% (I)/3.0% (I)	40.0(I)/33.3(I)	100.0	Pass/Pass	86.6	No

¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

²Most Sensitive Species Toxic Units Acute: is calculated as $(100 / \text{MSS 48H LC50})$. However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically $100 / 100 = 1.0$ (i.e. a "failing result"), non-toxic Acute test results are indicated as < 0.3 .

³Toxic Unit Acute Action Level/Limit: is calculated as $[\text{Acute Dilution Factor} \times 0.3 \text{ TUa}]$ representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is < 3.3 , the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

⁴Most Sensitive Species Survival in 20% Effluent: is the lowest percentage of surviving organisms in 20% effluent, the highest effluent concentration tested, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 20% effluent as compared to the control.

⁵Acute Test Result: $\text{MSS TUa} \leq \text{TUa Action Level/Limit}$ for passing effluent test result and $\text{MSS TUa} > \text{TUa Action Level/Limit}$ for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 20% effluent, this may also be considered a failing test result.

⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as $(\text{MSS TUa} \times 2.6)$, the Reasonable Potential Multiplier (RPM) when four tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

⁷Acute Whole Effluent Toxicity Limit Required: $\text{MSS RPD TUa} \leq \text{TUa Action Level}$, then no toxicity-based Limit is required, and the Action Level remains in place. If $\text{MSS RPD TUa} > \text{TUa Action Level}$, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPM to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET Limit.

⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in survival, growth, or reproduction for the test population.

⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / \text{MSS 7D NOEC})$ or $(100 / \text{MSS 7D IC25})$.

¹⁰Toxic Unit Chronic Action Level/Limit: is calculated as $[\text{Chronic Dilution Factor} \times 1.0 \text{ TUc}]$ representing the maximum allowable effluent TUc at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

¹¹Chronic Test Result: $\text{MSS NOEC/IC25 TUc} \leq \text{TUc Action Level/Limit}$ for passing effluent test result and $\text{MSS NOEC/IC25 TUc} > \text{TUc Action Level/Limit}$ for a failing effluent test result.

¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(\text{MSS IC25 TUc} \times 2.6)$, the Reasonable Potential Multiplier (RPM) when four tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

¹³Chronic Whole Effluent Toxicity Limit Required: MSS RPD IC25 TUc ≤ TUc Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If MSS RPD IC25 TUc > TUc Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the application of the RPM to the Chronic results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET Limit.

Outfall 002

- Previous WET testing indicated a problem. (#6)

Consistent with TOGS 1.3.2, a reasonable potential analysis was performed using the existing WET data for this facility (see data below). It was determined that there is the potential for toxicity in the effluent and WET limits are being added to the permit. The facility entered into a TI/RE for Outfall 002 in 2015. In accordance with TOGS 1.3.2, WET limits may not be deferred more than 5 years from the onset of a TI/RE. Given the dilution available, the permit requires chronic only WET testing. Samples will be collected monthly on an annual basis. WET testing limits of 0.3 TUa and 1.0 TUc have been included in the permit for each species. The acute dilution ratio is less than 3.3 and the acute action level has been set equal to the default value of 0.3 TUa. The chronic action levels represent the chronic dilution ratio.

Outfall	Test Date	¹ MSS 48H LC50 (%Effluent)	² MSS TUa	³ TUa Action Level	⁴ MSS Survival 100% Effluent	⁵ Acute Test Result	⁶ MSS RPD TUa	⁷ Acute WET Limit Required	⁸ MSS 7D NOEC/IC25 (%Effluent)	⁹ MSS NOEC/IC25 TUc	¹⁰ TUc Action Level	¹¹ Chronic Test Result NOEC/IC25	¹² MSS RPD IC25 TUc	¹³ Chronic WET Limit Required
002	01/21	>100% (F)	<0.3 (F)	0.3	100% (F)	Pass	<0.6	**No	12.5% (I) / 21.6% (I)	8.0 (I) / 4.6 (I)	1.0	Fail/ Fail	8.7	Yes
002	06/21	20.3% (I)	4.9 (I)	0.3	0% (I)	Fail	9.3	Yes	<6.25% (I) / 2.5% (I)	>16.0 (I) / 40.0 (I)	1.0	Fail/ Fail	76.0	Yes
002	08/21	30.8% (I)	3.3 (I)	0.3	0% (I)	Fail	6.3	Yes	12.5% (I) / 12.6% (I)	8.0 (I) / 7.9 (I)	1.0	Fail/ Fail	15.0	Yes
002	11/21	33.0% (I)	3.0 (I)	0.3	0% (I)	Fail	5.7	Yes	<6.25% (I) / 4.1% (I)	>16.0 (I) / 24.4 (I)	1.0	Fail/ Fail	46.4	Yes
002	10/22	21.8% (I)	4.6 (I)	0.3	0% (I)	Fail	8.7	Yes	<6.25% (I) / 0.6% (I)	>16.0 (I) / 166.7 (I)	1.0	Fail/ Fail	316.7	Yes
002	11/22	40.6% (I)	2.5 (I)	0.3	0% (I)	Fail	4.8	Yes	<6.25% (I) / 0.9% (I)	>16.0 (I) / 111.1 (I)	1.0	Fail/ Fail	211.1	Yes
002	04/23	WET Test Invalid						N/A	N/A	WET Test Invalid			N/A	N/A
002	05/23	15.4% (I)	6.5 (I)	0.3	0% (I)	Fail	12.4	Yes	<6.25% (I) / 1.6% (I)	>16.0 (I) / 62.5 (I)	1.0	Fail/ Fail	118.8	Yes
002	06/23	4.4% (I)	22.7 (I)	0.3	0% (I)	Fail	43.1	Yes	<6.25% (I) / 1.6% (I)	>16.0 (I) / 62.5 (I)	1.0	Fail/ Fail	118.8	Yes

¹Most Sensitive Species 48-hour Lethal Concentration: (F=Fish; I=Invertebrate) is the concentration or percentage of effluent that is lethal to 50% of the exposed organisms over a 48-hour period, and often indicates one species is more sensitive than the other during effluent testing.

²Most Sensitive Species Toxic Units Acute: is calculated as (100 / MSS 48H LC50). However, because ≤ 0.3 TUa is defined as the acceptable amount of Acute toxicity at the edge of the Acute mixing zone, and mathematically 100 / 100 = 1.0 (i.e. a "failing result"), non-toxic Acute test results are indicated as < 0.3.

³Toxic Unit Acute Action Level/Limit: is calculated as [Acute Dilution Factor x 0.3 TUa] representing the maximum allowable effluent TUa at the edge of the Acute mixing zone ensuring Acute protection of the receiving water. When the Acute Dilution Factor is <3.3, the default Acute Action Level of 0.3 TUa is used representing the maximum allowable effluent TUa at the end of pipe.

Permittee: Amphenol Corporation
Facility: Amphenol Corporation - Aerospace Operations
SPDES Number: NY0003824
USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
Permit Writer: Catherine G. Winters
Water Quality Reviewer: Catherine G. Winters
Full Technical Review

⁴Most Sensitive Species Survival in 100% Effluent: is the lowest percentage of surviving organisms in 100% effluent, providing additional evidence of unacceptable Acute toxicity when the necessary 50% or greater mortality required to generate an LC50 has not been attained. *Denotes statistically significant mortality in 100% effluent as compared to the control.

⁵Acute Test Result: $MSS TU_a \leq TU_a$ Action Level/Limit for passing effluent test result and $MSS TU_a > TU_a$ Action Level/Limit for a failing effluent test result. If unacceptable mortality (i.e. statistically significant as compared to the control) is noted in 100% effluent, this may also be considered a failing test result.

⁶Most Sensitive Species Reasonable Potential Determination Toxic Units Acute: is calculated as $(MSS TU_a \times 1.9)$, the Reasonable Potential Multiplier (RPM) when eight tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

⁷Acute Whole Effluent Toxicity Limit Required: $MSS RPD TU_a \leq TU_a$ Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS RPD TU_a > TU_a$ Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. **In low dilution situations, the application of the RPM to the Acute results often mathematically suggests the need for Acute WET Limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET Limit.

⁸Most Sensitive Species 7-day No Observed Effect Concentration or 25% Inhibition Concentration: is the highest concentration or percentage of effluent tested that causes no statistically significant effect to the exposed test organisms as compared to the control over a 7-day period, or the concentration or percentage of effluent that causes a 25% reduction in survival, growth, or reproduction for the test population.

⁹Most Sensitive Species Toxic Units Chronic: is calculated as $(100 / MSS 7D NOEC)$ or $(100 / MSS 7D IC25)$.

¹⁰Toxic Unit Chronic Action Level/Limit: is calculated as $[Chronic Dilution Factor \times 1.0 TU_c]$ representing the maximum allowable effluent TU_c at the edge of the Chronic mixing zone ensuring Chronic protection of the receiving water.

¹¹Chronic Test Result: $MSS NOEC/IC25 TU_c \leq TU_c$ Action Level/Limit for passing effluent test result and $MSS NOEC/IC25 TU_c > TU_c$ Action Level/Limit for a failing effluent test result.

¹²Most Sensitive Species Reasonable Potential Determination Toxic Units Chronic: is calculated as $(MSS IC25 TU_c \times 1.9)$, the Reasonable Potential Multiplier (RPM) when eight tests have been completed, taking into account the statistical potential for effluent variability to occur causing an exceedance of the toxicity-based Action Level.

¹³Chronic Whole Effluent Toxicity Limit Required: $MSS RPD IC25 TU_c \leq TU_c$ Action Level, then no toxicity-based Limit is required, and the Action Level remains in place. If $MSS RPD IC25 TU_c > TU_c$ Action Level, then a toxicity-based Limit is required, and the Action Level becomes the Limit. ***In low dilution situations, the application of the RPM to the Chronic results often mathematically suggests the need for Chronic WET Limits even when there is no toxicity evident in 100% effluent (a non-detect). Therefore, this data cannot be used to implement a WET Limit.

[Appendix Link](#)

Anti-backsliding

The mercury daily maximum load limitation is being removed since the water quality standard is expressed as concentration, and, in accordance with 40 CFR Part 122.45(f)(1)(ii) limitations shall be expressed in the same units as the water quality standard; therefore, backsliding is allowed for the mercury load limitation in accordance with 6 NYCRR Part 750-1.10(c)(2)(ii).

The temperature limitations at Outfalls 002, 005, 006, 007, 008 are being removed since the effluent no longer consists of non-contact cooling water or any other source of thermal pollution. Backsliding is allowed for temperature in accordance with 6 NYCRR Part 750-1.10(c)(1), “material and substantial alterations or additions to the permitted facility occurred after permit issuance, which justify the application of a less stringent effluent limitation”.

Antidegradation

The permit contains effluent limitations which ensure that the best usages of the receiving waters will be maintained. The Notice of Complete Application published in the Environmental Notice Bulletin contains information on the State Environmental Quality Review (SEQR)⁵ determination.

[Appendix Link](#)

Discharge Notification Act Requirements

In accordance with the Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters, unless a waiver is obtained. This requirement is being continued from the previous permit.

Additionally, the permit contains a requirement to make the DMR sampling data available to the public upon request. This requirement is being continued from the previous permit.

Best Management Practices (BMPs) for Industrial Facilities

In accordance with 6 NYCRR 750-1.14(f) and 40 CFR 122.44(k), the permittee is required to continue implementation of a BMP plan that prevents, or minimizes the potential for, the release of toxic or hazardous pollutants to state waters. The BMP plan requires annual review by the permittee.

The facility discharges stormwater associated with industrial activity that would require SPDES permit coverage under 40 CFR 122.26. BMPs consistent with requirements contained in the NYS MSGP (GP-0-23-001) Sector AC, have been included in the permit and pollutants associated with the industrial activity are to be controlled through implementation of source controls developed and implemented under this BMP plan. This requirement is updated from the previous permit.

Stormwater Pollution Prevention Requirements

The facility discharges stormwater associated with industrial activity and requires SPDES permit coverage under 40 CFR 122.26(a)(6).

Due to the exception of “electrical related industries” from MSGP Sector AA, stormwater discharges at this facility require coverage under an individual SPDES permit and are not eligible to obtain coverage under the current Multi-Sector General Permit (MSGP) (GP-0-23-001); however, the permit includes a stormwater pollution prevention plan consistent with the MSGP. This requirement is new.

⁵ As prescribed by 6 NYCRR Part 617

Mercury⁶

The multiple discharge variance (MDV) for mercury provides the framework for NYSDEC to require mercury monitoring and mercury minimization programs (MMPs), through SPDES permitting. [Appendix Link](#)

The facility is an industrial facility, located outside the Great Lakes Basin, with a mercury source and the permit includes requirements for the implementation of MMP Type III.

The permit includes a daily maximum total mercury effluent limitation of 50 ng/L, sampled monthly. The facility has ≥ 10 effluent mercury data points and the existing effluent quality (EEQ) of 20 ng/L was calculated from the lognormal 95th percentile of 51 mercury effluent samples collected from 05/31/2017 to 05/31/2022. Data from 10/01/2020 to 07/31/2021 was excluded from the calculation. In an email dated 08/17/2022, the permittee informed DEC that the sulfuric acid in use from October 2020 – July 2021 was contaminated with mercury. A mercury minimization program consisting of the following is also required:

- Additional monitoring of key locations, as defined in the MMP
- Control strategy for implementation of the MMP
- Annual status report (maintained onsite)

The facility is located outside the Great Lakes Basin and the EEQ is > 12 ng/L; therefore, the permit includes a 12-month rolling average total mercury effluent limitation equal to the EEQ. This requirement is new.

Schedule of Compliance

A Schedule of Compliance is being included⁷ for the following items ([Appendix Link](#)):

Outfall 001

- Compliance period for attainment of final effluent limits for Total Nitrogen
- Submittal of a joint outfall agreement
- Solvent management plan

Outfall 002

- Storm system assessment
- Representative outfall location
- Time to comply with new effluent limitations for total copper and total lead

Emerging Contaminant Monitoring

Emerging Contaminants, such as PFOA, PFOS, and 1,4-D, have been used in a wide variety of consumer and industrial products as well as in manufacturing processes for decades. These contaminants do not break down easily, therefore their presence in wastewater can remain a concern for years following their discontinued use. As the science surrounding these contaminants is still evolving, additional monitoring is needed to better understand potential sources and background levels. For more information on emerging contaminants, please see the NYSDEC Division of Water web page: <https://www.dec.ny.gov/chemical/127939.html>.

Pursuant to 6 NYCRR Part 750-1.13(b), the permit includes a short-term monitoring program to evaluate the influent and effluent discharge levels of Per-and Polyfluoroalkyl Substances (PFAS)

⁶ In accordance with DOW 1.3.10 Mercury – SPDES Permitting & Multiple Discharge Variance (MDV), December 30, 2020.

⁷ Pursuant to 6 NYCRR 750-1.14

Permittee: Amphenol Corporation
Facility: Amphenol Corporation - Aerospace Operations
SPDES Number: NY0003824
USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
Permit Writer: Catherine G. Winters
Water Quality Reviewer: Catherine G. Winters
Full Technical Review

and 1,4-Dioxane. This monitoring program is consistent with EPA PFAS guidance released in EPA guidance memos dated April 28, 2022, and December 5, 2022.

The Department will review the monitoring results and pursuant to 6 NYCRR 750-2.1(i) may notify the permittee of the need for further monitoring to identify potential sources as specified in the Emerging Contaminants Investigation Checklist for Industrial Facilities to determine whether cause exists to modify the permit to incorporate a pollutant minimization program per 6 NYCRR 750-1.14(f). The Department will consider this information and progress made to track down and reduce or eliminate the source of the identified pollutants in determining if a permit modification is needed.

Schedule of Additional Submittals

A schedule of additional submittals has been included for the following ([Appendix Link](#)):

- WET Testing
- WTC Annual Report
- MMP, maintained onsite
- Solvent management plan
- Emerging contaminant short-term monitoring
- Stormwater pollution prevention plan

Special Conditions

In accordance with 40 CFR 433, a solvent management plan is required and must specify “the toxic organic compounds used; the method of disposal used instead of dumping, such as reclamation, contract hauling, or incineration; and procedures for ensuring that toxic organics do not routinely spill or leak into the wastewater.”

OUTFALL AND RECEIVING WATER SUMMARY TABLE

Outfall	Latitude	Longitude	Receiving Water Name	Water Class	Water Index No. / Priority Waterbody Listing (PWL) No.	Major / Sub Basin	Hardness (mg/L)	1Q10 (MGD)	7Q10 (MGD)	30Q10 (MGD)	Critical Effluent Flow (MGD)	Dilution Ratio					
												A(A)	A(C)	HEW			
001	42° 18' 57" N	75° 24' 18" W	Susquehanna River	B	SR-7 (portion as described) PWL: 0601-0020	06/01	130 ⁸	49	57	70	0.13 ⁹	50:1	100:1	100:1			
01A	-	-	Outfall 001	-	Internal Outfall												
01B	-	-	Outfall 001	-	Internal Outfall												
01C	-	-	Outfall 001	-	Internal Outfall												
002	42° 18' 27" N	75° 24' 5.1" W	Tributary 147 to Susquehanna River	C	SR-147 and trib. PWL: 0601-0154	-					N/A	1:1	1:1	1:1			
005	42° 18' 25" N	75° 23' 53" W										ISEL	ISEL	ISEL	1:1	1:1	1:1
006	42° 18' 24" N	75° 23' 54" W										ISEL	ISEL	ISEL	1:1	1:1	1:1
007	42° 18' 22" N	75° 23' 58" W										ISEL	ISEL	ISEL	1:1	1:1	1:1
008	42° 18' 34" N	75° 23' 54" W										ISEL	ISEL	ISEL	1:1	1:1	1:1

POLLUTANT SUMMARY TABLES

Outfall 01A

Outfall #	01A	Description of Wastewater: metal finishing process wastewater: cyanide bearing baths and rinses													
		Type of Treatment: cyanide destruction and chlorination													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Permittee does not currently monitor at internal locations; therefore, DMR data is not available; however, the permittee sampled as part of this application. Internal sampling locations are being established in this permit.															
Total Cyanide	mg/L	Monthly Avg	-	-	-	0.65	USEPA ELG BPT	-	-	-	-	-	-	-	TBEL
		Daily Max	-	-	-	1.20		-	-	-	-	-	-		
In accordance with 40 CFR Part 433.12(c), "Self-monitoring for cyanide must be conducted after cyanide treatment and before dilution with other streams. Alternatively, samples may be taken of the final effluent, if the plant limitations are adjusted based on the dilution ratio of the cyanide waste stream flow to the effluent flow." TBELs are being added to Outfall 01A to comply with the BPT ELGs.															

⁸ Ambient hardness data obtained from average of 27 rotating integrated basin sampling (RIBS site 06-USSQ-154.7) ambient samples.

⁹ Long-term average flow calculated from data from 05/01/2017 to 05/31/2022.

¹⁰ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	01A	Description of Wastewater: metal finishing process wastewater: cyanide bearing baths and rinses													
		Type of Treatment: cyanide destruction and chlorination													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁰	# of Data Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Fluoride	mg/L	Daily Max	-	2.56	1/0										No Limitation
	There is no applicable TBEL. The need for a WQBEL will be assessed at Outfall 001.														
Formaldehyde	mg/L	-	-	0.345	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Iron	mg/L	-	-	0.200	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Lead	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
		Daily Max	-	0.009	1/0	-	-	-	-	-	-	-	-		
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Total Magnesium	mg/L	-	-	1.35	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Residual Chlorine	mg/L	Daily Max	-	1.68	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Sulfate (as SO ₄)	mg/L	-	-	147	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Sulfite (as SO ₃)	mg/L	Daily Max	-	1.0	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Total Tin	mg/L	-	-	0.107	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														

Outfall #	01B	Description of Wastewater: metal finishing process wastewater: hexavalent chromium bearing baths and rinses													
		Type of Treatment: hexavalent chromium reduction and settling													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹¹	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Permittee does not currently monitor at internal locations; therefore, DMR data is not available; however, the permittee sampled as part of this application. Internal sampling locations are being established in this permit.															
Total Cadmium	mg/L	Monthly Avg	-	-	-	0.10	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	0.20	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment; however, no data was provided for total cadmium at Outfall 01B even though it is expected to be present. Monitoring is being added to the permit at Outfall 01B to assess the future need for a TBEL. WQBELs will be assessed at the external outfall (001).															
Hexavalent Chromium	mg/L	Monthly Avg	*	-	-	0.050	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
		Daily Max	*	-	-	0.10	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. While no data was provided for hexavalent chromium at this outfall, this is the chromium waste stream; therefore, the TBEL is being added to the permit for Outfall 01B. WQBELs will be assessed at the external outfall (001).															
Total Chromium	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
		Daily Max	-	-	-	0.50	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
TBEL is consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. While no data was provided for total chromium at this outfall, this is the chromium waste stream; therefore, the TBEL is being added to the permit for Outfall 01B. WQBELs will be assessed at the external outfall (001).															
Total Copper	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
		Daily Max	-	-	-	0.50	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
TBEL is consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. While no data was provided for total copper at this outfall, this is the chromium waste stream; therefore, the TBEL is being added to the permit for Outfall 01B. WQBELs will be assessed at the external outfall (001).															
Color	cpu	Daily Max	-	15	1/0	-	-	-	-	-	-	-	-	-	No Limitation
		There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.													
Total Cyanide	mg/L	Monthly Avg	-	-	-	0.40	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	0.80	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. No data was provided for total cyanide at Outfall 01B even though it is expected to be present. Monitoring is being added to the permit at Outfall 01B to assess the future need for a TBEL. WQBELs will be assessed at the external outfall (001).															

¹¹ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤ 3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with > 3 nondetects)

Outfall #	01B	Description of Wastewater: metal finishing process wastewater: hexavalent chromium bearing baths and rinses													
		Type of Treatment: hexavalent chromium reduction and settling													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹¹	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Formaldehyde	mg/L	Daily Max	-	0.063	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Iron	mg/L	Monthly Average	-	-	-	2.0	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
		Daily Max	-	0.058	1/0	4.0	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
	TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment and are being added to Outfall 01B.														
Total Lead	mg/L	Monthly Avg	-	-	-	0.20	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
		Daily Max	-	0.016	1/0	0.40	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
	TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment and are being added to Outfall 01B. WQBELs will be assessed at the external outfall (001).														
Total Magnesium	mg/L	Daily Max	-	0.215	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Manganese	mg/L	Monthly Average	-	-	-	1.0	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
		Daily Max	-	0.247	1/0	2.0	TOGS 1.2.1	-	-	-	-	-	-	-	TBEL
	TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment and are being added to Outfall 01B.														
Total Nickel	mg/L	Monthly Avg	-	-	-	1.0	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	1.3	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
	TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. No data was provided for total nickel at Outfall 01B even though it is expected to be present. Monitoring is being added to the permit at Outfall 01B to assess the future need for a TBEL. WQBELs will be assessed at the external outfall (001).														
Total Silver	mg/L	Monthly Avg	-	-	-	0.050	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	0.10	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
	TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. No data was provided for total silver at Outfall 01B even though it is expected to be present. Monitoring is being added to the permit at Outfall 01B to assess the future need for a TBEL. WQBELs will be assessed at the external outfall (001).														
Sulfate (as SO ₄)	mg/L	Daily Max	-	1030	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Sulfite (as SO ₃)	mg/L	Daily Max	-	15	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														

Permittee: Amphenol Corporation
 Facility: Amphenol Corporation - Aerospace Operations
 SPDES Number: NY0003824
 USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
 Permit Writer: Catherine G. Winters
 Water Quality Reviewer: Catherine G. Winters
 Full Technical Review

Outfall #	01B	Description of Wastewater: metal finishing process wastewater: hexavalent chromium bearing baths and rinses													
		Type of Treatment: hexavalent chromium reduction and settling													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹¹	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Zinc	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
		Daily Max	-	-	-	0.40	TOGS 1.2.1	-	-	-	-	-	-	-	Monitor
TBELs are consistent with TOGS 1.2.1 Attachment C, Column D: Chemical treatment. No data was provided for total zinc at Outfall 01B even though it is expected to be present. Monitoring is being added to the permit at Outfall 01B to assess the future need for a TBEL. WQBELs will be assessed at the external outfall (001).															

Outfall #	01C	Description of Wastewater: metal finishing process wastewater: low pH baths and rinses													
		Type of Treatment: equalization prior to mixing with other internal waste streams													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹²	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Permittee does not currently monitor at internal locations; therefore, DMR data is not available; however, the permittee sampled as part of this application.															
Total Beryllium	mg/L	Daily Max	-	0.014	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Total Lead	mg/L	Daily Max	-	0.027	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Total Residual Chlorine	mg/L	Daily Max	-	0.03	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. Monitoring will also be added to Outfall 001 to assess the need for WQBEL during the next permit review.														
Fluoride	mg/L	Daily Max	-	99	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL. The need for a WQBEL will be assessed at Outfall 001.														
Sulfate (as SO ₄)	mg/L	-	-	1940	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no water quality standard (WQS) for Class B waters.														
Total Iron	mg/L	-	-	0.318	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Magnesium	mg/L	-	-	3.22	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Total Tin	mg/L	-	-	1.2	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														
Formaldehyde	mg/L	Daily Max	-	0.165	1/0	-	-	-	-	-	-	-	-	-	No Limitation
	There is no applicable TBEL and no WQS for Class B waters.														

¹² Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	001														
	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
Type of Treatment: pH adjustment, flocculation and clarification, sand filtration															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 05/01/2017 to 05/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represents the most stringent.															
Flow Rate	MGD	Monthly Avg	Monitor	0.13 Actual Average	61/0	-	-	Narrative: No alterations that will impair the waters for their best usages.				6 NYCRR 703.2	-	Monitor	
		Daily Max	Monitor	0.18 Actual Average	61/0	-	-							Monitor	
Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.															
pH	SU	Minimum	6.0	6.3 Actual Min	61/0	6.0	USEPA ELG BPT	8.2 ¹⁴	-	6.5 – 8.5	Range	Select	6 NYCRR 703.3	-	TBEL
		Maximum	9.0	8.8 Actual Max	61/0	9.0									
Consistent with 40 CFR 433, TBELs reflect the industry-specific treatment technology. Given the available dilution an effluent limitation equal to the TBEL is protective of the WQS.															
Temperature	°F	Daily Max	90	87 Actual Max	61/0	-	*	75	75	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition			6 NYCRR 704.2	-	Antibacksliding
		Monthly Avg	Monitor	59 Actual Average	61/0	-	-	-	-						Monitor
Ambient temperature was determined to be 75°F from RIBS data (Site ID 06-USSQ-154.7) during the critical summer period. The downstream temperature was calculated using an energy balance equation and the following assumptions: effluent temperature = 90 °F; ambient temperature = 75 °F; critical stream flow (7Q10) = 88 cfs; and (long term average) effluent flow = 0.20 cfs. There is no reasonable potential to exceed the WQS; therefore, the existing temperature limitation is protective of the water quality standard and will be maintained.															

¹³ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

¹⁴ Ambient pH obtained from 80th percentile of 22 RIBS samples collected at 06-USSQ-154.7 and 06-USSQ-149.8

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C													
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Dissolved Oxygen (DO)	mg/L	Daily Min	-	-	-	-	-	-	4.8 Critical Point	(Non-Trout) 4.0 mg/L	Narrative	No reasonable potential	6 NYCRR 703.3	-	No Limitation
	The downstream DO concentration was modeled using the Streeter-Phelps equations and the following assumptions. The primary reach of the model included data from both Sidney WPCP (NY0029271) and Amphenol Aerospace since the effluent from the two facilities comingles prior to discharge into the Susquehanna River. Effluent DO = 2.0 mg/L (assumed value consistent with TOGS 1.3.1D), Effluent BOD ₅ = 79 mg/L (current Sidney permit limit of 45 mg/L plus Amphenol application data of 34 mg/L), Effluent NOD = 358 mg/L (calculated from maximum reported Sidney ammonia of 19 mg/L as NH ₃ -N and Amphenol maximum reported ammonia of 30 mg/L as NH ₃ -N). Reach Description: The model included the Bainbridge WWTP (NY0030597) ~5 miles downstream and continued for ~ 2 miles downstream of Bainbridge WWTP. The model showed that the existing Sidney permit limits and Amphenol conditions are adequate for maintaining downstream water quality.														
5-day Biochemical Oxygen Demand (BOD ₅)	mg/L	Monthly Avg	-	-	-	-	-	-	See Dissolved Oxygen	-	No reasonable potential	6 NYCRR 703.3	-	No Limitation	
		7 Day Avg	-	34*	1/0	-	-								
	lbs/d	Monthly Avg	-	-	-	-	-								
		7 Day Avg	-	49*	1/0	-	-								
% Rem	Minimum	-	-	-	-	-									
See justification for Dissolved Oxygen. There is no applicable TBEL and no reasonable potential; therefore, no limitation is proposed.															
Total Suspended Solids (TSS)	mg/L	Monthly Avg	-	-	-	31	USEPA ELG BPT	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages.	6 NYCRR 703.2	-	-	-	-	TBEL	
		Daily Max	-	59*	299	60	USEPA ELG BPT								
	lbs/d	Monthly Avg	26	35	61/0	33	-								
		Daily Max	55	96	61/0	65	-								
	% Rem	Minimum	-	-	-	-	-								
*Daily maximum reported in application Concentration TBELs are consistent with USEPA ELG BPT at 40 CFR 433. Existing load limits are more stringent than the ELG limitations expressed as a load; therefore, the existing load limits will be maintained.															

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Settleable Solids	mL/L	Daily Max	-	-	-	0.1	TOGS 1.2.1	Narrative: None from sewage, industrial wastes or other wastes that will cause deposition or impair the waters for their best usages						6 NYCRR 703.2	-	TBEL
	Consistent with TOGS 1.2.1 Attachment C, the TBEL is reflective of the treatment technology and is reasonably protective of the WQS.															
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	-	17	25/0	-	-	0.082	0.30	0.49	A(C)	No reasonable potential	6 NYCRR 703.5	-	Monitor	
		Daily Max	-	115*	299	-	-	-	-	-	-	-	-	-	No Limitation	
*year-round data submitted in application The permittee submitted ammonia data, daily average concentration as a factor of daily average for each month, for November 2016 – October 2021. The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 8.2 (80th percentile of 22 data from multiple RIBS sites) and a temperature of 25 °C (assumed in accordance with TOGS 1.3.1E). The projected instream concentration was calculated using the maximum reported effluent concentration of 17 mg/L and an ambient upstream concentration of 0.082 mg/L. A multiplier ¹⁵ of 1.3 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.																
Nitrogen, Ammonia (as N)	mg/L	Monthly Avg	-	30	35/0	-	-	0.082	0.44	0.72	A(C)	No reasonable potential	6 NYCRR 703.5	-	Monitor	
		Daily Max	-	115*	299	-	-	-	-	-	-	-	-	-	No Limitation	
*year-round data The permittee submitted ammonia data, daily average concentration as a factor of daily average for each month, for November 2016 – October 2021. The WQS for Ammonia was determined from TOGS 1.1.1 from a summer pH of 8.2 (80th percentile of 22 data from multiple RIBS sites) and a temperature of 10 °C (assumed in accordance with TOGS 1.3.1E). The projected instream concentration was calculated using the maximum reported effluent concentration of 30 and an ambient upstream concentration of 0.082. A multiplier ¹⁶ of 1.2 was applied to the maximum effluent concentration to account for the number of samples. In accordance with TOGS 1.3.1E, the HEW dilution ratio was applied to calculate the projected instream concentration. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation. Therefore, no limitation is specified.																

¹⁵ As recommended from EPA's Technical Support Document, Chapter 3.3

¹⁶ As recommended from EPA's Technical Support Document, Chapter 3.3

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Total Kjeldahl Nitrogen (TKN) (as N)	mg/L	Monthly Avg	Monitor	8.5	58/2	Monitor	WIP III	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.						6 NYCRR 703.2	-	Monitor
	lb/d	Monthly Avg	Monitor	8.5	58/2	Monitor	WIP III							-	Monitor	
Consistent with the Phase III WIP, sampling and reporting for TKN will be continued in the permit and used to calculate the Monthly Average Total Nitrogen.																
Nitrate (NO ₃) (as N)	mg/L	Monthly Avg	Monitor	920	60/0	Monitor	WIP III	-	-	-	-	-	-	-	-	Monitor
	lb/d	Monthly Avg	Monitor	1200	60/0	Monitor	WIP III	-	-	-	-	-	-	-	-	Monitor
Consistent with the Phase III WIP, sampling and reporting for nitrate will be continued in the permit and used to calculate the Monthly Average Total Nitrogen.																
Nitrite (NO ₂) (as N)	mg/L	Monthly Avg	Monitor	22	60/0	Monitor	WIP III	-	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	-	-	-	-	0.100	A(C)	100	6 NYCRR 703.5	-	Monitor	
	lb/d	Monthly Avg	Monitor	26	60/0	Monitor	WIP III	-	-	-	-	-	-	-	-	Monitor
Consistent with the Phase III WIP, sampling and reporting for nitrite will be continued in the permit and used to calculate the Monthly Average Total Nitrogen. Daily maximum nitrate monitoring is being added so the need for a WQBEL can be assessed at the next permit review.																
Total Nitrogen	mg/L	Monthly Avg	Monitor	400	60/0	Monitor	WIP III	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.						6 NYCRR 703.2	-	Monitor
	lb/d	Monthly Avg	Monitor	1100	60/0	Monitor	WIP III								-	Monitor
	lb/mon	Monthly Total	Monitor	16,000	60/0	Monitor	WIP III								-	Monitor
	lb/yr	12 Month Rolling Total	134,000	110,000 Actual Max	58/0	90,000	WIP III								-	TMDL
Consistent with the Phase III WIP the permit includes an annual loading limitation of 90,000 lbs/yr. See Chesapeake Bay TMDL discussion in this factsheet.																

Outfall #	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C															
	Type of Treatment: pH adjustment, flocculation and clarification, sand filtration															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Total Phosphorus	mg/L	Monthly Avg	Monitor	2.8	61/0	Monitor	WIP III	Narrative: None in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages.						6 NYCRR 703.2	-	Monitor
	lb/d	Monthly Avg	Monitor	3.0	61/0	Monitor	WIP III									Monitor
	lb/mo	Monthly Total	Monitor	110	61/0	Monitor	USEPA ELG BPT									Monitor
	lb/yr	12 Month Rolling Total	761	760 Actual Max	61/0	761	WIP III									TMDL
Consistent with the Phase III WIP the permit includes a final annual loading limitation of 761 lbs/yr. Interim and final loading limits are provided in Chesapeake Bay TMDL discussion in this factsheet.																
Total Mercury	ng/L	Daily Max	50	20	50/1	50	ILCA	-	-	0.7	H(FC)	50	GLCA	-	DOW 1.3.10	
	lb/d		0.7	0.062	56/4	-	-	-	-	-	-	-	-	-	Discontinued	
	ng/L	12 MRA	-	-	-	20	EEQ	-	-	0.7	H(FC)	12	-	-	DOW 1.3.10	
See Mercury section of this factsheet .																
Total Aluminum	mg/L	Monthly Avg	-	1.76*	299*	-	-	-	-	-	-	-	-	-	Monitor	
		Daily Max	-	7.37*	299*	-	-	-	-	100 (ionic)	A(C)	NA when pH > 6.5	6 NYCRR 703.5	-	Monitor	
	lb/d	Monthly Avg	4.4	4.4 Actual Max	58/2	-	-	-	-	-	-	-	-	-	Antibacksliding	
		Daily Max	8.8	8.1 Actual Max	58/2	-	-	-	-	-	-	-	-	-	Antibacksliding	
*Long-term daily average and daily maximum reported in application At pH less than 6.5, the potential for solubility exceeds 100 µg/L, which is the water quality standard. The minimum pH of the receiving water is 7.3; therefore, consistent with TOGS 1.3.1E, the TBEL is protective and will be maintained.																

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Total Cadmium	mg/L	Monthly Avg	-	0.044*	299*	0.26	USEPA ELG BPT	-	-	0.005	H(WS)	0.50	6 NYCRR 703.5	-	TBEL	
		Daily Max	-	0.473*	299*	0.69	USEPA ELG BPT	-	-	0.0026	A(C)	0.28	6 NYCRR 703.5	-	WQBEL	
	lb/d	Monthly Avg	0.3	0.084	61/0	0.28	-	-	-	-	-	-	0.54	-	-	Calculation
		Daily Max	0.7	0.40**	61/0	0.75	-	-	-	-	-	-	0.30	-	-	Calculation
<p>*Long-term daily average and daily maximum reported in application **Actual maximum reported was 0.21 lb/d</p> <p>Daily Maximum: The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.114 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The existing permit limit and ELG are greater than the calculated WQBEL; therefore, the concentration limit equal to the WQBEL is being added to protect water quality and the load limit is being decreased based on the WQBEL concentration and current long-term average (LTA) flow.</p> <p>Monthly Average: The WQBEL was calculated from the HEW water quality standard and through applying the HEW dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The TBEL is more protective than the WQBEL and existing limit; therefore, a concentration limit consistent with 40 CFR 433 is being added to the permit and the load limit is being decreased based on the TBEL concentration and current long-term average (LTA) flow.</p>																
Hexavalent Chromium	mg/L	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	Monitor	
		Daily Max	-	-	-	-	-	-	-	0.016	A(A)	0.81	6 NYCRR 703.5	-	WQBEL	
	lb/d	Monthly Avg	0.11	0.027	29/31	-	-	-	-	-	-	-	-	-	-	Antibacksliding
		Daily Max	0.22	0.059	29/31	-	-	-	-	-	-	-	0.88	-	-	Antibacksliding
<p>The WQBEL was calculated from the acute water quality standard and through applying the acute dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.018 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The existing daily maximum load limit is more stringent than the WQBEL converted to a load. There is not currently a concentration limit in the permit. The existing load limitations will be maintained. A daily maximum concentration limit equal to the WQBEL will be added to protect water quality. Monthly average concentration will be monitored.</p>																

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C													
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Chromium	mg/L	Monthly Avg	-	0.022*	299*	1.71	USEPA ELG BPT	-	-	0.050	H(WS)	5.0	6 NYCRR 703.5	-	TBEL
		Daily Max	-	0.510*	299*	2.77	USEPA ELG BPT	-	-	0.092	A(C)	11	6 NYCRR 703.5	-	TBEL
	lb/d	Monthly Avg	3.3	0.040	57/4	1.9	-	-	-	-	-	5.4	-	-	Calculation
		Daily Max	4.7	0.17	60/1	3.0	-	-	-	-	-	12	-	-	Calculation
*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433, the TBEL is reflective of USEPA ELG BPT. The TBEL is more stringent than the WQBEL, and the load equivalent to the TBEL concentration, calculated using the LTA flow, is more stringent than the existing load limit; therefore, the TBEL concentration limit is being added and the load limit is being reduced.															
Total Copper	mg/L	Monthly Avg	-	0.186	299*	2.07	USEPA ELG BPT	-	-	0.20	H(WS)	20	6 NYCRR 703.5	-	Monitor
		Daily Max	-	1.365	299*	3.38	USEPA ELG BPT	-	-	0.017	A(C)	0.90	6 NYCRR 703.5	-	WQBEL
	lb/d	Monthly Avg	3.4	0.30	61/0	2.2	-	-	-	-	-	22	-	-	Calculation
		Daily Max	4.4	1.1	61/0	3.7	-	-	-	-	-	0.97	-	-	WQBEL
*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433, the TBELs are reflective of USEPA ELG BPT. Daily Maximum: The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.042 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The existing permit limit and TBEL are greater than the calculated WQBEL; therefore, the concentration limit equal to the WQBEL is being added to protect water quality and the load limit is being decreased using the WQBEL concentration and current LTA flow. Compliance with the daily maximum WQBEL will ensure compliance with both the monthly average and daily maximum ELG. Monthly Average: The WQBEL was calculated from the HEW water quality standard and through applying the HEW dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The TBEL concentration, consistent with 40 CFR 433, and equivalent load are more protective than the WQBEL and existing limit; therefore, concentration limit equal to the TBEL is being added to the permit and the load limit is being decreased using the TBEL concentration and current LTA flow.															

Outfall #	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
	Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Free Cyanide	mg/L	Daily Max	-	-	-	-	-	-	-	0.0052	A(C)	*	-	-	Monitor
										0.022	A(A)				
	lb/d	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
*No free cyanide data is available to conduct reasonable potential. The current total cyanide data (0.66 mg/L) does not indicate the free cyanide standard will be exceeded (WQBEL = 0.52 mg/L); however, monitoring is being added in accordance with 6 NYCRR Part 750-1.13. Additionally, a maximum daily load will be developed for free cyanide and load monitoring is being added to inform future watershed analysis in accordance with TOGS 1.3.1 and 6 NYCRR Part 701.1.															
Total Cyanide	mg/L	Monthly Avg	-	0.017*	299*	-	-	-	-	9.0	H(WS)	900	6 NYCRR 703.5	-	WQBEL
		Daily Max	-	0.664*	299*	-	-	-	-	-	-	-	-	-	Monitor
	lb/d	Monthly Avg	0.6	0.021	33/27	0.70	-	-	-	-	-	980	-	-	Existing Limit
		Daily Max	1.2	0.11	33/27	1.3	-	-	-	-	-	-	-	-	Existing Limit
*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433.12(c), the TBELs will be applied after cyanide treatment and before dilution with other streams (Outfall 01A). The existing load limitations are more stringent than the loads equivalent to the WQBEL; therefore, the existing load limits are being maintained at Outfall 001, and a concentration limit equal to the WQBEL is being added to ensure water quality is protected.															
Total Lead	mg/L	Monthly Avg	-	-	-	0.43	USEPA ELG BPT	-	-	0.050	H(WS)	5.0	6 NYCRR 703.5	-	TBEL
		Daily Max	-	<0.005	0/1	0.69	USEPA ELG BPT	-	-	0.005	A(C)	0.67	6 NYCRR 703.5	-	WQBEL
	lb/d	Monthly Avg	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
		Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Consistent with 40 CFR Part 433, the TBELs are reflective of USEPA ELG BPT.															
Monthly Average: The WQBEL was calculated from the HEW water quality standard and through applying the HEW dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The TBEL is more stringent than the WQBEL; therefore, the TBEL is being added to the permit.															
Daily Maximum: The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.328 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The WQBEL is more stringent than the TBEL; therefore, the WQBEL is being added to the permit to protect water quality.															
A maximum daily load has been developed for lead in the Susquehanna River Watershed and load monitoring has been added to inform future watershed analyses in accordance with TOGS 1.3.1 and 6 NYCRR Part 701.1.															

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL			
Total Nickel	mg/L	Monthly Avg	-	3.095*	299*	2.38	USEPA ELG BPT	-	-	100	H(WS)	10	6 NYCRR 703.5	-	TBEL	
		Daily Max	-	0.277*	299*	3.98	USEPA ELG BPT	-	-	0.065	A(C)	6.5	6 NYCRR 703.5	-	TBEL	
	lb/d	Monthly Avg	4.8	0.53	61/0	2.6	-	-	-	-	-	11	-	-	Calculation	
		Daily Max	8.7	2.0	61/0	4.3	-	-	-	-	-	7.1	-	-	Calculation	
	*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433, the TBELs are reflective of USEPA ELG BPT.															
	Monthly Average: The WQBEL was calculated from the HEW water quality standard and through applying the HEW dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007. The TBEL is more stringent than the WQBEL and the existing limit; therefore, the TBEL is being added to the permit.															
	Daily Maximum: The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.003 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007.															
	The TBELs are more stringent than the WQBELs; therefore, the concentration TBELs are being added and the existing load limits are being reduced to the load equivalent to the TBEL, calculated using the current LTA flow.															
Total Silver	mg/L	Monthly Avg	-	0.010*	299*	0.24	USEPA ELG BPT	-	-	0.050	H(WS)	5.0	6 NYCRR 703.5	-	TBEL	
		Daily Max	-	0.064*	299*	0.43	USEPA ELG BPT	-	-	-	-	-	TOGS 1.3.1E	-	TBEL	
	lb/d	Monthly Avg	0.4	0.015	18/42	0.26	-	-	-	-	-	5.4	-	-	Calculation	
		Daily Max	0.8	0.48	17/43	0.47	-	-	-	-	-	0.011	-	-	Calculation	
	*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433, the TBELs are reflective of USEPA ELG BPT.															
	Monthly Average: The WQBEL was calculated from the HEW water quality standard and through applying the HEW dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.0 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007.															
Daily Maximum: Consistent with TOGS 1.3.1E, a chronic WQBEL was not calculated and the TBEL expressed as total silver is protective of water quality.																
The TBELs are more stringent than the WQBELs and existing limits; therefore, the concentration TBELs are being added and the existing load limits are being reduced to the load equivalent to the TBEL, calculated using the current LTA flow.																

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C													
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Total Zinc	mg/L	Monthly Avg	-	0.059*	299*	1.48	USEPA ELG BPT	-	-	-	-	-	-	-	TBEL
		Daily Max	-	0.819*	299*	2.61	USEPA ELG BPT	-	-	0.15	A(A)	7.5	6 NYCRR 703.5	-	TBEL
	lb/d	Monthly Avg	3.1	0.13	60/1	1.6	-	-	-	-	-	220	-	-	Calculation
		Daily Max	5.8	0.75	61/0	2.8	-	-	-	-	-	8.1	-	-	Calculation
<p>*Long-term daily average and daily maximum reported in application Consistent with 40 CFR Part 433, the TBELs are reflective of USEPA ELG BPT.</p> <p>The WQBEL was calculated from the chronic water quality standard and through applying the chronic dilution ratio. A negligible upstream ambient concentration was assumed. A metals translator of 1.022 was applied to convert between the total and dissolved form in accordance with the EPA Document 823-B-96-007.</p> <p>The TBELs are more stringent than the WQBELs and existing limits; therefore, the concentration TBELs are being added and the existing load limits are being reduced to the load equivalent to the TBEL, calculated using the current LTA flow.</p>															
Oil & Grease	mg/L	Monthly Avg	-	-	-	26	USEPA ELG BPT	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				6 NYCRR 703.2	-	Monitor	
		Daily Max	-	-	-	15	TOGS 1.2.1							TBEL	
<p>Consistent with 40 CFR Part 433, the monthly average TBEL is reflective of USEPA ELG BPT. The TOGS 1.2.1 TBEL is more stringent than the daily maximum BPT TBEL of 52 mg/L. The daily maximum limitation is protective of both the daily maximum and monthly average TBELs; therefore, the daily maximum TBEL is added to the permit and the monthly average requirement is for monitoring.</p>															
Total Toxic Organics	mg/L	Daily Max	-	-	-	2.13	USEPA ELG BPT	-	-	-	-	-	-	-	TBEL
		Consistent with 40 CFR Part 433, the TBEL is reflective of USEPA ELG BPT; therefore, the TBEL is specified.													
Chloroform	µg/L	Daily Max	50-AL	140	20/0	-	-	-	-	-	-	-	-	-	Discontinued
		There is no Class B chloroform standard; therefore, the action level is being removed.													
Methylene Chloride	µg/L	Daily Max	15-AL	8.8	6/14	-	-	-	0.13	200	H(FC)	No reasonable potential	6 NYCRR 703.5	-	Discontinued
		The projected instream concentration was calculated using the maximum reported effluent concentration of 6.4 and negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 2.1 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation; therefore, no WQBEL is specified.													

Outfall #	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
	Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Trichloroethylene	µg/L	Daily Max	30-AL	1.1	4/16	-	-	-	0.02	40	H(FC)	No reasonable potential	6 NYCRR 703.5	-	Discontinued
The projected instream concentration was calculated using the maximum reported effluent concentration of 1.14 and negligible ambient upstream concentration. A multiplier, as recommended in EPA's Technical Support Document Chapter 3.3, of 1.7 was applied to the projected effluent to account for the number of samples. A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation; therefore, no WQBEL is specified.															
Additional Pollutants Detected															
Total Residual Chlorine (TRC)	mg/L	Daily Max	-	<0.02	0/1	-	-	-	-	-	-	-	-	-	Monitor
Chlorine is used in the manufacturing process. TRC was sampled for but not detected at Outfall 001 (single sample), but it was detected at internal outfalls 01A and 01C; therefore, monitoring is being added at Outfall 001 in accordance with 6 NYCRR Part 750-1.13.															
Fluoride	mg/L	-	14.3	1/0	-	-	-	0.89	2.7	A(C)	No reasonable potential	6 NYCRR 703.5	-	No Limitation	
The chronic WQS was calculated using an ambient hardness of 130 mg/L (average of 27 RIBS samples collected at 06-USSQ-154.7 and 06-USSQ-149.8). A comparison of the projected instream concentration to the WQS indicates no reasonable potential to cause or contribute to a WQS violation; therefore, no WQBEL is specified.															
Sulfite (as SO ₃)	mg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Sulfite was sampled for but not detected at Outfall 001, but it was detected at Outfalls 01A and 01B so monitoring is being added at Outfall 001 in accordance with 6 NYCRR Part 750-1.13.															
Sulfate (as SO ₄)	mg/L	-	609	1/0	-	-	-	-	-	-	-	-	-	-	No Limitation
There is no Class B sulfate standard; therefore, no limitation is included in the permit.															
Magnesium	mg/L	-	2.25	1/0	-	-	-	-	-	-	-	-	-	-	No Limitation
There is no Class B magnesium standard; therefore, no limitation is included in the permit.															
Formaldehyde	µg/L	-	70	1/0	-	-	-	-	-	-	-	-	-	-	No Limitation
There is no Class B formaldehyde standard; therefore, no limitation is included in the permit.															
Color	PCU	Daily Max	-	-	-	-	-	-	Narrative: None in amounts that will adversely affect the taste, color or odor thereof, or impair the waters for their best usages.			6 NYCRR 730.2	-	Monitor	
Color was sampled for but not detected at Outfall 001 but was detected at Outfall 01B, so monitoring is being added at Outfall 001 in accordance with 6 NYCRR Part 750-1.13.															

Permittee: Amphenol Corporation
 Facility: Amphenol Corporation - Aerospace Operations
 SPDES Number: NY0003824
 USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
 Permit Writer: Catherine G. Winters
 Water Quality Reviewer: Catherine G. Winters
 Full Technical Review

Outfall #	001	Description of Wastewater: metal finishing process wastewater from Outfalls 01A, 01B, and 01C														
		Type of Treatment: pH adjustment, flocculation and clarification, sand filtration														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & QBELs						ML	Basis for Permit Requirement	
			Permit Limit	Existing Effluent Quality ¹³	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. QBEL	Basis for QBEL			
Total Beryllium	mg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Beryllium was sampled for but not detected at Outfall 001 but was detected at Outfall 01C, so monitoring is being added at Outfall 001 in accordance with 6 NYCRR Part 750-1.13.																

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁷	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Outfall #	002	Description of Wastewater: stormwater. This outfall previously contained both stormwater and remediation water. While the remediation water is no longer present, the WET results still indicate this effluent as toxic.													
Type of Treatment: none															
General Notes: Existing discharge data from 01/01/2022 to 09/30/2022 was obtained from Discharge Monitoring Reports and an effluent toxicity investigation report dated 09/20/2022 provided by the permittee. All industrial and remediation water sources were removed/diverted from Outfall 002 by the end of 2021. All applicable water quality standards were reviewed for development of the WQBELs. The standards and WQBELs shown below represent the most stringent.															
Flow Rate	GPD	Daily Max	Monitor or	51,374 Actual Average	50/0	Monitor	750-1.13 Monitor	Narrative: No alterations that will impair the waters for their best usages.				6 NYCRR 703.2	-	Monitor	
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6.0	6.6 Actual Min	50/0	-	-	-	-	6.5 – 8.5	Range	6.5 - 8.5	6 NYCRR 703.3	-	WQBEL
		Maximum	9.0	7.7 Actual Max	50/0	-									
Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate. This is being changed from the previous permit.															
Temperature	°F	Daily Max	90	73 Actual Max	50/0	Monitor	750-1.13 Monitor	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor	
	This outfall no longer receives non-contact cooling water. The limitation is being removed, but consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.														
trans-1,2-Dichloroethylene	µg/L	Daily Max	10	*	0/9	-	-	-	-	-	-	-	-	-	Antibacksliding
	*All values were reported as less than the reporting limit of 1 µg/L. There is no Class C water quality standard for trans-1,2-dichloroethylene; however, the limitation will be maintained while effluent toxicity is under investigation.														
Trichloroethylene	µg/L	Daily Max	10	3.4*	0/9	-	-	-	-	40	H(FC)	40	6 NYCRR 703.5	-	Antibacksliding
	*3.4 µg/L was reported in April 2022. All other values were reported as less than the reporting limit of 1 µg/L. The current limit is more stringent than the WQBEL.														

¹⁷ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

Outfall #	002	Description of Wastewater: stormwater. This outfall previously contained both stormwater and remediation water. While the remediation water is no longer present, the WET results still indicate this effluent as toxic.													
		Type of Treatment: none													
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁷	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Additional Pollutants Detected															
Acetone	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	No Limitation
	Acetone was detected in the investigatory sampling in the 002 catch basin as reported in the revised October 2022 metals analysis report submitted in April 2023. There is no Class B water quality standard or guidance value for acetone; therefore, no limitation or monitoring is required.														
Total Aluminum	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
	Aluminum was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.														
Total Barium	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
	Barium was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.														
Total Cadmium	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
	Cadmium was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.														
Total Chromium	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
	Chromium was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.														
Total Copper	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
	Copper was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.														

Permittee: Amphenol Corporation
 Facility: Amphenol Corporation - Aerospace Operations
 SPDES Number: NY0003824
 USEPA Major/Class 03 Industrial

Date: October 5, 2023 v.1.11
 Permit Writer: Catherine G. Winters
 Water Quality Reviewer: Catherine G. Winters
 Full Technical Review

Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁷	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
Outfall #	002	Description of Wastewater: stormwater. This outfall previously contained both stormwater and remediation water. While the remediation water is no longer present, the WET results still indicate this effluent as toxic.													
		Type of Treatment: none													
Total Lead	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Lead was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.															
Total Nickel	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Nickel was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.															
Total Zinc	µg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Zinc was detected in the investigatory sampling in the 002 catch basin as part of the ongoing Toxicity Identification/Reduction Evaluation (TI/RE); however, through review of this report, DEC has determined that the Outfall 002 sampling location is not representative, and the permittee will be required to establish a new, representative sampling location as directed in the compliance schedule. Since the data was not representative, no limit is being established and monitoring is being added to the permit.															
Hardness	mg/L	Daily Max	-	-	-	-	-	-	-	-	-	-	-	-	Monitor
Hardness affects metals toxicity. Monitoring is being added in accordance with 6 NYCRR Part 750-1.13.															

Outfall #	Description of Wastewater: stormwater														
	Type of Treatment: none														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ¹⁸	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 05/01/2017 to 05/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	GPD	Daily Max	Monitor	21492 Actual Average	61/0	Monitor	750-1.13 Monitor	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor	
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6.0	6.5	61/0	-	-	8.2 ¹⁹	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	8.8	61/0	-		Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate. This is a change from the previous permit.							
Temperature	°F	Daily Max	90	75 Actual Max	61/0	Monitor	750-1.13 Monitor	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor	
			This outfall no longer receives non-contact cooling water. The limitation is being removed, but consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.												
Oil & Grease	mg/L	Daily Max	15	ND	0/61	15	Antibacksliding	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				6 NYCRR 703.2	-	TBEL	
			All samples were below a varying detection limit which remained below 15 mg/L; however, the TBEL will be maintained.												

¹⁸ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

¹⁹ Ambient pH obtained from 80th percentile of 22 RIBS samples.

Outfall #	Description of Wastewater: stormwater														
	Type of Treatment: none														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ²⁰	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 05/01/2017 to 05/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	GPD	Daily Max	Monitor	21176 Actual Average	61/0	Monitor	750-1.13 Monitor	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor	
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6.0	6.5	61/0	-	-	8.2 ²¹	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	8.8	61/0	-									
Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate. The is a change from the previous permit.															
Temperature	°F	Daily Max	90	74 Actual Max	61/0	Monitor	750-1.13 Monitor	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor	
	This outfall no longer receives non-contact cooling water. The limitation is being removed, but consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.														
Oil & Grease	mg/L	Daily Max	15	ND	0/61	15	Antibacksliding	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				6 NYCRR 703.2	-	TBEL	
	All samples were below a varying detection limit which remained below 15 mg/L; however, the TBEL will be maintained.														

²⁰ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

²¹ Ambient pH obtained from 80th percentile of 22 RIBS samples.

Outfall #	Description of Wastewater: stormwater														
	Type of Treatment: none														
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ²²	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 05/01/2017 to 05/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	GPD	Daily Max	Monitor	10812 Actual Average	61/0	Monitor	750-1.13 Monitor	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor	
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6.0	6.2	61/0	-	-	8.2 ²³	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	8.7	61/0	-									
Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate. The is a change from the previous permit.															
Temperature	°F	Daily Max	90	73 Actual Max	61/0	Monitor	750-1.13 Monitor	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor	
	This outfall no longer receives non-contact cooling water. The limitation is being removed, but consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.														
Oil & Grease	mg/L	Daily Max	15	5.2	1/60	15	Antibacksliding	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				6 NYCRR 703.2	-	TBEL	
	The TBEL will be maintained.														

²² Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

²³ Ambient pH obtained from 80th percentile of 22 RIBS samples.

Outfall #	008														
	Description of Wastewater: stormwater														
Type of Treatment: none															
Effluent Parameter	Units	Averaging Period	Existing Discharge Data			TBELs		Water Quality Data & WQBELs						ML	Basis for Permit Requirement
			Permit Limit	Existing Effluent Quality ²⁴	# of Data Points Detects / Non-Detects	Limit	Basis	Ambient Bkgd. Conc.	Projected Instream Conc.	WQ Std. or GV	WQ Type	Calc. WQBEL	Basis for WQBEL		
General Notes: Existing discharge data from 05/01/2017 to 05/31/2022 was obtained from Discharge Monitoring Reports provided by the permittee. All applicable water quality standards were reviewed for development of the WQBELs. The standard and WQBEL shown below represent the most stringent.															
Flow Rate	GPD	Daily Max	Monitor	11700 Actual Average	61/0	Monitor	750-1.13 Monitor	Narrative: No alterations that will impair the waters for their best usages.				703.2	-	Monitor	
	Flow will continue to be monitored for informational purposes and to calculate pollutant loadings.														
pH	SU	Minimum	6.0	6.8	61/0	-	-	8.2 ²⁵	-	6.5 – 8.5	Range	6.5 - 8.5	703.3	-	WQBEL
		Maximum	9.0	7.8	61/0	-									
Given that adequate dilution is not available, an effluent limitation equal to the WQS is appropriate. The is a change from the previous permit.															
Temperature	°F	Daily Max	90	76 Actual Max	61/0	Monitor	750-1.13 Monitor	Narrative (Non-Trout): The water temperature at the surface of a stream shall not be raised to more than 90F at any point and... shall not be raised or lowered to more than 5F over the temperature that existed before the addition				6 NYCRR 704.2	-	Monitor	
	This outfall no longer receives non-contact cooling water. The limitation is being removed, but consistent with 6 NYCRR 750-1.13(a), monitoring is required and may be used to inform future permitting decisions.														
Oil & Grease	mg/L	Daily Max	15	16	1/60	15	Antibacksliding	Narrative: No residue attributable to sewage, industrial wastes or other wastes, nor visible oil film nor globules of grease.				6 NYCRR 703.2	-	TBEL	
	The TBEL will be maintained.														

²⁴ Existing Effluent Quality: Daily Max = 99% lognormal; Monthly Avg = 95% lognormal (for datasets with ≤3 nondetects); Daily Max = 99% delta-lognormal; Monthly Avg = 95% delta-lognormal (for datasets with >3 nondetects)

²⁵ Ambient pH obtained from 80th percentile of 22 RIBS samples.

USEPA EFFLUENT LIMITATION GUIDELINE (ELG) CALCULATIONS

[Appendix Link](#)

For the applicable categorical limitations under 40 CFR Part 433, the following basis was used to determine the TBEL:

Outfall	001
40 CFR Part/Subpart	§433 Subpart A
Subpart Name	Metal Finishing Subcategory

ELG Pollutant	Daily Max TBEL (mg/L)	Monthly Avg. TBEL (mg/L)
Cadmium (T)	0.69	0.26
Chromium (T)	2.77	1.71
Copper (T)	3.38	2.07
Lead (T)	0.69	0.43
Nickel (T)	3.98	2.38
Silver (T)	0.43	0.24
Zinc (T)	2.61	1.48
Cyanide (T)	1.20	0.65
TTO	2.13	NA
Oil & Grease	52	26
TSS	60	31
pH	6.0 - 9.0 su	
Note: Amphenol is an electroplating facility that performs four of the six operations covered by the effluent limit guidelines laid out in 40 CFR Part 433. The operations at Amphenol include electroplating, electroless plating, anodizing, and coating (chromating, phosphating, and coloring).		

Appendix: Regulatory and Technical Basis of Permit Authorizations

The Appendix is meant to supplement the factsheet for multiple types of SPDES permits. Portions of this Appendix may not be applicable to this specific permit.

Regulatory References

The provisions of the permit are based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750 and include monitoring, recording, reporting, and compliance requirements, as well as general conditions applicable to all SPDES permits. Below are the most common citations for the requirements included in SPDES permits:

- Clean Water Act (CWA) 33 section USC 1251 to 1387
- Environmental Conservation Law (ECL) Articles 17 and 70
- Federal Regulations
 - 40 CFR, Chapter I, subchapters D, N, and O
- State environmental regulations
 - 6 NYCRR Part 621
 - 6 NYCRR Part 750
 - 6 NYCRR Parts 700 - 704 – Best use and other requirements applicable to water classes
 - 6 NYCRR Parts 800 – 941 - Classification of individual surface waters
- NYSDEC water program policy, referred to as Technical and Operational Guidance Series (TOGS)
- USEPA Office of Water Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E

The following is a quick guide to the references used within the factsheet:

SPDES Permit Requirements	Regulatory Reference
Anti-backsliding	6 NYCRR 750-1.10(c)
Best Management Practices (BMPS) for CSOs	6 NYCRR 750-2.8(a)(2)
Environmental Benefits Permit Strategy (EBPS)	6 NYCRR 750-1.18, NYS ECL 17-0817(4), TOGS 1.2.2 (revised January 25,2012)
Exceptions for Type I SSO Outfalls (bypass)	6 NYCRR 750-2.8(b)(2), 40 CFR 122.41
Mercury Multiple Discharge Variance	Division of Water Program Policy 1.3.10 (DOW 1.3.10)
Mixing Zone and Critical Water Information	TOGS 1.3.1 & Amendments
PCB Minimization Program	40 CFR Part 132 Appendix F Procedure 8, 6 NYCRR 750-1.13(a) and 750-1.14(f), and TOGS 1.2.1
Pollutant Minimization Program (PMP)	6 NYCRR 750-1.13(a), 750-1.14(f), TOGS 1.2.1
Schedules of Compliance	6 NYCRR 750-1.14
Sewage Pollution Right to Know (SPRTK)	NYS ECL 17-0826-a, 6 NYCRR 750-2.7
State Administrative Procedure Act (SAPA)	State Administrative Procedure Act Section 401(2), 6 NYCRR 621.11(l)
State Environmental Quality Review (SEQR)	6 NYCRR Part 617
USEPA Effluent Limitation Guidelines (ELGs)	40 CFR Parts 405-471
USEPA National CSO Policy	33 USC Section 1342(q)
Whole Effluent Toxicity (WET) Testing	TOGS 1.3.2
General Provisions of a SPDES Permit Department Request for Additional Information	NYCRR 750-2.1(i)

Outfall and Receiving Water Information

Impaired Waters

The [NYS 303\(d\) List of Impaired/TMDL Waters](#) identifies waters where specific best usages are not fully supported. The state must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) that restrict waterbody uses, in order to restore and protect such uses. SPDES permits must include effluent limitations necessary to implement a WLA of an EPA-approved TMDL (6 NYCRR 750-1.11(a)(5)(ii)), if applicable. In accordance with 6 NYCRR 750-1.13(a), permittees discharging to waters which are on the list but do not yet have a TMDL developed may be required to perform additional monitoring for the parameters causing the impairment. Accurate monitoring data is needed to

determine the existing capabilities of the wastewater treatment plants and to assure that wasteload allocations (WLAs) are allocated equitably.

Interstate Water Pollution Control Agencies

Some POTWs may be subject to regulations of interstate basin/compact agencies including: Interstate Sanitation Commission (ISC), International Joint Commission (IJC), Delaware River Basin Commission (DRBC), Ohio River Valley Water Sanitation Commission (ORSANCO), and the Susquehanna River Basin Commission (SRBC). Generally, basin commission requirements focus principally on water quality and not treatment technology. However, interstate/compact agency regulations for the ISC, IJC, DRBC and NYC Watershed contain explicit effluent limits which must be addressed during permit drafting. 6 NYCRR 750-2.1(d) requires SPDES permits for discharges that originate within the jurisdiction of an interstate water pollution control agency, to include any applicable effluent standards or water quality standards (WQS) promulgated by that interstate agency.

Existing Effluent Quality

The existing effluent quality is determined from a statistical evaluation of effluent data in accordance with TOGS 1.2.1 and the USEPA Office of Water, Technical Support Document for Water Quality-based Toxics Control, March 1991, Appendix E (TSD). The existing effluent quality is equal to the 95th (monthly average) and 99th (daily maximum) percentiles of the lognormal distribution of existing effluent data. When there are greater than three non-detects, a delta-lognormal distribution is assumed, and delta-lognormal calculations are used to determine the monthly average and daily maximum pollutant concentrations. Statistical calculations are not performed for parameters where there are less than ten data points. If additional data is needed, a monitoring requirement may be specified either through routine monitoring or a short-term high intensity monitoring program. The [Pollutant Summary Table](#) identifies the number of sample data points available.

Permit Requirements

Basis for Effluent Limitations

Sections 101, 301, 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL, as well as their implementing federal and state regulations, and related guidance, provide the basis for the effluent limitations and other conditions in the permit.

When conducting a full technical review of an existing permit, the previous effluent limitations form the basis for the next permit. Existing effluent quality is evaluated against the existing effluent limitations to determine if these should be continued, revised, or deleted. Generally, existing limitations are continued unless there are changed conditions at the facility, the facility demonstrates an ability to meet more stringent limitations, and/or in response to updated regulatory requirements. Pollutant monitoring data is also reviewed to determine the presence of additional contaminants that should be included in the permit based on a reasonable potential analysis to cause or contribute to a water quality standards violation.

Anti-backsliding

Anti-backsliding requirements are specified in the CWA sections 402(o) and 303(d)(4), ECL 17-0809, and regulations at 40 CFR 122.44(l) and 6 NYCRR 750-1.10(c) and (d). Generally, the relaxation of effluent limitations in permits is prohibited unless one of the specified exceptions applies, which will be cited on a case-by-case basis in this factsheet. Consistent with current case law²⁶ and USEPA interpretation²⁷ anti-backsliding requirements do not apply should a revision to the final effluent limitation take effect before the scheduled date of compliance for that final effluent limitation.

²⁶ American Iron and Steel Institute v. Environmental Protection Agency, 115 F.3d 979, 993 n.6 (D.C. Cir. 1997)

²⁷ U.S. EPA, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California; 65 Fed. Reg. 31682, 31704 (May 18, 2000); Proposed Water Quality Guidance for the Great Lakes System, 58 Fed. Reg. 20802, 20837 & 20981 (April 16, 1993)

Antidegradation Policy

New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, "Water Quality Antidegradation Policy" (September 9, 1985); and, (2) TOGS 1.3.9, "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985) (undated)." The permit for the facility contains effluent limitations which ensure that the existing best usage of the receiving waters will be maintained. To further support the antidegradation policy, SPDES applications have been reviewed in accordance with the State Environmental Quality Review Act (SEQR) as prescribed by 6 NYCRR Part 617.

Effluent Limitations

In developing a permit, the Department determines the technology-based effluent limitations (TBELs) and then evaluates the water quality expected to result from technology controls to determine if any exceedances of water quality criteria in the receiving water might result. If there is a reasonable potential for exceedances of water quality criteria to occur, water quality-based effluent limitations (WQBELs) are developed. A WQBEL is designed to ensure that the water quality standards of receiving waters are met. In general, the CWA requires that the effluent limitations for a particular pollutant are the more stringent of either the TBEL or WQBEL.

Technology-based Effluent Limitations (TBELs) for Industrial Facilities

A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR 750-1.11 require technology-based controls on effluents. TBELs are set based upon an evaluation of New Source Performance Standards (NSPS), Best Available Technology Economically Achievable (BAT), Best Conventional Pollutant Control Technology (BCT), Best Practicable Technology Currently Available (BPT), and/or Best Professional Judgment (BPJ).

USEPA Effluent Limitation Guidelines (ELGs) Applicable to Facility

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries, as promulgated under 40 CFR Parts 405-471. Applicable guidelines, pollutants regulated by these guidelines, and the effluent limitation derivation for facilities subject to these guidelines is in the [USEPA Effluent Limitation Guideline Calculations Table](#).

Best Professional Judgement (BPJ)

For substances that are not explicitly limited by regulations, the permit writer is authorized to use BPJ in developing TBELs. Consistent with section 402(a)(1) of the CWA, and NYS ECL section 17-0811, the Department is authorized to issue a permit containing "any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law". BPJ limitations may be set on a case-by-case basis using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3. Applicable state regulations include 6 NYCRR 750-1.11. The BPJ limitation considers the existing technology present at the facility, the statistically calculated existing effluent quality for that parameter, and any unique or site-specific factors relating to the facility. Technology limitations generally achievable for various treatment technologies are included in TOGS 1.2.1, Attachment C. These limitations may be used for the listed parameters when the technology employed at the facility is listed.

Water Quality-Based Effluent Limitations (WQBELs)

In addition to the TBELs, permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 750-1.11 require that permits include limitations for all pollutants or parameters which are or may be discharged at a level which may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. Additionally, 6 NYCRR 701.1 prohibits the discharge of pollutants that will cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge. Water quality standards can be found under 6 NYCRR Parts 700-704. The

limitations must be stringent enough to ensure that water quality standards are met at the point of discharge and in downstream waters and must be consistent with any applicable WLA which may be in effect through a TMDL for the receiving water. These and other requirements are summarized in TOGS 1.1.1, 1.3.1, 1.3.2, 1.3.5 and 1.3.6. The Department considers a mixing zone analysis, critical flows, and reasonable potential analysis when developing a WQBEL.

Mixing Zone Analyses

In accordance with TOGS 1.3.1., the Department may perform additional analysis of the mixing condition between the effluent and the receiving waterbody. Mixing zone analyses using plume dispersion modeling are conducted in accordance with the following:

“EPA Technical Support Document for Water Quality-Based Toxics Control” (March 1991); EPA Region VIII’s “Mixing Zones and Dilution Policy” (December 1994); NYSDEC TOGS 1.3.1, “Total Maximum Daily Loads and Water Quality-Based Effluent Limitations” (July 1996); “CORMIX v11.0” (2019).

Critical Flows

In accordance with TOGS 1.2.1 and 1.3.1, WQBELs are developed using dilution ratios that relate the critical low flow condition of the receiving waterbody to the critical effluent flow. The critical low flow condition used in the dilution ratio will be different depending on whether the limitations are for aquatic or human health protection. For chronic aquatic protection, the critical low flow condition of the waterbody is typically represented by the 7Q10 flow and is calculated as the lowest average flow over a 7-day consecutive period within 10 years. For acute aquatic protection, the critical low flow condition is typically represented by the 1Q10 and is calculated as the lowest 1-day flow within 10 years. However, NYSDEC considers using 50% of the 7Q10 to be equivalent to the 1Q10 flow. For the protection of human health, the critical low flow condition is typically represented by the 30Q10 flow and is calculated as the lowest average flow over a 30-day consecutive period within 10 years. However, NYSDEC considers using 1.2 x 7Q10 to be equivalent to the 30Q10. The 7Q10 or 30Q10 flow is used with the critical effluent flow to calculate the dilution ratio. The critical effluent flow can be the maximum daily flow reported on the permit application, the maximum of the monthly average flows from discharge monitoring reports for the past three years, or the facility design flow. When more than one applicable standard exists for aquatic or human health protection for a specific pollutant, a reasonable potential analysis is conducted for each applicable standard and corresponding critical flow to ensure effluent limitations are sufficiently stringent to ensure all applicable water quality standards are met as required by 40 CFR 122.44(d)(1)(i). For brevity, the pollutant summary table reports the results of the most conservative scenario.

Reasonable Potential Analysis (RPA)

The Reasonable Potential Analysis (RPA) is a statistical estimation process, outlined in the 1991 USEPA Technical Support Document for Water Quality-based Toxics Control (TSD), Appendix E. This process uses existing effluent quality data and statistical variation methodology to project the maximum amounts of pollutants that could be discharged by the facility. This projected instream concentration (PIC) is calculated using the appropriate ratio and compared to the water quality standard (WQS). When the RPA process determines the WQS may be exceeded, a WQBEL is required. The procedure for developing WQBELs includes the following steps:

- 1) identify the pollutants present in the discharge(s) based upon existing data, sampling data collected by the permittee as part of the permit application or a short-term high intensity monitoring program, or data gathered by the Department;
- 2) identify water quality criteria applicable to these pollutants;
- 3) determine if WQBELs are necessary (i.e. reasonable potential analysis (RPA)). The RPA will utilize the procedure outlined in Chapter 3.3.2 of EPA’s Technical Support Document (TSD). As outlined in the TSD, for parameters with limited effluent data the RPA may include multipliers to account for effluent variability; and,

4) calculate WQBELs (if necessary). Factors considered in calculating WQBELs include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources.

The Department uses modeling tools to estimate the expected concentrations of the pollutant in the receiving water and develop WQBELs. These tools were developed in part using the methodology referenced above. If the estimated concentration of the pollutant in the receiving water is expected to exceed the ambient water quality standard or guidance value (i.e. numeric interpretation of a narrative water quality standard), then there is a reasonable potential that the discharge may cause or contribute to an exceedance of any State water quality standard adopted pursuant to NYS ECL 17-0301. If a TMDL is in place, the facility's WLA for that pollutant is applied as the WQBEL.

For carbonaceous and nitrogenous oxygen demanding pollutants, the Department uses a model which incorporates the Streeter-Phelps equation. The equation relates the decomposition of inorganic and organic materials along with oxygen reaeration rates to compute the downstream dissolved oxygen concentration for comparison to water quality standards.

The Division of Water has been using the TMDL approach in permit limit development for the control of toxic substances. Since the early 1980's, the loading capacity for specific pollutants has been determined for each drainage basin. Water quality-limiting segments and pollutants have been identified, TMDLs, wasteload allocations and load allocations have been developed, and permits with water quality-based effluent limits have been issued. In accordance with TOGS 1.3.1, the Division of Water implements a Toxics Reduction Strategy which is committed to the application of the TMDL process using numeric, pollutant-specific water quality standards through the Watershed Approach. The Watershed Approach accounts for the cumulative effect of multiple discharges of conservative toxic pollutants to ensure water quality standards are met in downstream segments.

Whole Effluent Toxicity (WET) Testing:

WET tests use small vertebrate and invertebrate species to measure the aggregate toxicity of an effluent. There are two different durations of toxicity tests: acute and chronic. Acute toxicity tests measure survival over a 96-hour test exposure period. Chronic toxicity tests measure reductions in survival, growth, and reproduction over a 7-day exposure. TOGS 1.3.1 includes guidance for determining when aquatic toxicity testing should be included in SPDES permits. The authority to require toxicity testing is in 6NYCRR 702.9. TOGS 1.3.2 describes the procedures which should be followed when determining whether to include toxicity testing in a SPDES permit and how to implement a toxicity testing program. Per TOGS 1.3.2, WET testing may be required when any one of the following seven criteria are applicable:

1. There is the presence of substances in the effluent for which ambient water quality criteria do not exist.
2. There are uncertainties in the development of TMDLs, WLAs, and WQBELs, caused by inadequate ambient and/or discharge data, high natural background concentrations of pollutants, available treatment technology, and other such factors.
3. There is the presence of substances for which WQBELs are below analytical detectability.
4. There is the possibility of complex synergistic or additive effects of chemicals, typically when the number of metals or organic compounds discharged by the permittee equals or exceeds five.
5. There are observed detrimental effects on the receiving water biota.
6. Previous WET testing indicated a problem.
7. POTWs which exceed a discharge of 1 MGD. Facilities of less than 1 MGD may be required to test, e.g., POTWs <1 MGD which are managing industrial pretreatment programs.

Minimum Level of Detection

Pursuant to 40 CFR 122.44(i)(1)(iv) and 6 NYCRR 750-2.5(d), SPDES permits must contain monitoring requirements using sufficiently sensitive test procedures approved under 40 CFR Part 136. A method is "sufficiently sensitive" when the method's minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant parameter; or the lowest ML of the analytical methods

approved under 40 CFR Part 136. The ML represents the lowest level that can be measured within specified limitations of precision and accuracy during routine laboratory operations on most effluent matrices. When establishing effluent limitations for a specific parameter (based on technology or water quality requirements), it is possible that the calculated limitation will fall below the ML established by the approved analytical method(s). In these instances, the calculated limitation is included in the permit with a compliance level set equal to the ML of the most sensitive method.

Monitoring Requirements

CWA section 308, 40 CFR 122.44(i), 6 NYCRR 750-1.13, and 750-2.5 require that monitoring be included in permits to determine compliance with effluent limitations. Additional effluent monitoring may also be required to gather data to determine if effluent limitations may be required. The permittee is responsible for conducting the monitoring and reporting results on Discharge Monitoring Reports (DMRs). The permit contains the monitoring requirements for the facility. Monitoring frequency is based on the minimum sampling necessary to adequately monitor the facility's performance and characterize the nature of the discharge of the monitored flow or pollutant. Variable effluent flows and pollutant levels may be required to be monitored at more frequent intervals than relatively constant effluent flow and pollutant levels (6 NYCRR 750-1.13). For industrial facilities, sampling frequency is based on guidance provided in TOGS 1.2.1. For municipal facilities, sampling frequency is based on guidance provided in TOGS 1.3.3.

Other Conditions

Mercury

The multiple discharge variance (MDV) for mercury was developed in accordance with 6 NYCRR 702.17(h) "to address widespread standard or guidance value attainment issues including the presence of a ubiquitous pollutant or naturally high levels of a pollutant in a watershed." The first MDV was issued in October 2010, and subsequently revised and reissued in 2015; each subsequent iteration of the MDV is designed to build off the previous version, to make reasonable progress towards the water quality standard (WQS) of 0.7 ng/L dissolved mercury. The MDV is necessary because human-caused conditions or sources of mercury prevent attainment of the WQS and cannot be remedied (i.e., mercury is ubiquitous in New York waters at levels above the WQS and compliance with a water quality based effluent limitation (WQBEL) for mercury cannot be achieved with demonstrated effluent treatment technologies). The Department has determined that the MDV is consistent with the protection of public health, safety, and welfare. During the effective period of this MDV, any increased risks to human health are mitigated by fish consumption advisories issued periodically by the NYSDOH.

All surface water SPDES permittees are eligible for authorization by the MDV provided they meet the requirements specified in DOW 1.3.10.

Schedules of Compliance

Schedules of compliance are included in accordance with 40 CFR Part 132 Attachment F, Procedure 9, 40 CFR 122.47 and 6 NYCRR 750-1.14. Schedules of compliance are intended to, in the shortest reasonable time, achieve compliance with applicable effluent standards and limitations, water quality standards, and other applicable requirements. Where the time for compliance is more than nine months, the schedule of compliance must include interim requirements and dates for their achievement. If the time necessary to complete the interim milestones is more than nine months, and not readily divisible into stages for completion, progress reports must be required.

Schedule(s) of Additional Submittals

Schedules of Additional Submittals are used to summarize the deliverables required by the permit not identified in a separate Schedule of Compliance.

Best Management Practices (BMP) for Industrial Facilities

BMP plans are authorized for inclusion in NPDES permits pursuant to Sections 304(e) and 402 (a)(1) of the Clean Water Act, and 6 NYCRR 750-1.14(f). The regulations pertaining to BMPs are promulgated under 40 CFR Part 125, Subpart K. These regulations specifically address surface water discharges.