NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Permits, Region 4
1130 North Westcott Road, Schenectady, NY 12306-2014
P: (518) 357-2069 | F: (518) 357-2460
www.dec.ny.gov

October 12, 2017

Mr. Prince Knight
Laboratory, Environmental & Compliance Manager
Tradebe Environmental Services, LLC.
628 South Saratoga St.
Cohoes, NY 12047

RE: Norlite SPDES Permit No. NY0004880
DEC ID# 4-0103-00016/00020
Norlite, LLC.
628 South Saratoga St.
City of Cohoes, Albany County

Mr. Knight,

The New York State Department of Environmental Conservation ("the Department") has issued a State Pollutant Discharge Elimination System (SPDES) permit for Norlite, LLC. Enclosed please find the issued SPDES permit, Response to Comments, and Industrial SPDES Fact Sheet. The enclosed permit becomes effective November 1, 2017, and expires on October 31, 2022.

Please read all permit conditions carefully. All permit documents must be available upon request by the Department staff as well as distributed to, and understood by, your personnel responsible for the proper operation of the facility and compliance with the discharge limits. Any violation of these permit conditions constitutes a violation of the Environmental Conservation Law.

Please be advised that the Uniform Procedures Regulations (6 NYCRR Part 621) provide that an applicant may request a public hearing if a permit is denied or contains conditions which are unacceptable to them. Any such request must be made in writing within 30 calendar days of the date of permit issuance and must be addressed to the Regional Permit Administrator at the letterhead address. A copy should also be sent to the Chief Administrative Law Judge at NYSDEC, 625 Broadway, 1st Floor, Albany, NY 12233-1550.

Any questions regarding your annual pollutant discharge elimination fee should be directed to the Regulatory Fee Determination Unit at 1-800-225-2566.

If you have any questions, please feel free to contact me at (518) 357-2459.

Sincerely,

Kate Kornak

Kate Kornak
Division of Environmental Permits

encls: Responsiveness Summary, Fact Sheet, Permit
ecc: N. Baker, RPA
R. Leone, RE

R. Ostrov, RA
D. Thorsland, RWE
J. Malcolm, DOW
C. Smith, DOW
S. Mitchell, DOW
C. Lamb-LaFay, DOW
S. Vogler, DOW
C. Jamison, DOW
J. Hadersbeck, DER
T. LaGrimas, Tradebe
D. Monk, Tradebe
K. Huy, Tradebe
USEPA, Region II

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

State Pollutant Discharge Elimination System (SPDES)
DISCHARGE PERMIT

Industrial Code:	**4953/1422**	SPDES Number:	**NY0004880**
Discharge Class (CL):	**03**	DEC Number:	**4-0103-00016/000020**
Toxic Class (TX):	**T**	Effective Date (EDP):	**November 1, 2017**
Major Drainage Basin:	**12**	Expiration Date (ExDP):	**October 31, 2022**
Sub Drainage Basin:	**01**	Modification Dates: (EDPM)	
Water Index Number:	**H-240**		
Compact Area:			

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.)(hereinafter referred to as "the Act").

PERMITTEE NAME AND ADDRESS					
Name:	**Norlite LLC**	Attention:	**Darrell Monk**		
Street:	**628 Saratoga Street**				
City:	**Cohoes**	State:	**NY**	Zip Code:	**12047**

is authorized to discharge from the facility described below:

FACILITY NAME AND ADDRESS													
Name:	**Norlite LLC**												
Location (C,T,V):	**Cohoes (C)**							County:	**Albany**				
Facility Address:	**628 Saratoga Street**												
City:	**Cohoes**					State:	**NY**		Zip Code:	**12047**			
From Outfall No.:	**003**	at Latitude:	**42**	°	**45**	’	**14**	”	& Longitude:	**73**	°	**40**	’	**20**	”
into receiving waters known as:	**Salt Kill Creek (H-239)**								Class:	**D**					

and (list other Outfalls, Receiving Waters & Water Classifications)
See next page

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

DISCHARGE MONITORING REPORT (DMR) MAILING ADDRESS					
Mailing Name:	**Norlite LLC**				
Street:	**628 Saratoga Street**				
City:	**Cohoes**	State:	**NY**	Zip Code:	**12047**
Responsible Official or Agent:	**Darrell Monk**		Phone:	**(518) 235-0401**	

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
RWE
RPA
EPA Region 2

Regional Permit Administrator: Nancy Baker	
Address: 1130 North Westcott Rd. Schenectady, NY 12306	
Signature: Nancy M Baker	Date: 10/12/2017

OUTFALL SUMMARY

OUTFALL	DESCRIPTION	RECEIVING WATER / CLASS	LATITUDE LONGITUDE
003	Quarry Water	Salt Kill Creek (H-239) Class D	42° 45' 20" 73° 42' 22"
004	Shale Fines Leachate and Storm Runoff from Landfill Area	Salt Kill Creek (H-239) Class D	42° 45' 16" 73° 42' 05"
006	Treated Scrubber Blowdown, Boiler Blowdown, Trunnion Non-Contact Cooling Water, Treated Quarry Water	Mohawk River (H-240) Class C	42° 45' 34" 73° 41' 44"
06A	Treated Scrubber Blowdown, Boiler Blowdown	Internal	42° 45' 15" 73° 42' 19"
06C	Treated Outfall 006 Effluent at Manhole by Railroad Tracks	Mohawk River (H-240) Class C	42° 45' 33.25" 73° 42' 02.02"

PERMIT LIMITS, LEVELS AND MONITORING DEFINITIONS

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
	This cell describes the type of wastewater authorized for discharge. Examples include process or sanitary wastewater, storm water, non-contact cooling water.	This cell lists classified waters of the state to which the listed outfall discharges.	The date this page starts in effect. (e.g. EDP or EDPM)	The date this page is no longer in effect. (e.g. ExDP)

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQ.	SAMPLE TYPE
e.g. pH, TRC, Temperature, D.O.	The minimum level that must be maintained at all instants in time.	The maximum level that may not be exceeded at any instant in time.	SU, °F, mg/l, etc.	See below	See below

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL	COMPLIANCE LEVEL / ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE
	Limit types are defined below in Note 1. The effluent limit is developed based on the more stringent of technology-based limits, required under the Clean Water Act, or New York State water quality standards. The limit has been derived based on existing assumptions and rules. These assumptions include receiving water hardness, pH and temperature; rates of this and other discharges to the receiving stream; etc. If assumptions or rules change the limit may, after due process and modification of this permit, change.	For the purposes of compliance assessment, the permittee shall use the approved EPA analytical method with the lowest possible detection limit as promulgated under 40CFR Part 136 for the determination of the concentrations of parameters present in the sample unless otherwise specified. If a sample result is below the detection limit of the most sensitive method, compliance with the permit limit for that parameter was achieved. Monitoring results that are lower than this level must be reported, but shall not be used to determine compliance with the calculated limit. This Minimum Level (ML) can be neither lowered nor raised without a modification of this permit.	Action Levels are monitoring requirements, as defined below in Note 2, which trigger additional monitoring and permit review when exceeded.	This can include units of flow, pH, mass, temperature, or concentration. Examples include µg/l, lbs/d, etc.	Examples include Daily, 3/week, weekly, 2/month, monthly, quarterly, 2/yr and yearly. All monitoring periods (quarterly, semiannual, annual, etc) are based upon the calendar year unless otherwise specified in this Permit.	Examples include grab, 24 hour composite and 3 grab samples collected over a 6 hour period.

Notes:

1. EFFLUENT LIMIT TYPES:
   a. 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.
   b. DAILY MAX: The highest allowable daily discharge. DAILY MIN: The lowest allowable daily discharge.
   c. MONTHLY AVG: 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.
   d. 7 DAY ARITHMETIC MEAN (7 day average): The highest allowable average of daily discharges over a calendar week.
   e. 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.
   f. 7 DAY GEOMETRIC MEAN: The highest allowable geometric mean of daily discharges over a calendar week.
   g. RANGE: The minimum and maximum instantaneous measurements for the reporting period must remain between the two values shown.

2. ACTION LEVELS: Routine Action Level monitoring results, if not provided for on the Discharge Monitoring Report (DMR) form, shall be appended to the DMR for the period during which the sampling was conducted. If the additional monitoring requirement is triggered as noted below, the permittee shall undertake a short-term, high-intensity monitoring program for the parameter(s). Samples identical to those required for routine monitoring purposes shall be taken on each of at least three consecutive operating and discharging days and analyzed. Results shall be expressed in terms of both concentration and mass, and shall be submitted no later than the end of the third month following the month when the additional monitoring requirement was triggered. Results may be appended to the DMR or transmitted under separate cover to the same address. If levels higher than the Action Levels are confirmed, the permit may be reopened by the Department for consideration of revised Action Levels or effluent limits. The permittee is not authorized to discharge any of the listed parameters at levels which may cause or contribute to a violation of water quality standards.

PERMIT LIMITS, LEVELS AND MONITORING

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
003	Quarry Water	Salt Kill Creek	11/1/2017	10/31/2022

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Flow	Monitor	Monitor	-	-	MGD	Daily	Estimate	1
Chlorine, Total Residual	Monitor	19	20	-	µg/l	Weekly	Grab	
Solids, Total Suspended	25 210	45 370	-	-	mg/l lb/day	Weekly	Composite	
Solids, Settleable	Monitor	0.1	-	-	ml/l	Weekly	Grab	

FOOTNOTES: See page 10 of this Permit.

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
004	Shales Fines Leachate and Storm Runoff from Landfill Area	Salt Kill Creek	11/1/2017	10/31/2022

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	
Temperature	-	90	°F	Daily	Grab	

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Flow	Monitor	Monitor	-	-	MGD	Daily	Estimate	2
Chlorine, Total Residual	Monitor	19	20	-	µg/l	Daily	Grab	
Copper, Total	Monitor Monitor	18 0.0078	-	-	µg/l lb/day	Daily	Grab	
Solids, Total Suspended	25 11	45 19	-	-	mg/l lb/day	Daily	Composite	
Zinc, Total	Monitor Monitor	300 0.13	-	-	µg/l lb/day	Daily	Grab	
Whole Effluent Toxicity (WET) Testing								
WET - Acute Invertebrate	-	-	-	0.3	TUa	Quarterly	See footnote	3
WET - Acute Vertebrate	-	-	-	0.3	TUa	Quarterly	See footnote	3

FOOTNOTES: See page 10 of this Permit.

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
006	Treated Scrubber Blowdown, Boiler Blowdown, Trunnion Non-Contact Cooling Water and Plant Water	Mohawk River	11/1/2017	10/31/2022

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.5	8.5	SU	Daily	Grab	
Temperature	-	115	°F	Daily	Grab	4, 5
Dissolved Oxygen	7.0	-	mg/l	Daily	Grab	7
Oxidation/Reduction Potential (ORP)	Monitor	Monitor	mV	Continuous	Recorder	6, 7

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Flow	Monitor	Monitor	-	-	MGD	Continuous	Recorder	
Ammonia (as N): May 1 - Oct 31	1.2 1.2	Monitor Monitor	-	-	mg/l lb/day	Weekly	Grab	7
Ammonia (as N): Nov 1 - April 30	1.6 1.6	Monitor Monitor	-	-	mg/l lb/day	Weekly	Grab	7
BOD_5	Monitor Monitor	5.0 5.0	-	-	mg/l lb/day	2/Week	Grab	7
Cadmium, Total	Monitor Monitor	2.7 0.0027	-	-	µg/l lb/day	Daily	Grab	7
Chlorides	Monitor Monitor	Monitor Monitor	-	-	mg/l lb/day	Weekly	Grab	
Chlorine, Total Residual	Monitor Monitor	5.0 0.005	20 -	-	ug/l lb/day	Continuous	Recorder	6, 7
Copper, Total	Monitor Monitor	11 0.011	-	-	µg/l lb/day	Daily	Grab	7
Iron, Total	Monitor Monitor	1000 1.0	-	-	µg/l lb/day	Daily	Grab	7
Lead, Total	Monitor Monitor	6.0 0.0060	-	-	µg/l lb/day	Daily	Grab	7
Mercury, Total	Monitor	50	-	-	ng/l	Daily	Grab	7
Selenium, Total	Monitor Monitor	4.6 0.0046	-	-	µg/l lb/day	Daily	Grab	
Solids, Total Suspended	Monitor Monitor	66 66	-	-	mg/l lb/day	Daily	Grab	
Solids, Total Dissolved	Monitor Monitor	500 500	-	-	mg/l lb/day	Daily	Grab	7
Sulfates	Monitor Monitor	Monitor Monitor	-	-	mg/l lb/day	Weekly	Grab	

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Whole Effluent Toxicity (WET) Testing								
WET - Acute Invertebrate	-	-	-	0.3	TUa	Quarterly	See footnote	3
WET - Acute Vertebrate	-	-	-	0.3	TUa	Quarterly	See footnote	3
WET - Chronic Invertebrate	-	-	-	1.0	TUc	Quarterly	See footnote	3
WET - Chronic Vertebrate	-	-	-	1.0	TUc	Quarterly	See footnote	3

FOOTNOTES: See page 10 of this Permit.

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
06A	Treated Scrubber Blowdown, Boiler Blowdown, and Non-Contact Trunnion Cooling Water	Internal Outfall, 006	11/1/2017	10/31/2022

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Daily	Grab	

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Flow	Monitor	0.065	-	-	MGD	Daily	Recorded	
Arsenic, Total	72 Monitor	84 Monitor	-	-	µg/l lb/day	Daily	Grab	
Barium, Total	510 Monitor	1200 Monitor	-	-	µg/l lb/day	Daily	Grab	
Beryllium, Total	370 Monitor	820 Monitor	-	-	µg/l lb/day	Daily	Grab	
Cadmium, Total	26 Monitor	71 Monitor	-	-	µg/l lb/day	Daily	Grab	
Chromium, Total	14 Monitor	25 Monitor	-	-	µg/l lb/day	Daily	Grab	
Copper, Total	14 Monitor	23 Monitor	-	-	µg/l lb/day	Daily	Grab	7a
Iron, Total	610 Monitor	1200 Monitor	-	-	µg/l lb/day	Daily	Grab	7a
Lead, Total	32 Monitor	57 Monitor	-	-	µg/l lb/day	Daily	Grab	
Mercury, Total	Monitor Monitor	50 Monitor	-	-	ng/l g/day	Daily	Grab	7a
Nickel, Total	370 Monitor	550 Monitor	-	-	µg/l lb/day	Daily	Grab	
Silver, Total	8.0 Monitor	13 Monitor	-	-	µg/l lb/day	Daily	Grab	7a
Selenium, Total	Monitor Monitor	130 Monitor	-	-	µg/l lb/day	Daily	Grab	7a
Solids, Total Suspended	34 18	110 59	-	-	mg/l lb/day	Daily	Grab	
Titanium, Total	22 Monitor	60 Monitor	-	-	µg/l lb/day	Daily	Grab	7a
Zinc, Total	54 Monitor	82 Monitor	-	-	µg/l lb/day	Daily	Grab	

FOOTNOTES: See page 10 of this Permit.

OUTFALL	WASTEWATER TYPE	RECEIVING WATER	EFFECTIVE	EXPIRING
06C	Outfall 006 effluent measured at MH by railroad	Mohawk River	11/1/2017	10/31/2022

PARAMETER	MINIMUM	MAXIMUM	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FOOTNOTES (FN)
pH	6.0	9.0	SU	Weekly	Grab	
Temperature	Monitor	90	°F	Monthly	Grab	4

PARAMETER	EFFLUENT LIMIT or CALCULATED LEVEL		COMPLIANCE LEVEL/ ML	ACTION LEVEL	UNITS	SAMPLE FREQUENCY	SAMPLE TYPE	FN
	Monthly Avg	Daily Max						
Sulfide, Total	Monitor Monitor	2.7 0.0030	5.0 -	-	µg/l lb/day	Weekly	Grab	7b
Color (Apparent)	Monitor	Monitor	-	-	PCU	Weekly	Grab	8

FOOTNOTES: See page 10 of this Permit.

FOOTNOTES:

1. Estimate flow by multiplying pumping rate by the total time elapsed during discharge.

2. Estimate flow by using a bucket and stop watch when discharge occurs.

3. **Whole Effluent Toxicity (WET) Testing:**
Testing Requirements - WET testing shall consist of **Acute and if necessary Chronic**. WET 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 bracketing the IWC and including one exposure group of 100% effluent should be used to generate a definitive test endpoint, otherwise an immediate rerun of the test is 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) for **Outfall 004** is 0:1 for acute. The ratio of critical receiving water flow to discharge flow (i.e. dilution ratio) for **Outfall 006** is 0:1 for both acute and chronic.

Monitoring Period - WET testing shall be performed at the specified sample frequency during calendar years ending in 8 and 3. Outfall 004 operates intermittently, so the permittee may demonstrate compliance with sampling requirements by performing WET testing for four (4) consecutive quarters during which a discharge occurs.

Reporting - Toxicity Units shall be calculated and reported on the DMR as follows: TUa = (100)/(48 hr LC50) or (100)/(48 hr EC50) (note that Acute data is generated by both Acute and Chronic testing) and TUc = (100)/(NOEC) when Chronic testing has been performed or TUc = (TUa) x (10) when only Acute testing has been performed and is used to predict Chronic test results, where the 48 hr LC50 or 48 hr EC50 and NOEC are expressed in % effluent. This must be done for both species and using the Most Sensitive Endpoint (MSE) or the lowest NOEC and corresponding highest TUc. Report a TUa of 0.3 if there is no statistically significant toxicity in 100% effluent as compared to control.

The complete test report including all corresponding results, 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 to the Toxicity Testing Unit, Bureau of Watershed Assessment and Management, 625 Broadway, Fourth Floor, Albany, NY 12233-3502. A summary page of the test results for the invertebrate and vertebrate species indicating TUa, 48 hr LC50 or 48 hr EC50 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 Reduction Evaluation (TRE) in accordance with Department guidance. If such additional testing or performance of a TRE is necessary, the permittee shall be notified in writing by the Regional Water Engineer. The written notification shall include the reason(s) why such testing or a TRE is required.

4. The 115 °F limit applies at Outfall 006. The 90 °F limit applies at Outfall 06C manhole.

5. Plant Water shall be defined as that treated Quarry Water that is discharged through Outfall 006, to aid in the control of the temperature of the entire outfall.

6. The addition of sodium hypochlorite or equivalent shall be made whenever the ORP reading is unstable or falling below +100 toward zero or negative.

7. See Compliance Schedule on page 16.

a. See Compliance Schedule on page 17.
b. See Compliance Schedule on page 18.

8. PCU is defined as Platinum-Cobalt Units.

SPECIAL CONDITIONS – INDUSTRY BEST MANAGEMENT PRACTICES

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 completed BMP plan shall be submitted **WITHIN 6 MONTHS OF EDP** to the Regional Water Engineer. The BMP plan shall be implemented within 6 months of submission, unless a different time frame is approved by the Department. 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. All BMP plan revisions (with the exception of SWPPPs - see item (5.) below) must be submitted to the Regional Water Engineer within 30 days. Note that the permittee is not required to obtain Department approval of the BMP plan (or of any SWPPPs) unless notified otherwise. 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 Tables 6-10 of SPDES application Form NY-2C (available at http://www.dec.ny.gov/docs/permits_ej_operations_pdf/form2c.pdf) or that are required to be monitored for by the SPDES permit. **Particular attention shall be given to the following substance(s): mercury.**

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. **Additional USEPA guidance is available in EPA-833-F-06-026.**

   As a minimum, the plan shall include the following BMPs:

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

   Note that for some facilities, especially those with few employees, some of the above 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.

SPECIAL CONDITIONS – INDUSTRY BEST MANAGEMENT PRACTICES (continued)

5. **Stormwater Pollution Prevention Plans (SWPPPs) Required for Discharges of Stormwater From Construction Activity to Surface Waters** - As part of BMP #11, a SWPPP shall be developed prior to the initiation of any site disturbance of one acre or more of uncontaminated area. Uncontaminated area means soils or groundwater which are free of contamination by any toxic or non-conventional pollutants identified in Tables 6-10 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. SWPPPs are not required for discharges of stormwater from construction activity to groundwaters. The SWPPP shall conform to the *New York Standards and Specifications for Erosion and Sediment Control* and *New York State Stormwater Management Design Manual*, unless a variance has been obtained from the Regional Water Engineer, and to any local requirements. 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 also be submitted to the Regional Water Engineer if contamination, as defined above, is involved and the permittee must obtain a determination of any SPDES permit modifications and/or additional treatment which may be required prior to soil disturbance. Otherwise, the SWPPP shall be 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 a 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, nor are any additional permit fees incurred. SWPPPs must be developed and submitted 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.

MERCURY MINIMIZATION PROGRAM – Industrial Facilities

1. **General** - The permittee shall develop, implement, and maintain a Mercury Minimization Program (MMP) for those outfalls which have mercury effluent limits. The MMP is required because the permit limit exceeds the statewide water quality based effluent limit (WQBEL) of 0.70 nanograms/liter (ng/L) for Total Mercury. The goal of the MMP is to reduce mercury effluent levels in pursuit of the WQBEL. Note – the mercury-related requirements in this permit conform to the mercury Multiple Discharge Variance specified in NYSDEC policy *DOW 1.3.10*.

2. **MMP Elements** - The MMP shall be documented in narrative form and shall include any necessary drawings or maps. 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 shall include an on-going program consisting of: periodic monitoring; an acceptable control strategy which will become enforceable under this permit; and, submission of periodic status reports.

A. Monitoring - The permittee shall conduct periodic monitoring designed to quantify and, over time, track the reduction of mercury. Wastewater treatment plant influents and effluents, and other outfalls shall be monitored in accordance with the minimum frequency specified on the mercury permit limits page. Additionally, key locations in the wastewater and/or stormwater collection systems, and known or potential mercury sources, including raw materials, shall be monitored at the above frequency during the first year of the MMP. Monitoring of key locations and known/potential sources may be reduced during subsequent years if downstream outfalls have maintained mercury levels less than 50 ng/l during the previous year. Additional monitoring shall be completed as may be required elsewhere in this permit or upon Department request. Monitoring shall be coordinated so that the results can be effectively compared between internal locations and final outfalls.

All permit-related wastewater and stormwater mercury compliance point (outfall) monitoring shall be performed using EPA Method 1631. Use of EPA Method 1669 during sample collection is recommended. Unless otherwise specified, all samples should be grabs. Monitoring at influent and other locations tributary to compliance points may be performed using either EPA Methods 1631 or 245.7. Monitoring of raw materials, equipment, treatment residuals, and other non-wastewater/non-stormwater substances may be performed using other methods as appropriate.

B. Control Strategy - An acceptable control strategy is required for reducing mercury discharges via cost-effective measures, which may include, but is not limited to: source identification; replacement of mercury-containing equipment, materials, and products with mercury-free alternatives where environmentally preferable; more stringent control of tributary waste streams; remediation; and/or installation of new or improved treatment facilities. Required monitoring shall also be used, and supplemented as appropriate, to determine the most effective way to operate the wastewater treatment system(s) to ensure effective removal of mercury while maintaining compliance with other permit requirements.

C. Bulk Chemical Evaluation - For chemicals used at a rate which exceeds 1,000 gallons/year or 10,000 pounds/year, the permittee shall obtain a manufacturer's certificate of analysis and/or a notarized affidavit which describes the substances' mercury concentration and the detection limit achieved. The permittee shall only use bulk chemicals which contain <10 ppb mercury, if available. This requirement is only applicable to chemicals that would impact wastewater effluent.

C. Annual Status Report - An annual status report shall be submitted to the Regional Water Engineer and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, summarizing: (a) all MMP monitoring results for the previous year; (b) a list of known and potential mercury sources; (c) all action undertaken pursuant to the strategy during the previous year; (d) actions planned for the upcoming year; and, (e) progress toward the goal. The first annual status report is due one year after the permit is modified to include the MMP requirement and follow-up status reports are due annually thereafter. A file shall be maintained containing all MMP documentation which shall be available for review by NYSDEC representatives. Copies shall be provided upon request.

3. **MMP Modification** - The MMP shall be modified whenever: (a) changes at the facility or within the collection system increase the potential for mercury discharges; (b) actual discharges exceed 50 ng/L; (c) a letter from the Department identifies inadequacies in the MMP; or (d) pursuant to a permit modification.

DISCHARGE NOTIFICATION REQUIREMENTS

(a) Except as provided in (c) and (g) of these Discharge Notification Act requirements, the permittee shall install and maintain identification signs at all outfalls to surface waters listed in this permit. Such signs shall be installed before initiation of any discharge.

(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:

N.Y.S. PERMITTED DISCHARGE POINT

SPDES PERMIT No.: NY_____

OUTFALL No. :____

For information about this permitted discharge contact:

Permittee Name: _____

Permittee Contact: _____

Permittee Phone: ( ) - ### - ####

OR:

NYSDEC Division of Water Regional Office Address :

NYSDEC Division of Water Regional Phone: ( ) - ### -####

(e) For each discharge required to have a sign in accordance with a), the permittee shall, concurrent with the installation of the sign, provide a repository of copies of the Discharge Monitoring Reports (DMRs), as required by the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of this permit. This repository shall be open to the public, at a minimum, during normal daytime business hours. The repository may be at the business office repository of the permittee or at an off-premises location of its choice (such location shall be the village, town, city or county clerk's office, the local library or other location as approved by the Department). In accordance with the **RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS** page of your permit, each DMR shall be maintained 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.

DISCHARGE NOTIFICATION REQUIREMENTS (continued)

(g) All requirements of the Discharge Notification Act, including public repository requirements, are waived for any outfall meeting any of the following circumstances, provided Department notification is made in accordance with (h) below:

(i) such sign would be inconsistent with any other state or federal statute;

(ii) the Discharge Notification Requirements contained herein would require that such sign could only be located in an area that is damaged by ice or flooding due to a one-year storm or storms of less severity;

(iii) instances in which the outfall to the receiving water is located on private or government property which is restricted to the public through fencing, patrolling, or other control mechanisms. Property which is posted only, without additional control mechanisms, does not qualify for this provision;

(iv) instances where the outfall pipe or channel discharges to another outfall pipe or channel, before discharge to a receiving water; or

(v) instances in which the discharge from the outfall is located in the receiving water, two-hundred or more feet from the shoreline of the receiving water.

(h) If the permittee believes that any outfall which discharges wastewater from the permitted facility meets any of the waiver criteria listed in (g) above, notification (form enclosed) must be made to the Department's Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, of such fact, and, provided there is no objection by the Department, a sign and DMR repository for the involved outfall(s) are not required. This notification must include the facility's name, address, telephone number, contact, permit number, outfall number(s), and reason why such outfall(s) is waived from the requirements of discharge notification. The Department may evaluate the applicability of a waiver at any time, and take appropriate measures to assure that the ECL and associated regulations are complied with.

SCHEDULE OF COMPLIANCE

a) The permittee shall comply with the following schedule:

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
006	ORP- *Existing equipment shall be kept in operation until new equipment is online.*	Permittee shall install new ORP monitoring equipment and commence operation.	EDP + 12 months
006	DO – *Monitor* Ammonia (as N) - *120 mg/l monthly average* BOD5 – *Monitor* Cadmium – *Monitor* TRC - *51 ug/l monthly average, 75 ug/l daily maximum* Total Copper -*0.064 lb/day daily maximum* Total Iron - *2.9 lb/day daily maximum* Total Lead - *0.019 lb/day daily maximum* Total Mercury- *160 ng/l daily maximum* TDS - *18,000 mg/l monthly avg; 24,000 mg/l daily max*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required. Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution. *The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.* Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate. Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution). Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval. Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	EDP + 3 months EDP + 5 months N/A Department Approval of Approach + 3 months Department Approval of Report + 15 days EDPM + 3 months Department Approval of Report + 2 years

***** As defined in 6 NYCRR 750-1.2 (a)(8) consistent with the applicable law.

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
06A	Total Silver- *Monitor* Total Titanium- *Monitor*	Meet permit limit	EDP + 3 months
06A	Total Copper - *120 ug/l,* *0.064 lb/day daily max* Total Iron - *5,400 ug/l,* *2.9 lb/day, daily max* Total Mercury- *160 ng/l daily max*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required.	EDP + 3 months
		Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.	EDP + 5 months
		The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.	N/A
		Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate.	Department Approval of Approach + 3 months
		Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution).	Department Approval of Report + 15 days
		Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval.	EDPM + 3 months
		Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	Department Approval of Report + 2 years

***** As defined in 6 NYCRR 750-1.2 (a)(8) consistent with the applicable law.

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
06C	Total Sulfide – *Monitor*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required.	EDP + 3 months
		Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.	EDP + 5 months
		The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.	N/A
		Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate.	Department Approval of Approach + 3 months
		Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution).	Department Approval of Report + 15 days
		Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval.	EDPM + 3 months
		Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	Department Approval of Report + 2 years

b) For any action where the compliance date is greater than 9 months past the previous compliance due date, the permittee shall submit interim progress reports to the Department every nine (9) months until the due date for these compliance items are met.

c) 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. A description or any factors which tend to explain or mitigate the 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.

d) The permittee shall submit copies of any document required by the above schedule of compliance to the NYSDEC Regional Water Engineer at the location listed under the section of this permit entitled RECORDING, REPORTING AND ADDITIONAL MONITORING REQUIREMENTS and to the Bureau of Water Permits, 625 Broadway, Albany, N.Y. 12233-3505, unless otherwise specified in this permit or in writing by the Department.

SCHEDULE OF SUBMITTALS

a) The permittee shall submit the following information to the Regional Water Engineer at the address listed on the Recording, Reporting and Monitoring page of this Permit, and to the Bureau of Water Permits, 625 Broadway, Albany NY 12233-3505:

Outfall (s)	Parameter(s) Affected	Required Action	Due Date
006, 06C	None	Permittee shall develop an approvable* Plan to inspect the condition of the effluent pipe. Plan shall include condition assessments of the portion of the effluent pipe owned by permittee. Plan shall pre-define metrics that will be used in the condition assessment.	EDP + 9 months
		Permittee shall submit an approvable* Report summarizing the results of the condition assessments. The Report shall identify all conditions that may be a result of permittee's effluent and all conditions that are a result of natural conditions (e.g. pipe damage from heaving). The Report shall identify necessary repairs and include a schedule for improvements.	Plan Approval + 12 months
006, 06A	Mercury	Permittee shall submit annual report as required by MMP.	EDP + 12 months EDP + 24 months Annually thereafter

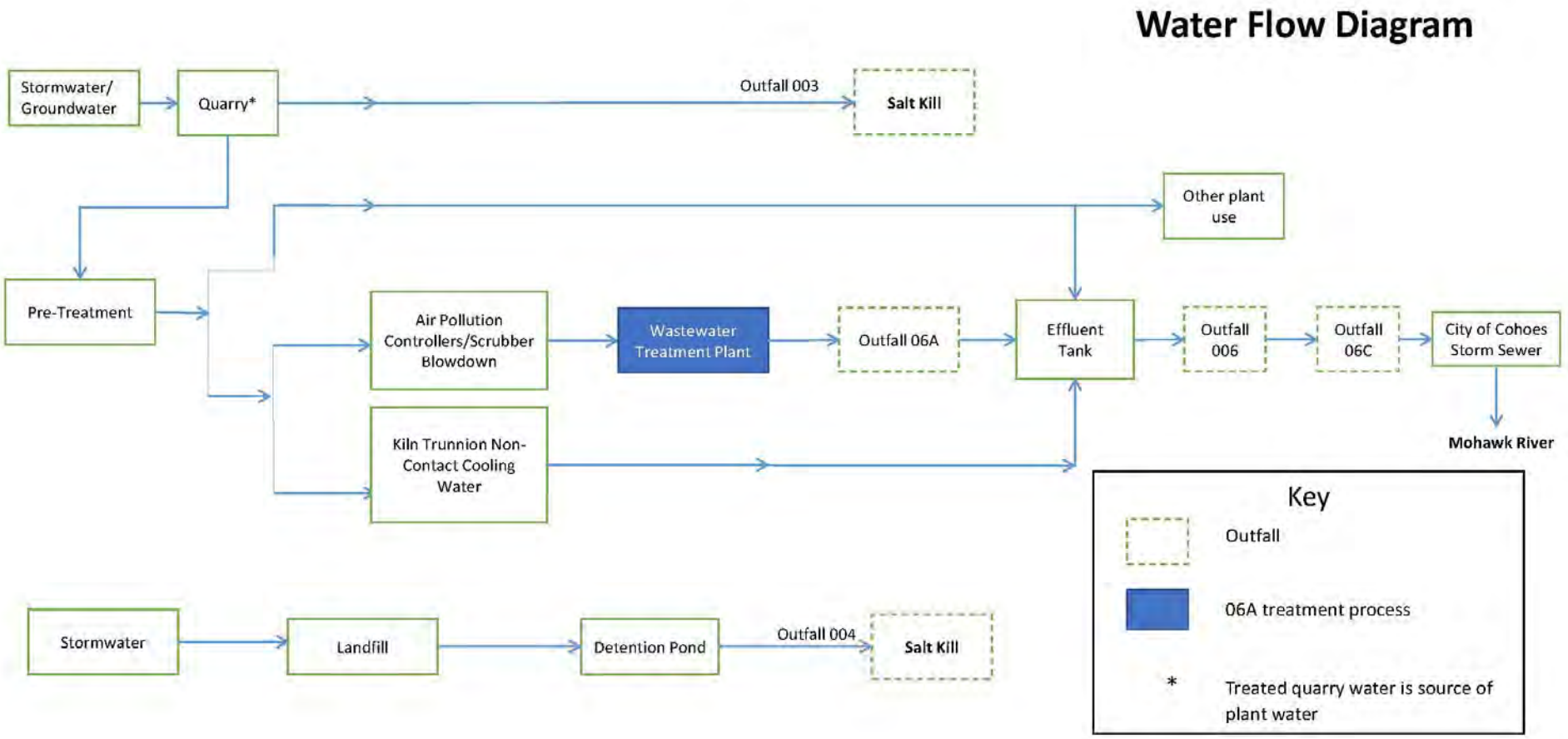
b) Unless noted otherwise, the above actions are one time requirements. The permittee shall submit the results of the above actions to the satisfaction of the Department. When this permit is administratively renewed by NYSDEC letter entitled "SPDES NOTICE/RENEWAL APPLICATION/PERMIT", the permittee is not required to repeat the above submittal(s), unless noted otherwise. The above due dates are independent from the effective date of the permit stated in the letter of "SPDES NOTICE/RENEWAL APPLICATION/PERMIT."

***** As defined in 6 NYCRR 750-1.2 (a)(8) consistent with the applicable law.

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:

Outfall 003: Sampling point shall be at valve above discharge point.
Outfall 004: Sampling point shall be at manhole located at approximately 42°45'15.48"N, 73°42'8.24"W.
Internal Outfall 06A: Samples shall be taken post-carbon filters, prior to Tanks A or B.
Outfall 006: Samples shall be taken from sampling valves for either Tank A or Tank B, depending on treatment plant operations.
Outfall 06C: Sampling point shall be at manhole located at approximately 42°45'33.25"N, 73°42'2.02"W.



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 I as follows:.

B. General Conditions

1. Duty to comply	6NYCRR Part 750-2.1(e) & 2.4
2. Duty to reapply	6NYCRR Part 750-1.16(a)
3. Need to halt or reduce activity not a defense	6NYCRR Part 750-2.1(g)
4. Duty to mitigate	6NYCRR Part 750-2.7(f)
5. Permit actions	6NYCRR Part 750-1.1(c), 1.18, 1.20 & 2.1(h)
6. Property rights	6NYCRR Part 750-2.2(b)
7. Duty to provide information	6NYCRR Part 750-2.1(i)
8. Inspection and entry	6NYCRR Part 750-2.1(a) & 2.3

C. Operation and Maintenance

1. Proper Operation & Maintenance	6NYCRR Part 750-2.8
2. Bypass	6NYCRR Part 750-1.2(a)(17), 2.8(b) & 2.7
3. Upset	6NYCRR Part 750-1.2(a)(94) & 2.8(c)

D. Monitoring and Records

1. Monitoring and records	6NYCRR Part 750-2.5(a)(2), 2.5(c)(1), 2.5(c)(2), 2.5(d) & 2.5(a)(6)
2. Signatory requirements	6NYCRR Part 750-1.8 & 2.5(b)

E. Reporting Requirements

1. Reporting requirements	6NYCRR Part 750-2.5, 2.6, 2.7 & 1.17
2. Anticipated noncompliance	6NYCRR Part 750-2.7(a)
3. Transfers	6NYCRR Part 750-1.17
4. Monitoring reports	6NYCRR Part 750-2.5(e)
5. Compliance schedules	6NYCRR Part 750-1.14(d)
6. 24-hour reporting	6NYCRR Part 750-2.7(c) & (d)
7. Other noncompliance	6NYCRR Part 750-2.7(e)
8. Other information	6NYCRR Part 750-2.1(f)
9. Additional conditions applicable to a POTW	6NYCRR Part 750-2.9
10. Special reporting requirements for discharges that are not POTWs	6NYCRR Part 750-2.6

F. Planned Changes

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

    a. The alteration or addition to the permitted facility may meet of the criteria for determining whether facility is a new source in 40 CFR §122.29(b); or
    b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, or to notification requirements under 40 CFR §122.42(a)(1); or
    c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

    In addition to the Department, the permittee shall submit a copy of this notice to the United States Environmental Protection Agency at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

GENERAL REQUIREMENTS continued

G. Notification Requirement for POTWs

1. All POTWs shall provide adequate notice to the Department and the USEPA of the following:
   a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging those pollutants; or
   b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
   c. For the purposes of this paragraph, adequate notice shall include information on:
      i. the quality and quantity of effluent introduced into the POTW, and
      ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

POTWs shall submit a copy of this notice to the United States Environmental Protection Agency, at the following address: U.S. EPA Region 2, Clean Water Regulatory Branch, 290 Broadway, 24th Floor, New York, NY 10007-1866.

H. Sludge Management

The permittee shall comply with all applicable requirements of 6 NYCRR Part 360.

I. 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.

J. 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 in writing 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 that 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 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 summarized, signed and 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. **Also, monitoring information required by this permit shall be summarized and reported by submitting;**

[X] (if box is checked) completed and signed Discharge Monitoring Report (DMR) forms for each 1 month reporting period to the locations specified below. Blank forms are available at the Department's Albany office listed below. The first reporting period begins on the effective date of this permit and the reports will be due no later than the 28th day of the month following the end of each reporting period.

[ ] (if box is checked) an annual report to the Regional Water Engineer at the address specified below. The annual report is due by February 1 each year and must summarize information for January to December of the previous year in a format acceptable to the Department.

[ ] (if box is checked) a monthly "Wastewater Facility Operation Report..." (form 92-15-7) to the:
[ ] Regional Water Engineer and/or [ ] County Health Department or Environmental Control Agency specified below

Send the **original** (top sheet) of each DMR page to:
Department of Environmental Conservation
Division of Water, Bureau of Water Compliance
625 Broadway
Albany, New York 12233-3506

Phone: (518) 402-8177

Send the **first copy** (second sheet) of each DMR page to:
Department of Environmental Conservation
Regional Water Engineer, Region 4
1130 North Westcott Road
Schenectady, New York 12306-2014

Phone: (518) 357-2045

Send an **additional copy** of each DMR page to:

B. Monitoring and analysis shall be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit.

C. 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.

D. Calculations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

E. 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.

F. 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.

Industrial SPDES Permit Fact Sheet

I. SUMMARY OF PERMIT CHANGES

The above-referenced State Pollutant Discharge Elimination System (SPDES) permit has been renewed and modified via the Environmental Benefit Permit Strategy (EBPS) program. The following is a summary of changes in the current permit as compared to the previously-issued permit. The details of these changes are specified below and included in the permit:

-Submittal of an Approvable Engineering Report for effluent pipe condition assessment.

-Submittal of an Approvable Engineering Report for outfall improvements and wastewater treatment system upgrades.

Outfall 003
-New limits for settleable solids and total residual chlorine;
-New mass limit for total suspended solids.

Outfall 004
-New limits for pH, total residual chlorine, total suspended solids, and copper;
-Removal of sampling requirements for cadmium, total chromium, hexavalent chromium, lead, and nickel;
-Addition of WET action levels.

Outfall 006
-Addition of concentration limits to total suspended solids;
-Addition of monitoring requirements for chlorides and sulfates;
-New limits for ammonia (as N), total residual chlorine, total dissolved solids, cadmium, copper, iron, lead, mercury, and selenium;
-Addition of WET action levels.

Outfall 06A
-New limits for arsenic, barium, beryllium, cadmium, total chromium, copper, iron, lead, mercury, nickel, silver, selenium, titanium, zinc, total suspended solids, and pH;
-Addition of flow limit;
-Removal of mass limits for arsenic, barium, beryllium, cadmium, total chromium, copper, iron, lead, mercury, nickel, silver, selenium, titanium, and zinc.

Outfall 06B
-No longer used.

Outfall 06C
-Designation of new sampling point;
-New limit for total sulfide;
-New monitoring requirements for temperature and apparent color.

Outfall 007
-No longer used.

Outfall 008
-No longer used.

Please note that when the Department updates a permit this typically includes updated forms incorporating the latest general conditions.

II. BACKGROUND INFORMATION

As noted throughout this document, SPDES permits are based on both federal and state requirements including laws, regulations, policies, and guidance. These references can generally be found on the internet. Current locations include: Clean Water Act (CWA) *www.epa.gov/lawsregs/laws/index.html#env*; Environmental Conservation Law (ECL) *www.dec.ny.gov/regulations/40195.html*; federal regulations *www.gpo.gov/fdsys/browse/collectionCfr.action? collectionCode=CFR*; state environmental regulations *www.dec.ny.gov/regulations/regulations.html*; and, NYSDEC water policy, often referred to as Technical and Operational Guidance Series memos (TOGS), *www.dec.ny.gov/regulations/2654.html*.

A. Administrative History

The previous SPDES permit for the facility became effective on February 1, 2007 and expired on January 31, 2012. A SPDES Modification request was received by the Department on September 20, 2007. Review of the modification request was suspended on January 16, 2008 by mutual agreement with the permittee. The Department sent the permittee a Request for Information dated April 1, 2009 with a response due June 30, 2009. The Department received an incomplete NY-2C permit application form dated June 30, 2009. The missing information was subsequently submitted in a July 17, 2009 dated letter.

A SPDES Renewal request was received from permittee on July 28, 2011. Review of this renewal application was suspended by the Department on August 11, 2011 due to the need for SPDES EBPS technical review. The permit has been SAPA extended since January 31, 2012 because the renewal application was received more than 180 days prior to this expiration date.

The Department has issued a modification to the facility's SPDES permit, pursuant to 6 NYCRR Part 750-1.18 & 750-1.19, which details the priority ranking system also known as New York State's Environmental Benefit Permit Strategy (EBPS).

B. Outfall and Receiving Water Information

The facility discharges wastewater and/or stormwater to waters of the state via the following outfalls:

Outfall 003 – Quarry water. Treatment is provided for this outfall and consists of settling for removal of solids.

Outfall 004 – Shale fines leachate and stormwater runoff. Treatment is not provided for this outfall.

Outfall 06A – Internal outfall; treated scrubber blowdown and boiler blowdown. Treatment is provided for this outfall and consists of chemical addition, precipitation, and sulfide impregnated carbon filtration for removal of metals.

Outfall 06B—This outfall formerly provided cooling water to Outfall 06A effluent but has been capped and is no longer used.

Outfall 006 – Outfall 06A; treated scrubber blowdown, boiler blowdown, trunnion non-contact cooling water, and plant water. Treatment is provided for this outfall at internal Outfall 06A.

Outfall 06C – New outfall; sampling location downstream of Outfall 006 at a manhole by railroad tracks; consists of treated Outfall 006 effluent.

Outfall 007 – Permittee requested this outfall be removed and the request was granted as the stormwater runoff from this area is collected/pumped to the quarry (discharges through Outfall 003).

Outfall 008 – Permittee requested this outfall be removed and the request was granted.

The location of the outfall(s), and the name, classification, and index numbers of the receiving waters are indicated in the *Outfall & Receiving Water Location Table* at the end of this fact sheet. The classifications of individual surface waters are specified in 6 NYCRR Parts 800 – 941. The best uses and other requirements applicable to the specific water classes are specified in 6 NYCRR Part 701.

The 7Q10 flow for the Mohawk was obtained from USGS Streamgage Statistics, Station # 01357500, Mohawk River at Cohoes, NY. The 7Q10 at the discharge location is approximately equal to the 10^{th} percentile of weekly flow data at 212.7 cubic feet per second (cfs); 90 percent of weekly flows exceed the estimated 7Q10. The Mohawk River flows over Cohoes Falls and reaches the "Sprouts of the Mohawk," where multiple channels split off from the main river. There are three outlets from the sprouts that feed directly into the Hudson River and the permittee discharges to the southern-most branch. The flow through each outlet was estimated using the USGS station gage and a ratio of drainage basins obtained through USGS Streamstats. The 30Q10 flow was estimated by applying a multiplier of 1.2 to the 7Q10 flow.

Given the large 7Q10 and relatively small discharge, the permittee could receive a maximum dilution of 100:1. However, due to the poor location of the permittee's outfall (shoreline discharge) and oversized discharge pipe (36-inch diameter pipe), the effluent does not achieve adequate mixing. CORMIX modeling and field observations indicate ambient intrusion into the discharge pipe (i.e. river water entering) and this prevents "rapid and complete mixing" as defined by EPA.

Mixing zone analyses are conducted in accordance with the following documents: EPA T.S.D, entitled "Water Quality Based Toxics Control," dated March, 1991; EPA Region VIII "Mixing Zones and Dilution Policy", dated December, 1994; NYSDEC TOGS 1.3.1, entitled "Total Maximum Daily Loads and Water Quality Based Effluent Limits." Other critical receiving water data for temperature, pH, hardness and/or salinity were based on Department monitoring via the Rotating Integrated Basin Studies (RIBS) program. Where applicable, background data was incorporated into WQBEL determinations. This flow information is listed in the *Pollutant Summary Table* at the end of this fact sheet together with applicable ambient water quality criteria, ambient background data (if available), and outfall pollutant data.

Impaired Waterbody Information – The CWA requires states to identify impaired waters, where designated uses are not fully supported. For these impaired waters/pollutants, states must consider the development of a Total Maximum Daily Load (TMDL) or other strategy to reduce the input of the specific pollutant(s) restricting waterbody uses. As of July 2010, this stretch of the Mohawk River (1201-0085) is listed as having minor impacts. Aquatic life and habitat/hydrology are suspected of stress from ammonia, nutrients (phosphorus), pathogens, and silt/sediments.

The overview from PWL reads: Aquatic life support and recreational uses (fishing, swimming) in this portion of the Mohawk River, are affected by silt/sediment loads, elevated nutrient concentrations and pathogens. Urban runoff and municipal CSOs are considered the primary sources. Although there is no agriculture along this reach of the river, nonpoint source loadings from agricultural activities throughout the basin are also thought to contribute to impacts in this reach. Hydro modification and flow diversions also impact water uses.

NYSDEC Rotating Intensive Basin Studies (RIBS) Routine Network monitoring (water chemistry) of the Mohawk River in Cohoes, Albany County, is conducted annually at the Route 32 bridge. In addition, when RIBS Intensive Network monitoring is conducted in a targeted basin every five years, additional sampling methods are employed to gain an overall assessment of water quality; such sampling was last conducted at this site in 2006. Intensive Network sampling typically includes macroinvertebrate community analysis, water column chemistry, toxicity testing, sediment assessment and macroinvertebrate tissue analysis. Biological (macroinvertebrate) sampling using multiplate samplers indicated non- to slightly impacted conditions. Water column chemistry indicates iron to be present at levels that constitute a parameter of concern. However, iron is considered to be naturally occurring and not a source of water quality impacts. Dissolved aluminum and water temperature both exceeded assessment criteria in one of 6 samples, but median values for these parameters are well below applicable criteria. Toxicity testing using water from this location detected no mortality or reproductive effects on the test organism. Sediment screening for acute toxicity indicated slight sediment toxicity and no pore water toxicity was indicated. Bottom sediments analysis based on sediment quality guidelines developed for freshwater ecosystems revealed overall sediment quality is not likely to cause chronic toxicity to sediment-dwelling organisms, although PCB, PAHs, pesticides and metals levels were found to be somewhat elevated. Based on the consensus of these established assessment indicators, overall water quality at this site shows that in spite of some concerns that should continue to be monitored, aquatic life and recreational uses are considered to be fully supported in the stream, and there are no other apparent water quality impacts to recreational uses. (DEC/DOW, BWAM/RIBS, January 2010)

C. Discharge Composition

The *Pollutant Summary Table* at the end of this fact sheet presents the existing effluent quality of the facility. Concentration and mass data are presented, based on Discharge Monitoring Report (DMR), permit application, and possibly other data submitted by the permittee for the period July 1, 2009 to June 30, 2015. The statistical methods utilized to calculate 95th and 99th percentiles are 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. Statistical calculations were not performed for parameters with insufficient data. Generally, ten or more data points are needed to calculate percentiles (See TOGS 1.2.1 Appendix D). Non-detects were excluded from the statistical calculations.

D. Compliance History

A review of the facility's DMRs and other published compliance information from July 31, 2012 to June 30, 2015 indicates that the facility had the following violations:

Outfall	Parameter	Permit Limit	Reported Value	Date
003	pH	6.0-9.0 SU	9.1 SU	June 30, 2017
004	Hexavalent Cr	0.016 mg/l	0.02 mg/l	June 30, 2017
006	pH	6.0-9.0 SU	5.0 SU	December 31, 2013
006	Total Suspended Solids	66 lb/day	68 lb/day	November 30, 2013
006	Temperature	90 deg. F	91 deg. F	August 1, 2016
06A	Total Iron	2.88 lb/day	3.98 lb/day	March 31, 2013

III. PROPOSED PERMIT REQUIREMENTS

Sections 101, 301(b), 304, 308, 401, 402, and 405 of the CWA and Titles 5, 7, and 8 of Article 17 ECL provide the basis for the effluent limitations and other conditions in the draft permit. The NYSDEC evaluates discharges with respect to these sections of the CWA, ECL, and the relevant federal/state regulations, policy, and guidance to determine which conditions to include in the draft permit.

For existing permittees, the previous permit typically forms the basis for the next permit. Permit revisions are implemented where justified due to changed conditions at the facility and/or in response to updated regulatory requirements.

A. Effluent Limitations

If applicable, the existing permit limits are evaluated to determine if these should be continued, revised, or deleted. Generally, existing limits are continued unless there is justification to do otherwise. Other pollutant monitoring data are also reviewed to determine the presence of additional contaminants that should be included in the permit.

The permit writer determines the **Technology-Based Effluent Limits (TBELs)** that must be incorporated into the permit. A TBEL requires a minimum level of treatment for industrial point sources based on currently available treatment technologies and/or Best Management Practices (BMPs). The Department 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 to occur, W**ater Quality-Based Effluent Limits (WQBELs)** must be included in the permit. A WQBEL is designed to ensure that the water quality standards of receiving waters are being met. In general, the CWA requires that the effluent limits for a particular pollutant are the more stringent of either the TBEL or WQBEL.

1. TBELs & Anti-Backsliding:

CWA sections 301(b) and 402, ECL sections 17-0509, 17-0809 and 17-0811, and 6 NYCRR Part 750-1.11 require technology-based controls on effluents. A TBEL is 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 Best Professional Judgment (BPJ). BPJ limits may be set using any reasonable method that takes into consideration the criteria set forth in 40 CFR 125.3.

In many cases, BPT, BCT, BAT and NSPS limitations are based on effluent guidelines developed by USEPA for specific industries. For this facility, there are effluent guidelines in the Waste Combustors Point Source category, Subpart A—Commercial Hazardous Waste Combustor subcategory that apply. The applicable regulations are 40 CFR 444 and 444.13, respectively. These regulations require the monitoring and limitation of TSS, arsenic, cadmium, chromium, copper, lead, mercury, silver, titanium, zinc and pH. USEPA has not yet promulgated effluent limits or monitoring requirements for the Lightweight Aggregates Subcategory, so outfalls 003 and 004 have no categorical limits. Specific effluent limits for these pollutants are identified below and in the *Summary Table* at the end of this fact sheet.

For facilities that are subject to effluent guidelines and have substances in their discharges that are not explicitly limited by the regulations, or for industrial sectors for which there are no applicable effluent guidelines in 40 CFR 402-471, the permit writer is authorized to use BPJ in developing TBELs. The authority for BPJ is contained in Section 402(a)(1) of the CWA, which authorizes the Department to issue a permit containing "such conditions as the Administrator determines are necessary to carry out the provisions of the Act." The NPDES regulations in 40 CFR 125.3 state that permits developed on a case-by-case basis under Section 402(a)(1) of the CWA must consider: The appropriate technology for the category class of point sources, of which the applicant is a member, based on available information; and, any unique factors relating to the applicant. Applicable state regulations include 6 NYCRR Part 750-1.11.

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 Part 750-1.10. These requirements are summarized in TOGS 1.2.1. Generally, the regulations prohibit the relaxation of effluent limits in reissued permits unless one of the specified exceptions applies. In practice, limits in reissued permits will generally be no less stringent than

previous permit limits to ensure compliance with anti-backsliding requirements. Otherwise, the specific exceptions that allow backsliding will be cited on a case-by-case basis.

The following is the TBEL & Anti-backsliding assessment for each pollutant present in the discharge(s). A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

Pollutant-Specific TBEL & Anti-Backsliding Analysis:

Outfall 003

Mass limits were developed using the reported maximum flow of 1.0 MGD.

Flow – Monitoring is required for informational purposes.

pH range – Consistent with 40 CFR §436 Subpart B, TOGS 1.2.1 Attachment C, and the previous permit, the required effluent pH range is 6.0 to 9.0 standard units (SU).

Mercury – See WQBEL section below.

Residual Chlorine, Total – See WQBEL section below.

Solids, Total Suspended – In accordance with Anti-backsliding provisions of 40 CFR §122.44, the proposed TBEL remains 25/45 mg/l and new corresponding mass limit of 210/370 lb/day.

Solids, Settleable – In accordance with TOGS 1.2.1, Attachment C – Model Technology BPJ Limits, a TBEL of 0.1 ml/l daily max is proposed.

Total recoverable phenolics, chloride, TDS, nitrate nitrogen, TKN, organic nitrogen, and phosphorus were detected at levels which do not justify routine monitoring.

Outfall 004

Mass limits were developed using the reported average flow of 0.052 MGD.

Flow – Monitoring is required for informational purposes.

pH range – Consistent with TOGS 1.2.1 Attachment C and the previous permit, the required effluent pH range is 6.0 to 9.0 standard units (SU).

Temperature – In accordance with anti-backsliding provisions of 40 CFR §122.44, the TBEL remains a daily maximum of 90°F.

Cadmium—The average and maximum concentrations are <0.002 and 0.002 mg/l, respectively. This is less than both the TBEL of 0.004 mg/l and the WQBEL of 0.0041 mg/l. The sampling requirement is suspended.

Chromium, Hexavalent – The average and maximum concentrations are <0.01 and 0.01 mg/l, respectively. This is less than both the TBEL of 0.016 mg/l and the WQBEL of 0.016 mg/l. Furthermore, the average and maximum concentrations for total chromium are less than the concentration of hexavalent chromium. The sampling requirement is suspended.

Chromium, Total – The average and maximum concentrations are <0.005 and 0.005 mg/l, respectively. This is less than both the TBEL of 1.8 mg/l and the WQBEL of 1.4 mg/l. The sampling requirement is suspended.

Copper – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, the proposed TBEL remains 18 µg/l with a mass limit of 0.0078 lb/day.

Lead – The average and maximum concentrations are <0.018 and 0.02 mg/l, respectively. This is less than both the TBEL of 0.080mg/l and the WQBEL of 0.097 mg/l. The sampling requirement is suspended.

Mercury – See WQBEL section below.

Nickel – The average and maximum concentrations are <0.015 and 0.015 mg/l, respectively. This is less than both the TBEL of 1.8 mg/l and the WQBEL of 1.4 mg/l. The sampling requirement is suspended.

Residual Chlorine, Total – See WQBELs.

Solids, Total Suspended – In accordance with anti-backsliding provisions of 40 CFR §122.44, the proposed TBEL remains 25/45 mg/l and new corresponding mass limit of 11/19 lb/day.

Zinc – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, the proposed TBEL remains a daily maximum of 300.0 µg/l and 0.13 lb/day. See WQBELs.

Arsenic, chlorides, selenium, BOD, COD, TKN, organic nitrogen, and phosphorus were detected at levels that do not support routine monitoring.

Outfall 06A

The maximum flow given in application is 0.065 MGD; the maximum flow reported in the 36 month DMR coverage is 0.54 MGD. Removing the outlier (0.54 MGD) drops the maximum flow to 0.064 MGD. Mass limits were developed using a maximum flow of 0.064 MGD.

Flow – A flow limit of 0.065 MGD is proposed.

pH range – In accordance with 40 CFR §444, the TBEL range for pH is 6.0 – 9.0 su.

Ammonia (as N)—Ammonia was detected at concentrations up to 135 mg/l in the effluent during recent sampling. The Department has agreed to increase the sampling frequency at Outfall 006 in lieu of a technology limit at Outfall 06A upon consideration of the low WQBEL at Outfall 006. If Outfall 006 were to be modified in the future such that the Outfall 006 WQBEL were to change, the Department may institute a 20 mg/l TBEL at Outfall 06A.

Arsenic – In accordance with 40 CFR Part 444, the TBEL concentration limits are 72 µg/l monthly average and 84 µg/l daily maximum. The mass loading effluent limit of 0.11 lbs/day from the previous permit is no longer necessary as the permittee has accepted a flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Barium – In accordance with TOGS 1.2.1 Attachment C – Model Technology BPJ Limits, the TBEL concentration effluent limits are 0.51 mg/l monthly average and 1.2 mg/l daily maximum. The mass loading effluent limit of 2.88 lbs/day from the previous permit is no longer necessary as the permittee has accepted a flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Beryllium – In accordance with TOGS 1.2.1 Attachment C – Model Technology BPJ Limits, the TBEL concentration effluent limits are 0.37 mg/l monthly average and 0.82 mg/l daily maximum. The mass loading effluent limit of 0.04 lbs/day from the previous permit is no longer necessary as the permittee has accepted a flow limit. A monthly average monitoring requirement is also included per best professional judgement.

BOD5—BOD5 was detected in the effluent at concentrations up to 467 mg/l during recent sampling. The Department has agreed to increase the sampling frequency at Outfall 006 in lieu of a technology limit at Outfall 06A upon consideration of the low WQBEL at Outfall 006. If Outfall 006 were to be modified in the future such that the Outfall 006 WQBEL were to change then the Department may institute TBELs of 30 mg/l avg and 45 mg/l max at Outfall 06A.

Cadmium – In accordance with 40 CFR Part 444, the TBEL concentration limits are 26 µg/l monthly average and 71 µg/l daily maximum. The mass loading effluent limit of 0.04 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Chromium, Total – In accordance with 40 CFR Part 444, the TBEL concentration limits are 14 µg/l monthly average and 25 µg/l daily maximum. The mass loading effluent limit of 0.14 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Copper – Copper is a categorical parameter. In accordance with 40 CFR Part 444, the TBEL concentration limits are 14 µg/l monthly average and 23 µg/l daily maximum. The mass loading effluent limit of 0.66 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Iron – In accordance with TOGS 1.2.1 Attachment C – Model Technology BPJ Limits, the TBEL concentration effluent limits are 0.61 mg/l monthly average and 1.2 mg/l daily maximum. The mass loading effluent limit of 2.88 lbs/day from the previous permit is no longer necessary as the permittee has accepted a flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Lead – In accordance with 40 CFR Part 444, the TBEL concentration limits are 32 µg/l monthly average and 57 µg/l daily maximum. The mass loading effluent limit of 0.43 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Nickel – In accordance with TOGS 1.2.1 Attachment C – Model Technology BPJ Limits, the TBEL concentration effluent limits are 0.37 mg/l monthly average and 0.55 mg/l daily maximum. The mass loading effluent limit of 0.94 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Mercury – In accordance with 40 CFR §444**,** TBEL limits for mercury are 1.3/2.3 µg/l and M/M lb/day, daily max. The mass loading effluent limit of 0.04 lbs/day from the previous permit is no longer necessary due to the new flow limit. See WQBELs.

Silver – In accordance with 40 CFR Part 444, the TBEL concentration limits are 8 µg/l monthly average and 13 µg/l daily maximum. Per BPJ, monthly average and daily maximum monitoring is also required.

Selenium – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, the proposed TBEL remains a daily maximum of 0.13 mg/l. The mass loading effluent limit of 0.07 lbs/day from the previous permit is no longer necessary due to the new flow limit.

Solids, Total Suspended – In accordance with 40 CFR §444, the TBEL concentration limits are 34.0 mg/l monthly average and 110 mg/l daily maximum. The calculated mass loading effluent limits are 18 lbs/day monthly average and 59 lbs/day, daily maximum.

Titanium – In accordance with 40 CFR Part 444, the TBEL concentration limits are 22 µg/l monthly average and 60 µg/l daily maximum. Per BPJ, monthly average and daily maximum monitoring is also required.

Zinc – In accordance with 40 CFR Part 444, the TBEL concentration limits are 54 µg/l monthly average and 82 µg/l daily maximum. The mass loading effluent limit of 0.66 lbs/day from the previous permit is no longer necessary due to the new flow limit. A monthly average monitoring requirement is also included per best professional judgement.

Total residual chlorine, COD, TKN, organic nitrogen, nitrate nitrogen, and chloroform were detected at levels that either do not justify routine monitoring or they are adequately indicated by other parameters or by monitoring at outfall 006.

Outfall 06C

Newly designated outfall. See WQBEL section below.

Outfall 006

Mass limits were developed using an average flow of 0.12 MGD.

Flow – Monitoring is required for informational purposes.

pH range – In accordance with 40 CFR Part 122.44, the proposed TBEL remains 6.0 – 9.0 SU.

Temperature – See WQBEL section below.

Ammonia – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, monitoring is required. See WQBEL section below.

BOD5—See WQBEL section below**.**

Chlorides – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, monitoring is required

Chlorine, Total Residual – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, monitoring is required. See WQBELs.

Mercury – Controlled by limits on outfall 06A. See WQBEL section below.

Oxidation/Reduction Potential (ORP)—See WQBEL section below.

Solids, Total Suspended – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, the previous limit of 66 mg/l, and new limit of 66 lb/day have been specified.

Solids, Total Dissolved – In accordance with anti-backsliding provisions of 40 CFR Part 122.44, monitoring is required. See WQBELs.

Bis(2-ethylhexyl)phthalate, chromium, COD, TKN, organic nitrogen, nitrate nitrogen, and phosphorus were detected, but routine monitoring is not required.

2. WQBEL & Anti-Degradation:

In addition to the TBELs previously discussed, the NYSDEC evaluated the discharge to determine compliance with CWA sections 101 and 301(b)(1)(C), 40 CFR 122.44(d)(1), and 6 NYCRR Parts 700-704 and 750-1.11. These require that permits include limits for all pollutants or parameters which "are or may be discharged at a level which will cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." The limits must be stringent enough to ensure that water quality standards are met and must be consistent with any available wasteload allocation (WLA). 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 procedure for developing WQBELs includes knowing the pollutants present in the discharge(s), identifying water quality criteria applicable to these pollutants, determining if WQBELs are necessary (reasonable potential), and calculating the WQBELs. Factors also considered in this analysis include available dilution of effluent in the receiving water, receiving water chemistry, and other pollutant sources. If the expected concentration of the pollutant of concern in the receiving water may exceed the ambient water quality standard or guidance value then there is reasonable potential that the discharge may cause or contribute to a violation of the water quality, and a WQBEL or WLA for the pollutant is required.

Antidegradation Policy: New York State implements the antidegradation portion of the CWA based upon two documents: (1) Organization and Delegation Memorandum #85-40, entitled "Water Quality Antidegradation Policy," signed by the Commissioner of NYSDEC, dated September 9, 1985; and, (2) TOGS 1.3.9, entitled "Implementation of the NYSDEC Antidegradation Policy – Great Lakes Basin (Supplement to Antidegradation Policy dated September 9, 1985)." A SPDES permit cannot be issued that would result in the water quality criteria being violated. The permit for the facility contains effluent limits which ensure that the existing beneficial uses of the receiving waters will be maintained.

Following is the WQBEL analysis for each pollutant present in the discharge(s). Anti-degradation analysis which justifies applying water quality standards of a higher classification is noted below, if applicable. Refer to section II.B. above for information on discharge location, receiving water information (class, dilution, chemistry), and the existence of any TMDLs. A summary of this analysis is provided in the *Pollutant Summary Table* at the end of this fact sheet.

Pollutant-Specific WQBEL & Anti-Degradation Analysis:

Outfall 003

Mass limits were developed using the reported maximum flow of 1.0 MGD.

Temperature –This outfall is not a thermal discharge so routine monitoring or limits are not necessary.

Mercury – Mercury was not detected in the effluent. The permittee submitted 10 sampling points that all show mercury concentrations below the detection limit of 0.5 ng/l, and as such routine monitoring is not required at this outfall.

Residual Chlorine, Total – Sampling result was above the WQS of 19 ug/l for Class D waters. As no dilution is present, the limit becomes the WQS. A daily maximum of 19 ug/l is superseded by a compliance level limit of 20 ug/l based on analytical detection capability.

Outfall 004

Mass limits were developed using the reported average flow of 0.052 MGD and a hardness of 350 mg/l.

WQBELs were calculated for copper, hexavalent chromium, and zinc, but were not described in detail as TBELs are more stringent (see table below).

Residual Chlorine, Total – Sampling result was above the WQS of 19 ug/l for Class D waters. No dilution is present, so the limit becomes the WQS. A daily maximum of 19 ug/l is superseded by a compliance level limit of 20 ug/l based on analytical detection capability.

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. 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. Treatment plants 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.

An evaluation of the discharge using the seven criteria noted above indicated that toxicity may be expected in the discharge. Criteria applicable to the discharge include number(s) 1, 2, 3 and 4. Based upon this evaluation, a reasonable potential analysis was performed using existing WET data, if available. The reasonable potential analysis indicated that the discharge does have the reasonable potential to cause or contribute to an exceedance of the water quality standard for WET.

WET testing action levels of 0.3 TUa have been included in the draft permit for each species. The chronic action level is equal to the chronic dilution ratio. The acute action level is equal to 50% of the chronic dilution ration multiplied by 0.3. Refer to the SPDES permit for details. Available WET test data is summarized in the following table where MSS indicates "most sensitive species". Other table acronyms are defined in TOGS 1.3.2.

Test Date	MSS 48H LC50 (%Effluent)	MSS TUa	TUa Action Level	MSS Survival 100% Effluent	Acute Test Result	MSS RPD TUa	Acute WET Limit Required	MSS 7D NOEC/IC25 (%Effluent)	MSS NOEC/IC25 TUc	TUc Action Level	Chronic Test Result NOEC/IC25	MSS RPD IC25 TUc	Chronic WET Limit Required
No Data													

Outfall 06A

This outfall is an internal outfall. Some WQBELs calculated at Outfall 006 will apply at Outfall 06A.

Mercury – The permittee took 10 additional mercury samples in March 2016 and further samples August-November 2016. Initial limits using a lognormal statistical analysis are 43 ng/l and 160 ng/l, monthly average and daily maximum, respectively.

These values exceed the water quality standard for mercury of 0.7 ng/l. New York State's mercury multiple discharge variance (MDV) in TOGS 1.3.10 is being applied. Consequently, the permit includes a 50 ng/L daily maximum interim effluent limit; a mercury minimization program requirement; and routine monitoring using EPA Method 1631. Refer to TOGS 1.3.10 for further detail.

As the monthly average limit is less than the final limit, the initial limit shall be a daily maximum of 160 ng/l.

Outfall 06C

Mass limits were developed using an average flow of 0.12 MGD.

Color— The regulations at 6 NYCRR §703.2 include narrative water quality standards for color. Based on the observations of Department staff during CY 2015, it appears that the effluent may have a distinct color associated with the industrial activities at the Norlite facility. In addition, Department staff have noted during site inspections that the effluent can appear black due to septic conditions, which likely result from the presence of residual organic material, high temperatures (exceeding 90 deg. F), long discharge pipe length to the Mohawk River, and low total residual chlorine concentrations. There is also staining on the riverbank at the effluent pipe location which appears to related to Norlite's discharge. Due to these issues, the Department is proposing a monitoring requirement to obtain more data.

Temperature— Temperature is regulated by 6 NYCRR Part 704.2. For Class C water, the maximum allowable temperature is 90 °F. The permittee has previously shown by engineering calculations, and confirmed by sampling, that if the temperature were 115 °F or less at the point where the discharge exits the Norlite Corporation property, the temperature would be reduced to 90 °F at the final discharge point into the Mohawk River. It is proposed to maintain the current daily maximum permit limits of 115 °F at Outfall 006 and 90 °F at the downgradient manhole which is now designated as Outfall 06C. This is also appropriate due to the apparent formation of hydrogen sulfide gas in the effluent pipe, and the positive association at high water temperatures.

Sulfide, Total-- Hydrogen sulfide is expected to be present in the effluent. There is a water quality standard (WQS) for hydrogen sulfide of 2.0 ug/l. A monthly average monitor only and a daily max limit of 2.7 ug/l / 0.003 lb/day are proposed for total sulfide.

This limit was calculated using SM 4500-S^{2-}/ Calculation of Un-Ionized Hydrogen Sulfide found in *Standard Methods for the Examination of Water and Wastewater (20th Edition).* Applicable parameters include:

Combined TDS (permitted effluent + Mohawk) = 500 mg/l
Mohawk temperature= 10 C
Mohawk minimum pH= 6.7 SU
H_2S WQS x 1:1 dilution= 2 ug/l

With proper mixing and dilution of the effluent, the resulting limit assumes the permittee's effluent will meet the instream hydrogen sulfide WQS of 2 ug/l.

Outfall 006

Mass limits were developed using an average flow of 0.12 MGD.

Ammonia (as N)—Ammonia was detected in the effluent at elevated concentrations. A reasonable potential analysis shows that the discharge has the potential to cause water quality violations. Water quality based effluent limits were developed using instream Mohawk pH values of 7.9 and 7.8, and instream water temperatures of 21 and 12 C for summer and winter, respectively. These resulted in summer/winter monthly average limits of **1.2 mg/l / 1.6 mg/l** and **1.2 lb/day / 1.6 lb/day**.

BOD5— A limit of 5.0 mg/l is proposed which is consistent with TOGS 1.3.1 for intermittent streams. Given the poor dilution available at Outfall 006, intermittent stream standards apply. This limit is consistent with other permitted facilities.

Cadmium— A reasonable potential determination indicates the effluent has the potential to violate water quality standards. As there is no dilution available due to the outfall configuration, a daily maximum water quality limit of 2.7 ug/l and 0.0027 lb/day has been specified.

Chlorine, Total Residual— The permittee regularly uses sodium hypochlorite to control the formation of hydrogen sulfide bacteria in the effluent. Additionally, total residual chlorine was detected above the water quality standard. As there is no dilution available, intermittent stream standards apply (see TOGS 1.3.1). Therefore, reasonable potential exists to violate water quality standards. Therefore, a WQBEL of 0.005 mg/l and 0.005 lb/day, daily maximum limit has been specified. This limit is superseded by the compliance level of 0.020 mg/l, daily maximum, based on analytical detection capability.

Copper— A reasonable potential determination indicates the effluent has the potential to violate water quality standards. As there is no dilution available due to the outfall configuration, a daily maximum water quality limit of 11 ug/l and 0.011 lb/day has been specified.

Oxygen, Dissolved— A minimum dissolved oxygen concentration of 7.0 mg/l is included as modeling indicated it was necessary to meet the instream water quality standard of 4.0 mg/l. The background for this limit is based on the intermittent streams guidance (see TOGS 1.3.1). Given the poor dilution available at Outfall 006, intermittent stream standards apply.

Iron— While New York State does not have a water quality standard for iron, USEPA recommends a limit of 1000 ug/l. A reasonable potential determination indicates the effluent has the potential to violate water quality standards. As there is no dilution available due to the outfall configuration, a daily maximum water quality limit of 1000 ug/l and 1.0 lb/day has been specified.

Lead— A reasonable potential determination indicates the effluent has the potential to violate water quality standards. As there is no dilution available due to the outfall configuration, a daily maximum water quality limit of 6.0 ug/l and 0.006 lb/day has been specified.

Mercury – Mercury was detected in the effluent during RFI sampling at a level of 38 ng/L, which exceeds the water quality standard of 0.7 ng/L. New York State's mercury multiple discharge variance (MDV) in TOGS 1.3.10 is being applied. Consequently, the permit includes a 50 ng/L daily maximum effluent limit; a mercury minimization program requirement; and routine monitoring using EPA Method 1631. Refer to TOGS 1.3.10 for further detail. The Outfall 06A calculated percentiles for mercury are included as interim limits at this outfall.

Oxidation/Reduction Potential – Sodium hypochlorite is added to the effluent to control hydrogen sulfide formation in the effluent pipe. In accordance with BPJ, monthly average/daily max monitoring has been specified.

Temperature – Temperature is regulated by 6 NYCRR Part 704.2. For Class C water, the maximum allowable temperature is 90 °F. The permittee has previously shown by engineering calculations, and confirmed by sampling, that if the temperature were 115 °F or less at the point where the discharge exits the Norlite Corporation property, the temperature would be reduced to 90 °F at the final discharge point to the Mohawk River. It has been determined that the current permit limit of 115 °F (daily maximum) will remain.

Total Dissolved Solids (TDS) –Routine monitoring has indicated regularly occurring high levels of TDS. Additionally, due to the outfall configuration, there is limited dilution available. There is reasonable potential for this discharge to violate water quality standards for TDS. Therefore, a limit equal to the water quality standard of 500 mg/l is appropriate.

Total Suspended Solids (TSS) – The narrative water quality standards provided in 6 NYCRR Part 703.2 specify that the discharge of suspended solids shall not cause deposition or impair the receiving waters for their best usages. The dilution ratio is at least 1:1, therefore a limit equal to the TBEL is appropriate.

Selenium— A reasonable potential determination indicates the effluent has the potential to violate water quality standards. As there is no dilution available due to the outfall configuration, a daily maximum water quality limit of 4.6 ug/l and 0.005 lb/day has been specified.

Sulfates – A NYSDEC Engineer was onsite for sampling at Outfall 06C in Spring 2016 and reported a foul-smelling odor and dark colored effluent that may be indicative of sulfate. In accordance with BPJ, monthly average and daily maximum monitoring is proposed.

WQBELs were calculated for arsenic, barium, beryllium, total chromium, iron, nickel, silver, titanium, and zinc, but are not described in detail as TBELs are more stringent. See table below.

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. 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. Treatment plants 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.

An evaluation of the discharge using the seven criteria above indicated that toxicity may be expected in the discharge. Criteria applicable to the discharge include numbers 2 and 4. Based on this evaluation, a reasonable potential analysis was performed using existing WET data. The reasonable potential analysis indicated that the discharge does have reasonable potential to cause/contribute to an exceedance of water quality standards for WET.

WET testing action levels of 15 TUa and 100 TUc have been included in the draft permit for each species. The chronic action level is equal to the chronic dilution ratio. The acute action level is equal to 50% of the chronic dilution ration multiplied by 0.3. Refer to the SPDES permit for details. Available WET test data is summarized in the following table where MSS indicates "most sensitive species". Other table acronyms are defined in TOGS 1.3.2.

Test Date	MSS 48H LC50 (%Effluent)	MSS TUa	TUa Action Level	MSS Survival 100% Effluent	Acute Test Result	MSS RPD TUa	Acute WET Limit Required	MSS 7D NOEC/IC25 (%Effluent)	MSS NOEC/IC25 TUc	TUc Action Level	Chronic Test Result NOEC/IC25	MSS RPD IC25 TUc	Chronic WET Limit Required
No Data													

B. Other Conditions Applicable To This Permit

SCHEDULE OF COMPLIANCE:

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
006	ORP- *Existing equipment shall be kept in operation until new equipment is online.*	Permittee shall install new ORP monitoring equipment and commence operation.	EDP + 12 months
006	DO – *Monitor* Ammonia (as N) - *120 mg/l monthly average* BOD5 – *Monitor* Cadmium – *Monitor* TRC - *51 ug/l monthly average, 75 ug/l daily maximum* Total Copper -*0.064 lb/day daily maximum* Total Iron - *2.9 lb/day daily maximum* Total Lead - *0.019 lb/day daily maximum* Total Mercury- *160 ng/l daily maximum* TDS - *18,000 mg/l monthly avg; 24,000 mg/l daily max*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required. Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution. *The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.* Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate. Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution). Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval. Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	EDP + 3 months EDP + 5 months N/A Department Approval of Approach + 3 months Department Approval of Report + 15 days EDPM + 3 months Department Approval of Report + 2 years

***** As defined in 6 NYCRR 750-1.2 (a)(8) consistent with the applicable law.

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
06A	Total Silver- *Monitor* Total Titanium- *Monitor*	Meet permit limit	EDP + 3 months
06A	Total Copper - *120 ug/l, 0.064 lb/day daily max* Total Iron - *5.4 mg/l, 2.9 lb/day, daily max* Total Mercury- *160 ng/l daily maximum*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required.	EDP + 3 months
		Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.	EDP + 5 months
		The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.	N/A
		Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate.	Department Approval of Approach + 3 months
		Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution).	Department Approval of Report + 15 days
		Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval.	EDPM + 3 months
		Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	Department Approval of Report + 2 years

***** As defined in 6 NYCRR 750-1.2 (a)(8) consistent with the applicable law.

Outfall(s)	Parameter(s) Affected & Interim Effluent Limit(s)	Compliance Action to Achieve Final Effluent Limits (see Permit Limits, Levels and Monitoring tables for final limits)	Due Date
06C	Total Sulfide – *Monitor*	Permittee shall submit a Work Plan specifying new or modified outfall routing/ design, dilution studies, and treatment system design alternatives under consideration, which may achieve the final effluent limits. The Work Plan shall note the status of obtaining any necessary easements or property. Department approval of the Work Plan is not required.	EDP + 3 months
		Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.	EDP + 5 months
		The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.	N/A
		Permittee shall submit an Approvable Report* with results of the CORMIX Dilution Study. This Report will include a Construction Schedule for the new outfall. This Schedule may not exceed 2 years. Department will provide feedback on Report conclusions, as appropriate.	Department Approval of Approach + 3 months
		Permittee shall apply for a Permittee Initiated Modification (PIM) within 15 days of Department approval of Report. Department will act on modification request in accordance with the Uniform Procedures Act (6 NYCRR 621). The modification will reflect the results of the approved Report (i.e. final dilution).	Department Approval of Report + 15 days
		Permittee shall submit an Approvable Report* identifying wastewater treatment system upgrades that are necessary to meet final effluent limits. The Report shall also include a proposed construction schedule that allows for implementation of the engineering solution within 2 years of approval.	EDPM + 3 months
		Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.	Department Approval of Report + 2 years

Best Management Practices (BMPs): The permittee is required to implement a BMP plan that prevents, or minimizes the potential for, the release of significant amounts of toxic or hazardous pollutants to state waters. The BMP plan requires annual review by the permittee. This requirement is being continued from the previous permit.

Discharge Notification Act: In accordance with Discharge Notification Act (ECL 17-0815-a), the permittee is required to post a sign at each point of wastewater discharge to surface waters. The permittee is also required to provide a public repository for DMRs as required by the SPDES permit. This requirement is being continued from the previous permit.

C. Special Conditions Applicable To This Permit

Schedule of Submittals:

Outfall(s)	Parameter(s) Affected	Required Action	Due Date
006, 06C	None	Permittee shall develop an approvable* Plan to inspect the condition of the effluent pipe. Plan shall include condition assessments of the portion of the effluent pipe owned by permittee. Plan shall pre-define metrics that will be used in the condition assessment.	EDP + 9 months
		Permittee shall submit an approvable* Report summarizing the results of the condition assessments. The Report shall identify all conditions that may be a result of permittee's effluent and all conditions that are a result of natural conditions (e.g. pipe damage from heaving). The Report shall identify necessary repairs and include a schedule for improvements.	Plan Approval + 12 months
006, 06A	Mercury	Permittee shall submit annual report as required by MMP.	EDP + 12 months EDP + 24 months Annually thereafter

D. General Conditions Applicable To All Permits

The permit contains standard regulatory language that is required to be in all SPDES permits. These permit provisions, based largely upon 40 CFR 122 subpart C and 6 NYCRR Part 750, include requirements pertaining to monitoring, recording, reporting, and compliance responsibilities. These "general conditions" of permits are typically specified, summarized, or referenced on the first and last pages of the permit.

OUTFALL & RECEIVING WATER LOCATION TABLE

Outfall Number	Design Flow Rate (MGD)	Latitude	Longitude	Receiving Water Name	Water Class	Water Index Number	Major/Sub Basin
003	1.0(1)	42° 45' 20"	73° 42' 22"	Salt Kill Creek	D	H-239	1201-0095
004	0.1(2)	42° 45' 16"	73° 42' 05"	Salt Kill Creek	D	H-239	1201-0095
006	0.14	42° 45' 34"	73° 41' 44"	Mohawk River	C	H-240	1201-0085

Footnotes: (1) Water is stored and 1 MGD is discharged when active. This amounts to about 35 million gallons per year (MGY).
(2) Water is stored and a maximum batch discharge of 0.1 MGD occurs when active. This amounts to about 0.6 MGY.

POLLUTANT SUMMARY TABLE(S)

Outfall #	003

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average	0.096	Maximum	1.0	M			NA	7Q10 = 0.05 , 30Q10 = 0.06 , Dilution/Mixing = int					T
pH (su)	Minimum	6.8	Maximum	8.7	6-9		Range		Class D	7.8	-	-	-	**T**
Hardness (mg/L)	120	-	-	-	-	-	-	-	-	100	-	-	-	NA
Total suspended solids (mg/l)	9.3/20	13/23	-	-	25	210	MA	-	Narrative	-	-	-	-	**T**
	12/26	17/35	-	-	45	380	DM	-						
Bis(2-ethylhexyl)phthalate	6.6	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Phenolics, total recoverable (mg/l)	0.002	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Chloride (mg/l)	51	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Chlorine, total residual (mg/l)	<0.05/0.2	-	-	-	M	M	DM	0.020	0.019	-	0.020	-	DM	**WQ**
Solids, total dissolved (mg/l)	540	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Solids, Settleable (ml/l)	<0.1	-	-	-	0.1	-	DM	-	Narrative	-	-	-	-	**T**
Nitrogen, nitrate (mg/l)	0.01	-	-	-	-	-	-	-	NA	-	-	-	-	NA
TKN (mg/l)	2.2	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Nitrogen, organic (mg/l)	2.2	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Nitrogen, nitrate (mg/l)	0.34	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Phosphorus (as P) (mg/l)	0.04	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Oxygen, dissolved (mg/l)	8.9	-	-	-	-	-	-	-	3.0	-	-	-	-	NA
Mercury (ng/l)	<0.5/<0.5	-	-	-	-	-	-	-	0.7	-	-	-	-	NA

NA for when standard exists, but does not apply to class D waters (ambient criteria). Note that narrative standards typically apply to all parameters.

Outfall #	004

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	**Existing Effluent Quality**				**TBELs**				**Water Quality Data & WQBELs**					**Permit Basis**
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	Mass	Type	conc.	Conc.	Conc.	Conc.	Mass	Type	
Flow Rate, units = MGD	Average	0.052	Maximum	0.081	Monitor			NA	7Q10 = 0.05 cfs , 30Q10 = 0.06 , Dilution/Mixing = int					
pH (su)	Minimum	7.7	Maximum	8.5	6-9		Range		6.0-9.5	7.8	-	-	-	**T**
Temperature (F)	59/78	64/103	-	-	90	-	DM	-	90	13	-	-	-	**T**
Solids, total suspended (mg/l)	7.7/15	9.1/22	-	-	25	11	DA		Narrative	-	-	-	-	**T**
	7.7/15	9.1/22	-	-	45	19	DM							
Cadmium (as Cd) (mg/l)	<0.002/0.002	-	-	-	0.004	0.0017	DM		0.0041	-	0.0041	0.0018	DM	NA
Chromium, hexavalent (as Cr) (mg/l)	<0.01/0.01	-	-	-	0.016	0.0070	DM		0.016	-	0.016	0.0069	DM	NA
Chromium, total (as Cr) (mg/l)	<0.005/0.005	-	-	-	1.8	0.74	DM		1.8	-	1.8	0.80	DM	NA
Copper, total (mg/l)	<0.01/0.01	-	-	-	0.018	0.0078	DM		0.043	-	0.043	0.019	DM	**T**
Lead, total (mg/l)	<0.018/0.02	-	-	-	0.080	0.035	DM		0.097	-	0.097	0.036	DM	NA
Mercury (ng/l)	<0.5/<0.5	-	-	-	200	0.000087	DM		0.70	-	50	-	DM	NA
Nickel, total (mg/l)	<0.015/0.015	-	-	-	1.8	0.78	DM	-	1.4	-	1.4	0.59	DM	NA
Zinc, total (mg/l)	<0.029/0.049	0.032/0.053	-	-	0.30	0.13	DM	-	0..34	-	0.34	0.15	DM	**T**
Arsenic	9	-	-	-	-	-	-	-	340	-	340	0.14	DM	NA
Selenium	41	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Hardness, total (mg/l)	1100	-	-	-	-	-	-	-	-	-	-	-	-	NA
Chlorides (mg/l)	730	-	-	-	M	M	DM	-	NA	-	-	-	-	NA
Chlorine, total residual (mg/l)	<0.02, 0.05	-	-	-	-	-	-	0.020	0.019	-	0.020	-	DM	**WQ**
Solids, total dissolved (mg/l)	3300	-	-	-	M	M	DM	-	NA	-	-	-	-	NA
BOD (mg/l)	15	-	-	-	-	-	-	-	-	-	-	-	-	NA
COD (mg/l)	77	-	-	-	-	-	-	-	-	-	-	-	-	NA

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	Mass	Type	conc.	Conc.	Conc.	Conc.	Mass	Type	
TKN (mg/l)	2.2	-	-	-	-	-	-	-	-	-	-	-	-	NA
Nitrogen, organic (mg/l)	2.2	-	-	-	-	-	-	-	-	-	-	-	-	NA
Phosphorus (as P) (mg/l)	0.09	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Oxygen, dissolved (mg/l)	8.1	-	-	-	-	-	-	-	3.0	-	-	-	-	NA
WET –Acute Invertebrate	-	-	-	-	-	-	-	-	-	-	0.3	Quarterly	AL	WQ
WET –Acute Vertebrate	-	-	-	-	-	-	-	-	-	-	0.3	Quarterly	AL	WQ
WET –Chronic Invertebrate	-	-	-	-	-	-	-	-	-	-	-	-	-	NA
WET –Chronic Vertebrate	-	-	-	-	-	-	-	-	-	-	-	-	-	NA

Ambient criteria in dissolved form unless marked with ^{T} (total).
Ambient background in dissolved form unless marked with ^{T} (total).

Outfall #	06A

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average	0.068	Maximum	0.54	0.065		DM	NA	7Q10 = internal , 30Q10 = internal , Dilution/Mixing = int					**T**
pH (su)	Minimum	5.0	Maximum	9.0	6-9		Range		6.5-8.5	7.8	-	-	-	**T, See 006**
Arsenic	-	-	0.017/0.022	0.019/0.035	72/84	-	MA/DM	4.0			See 006			**T**
Barium	-	-	0.033/0.11	0.038/0.099	510/1200	-	MA/DM	1.0			See 006			**T**
Beryllium	-	-	0.0022/0.003	0.0023/0.0031	370/820	-	MA/DM	0.80			See 006			**T**

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	**Existing Effluent Quality**				**TBELs**				**Water Quality Data & WQBELs**					**Permit Basis**
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Cadmium	-	-	0.0011/0.006	0.0012/0.0021	26/71	-	MA/DM	0.40			See 006			**See 006**
Chromium	-	-	0.0029/0.024	0.0053/0.0073	14/25	-	MA/DM	4.0			See 006			**T**
Copper	-	-	0.014/0.12	0.017/0.064	14/23	-	0.66	4.0			See 006			**See 006**
Iron	-	-	0.96/4.0	1.2/3.7	610/1200	-	MA/DM	4.0			See 006			**See 006**
Lead	-	-	0.01/0.02	0.011/0.019	32/57	-	MA/DM	4.0			See 006			**See 006**
Mercury	-	-	0.00025/0.00076	0.00028/0.00064	1.3/2.3	-	MA/DM	0.0005	See 006 & TOGS 1.3.10		50		DM	**WQ**
Nickel	-	-	0.037/0.13	0.043/0.12	370/550	-	MA/DM	4.0			See 006			**T**
Silver	<0.010	-	-	-	8.0/13	-	MA/DM	0.80			See 006			**T**
Selenium	-	-	0.026/0.05	0.028/0.049	130	-	DM	4.0			See 006			**See 006**
Titanium	<0.010	-	-	-	22/60	-	MA/DM	5.0			See 006			**T**
Zinc	-	-	0.033/0.57	0.029/0.095	54/82	-	MA/DM	0.20			See 006			**T**
Hardness (mg/l)	82	-	-	-	-	-	-	-	-	100	-	-	-	NA
Chloride (mg/l)	2500	-	-	-	M	M	DM	-	NA	24	-	-	-	**See 006**
Chlorine, total residual (mg/l)	0.13	-	-	-	-	-	-	0.020	0.005	-	-	-	-	**See 006**
Solids, total dissolved (mg/l)	10,000	-	-	-	M	M	DM	-	500	160	500	500	DM	**See 006**
TSS (mg/l)	8.5	-	-	-	34/110	18/59	MA/DM	-	-	-	-	-	-	**T**

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
BOD5 (mg/l)	251/467	-	-	-	30/45	16/24	MA/DM	-	-	-	-	-	-	**See 006**
Ammonia (as N) (mg/l)	75/135	-	-	-	20	11	DM	-	-	-	-	-	-	**See 006**
COD (mg/l)	320	-	-	-	-	-	-	-	-	-	-	-	-	NA
TKN (mg/l)	63	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Nitrogen, organic (mg/l)	4.5	-	-	-	-	-	-	-	NA	0.45	-	-	-	NA
Nitrogen, nitrate (mg/l)	0.09	-	-	-	-	-	-	-	NA	3.4	-	-	-	NA
Chloroform (mg/l)	7.0	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Dissolved oxygen (mg/l)	<1	-	-	-	-	-	-	-	4.0	9.5	-	-	-	**See 006**

NA for when standard exists, but does not apply to class C waters.
Ambient criteria in dissolved form unless marked with ^{T} (total).
Water quality does not apply at internal outfall; see WQBEL determination at 006.

Outfall #	06C (MH @ railroad)

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average -		Maximum -		-			NA	7Q10 = 220 , 30Q10 = 270 , Dilution/Mixing = 100:1					**NA**
pH	-		- -		6-9				-					**T**
Oxygen, dissolved	2.3/8.5 -		- -		-				-					**See 006**

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Temperature	76/87	94/110	-	-	70			DM	70	-	-	-	-	**T**
Sulfide, Total	<100/160	-	-	-	-			5.0	2.0	-	2.0	0.003	DM	**PQL**
Sulfate, Total (mg/l)	2,389/4,070	-	-	-	-		-	-	-	-	-	-	-	**See 006**
Color (Apparent) (cpu)	7.3/15	-	-	-	-		-		Narrative	-	M	-		**WQ**

Outfall #	006

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average	0.12	Maximum	0.12	M			NA	7Q10 = 220 , 30Q10 = 270 , Dilution/Mixing = 1:1					**T**
pH (su)	Minimum	5.0	Maximum	9.0	6-9		Range		6.5-8.5	7.8	-	-	-	**WQ**
Temperature (F) (daily)	91/104	94/113	-	-	115	-	DM		-	55	-	-	-	**T**
Temperature (F) (quarterly)	76/87	94/110	-	-	-	-	-	-	-	13	-	-	-	See outfall 06C
Dissolved oxygen (mg/l)	<1	-	-	-	-	-	-	-	7.0	9.5	7.0	-	DMin	**WQ**
Hardness (mg/L)	120	-	-	-	-	-	-	-	-	100	-	-	-	NA
Solids, total suspended (mg/l)(lb/d)	-	-	19/68	23/73	25/45	25/45	DM	-	-	-	-	-	-	**T**
Solids, total dissolved (mg/l)	16000/21000	18000/24000	-	-	M	M	DM	-	500	160	500	500	DM	**WQ**

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	**Existing Effluent Quality**				**TBELs**				**Water Quality Data & WQBELs**					**Permit Basis**
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Chlorides (mg/l)	110000/3800000	27000/54000	-	-	M	M	DM	-	NA	16	-	-	-	**T**
Chlorine, total residual (mg/l)	<0.29/0.11	0.051/0.075	-	-	M	M	DM	0.020	0.005	-	0.005	0.005	DM	**PQL**
Ammonia (N) (mg/l)	20/45	120/230	-	-	M	M	MA/DM	-	1.2/1.6	-	1.2/1.6	1.2/1.6	MA Su/Win	**WQ**
Bis(2-ethylhexyl)phthalate	18	-	-	-	-	-	-	-	0.6	-	-	-	-	NA
BOD5 (mg/l)	35	-	-	-	See 06A	-	-	-	5.0	-	5.0	5.0	DM	**WQ**
COD (mg/l)	140	-	-	-	-	-	-	-	-	-	-	-	-	NA
TKN (mg/l)	34	-	-	-	-	-	-	-	-	-	-	-	-	NA
Nitrogen, organic (mg/l)	3.7	-	-	-	-	-	-	-	-	0.45	-	-	-	NA
Nitrogen, nitrate (mg/l)	0.45	-	-	-	-	-	-	-	-	3.4	-	-	-	NA
Phosphorus (as P) (mg/l)	0.02	-	-	-	-	-	-	-	NA	0.66	-	-	-	NA
Arsenic	-	-	-	-	See 06A	-	-	4.0	150/340	0.49	150/340	0.15/0.34	DM	See 06A
Barium	-	-	-	-	See 06A	-	-	1.0	NA	20*	-	-	-	See 06A
Beryllium	-	-	-	-	See 06A	-	-	0.80	1100[T]	41*	100000	53	DM	See 06A
Cadmium	-	-	-	-	See 06A	-	-	0.40	2.6	0.11	2.7	0.0027	DM	**WQ**
Chromium	7	-	-	-	See 06A	-	-	4.0	74/570	12*	7200/88200	3.8/47	DM	See 06A
Copper	-	-	-	-	See 06A	-	-	4.0	11	2.1	11	0.011	DM	**WQ**
Iron	-	-	-	-	See 06A	-	-	4.0	1000	785[T]	1000	1.0	DM	**WQ**
Lead	-	-	-	-	See 06A	-	-	4.0	6.0	0.2	6.0	0.006	DM	**WQ**
Mercury (ng/l)	38	-	-	-	See 06A	-	-	-	0.7	3.2	50	-	DM	**WQ**
Silver	-	-	-	-	See 06A	-	-	0.80	0.10 (ionic)	-	0.1	0.0001	DM	See 06A

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Selenium	-	-	-	-	See 06A	-	-	-	4.6	1.0*	4.6	0.005	DM	**WQ**
Titanium	-	-	-	-	See 06A	-	-	5.0	-	-	-	-	-	See 06A
Zinc	-	-	-	-	See 06A	-	-	0.20	98	2.8	98	0.098	DM	See 06A
H2S (as Total Sulfides)	-	-	-	-	-	-	-	5.0	2.0	-	2.3	-	AL	**NA**
Sulfates, Total	-	-	-	-	M	M	DM	-	-	-	-	-	-	**T**
WET –Acute Invertebrate	-	-	-	-	-	-	-	-	-	-	0.3	Quarterly	AL	**WQ**
WET –Acute Vertebrate	-	-	-	-	-	-	-	-	-	-	0.3	Quarterly	AL	**WQ**
WET –Chronic Invertebrate	-	-	-	-	-	-	-	-	-	-	1.0	Quarterly	AL	**WQ**
WET –Chronic Vertebrate	-	-	-	-	-	-	-	-	-	-	1.0	Quarterly	AL	**WQ**

Ambient background in dissolved form unless marked with ^{T} (total).
Asterisk (*) indicates data originates from USGS.

Outfall #	007

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Flow Rate, units = MGD	Average	0.03	Maximum	1.5	M		MA/DM	NA	7Q10 = 0.05 cfs , 30Q10 = 0.06 cfs , Dilution/Mixing = Int					NA
pH (su)	8.7		-		6-9		Range		6.0-9.5	7.8	-	-	-	NA
Hardness, total (mg/l)	270	-	-	-	-	-	-	-	-	-	-	-	-	NA
Phenolics, total recoverable (mg/l)	0.0006	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Arsenic	10	-	-	-	-	-	-	-	340	-	-	-	-	NA

Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	**Existing Effluent Quality**				**TBELs**				**Water Quality Data & WQBELs**					**Permit Basis**
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			(T or WQ or NA)
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	conc.	conc.	conc.	conc.	mass	Type	
Copper	19	-	-	-	-	-	-	-	13	-	-	-	-	NA
Titanium	10	-	-	-	-	-	-	-	-	-	-	-	-	NA
Zinc	38	-	-	-	-	-	-	-	300	-	-	-	-	NA
Chloride (mg/l)	140	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Solids, Settleable (ml/l)	<0.1	-	-	-	0.1	-	DM	-	-	-	-	-	-	NA
TSS (mg/l)	280	-	-	-	25/45	6.3/11	MA/DM	-	-	-	-	-	-	NA
TDS (mg/l)	260	-	-	-	-	-	-	-	NA					NA
Chlorine, total residual (mg/l)	0.02	-	-	-	-	-	-	-	0.019	-	0.019	0.0048	-	NA
Solids, total dissolved (mg/l)	260	-	-	-	-	-	-	-	NA	-	-	-	-	NA
BOD (mg/l)	8.0	-	-	-	-	-	-	-	-	-	-	-	-	NA
Ammonia (NH3) (mg/l)	2.4	-	-	-	-	-	-	-	1.4	-	-	-	-	NA
COD (mg/l)	9.0	-	-	-	-	-	-	-	-	-	-	-	-	NA
TKN (mg/l)	3.1	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Nitrogen, nitrate (mg/l)	1.4	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Phosphorus (as P) (mg/l)	0.25	-	-	-	-	-	-	-	NA	-	-	-	-	NA
Oxygen, dissolved (mg/l)	11	-	-	-	-	-	-	-	3.0	-	-	-	-	NA
Mercury (ng/l)	43	-	-	-	-	-	-	-	0.7	-	50	-	DM	NA

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Responsiveness Summary

Department Response to Comments for the Modification and Renewal of
SPDES Permit No. NY0004880, 2017
Norlite, LLC

Comments Received from:

1. Mrs. Elva E. Shulga
2. Mr. Michael Izzo
3. Ms. Linda Robinson
4. Norlite, LLC
5. Mr. Kevin Donovan
6. US Environmental Protection Agency
7. Mohawk Fine Papers, Inc

A draft permit was first published in the Environmental Notice Bulletin on January 20, 2016. Subsequently, the draft permit was revised and republished on November 9, 2016. This Responsiveness Summary addresses comments received during both publication periods.

1. Mrs. Elva E. Shulga

These comments contain information that has been redacted for personal privacy. The unaltered comments are available upon receipt of a Freedom of Information Act ("FOIA") request.

"Dear Ms. Diehsner, In regard to the item in the Times Union on the 22nd, I live near this monstrosity. Around 1986-thru 2011 [redacted] resided on Central Ave in Cohoes. She, along with multiple area residents came down with various cancers, many more than just a coincidence. She suffered many years of pain and misery, [redacted] now has cancer. He lives in Florida. Over the years Norlite has scoffed at the law, ignoring the cost of life and health of its neighbors. They just pay a fine and continue on. This has to stop. Mohawk Fine Papers has obeyed the law and is a good citizen. If you doubt my word check back through the years and you will see what I am talking about. Incidentally, the residents of Central Ave had a lawsuit regarding peeling paint from their homes. [redacted] also had a child born with severe autism, her other 3 children were normal. [redacted] was born 15 years after her last child. In my opinion, this company must be relocated somewhere so it doesn't pollute its neighborhood. I will sign any petition to relocate them or shut them down. The City is also at fault for allowing this to happen.

Their taxes are the key reason. P.S. I live next to the junk yard “Kelmans”. They also burn bad things. The air that settles on cars is white and sometimes black. They burn mostly at night. Can this be good? I never had breathing problems until I moved here. Had I known I would never have rented my apartment. [sic]”

Department Response: The State Pollutant Discharge Elimination System (“SPDES”) permit was developed in accordance with State and Federal regulation. This permit regulates wastewater and stormwater discharges to New York State waterbodies. Please note that this SPDES permit is significantly more stringent than the previous permit.
The facility has other valid permits which regulate air emissions and other environmental issues, however, these other permits are not part of this SPDES permit renewal. Questions on air-related matters should be directed to Mr. Gary McPherson, who can be reached at (518) 357-2045 and gary.mcpherson@dec.ny.gov.

2. Mr. Michael Izzo

“Times Union January 22, Sections A-1 and A-7, Mercury levels too high. I understand that employees of DEC are restricted by the current laws. But, is there a point where Norlite can be forced to shut down? The article is very damning. REPEAT, REPEAT, REPEAT, etc. offender. Also, the FINES are way too LOW!!!! Is the net tax revenue generated from this plant really worth the health and well being of the citizens living in the area? Tragically, when you look at Flint, Michigan the answer is a resounding no. This company is bringing in waste from other states to burn here in NYS. Is there some law or regulation that prohibits this action? Quoting from the Times Union article, section A-7: *Norlite is paid by industrial customers from as far as Ohio, Maine, Maryland, and Delaware that truck in waste, which is pumped into storage tanks. The waste is then blended before being piped to burners in two kilns, which date to the mid-1950s.* It is time to shut down this place for the greater good of the citizens that live in this area. I truly believe it is justified and it is the right thing to do. Ps. It is time that the localities, county and NYS take bold leadership and begin to retool this place to have clean garbage burning that produces electricity for the surrounding localities and reduces the burden on the Albany County landfill. This type of dual functioning burn is being down cleanly in Europe and parts of the southern states. If you think there is any possibility of air pollution concerns, please see how this is being done. Here are some links: [Links not included in RS]. IT IS TIME TO BE BOLD AND DO THE RIGHT THING! [sic]”

Department Response: Please refer to the Department’s response to the first comment.

3. Ms. Linda Robinson

“I understand that the DEC is considering a new water pollution permit for Norlite. This I find disturbing, since, they did not comply with the previous permit. This plant needs to be shut down permanently! The Mohawk and Hudson rivers are polluted enough. The air pollution is bad enough, Norlite has violated environmental laws regarding the air pollution

as well. Please protect the health and safety of the residents and wildlife in this area and close this plant down and impose stiff fines for the their violations [sic]."

Department Response: Please refer to the Department's response to the first comment.

4. Norlite, LLC

Norlite submitted comments on the following dates: 02-19-16, 08-17-16, 09-21-16, 12-09-16, 01-18-17, 02-01-17, 02-19-17, 04-04-17, 06-14-17, 08-08-17, and 08-22-17. As most of these comments are similar, they have been grouped by outfall number and summarized for ease of response. Unaltered comments are available following a Freedom of Information Act (FOIA) request.

Outfall 003:

Mercury- No grounds for establishing limit at this outfall. Submitted additional supporting data.

Department Response: Norlite submitted ten (10) additional samples for mercury analysis by EPA Method 1631E as part of the Department's Request for Information. It should be noted that the samples were collected on separate days for comparison purposes. The data indicated mercury concentrations below the water quality standard of 0.7 nanograms per liter or ng/L. Therefore, this requirement in the SPDES permit has been removed.

Total Residual Chlorine- No grounds for establishing limit at this outfall. Submitted additional supporting data.

Department Response: Norlite submitted 20 additional total residual chlorine samples (collected on different days). All samples, except for one, were below the method detection limit of 50 µg/l. The exception was detected at a concentration of 200 µg/l. The water quality standard for total residual chlorine is 19 µg/l. The practical quantitation level (e.g. minimum concentration of a pollutant that can be measured with a high degree of confidence) for total residual chlorine is 20 micrograms per liter or µg/L and as such, the permit limit has been set at this value. As the analytical method detection limit of 50 µg/l was above the normally accepted detection limit and above the permit limit of 20 µg/l, there was insufficient justification to remove this requirement.

Outfall 004:

Mercury- Discharge from outfall is mainly comprised of stormwater. Submitted additional supporting data.

Department Response: Norlite submitted an additional sample, which was analyzed using Method 1631E. This sample was below the water quality standard of 0.7 ng/l. This requirement has been removed.

Total Dissolved Solids and Chlorides- No justification has been provided for the proposed monitoring requirements. The requirements should be removed.

Department Response: Outfall 004 discharges to a Class D stream. Accordingly, there are no water quality standards for total dissolved solids or chlorides. This requirement has been removed.

Sampling Language- Modify sampling frequency from “Daily” to reflect actual sampling frequency at this outfall (e.g. intermittent discharge).

Department Response: The reference to “Daily” sampling is in the previous permits and has not caused confusion thus far.

pH- The pH limit has been changed from 6.0-9.0 SU to 6.5-8.5 SU without supporting justification. The regulation in 6 NYCRR 703.3 states that for class D waters, the pH limits should be 6.0-9.5 SU. The limits for pH should continue to be 6.0-9.0 SU.

Department Response: The pH limit has been changed back to 6.0-9.0 SU.

Metals- Most of the water discharged from this outfall consists of uncontaminated stormwater. Sampling over the past few years have shown that the metals are either not detected or are at the detection level. Sampling requirements for metals should be removed. As set forth above, Norlite would also like to explore the possibility of eliminating this outfall.

Department Response: Norlite has either not detected, or has detected at the detection level, the following metals: cadmium, hexavalent chromium, total chromium, lead, and nickel. This is well below the technology and water quality based effluent limits. The sampling requirements for these metals have been removed. Sampling and analysis continues to document copper, zinc, and total residual chlorine in concentrations at or above the respective detection limit and as such, the outfall cannot be eliminated.

<u>Outfall 06A:</u>

Mercury- Interim limits were established at 89 ng/l monthly average and 160 ng/l daily maximum based on sampling conducted by Norlite in March 2016. Norlite conducted additional sampling, performed a statistical analysis, and calculated revised interim limits of 391 ng/l and 703 ng/l. These limits should be established as interim limits. Additionally, these limits should stay in effect for four years rather than two years from the effective date of the permit.

Department Response: Norlite provided additional sampling data and new initial limits were established at 43 ng/l monthly average and 160 ng/l daily maximum. These values are different from Norlite's calculations because the Department used a delta-lognormal statistical analysis to account for mercury concentrations below the detection level. This analytical evaluation is consistent with EPA's *Technical Support Document for Water Quality-based Toxics Control* and DEC's *TOGS 1.2.1., Attachment D*. Since the interim effluent limit is 50 ng/l daily maximum, and the calculated interim monthly average limit is less than this value, only the daily maximum interim limit of 160 ng/l will be applied. The Schedule of Compliance has been modified to include interim milestones that will allow for sufficient time to come into compliance with all applicable permit limits.

40 CFR Part 444- Internal Outfall 06A was established as a compliance point for technology-based limits and should only contain limits necessary to demonstrate compliance with 40 CFR Part 444.

- Part 444 metals- These should only include concentration based limits, not mass based limits, because the regulation is written for concentration only.
- TDS/chlorides- These constituents are not included in Part 444 and as such should be removed.
- Ammonia- This constituent is not included in Part 444 and as such should be removed. Furthermore, the Fact Sheet indicates the limit basis is activated sludge treatment, but this technology is not appropriate for Norlite. The Fact Sheet also states that "There is reasonable potential for the effluent to cause a water quality problem. TBELs are appropriate." Since this is an internal outfall, water quality-based standards should not be applied.
- BOD5- This constituent is not included in Part 444 and as such should be removed. Furthermore, the Fact Sheet indicates the limit basis is activated sludge treatment, but this technology is not appropriate for Norlite. The Fact Sheet also states that "There is reasonable potential for the effluent to cause a water quality problem. TBELs are appropriate." Since this is an internal outfall, water quality-based standards should not be applied.

Department Response: The permit has been revised to include concentration limits for only Part 444 metals. However, a mercury limit of 50 ng/l supersedes the Part 444 mercury limit and is consistent with TOGS 1.3.10. In addition, and in consultation with Norlite, Outfall 06A now has a daily maximum flow limit of 65,000 gallons per day. Sampling frequencies for TDS/chlorides, ammonia, and BOD5 have been increased at the downstream outfall (Outfall 006). Limits for certain pollutants at this outfall became unnecessary due to sufficiently low permit limits at Outfall 006 (e.g. ammonia, BOD_5).

<u>Outfall 006:</u>

Dissolved Oxygen- A minimum effluent limit of 7.0 mg/l has been added to the permit. Norlite objects on the grounds that the limit is based on the discharge of treated domestic waste from wastewater treatment plants into intermittent streams and so is inapplicable to Norlite.

Department Response: Limits for dissolved oxygen are found in 6 NYCRR Part 703.3, where it states that at no time shall the dissolved oxygen concentration fall below 4.0 mg/l. Water quality modeling indicated a minimum dissolved oxygen concentration of 7.0 mg/l was necessary to meet the instream water quality standard of 4.0 mg/l. Furthermore, Department guidance for intermittent streams in TOGS 1.3.1. is not specific to domestic wastewater dischargers. The current outfall mixing is unfavorable and, thus, has been characterized as an intermittent stream.

Sulfates- The permit requires weekly monitoring of sulfates at Outfall 006 and daily maximum limits for total sulfides at Outfall 06C. These monitoring requirements are redundant and any concerns regarding possible hydrogen sulfide emissions can best be addressed by requiring weekly monitoring of total sulfides at Outfall 006.

Department Response: Hydrogen sulfide appears to develop downstream of Outfall 006. It is necessary to monitor total sulfates at Outfall 006 as its presence or absence is likely related to the probability of hydrogen sulfide formation. This information will help assess this issue.

Oxidation-Reduction Potential (ORP)- The permit requires installation of an ORP monitor within 6 months of the effective date of the permit. Norlite asks that the Company have one year for installation.

Department Response: The Schedule of Compliance has been modified to allow for up to one (1) year for installation and testing. Norlite must maintain the existing ORP monitor until the new one is installed.

Ammonia (as NH_3)- The monthly average summer and winter limits were calculated incorrectly. The limits should be 1.46 mg/l (1.46 lb/day) and 1.91 mg/l (1.91 lb/day).

Department Response: The limit for ammonia is expressed as N, not as NH_3. The values Norlite developed need to be multiplied by the conversion factor of 0.8224. The resulting values of 1.2 mg/l (1.2 lb/day) and 1.6 mg/l (1.6 lb/day) are the same as those expressed in the permit.

BOD_5- The daily maximum limit of 5.0 mg/l (5.0 lb/day) is below the detection limit of 6.0 mg/l, making the limit impossible to enforce.

Department Response: The limit is consistent with Department guidance and has been applied in other SPDES permits. Permittees across NYS are able to detect below 5.0 mg/l.

Total Suspended Solids (TSS)- The daily maximum limit has been lowered from 66 mg/l (66 lb/day) to a monthly average limit of 25 mg/l (25 lb/day) and a daily maximum limit of 45 mg/l (45 lb/day). The justification was that it was consistent with NYSDEC's Stone, Sand & Gravel Category SIC 142 and 144. The Norlite facility is not in SIC codes 142 or

144, and quarry discharges are directed to Outfall 003. Additionally, TSS is limited at Outfall 06A through 40 CFR Part 144. TSS limits should not be applied at this outfall.

Department Response: The limit for TSS has been revised to reflect the limits established in the previous permit of 66 mg/l (66 lb/day).

Total Residual Chlorine (TRC)- The permit includes a daily maximum TRC limit of 0.02 mg/l (0.02 lb/day), but the fact sheet includes a limit of 1.0 mg/l (1.0 lb/day). TOGS 1.3.1E states that discharges with a dilution ratio of less than 30:1 should have a limit no higher than 0.50 mg/l. Norlite requests a limit of 0.50 mg/l.

Department Response: The permit and fact sheet have been corrected to reflect a daily maximum TRC compliance level of 20 µg/l. The compliance level is required because the calculated permit limit of 5 µg/l (0.005 lb/day) is below the PQL. The limit was developed in accordance with Department guidance.

Mercury- The MMP language is generic and does not consider Norlite's unique operation. It should be modified.

Department Response: The MMP language is standard and will not be changed. However, when Norlite develops the facility's MMP, the company will be able to develop a MMP that reflects their specific operations. This approach is consistent with TOGS 1.3.10. and with other individual SPDES facilities across NYS.

Mercury- Interim limits were established at 89 ng/l monthly average and 160 ng/l daily maximum based on sampling conducted by Norlite in March 2016. Norlite conducted additional sampling, performed a statistical analysis, and calculated revised interim limits of 391 ng/l and 703 ng/l. These limits should be established as interim limits. Additionally, these limits should stay in effect for four years rather than two years from the effective date of the permit.

Department Response: Norlite provided additional sampling data and new interim limits were established at 43 ng/l monthly average and 160 ng/l daily maximum. These values are different from Norlite's calculations because the Department used a delta-lognormal statistical analysis to account for mercury concentrations below the detection level. This analytical evaluation is consistent with EPA's *Technical Support Document for Water Quality-based Toxics Control* and DEC's *TOGS 1.2.1., Attachment D*. Since the initial effluent limit is 50 ng/l daily maximum, and the calculated interim monthly average limit is less than this value, only the daily maximum interim limit of 160 ng/l will be applied. The Schedule of Compliance has been modified to include interim milestones that will allow for sufficient time to come into compliance with all applicable permit limits.

Total sulfides- This monitoring requirement is redundant. There is a monitoring requirement for sulfates at this outfall and a permit limit at Outfall 06C for total sulfides.

Department Response: The monitoring requirement for total sulfides has been removed.

Outfall 06C:

Outfall Naming- Norlite has used Outfall 06B to refer to another part of the process. This outfall should be called Outfall 06C to prevent confusion.

Department Response: The outfall has been renamed to Outfall 06C.

Color (Apparent)- The permit has required monitoring of this pollutant. If DEC proposes to establish a permit limit, Norlite requests an opportunity to review the results with DEC before a final limit is proposed.

Department Response: If it is determined that a permit limit is necessary, the permit will need to undergo a permit modification. At that time, Norlite would have the opportunity to comment on the proposed permit limit.

Total Sulfides- Norlite requests an opportunity to review sample results with DEC staff before final limits are set. Additionally, based on sample results, Norlite believes it will have difficultly accommodating a compliance level of 5.0 µg/l and requests an opportunity to perform a method detection limit study as set forth in 40 CFR Part 136.

Department Response: The permit includes a limit for total sulfides of 2.7 µg/l (0.0030 lb/day), which is superseded by the compliance level of 5.0 µg/l. Norlite may perform a method detection limit study at any time as outlined in 40 CFR Part 136.

Temperature- Monitoring has been changed from quarterly to monthly with no explanation. Additionally, sampling at this outfall is challenging and dangerous for staff. This limit should be changed back to quarterly.

Department Response: The frequency has been increased due to concerns regarding hydrogen sulfide formation downstream of Outfall 006. Hydrogen sulfide forms in warm temperatures, which regularly occurs at Outfall 006, so more frequent monitoring is warranted. Since this is a designated sampling point, some consideration will need to be made by Norlite to accommodate safe access for staff.

WET Testing- Norlite objects to testing requirements at Outfall 004. Metals have been mostly non-detect for several years, so synergistic effects are unlikely. Furthermore, the testing frequency does not consider the intermittent nature of the discharge. Norlite also objects to WET testing at Outfall 006, since the discharge is to the Mohawk not an intermittent stream.

Department Response: Whole Effluent Toxicity (WET) testing is required for all EPA major permits at least once a permit cycle and is not exclusive to intermittent streams. Outfall 004 is a mixture of stormwater and landfill leachate. Since the discharge is not only made up of stormwater, WET testing is necessary to verify a non-toxic effluent. WET testing may be performed for four consecutive quarters at Outfall 004 to accommodate the intermittent nature of the discharge.

Schedule of Submittals- Norlite can only commit to improving the portions of the pipe the company owns.

Department Response: The effluent piping for Norlite's Outfall 006 connects to an existing storm sewer line located on Saratoga Street that is owned/operated by the City of Cohoes. The piping continues beneath buildings owned/occupied by Mohawk Fine Papers, who have registered numerous odor complaints. This portion of the piping was assessed and repaired by Norlite in January 2017. Therefore, the Schedule of Compliance has been modified to include only portions of the pipe owned by Norlite.

Schedule of Compliance- Norlite proposes modifications to the wording of the Schedule of Compliance.

Department Response: Norlite and the Department have come to an agreement regarding the Schedule of Compliance language.

Dilution- The assumed dilution in the previous permit has been changed, which affects the water quality based effluent limits for many parameters at Outfall 006. The new dilution ratio (0:1) is inaccurate and is based on the location of the outfall. DEC was involved in the selection of the outfall location and the characteristics of the outfall have remained unchanged. The dilution should continue to be 100:1.

Department Response: Norlite's discharge pipe ties into the City of Cohoes' storm sewer. The outfall is a shoreline discharge. Upon exiting the outfall, the treated effluent has very little velocity, so rapid and complete mixing does not occur. Furthermore, as the water level in the Mohawk River changes, ambient intrusion occurs. Altogether, the characteristics of the outfall produce little to no mixing. In response to Norlite's concerns, the Department has developed a Schedule of Compliance to investigate and improve the outfall.

Additional Comments- The following changes should be made to improve clarification and consistency throughout the permit: remove all references to "Trunnion" and replace the word, as appropriate, with "Non-Contact"; remove the fact sheet table for Outfall 007 as it is no longer an active outfall.

Department Response: All references to "Trunnion" now also include the words "Non-Contact." Since the process water consists of cooling water that comes in contact with the exterior of the trunnion, it is necessary to include this descriptive language for future permit writers and DEC inspectors. While Outfall 007 has been removed from the permit, the last round of sampling included analytical data from Outfall 007. The fact sheet table indicates that the outfall has been removed, but it is Department procedure to show all sampling results.

5. Mr. Kevin Donovan

“Dear Ms. Dieshner, I am writing to oppose a water permit for Norlite that will allow them discharge mercury by up to 88 times the EPA acceptable levels. Norlite is a commercial entity, and while it may cost more for them to achieve a lower level, they will be able to pass those costs on to their users. We need less mercury going into the environment, not more. Thank you. [sic]”

Department Response: The SPDES permit was developed in accordance with the Technical and Operational Guidance Series (“TOGS”) 1.3.10. Mercury- SPDES Permitting & Multiple Discharge Variance (available at Department’s website). As Norlite provided additional mercury sampling data, the Schedule of Compliance has been modified to include a lower initial mercury limit. The interim total mercury limit of 50 ng/l and the Mercury Minimization Program (“MMP”) is consistent with TOGS 1.3.10., and will result in an overall decrease in total mercury from all wastewater sources at the facility.

6. United States Environmental Protection Agency (“USEPA”)

The comments submitted by USEPA have been summarized for brevity. The unaltered comments are available upon receipt of a Freedom of Information Act (“FOIA”) request.

- NYSDEC calculated both the technology based effluent limit and water quality based effluent limit for mercury. Additionally, NYSDEC calculated the existing effluent quality according to the procedure outlined in *Technical Operational Guidance Series 1.3.19 Mercury—SPDES Permitting (October 2015)* at the internal Outfall 06A. The application of the daily maximum 50 ng/l interim total mercury limit at Outfall 06A is significantly more stringent than the technology based effluent limits of 2300 ng/l daily maximum and 1300 ng/l monthly average.

- USEPA suggests that NYSDEC include in the Administrative Record a calculation demonstrating that both the initial and interim daily maximum concentration based limits are also more stringent than the calculated mass based limit of 0.04 lb/day, based on the average flow of 0.12 mgd.

- NYSDEC developed a compliance schedule to allow two years to comply with the variance limit of 50 ng/l, with interim limitations set at the existing effluent quality of 160 ng/l daily maximum and 89 ng/l monthly average for both Outfalls 06A and 006. It was also noted that the variance limit of 50 ng/l was applied at Outfall 004. USEPA reviewed the process and calculations for mercury and determined that these limitations and schedule are consistent with both the effluent limitation guideline at 40 CFR Part 444 and the statewide mercury variance requirements. USEPA believes these limitations must remain in the final permit and encourages NYSDEC to move forward with permit finalization.

Department Response: As suggested, below is a calculation comparing the technology limit of 0.04 lb/day at a flow of 0.12 mgd to the initial limit and interim limit.

Technology Limit (existing)	Initial Limit (new)	Interim Limit (new)
39,968 ng/l	160 ng/l	50 ng/l
0.04 lb/day	0.00000016 lb/day	0.00000005 lb/day

The equation applied is: [concentration] (mg/l) X 8.34 (lb/day / mgd-mg/l) X 0.12 (mgd)

The Schedule of Compliance has been modified upon request by Norlite. The revisions continue to require significant progress in attaining the interim total mercury limit of 50 ng/l. The Schedule is now broken down into two distinct phases: outfall evaluation/reconfiguration and wastewater treatment plant improvements. The Department believes the revisions are an improvement and continue to adhere to guidance in TOGS 1.3.10.

Furthermore, upon receipt of additional sampling data, the Department revised the initial mercury limits for Outfalls 06A and 006 to include only a daily maximum limit of 160 ng/l. The revised calculated monthly average initial limit of 43 ng/l is below the interim limit of 50 ng/l. These limits continue to be protective of the receiving water quality.

Norlite submitted additional sampling data for mercury at Outfall 004. The result showed mercury below the detection level. The interim limit of 50 ng/l has been removed from the final permit.

7. Mohawk Fine Papers Inc.

The comments submitted by Mohawk Fine Papers, Inc. have been summarized for brevity. Full comments are available upon receipt of a Freedom of Information Act ("FOIA") request.

Compliance with Groundwater Effluent Limitations— Effluent limitations for Outfalls 006 and 06A do not comply with the water quality standards for discharges to groundwater.

Department Response: Norlite reported to the Department that the piping beneath the Mohawk Fine Papers property/building was repaired during January 2017. The repairs were made to reduce any potential for discharge to groundwater and ensure all flow from Outfall No. 006 is conveyed to the Mohawk River.

Compliance with State Environmental Quality Review Act—The negative SEQR declaration should be rescinded. Norlite's industrial wastewater is being discharged into the ground and groundwater under Mohawk's facility as well as causing foul and potentially harmful chemical odors on Mohawk's property. As the pipeline breach was only recently discovered by Mohawk, this information was not available at the time the SEQR declaration was made.

Department Response: The Department complied with SEQRA by issuing a Negative Declaration after evaluating all the available information at the time the application was deemed complete. It should be noted that decisions regarding SEQRA determinations are not revisited for a Department-Initiated Modification of a SPDES permit.

Ground/Groundwater Contamination and Chemical Odors—Mohawk has recently determined that Norlite's discharge has been causing damage to Mohawk's property via ground and groundwater. Additionally, air contaminants such as chlorine and hydrogen sulfide continue to emanate from the front of Mohawk's building near the storm sewer tie in and in Mohawk's basement. The presence of these chemical contaminants and associated odors on Mohawk's property pose a threat to the health and safety of their employees. It is furthermore an environmental risk and is continuing to cause damage to Mohawk's property. Norlite does not have permission to discharge wastewater onto Mohawk's property. Despite knowledge of the presence of the harmful soil, groundwater, and air contamination, Norlite has failed to take steps necessary to prevent or remedy these issues. Resolution of these issues requires denial of the permit renewal and modification or imposition of additional modifications to the permit to ensure that these issues do not continue.

Department Response: The Schedule of Submittals requires Norlite to perform additional survey and repair of damaged portions of the discharge conveyance. Furthermore, a limit for total sulfides has been included at a downstream monitoring point (Outfall 06C) to ensure hydrogen sulfide odors are controlled. The permit also includes a Schedule of Compliance to evaluate the efficacy of the existing outfall and wastewater treatment plant. The Department believes the inclusion of these conditions will address Mohawk's concerns.

Relocation of Effluent Pipeline—Mohawk supports the imposition of a permit condition requiring the redesign and relocation of the discharge pipeline configuration in a manner which eliminates all potential impacts to Mohawk.

Department Response: The Schedule of Compliance associated with this permit condition has been further refined, but continues to require the evaluation and reconfiguration of the outfall and/or the wastewater treatment plant.

Effluent Pipe Inspection and Condition Assessment—Mohawk supports the imposition of the permit condition requiring inspection and condition assessment of all sections of the effluent pipeline, as well as reporting of conditions found, identification of necessary repairs and preparation of an improvements schedule. Mohawk requests an expedited schedule to ensure expedited repair and long-term integrity of the conveyances.

Department Response: The Schedule of Submittals associated with this permit condition has been modified to reflect only the portions of the conveyance owned by Norlite. The condition assessment will be completed nine (9) months from the effective date of permit.

Outfall 06C— Mohawk supports the designation of a new sampling point because the effluent composition and quality changes downstream of the facility. Mohawk also supports the imposition of a total sulfide limit as it is indicative of hydrogen sulfide formation. Also, Mohawk supports the imposition of permit conditions to limit pH and temperature as both parameters are associated with hydrogen sulfide formation. Mohawk requests that direct monitoring of hydrogen sulfide at Outfall 06C be added as a permit condition. Mohawk also supports the inclusion of a monitoring requirement of oxidation/reduction potential and the addition of sodium hypochlorite to effluent in response to ORP measurements, as well as related water-quality limits for total residual chlorine at Outfall 006. Mohawk requests that ORP and TRC monitoring also be added as permit conditions at Outfall 06C and that the frequency is continuous.

Department Response: Many of these items are included in the final SPDES permit. Monitoring of hydrogen sulfide is indirectly addressed by the permit specifying a total sulfides limit (at the detection limit) at Outfall 06C. Note that there is no approved analytical method for direct hydrogen sulfide monitoring. Continuous ORP and TRC monitoring have not been added at Outfall 06C due to space constraints and maintenance issues associated with this manhole along the railroad easement.

Party Status— If the Department holds an adjudicatory hearing, Mohawk Fine Papers will petition for party status.

Department Response: In correspondence to the Department dated August 22, 2017, Norlite has withdrawn their request for a hearing.