

## 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](http://www.epa.gov/lawsregs/laws/index.html#env); Environmental Conservation Law (ECL) [www.dec.ny.gov/regulations/40195.html](http://www.dec.ny.gov/regulations/40195.html); federal regulations [www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR](http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR); state environmental regulations [www.dec.ny.gov/regulations/regulations.html](http://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](http://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 Streamgauge Statistics, Station # 01357500, Mohawk River at Cohoes, NY. The 7Q10 at the discharge location is approximately equal to the 10<sup>th</sup> 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 95<sup>th</sup> and 99<sup>th</sup> 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, **Water 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(1) 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<sup>2-</sup>/ Calculation of Un-Ionized Hydrogen Sulfide found in *Standard Methods for the Examination of Water and Wastewater (20<sup>th</sup> Edition)*. Applicable parameters include:

Combined TDS (permitted effluent + Mohawk) = 500 mg/l

Mohawk temperature= 10 C

Mohawk minimum pH= 6.7 SU

H<sub>2</sub>S 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.

*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 ratio 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- <i>Existing equipment shall be kept in operation until new equipment is online.</i>	Permittee shall install new ORP monitoring equipment and commence operation.	EDP + 12 months
006	DO – <i>Monitor</i>	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
	Ammonia (as N) - <i>120 mg/l monthly average</i>	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
	BOD5 – <i>Monitor</i>	<i>The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.</i>	N/A
	Cadmium – <i>Monitor</i>	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
	TRC - <i>51 ug/l monthly average, 75 ug/l daily maximum</i>	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
	Total Copper - <i>0.064 lb/day daily maximum</i>	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
	Total Iron - <i>2.9 lb/day daily maximum</i>	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
	Total Lead - <i>0.019 lb/day daily maximum</i> Total Mercury- <i>160 ng/l daily maximum</i> TDS - <i>18,000 mg/l monthly avg; 24,000 mg/l daily max</i>		

\* 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- <i>Monitor</i> Total Titanium- <i>Monitor</i>	Meet permit limit	EDP + 3 months
06A	Total Copper - <i>120 ug/l, 0.064 lb/day daily max</i> Total Iron - <i>5.4 mg/l, 2.9 lb/day, daily max</i> Total Mercury- <i>160 ng/l daily maximum</i>	<p>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.</p> <p>Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.</p> <p><i>The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.</i></p> <p>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.</p> <p>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).</p> <p>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.</p> <p>Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.</p>	<p>EDP + 3 months</p> <p>EDP + 5 months</p> <p>N/A</p> <p>Department Approval of Approach + 3 months</p> <p>Department Approval of Report + 15 days</p> <p>EDPM + 3 months</p> <p>Department Approval of Report + 2 years</p>

\* 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 – <i>Monitor</i>	<p>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.</p> <p>Permittee shall submit proposed CORMIX inputs and assumptions for a new or modified outfall, which will be used to model the expected dilution.</p> <p><i>The Department will review the inputs and assumptions, propose revisions or corrections as appropriate, and approve or disapprove the final approach.</i></p> <p>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.</p> <p>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).</p> <p>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.</p> <p>Permittee shall complete construction according to the Approved Report. Permittee shall be in compliance with all applicable permit requirements upon this date.</p>	<p>EDP + 3 months</p> <p>EDP + 5 months</p> <p>N/A</p> <p>Department Approval of Approach + 3 months</p> <p>Department Approval of Report + 15 days</p> <p>EDPM + 3 months</p> <p>Department Approval of Report + 2 years</p>

**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	<p>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.</p> <p>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.</p>	<p>EDP + 9 months</p> <p>Plan Approval + 12 months</p>
006, 06A	Mercury	Permittee shall submit annual report as required by MMP.	<p>EDP + 12 months</p> <p>EDP + 24 months</p> <p>Annually thereafter</p>

**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

<b>Outfall Number</b>	<b>Design Flow Rate (MGD)</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Receiving Water Name</b>	<b>Water Class</b>	<b>Water Index Number</b>	<b>Major/Sub Basin</b>
003	1.0 <sup>(1)</sup>	42° 45' 20"	73° 42' 22"	Salt Kill Creek	D	H-239	1201-0095
004	0.1 <sup>(2)</sup>	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.

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**POLLUTANT SUMMARY TABLE(S)**

Outfall #	003
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Effluent Parameter <small>(concentration in ug/l and mass in lbs/day unless otherwise specified)</small>	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis <small>(T or WQ or NA)</small>
	concentration		mass				PQL	Ambient Criteria	Ambient Background	WQBEL				
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	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.

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Outfall #	004
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Effluent Parameter <small>(concentration in ug/l and mass in lbs/day unless otherwise specified)</small>	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis <small>(T or WQ or NA)</small>
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			
	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	-	-	-	<b>T</b>
Temperature (F)	59/78	64/103	-	-	90	-	DM	-	90	13	-	-	-	<b>T</b>
Solids, total suspended (mg/l)	7.7/15	9.1/22	-	-	25	11	DA		Narrative	-	-	-	-	<b>T</b>
	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	<b>T</b>
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	<b>T</b>
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	<b>WQ</b>
Solids, total dissolved (mg/l)	3300	-	-	-	M	M	DM	-	NA	-	-	-	-	NA
BOD (mg/l)	15	-	-	-	-	-	-	-	-	-	-	-	-	NA
COD (mg/l)	77	-	-	-	-	-	-	-	-	-	-	-	-	NA

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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			
	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 <sup>T</sup> (total).

Ambient background in dissolved form unless marked with <sup>T</sup> (total).

Outfall #	06A
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			
	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

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Effluent Parameter  (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis  (T or WQ or NA)
	concentration		mass				PQL	Ambient Criteria	Ambient Background	WQBEL				
	Avg/Max	95%/99%	Avg/Max	95%/99%	conc.	mass	Type	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



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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			
	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 <sup>T</sup> (total).  
 Water quality does not apply at internal outfall; see WQBEL determination at 006.

Outfall #	06C (MH @ railroad)
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL			
	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

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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & QBELs					Permit Basis (T or WQ or NA)	
	concentration		mass					PQL	Ambient Criteria	Ambient Background	QBEL				
	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
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & QBELs					Permit Basis (T or WQ or NA)	
	concentration		mass					PQL	Ambient Criteria	Ambient Background	QBEL				
	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

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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)	110000/380000	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 <sup>T</sup>	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 <sup>T</sup>	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

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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & QBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	QBEL			
	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 <sup>T</sup> (total).  
 Asterisk (\*) indicates data originates from USGS.

Outfall #	007
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Effluent Parameter (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & QBELs					Permit Basis (T or WQ or NA)
	concentration		mass					PQL	Ambient Criteria	Ambient Background	QBEL			
	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

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Effluent Parameter  (concentration in ug/l and mass in lbs/day unless otherwise specified)	Existing Effluent Quality				TBELs				Water Quality Data & WQBELs					Permit Basis  (T or WQ or NA)	
	concentration		mass					PQL	Ambient Criteria	Ambient Background	WQBEL				
	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