pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Northcentral Regional Office
CLEAN WATER PROGRAM

| | | | | | |
|---|---|---|---|---|---|
| Application Type | **Amendment, Major** | **NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER** | Application No. | **PA0228818 A-1** |
| Facility Type | **Industrial** | | APS ID | **1017615** |
| Major / Minor | **Major** | | Authorization ID | **1316620** |

## Applicant and Facility Information

| | | | |
|---|---|---|---|
| Applicant Name | First Quality Tissue, LLC | Facility Name | FQT Lock Haven Plant |
| Applicant Address | 904 Woods Avenue | Facility Address | 904 Woods Avenue |
| | Lock Haven, PA 17745-3348 | | Lock Haven, PA 17745-3348 |
| Applicant Contact | James Vaiana | Facility Contact | James Vaiana |
| Applicant Phone | 570-893-7242 | Facility Phone | 570-893-7242 |
| Client ID | 209667 | Site ID | 269267 |
| SIC Code | 2621 | Municipality | Castanea Township |
| SIC Description | Manufacturing - Paper Mills | County | Clinton |
| Date Application Received | June 04, 2020 | EPA Waived? | No |
| Date Application Accepted | August 27, 2020 | If No, Reason | Major Facility |
| Purpose of Application | Amendment application in compliance with Part C Condition V of 2019 NPDES Permit | | |

## Summary of Review

INTRODUCTION

First Quality Tissue (FQT) has applied to amend the existing NPDES permit, as required by the permit issuance of January 09, 2019. The Department considers this a major amendment.

APPLICATION

FQT submitted the NPDES Application for Individual Permit to Discharge Industrial Wastewater (DEP #3850-PM-BCW0008b). This application was received by the Department on June 04, 2020 and considered administratively complete on August 27, 2020. James A. Vaiana, Environmental Manager, is both the client and site contact. His additional contact information is (email) jvaiana@firstquality.com. An additional FQT contact is Brandon Yost. His contact information is (phone) 570-893-7366 and (email) byost@firstquality.com.

PUBLIC PARTICIPATION

DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

The case file, permit application package and draft permit will be available for public review at the Department's Northcentral Regional Office. The address for this office is 208 West Third Street, Williamsport, PA 17701. An appointment can be made to review these materials during the comment period by calling the file coordinator at 570-327-3636.

*CONTINUED on the next page.*

| Approve | Deny | Signatures | Date |
|---|---|---|---|
| X | | Jeffrey J. Gocek, EIT — Project Manager | 11/17/2021 |
| X | | Nicholas W. Hartranft, PE — Environmental Engineer Manager | 11/17/2021 |

OUTFALL AND RECEIVING STREAM SUMMARY

Outfall 003 discharges industrial process wastewater, with effluent quality dictated by Effluent Limit Guideline (ELG, 40 CFR 430.120). Outfall 001 discharges at latitude 41º 07' 23.40" and longitude -77º 26' 49.30". The receiving stream is Bald Eagle Creek, which is identified by stream code 22412. This stream is protected for Warm Water Fishes (WWF) and Migratory Fishes (MF). At the point of discharge, the drainage area is 767 square miles (mi2), the elevation is 545 feet and the $Q_{7,10}$ is 206 cubic feet per second (CFS). The receiving stream is impaired for Metals (cause) due to Abandoned Mine Drainage (source). A Total Maximum Daily Load (TMDL) addressing the impairment was prepared for the (downstream) West Branch Susquehanna River. The nearest downstream public water supply intake is the PA-American Water Company on the West Branch Susquehanna River at Milton, PA approximately 60 river miles downstream.

FACILITY SUMMARY

Background

First Quality Tissue (FQT) manufactures paper towel and tissue products at its facility in Castenea Township, Clinton County. FQT currently operates three paper machines which use various organic chemicals and additives in the papermaking process. These are wet and dry strength binders, release aids, adhesives, softeners, creping aids, biocides, defoaming aids and others.

See Attachment 01 for the facility location map.

FQT reported 2621 as applicable primary Standard Industrial Classification (SIC) code on the NPDES application. According to https://www.osha.gov, 2621 is *Paper Mills*. The code is defined as “Establishments primarily engaged in manufacturing paper from wood pulp and other fiber pulp, and which may also manufacture converted paper products. Establishments primarily engaged in integrated operations of producing pulp and manufacturing paper are included in this industry if primarily shipping paper or paper products.”

Industrial Process

The tissue manufacturing operation includes three process lines designed to make paper towels at a rate of approximately 23,720 dry tons per month. The first step in the tissue making process is to disperse the fibrous raw material (pulp), received in the form of bales, with water. This operation is performed in an open top large chest, which acts much like a household blender called a virgin pulper. The pulp is then screened, diluted and blended with additives forming the papermaking furnish (dilute pulp mixture) which feeds the paper machine. The first section in the paper machine is the wet end forming section. In this wet end, dewatering of the papermaking furnish occurs. This process allows the formation of the sheet. Once the sheet is formed in the wet-end section, it is sent to the dryers. The dryers (1 and 2) remove the remaining water in the sheet by evaporation. Once the sheet is dried in the dryers, it is sent to the dry end section. In the dry end, the dried paper is transferred, trimmed and wound onto large rolls of paper (parent rolls). If the paper in the dryers or dry end section of the machine breaks, a large chest or pit called the dry end pulper, located under the second dryer, receives the paper. The paper in the dry end pulper is mixed with water and pumped back to the stock preparation area to be re-used. Once the parent rolls are formed in the paper machine, the next step is the converting operation. In converting, the parent rolls are transformed into their finished product before reaching the final customer. The converting operation includes cutting, rewinding the parent rolls onto smaller size rolls, printing, packaging and shipping. Water based inks and water-based glues are used during the converting operation. The converting broke pulper receives reject rolls and waste (generated during converting) via the waste transport system. The waste and reject rolls are mixed with water and pumped back to the stock preparation area to be re-used. Papermaking additives are added in the stock preparation area and throughout the paper machine. The entire paper machine production area drains to a U-drain (process sewer) system which catches and contains any spills or leaks within the production area.

Industrial Wastewater Treatment

Wastewater from the papermaking process is treated by an on-site Industrial Wastewater Treatment Facility (IWTF). Process wastewater is conveyed, via lift station, to a circular gravity settling primary clarifier. The settled solids are transferred to a sludge storage tank and then dewatered in two screw presses. Treated water flows by gravity from the clarifier to the (approximately) 70-million gallon aerated sedimentation basin (ASB). This WWTP has a design capacity of 10 MGD. Long residence times within the ASB provide for the additional cooling of the wastewater effluent prior to discharge through Outfall 003 to Bald Eagle Creek (via an 18-inch diffused outfall). Sludge is dewatered with Andritz screw presses.

See Attachment 02 for the wastewater flow diagram.

Facility Discharge Flow

The third paper machine (PM) is now operational and has a 30% greater capacity than each of the two existing PMs. The facility now has a design flow of 7.4 MGD, with 2.2 MGD produced by the third PM.

*CONTINUED on the next page.*

COMPLIANCE HISTORY

The WMS Query *Open Violations by Client Report* was run for FQT. FQT currently has no unaddressed violations.

The following tables contain Discharge Monitoring Report (DMR) data for Outfalls 001, 002, 003 and 004 for the period of September 2020 to August 2021.

**Outfall 003**

| Parameter | AUG-21 | JUL-21 | JUN-21 | MAY-21 | APR-21 | MAR-21 | FEB-21 | JAN-21 | DEC-20 | NOV-20 | OCT-20 | SEP-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flow (MGD) Average Monthly | 5.99 | 5.73 | 5.58 | 5.95 | 5.48 | 5.68 | 5.92 | 5.52 | 5.5 | 5.72 | 5.10 | 5.22 |
| Flow (MGD) Daily Maximum | 7.40 | 7.22 | 7.15 | 7.24 | 6.57 | 7.41 | 7.46 | 7.3 | 7.14 | 6.85 | 7.12 | 7.58 |
| pH (S.U.) IMAX | 6.87 | 6.87 | 6.84 | 6.79 | 6.82 | 6.73 | 7.0 | 6.98 | 7.02 | 7.0 | 7.01 | 7.17 |
| pH (S.U.) IMAX | 7.35 | 7.19 | 7.21 | 7.21 | 7.18 | 7.34 | 7.27 | 7.16 | 7.5 | 7.29 | 7.52 | 7.51 |
| DO (mg/L) IMAX | 0.97 | 1.81 | 2.67 | 3.14 | 4.39 | 2.96 | 5.77 | 5.13 | 4.14 | 3.34 | 2.72 | 2.51 |
| BOD5 (lbs/day) Average Monthly | 680 | 672 | 1094 | 1118 | 1441 | 1079 | 738 | 913 | 1193 | 1232 | 755 | 781 |
| BOD5 (lbs/day) Daily Maximum | 1217 | 939 | 1652 | 1493 | 2327 | 1670 | 1062 | 1275 | 1899 | 1846 | 1031 | 1000 |
| BOD5 (mg/L) Average Monthly | 14.0 | 16.0 | 27.0 | 25.0 | 29.0 | 22.0 | 15.0 | 28.0 | 26.0 | 25.0 | 17.0 | 18.0 |
| BOD5 (mg/L) Daily Maximum | 24.4 | 24.2 | 43.0 | 38.2 | 43.5 | 31.8 | 20.5 | 55.0 | 39.4 | 40.4 | 21.0 | 19.5 |
| TSS (lbs/day) Average Monthly | 911 | 1194 | 1103 | 697 | 664 | 496 | 506 | < 239 | < 394 | 1312 | 1025 | 1360 |
| TSS (lbs/day) Daily Maximum | 1101 | 1520 | 1843 | 979 | 821 | 556 | 725 | 447 | 585 | 1534 | 1571 | 1651 |
| TSS (mg/L) Average Monthly | 19.0 | 29.0 | 26.0 | 16.0 | 14.0 | 11.0 | 10.0 | < 7.0 | < 9.0 | 26.0 | 23.0 | 31.0 |
| TSS (mg/L) Daily Maximum | 24.0 | 38.0 | 37.0 | 20.0 | 15.0 | 16.0 | 14.0 | 10.0 | 14.0 | 28.0 | 32.0 | 37.0 |
| Nitrate-Nitrite (mg/L) Average Monthly | < 0.1 | < 0.10 | < 0.1 | < 0.10 | < 0.10 | < 0.1 | < 0.10 | < 0.1 | < 0.10 | < 0.2 | < 0.1 | < 0.10 |
| Nitrate-Nitrite (lbs) Total Monthly | < 155.9 | < 140.6 | < 138.4 | < 157.5 | < 133.6 | < 149.5 | < 134.7 | < 136.7 | < 143.2 | < 211 | < 202.5 | < 132.6 |
| Total Nitrogen (mg/L) Average Monthly | < 3.4 | < 4.7 | < 3.7 | < 3.1 | < 3.1 | < 4.3 | < 5.0 | < 4.1 | < 4.2 | < 5.2 | < 4.5 | < 4.58 |
| Total Nitrogen (mg/L) Intake Average Monthly | < 1.49 | < 1.77 | < 2.0 | < 2.8 | < 1.46 | < 2.09 | < 2.8 | < 2.66 | < 1.84 | < 1.88 | < 1.8 | < 2.49 |
| Total Nitrogen (lbs) Effluent Net Total Monthly | < 2800.0 | < 4062.1 | < 2412.0 | < 430.9 | < 1960.5 | < 3607.00 | < 2871.40 | < 1955.5 | < 3448.6 | < 4629.5 | < 3624.5 | < 2677.10 |
| Total Nitrogen (lbs) Intake Total Monthly | < 2347 | < 2480 | < 2626 | < 4452 | < 1953 | < 3094.0 | < 3801.0 | < 3760 | < 2632 | < 2652 | < 2291 | < 3352 |
| Total Nitrogen (lbs) Total Monthly | < 5147 | < 6542.1 | < 5038 | < 4882.9 | < 3913.5 | < 6701 | < 6672.4 | < 5715.5 | < 6080.6 | < 7282.5 | < 5915.5 | < 6029.1 |
| Total Nitrogen (lbs) Effluent Net Total Annual | | | | | | | | | | | | < 26418.6 |
| Total Nitrogen (lbs) Total Annual | | | | | | | | | | | | < 58793 |
| Ammonia (mg/L) Average Monthly | < 0.012 | < 0.1 | < 0.1 | < 0.10 | < 0.10 | < 0.1 | < 0.1 | < 0.24 | < 0.17 | < 0.10 | < 0.1 | < 0.10 |
| Ammonia (lbs) Total Monthly | < 188.6 | < 146.6 | < 138.4 | < 157.5 | < 133.6 | < 152.6 | < 134.7 | < 333.9 | < 241.5 | < 142.5 | 1576.9 | < 132.6 |
| Ammonia (lbs) Total Annual | | | | | | | | | | | | < 1621 |
| TKN (mg/L) Average Monthly | 3.3 | 4.6 | < 3.6 | 3.0 | < 3.0 | 4.2 | 4.9 | 4.0 | 4.1 | 5.1 | 4.4 | 4.48 |
| TKN (lbs) Total Monthly | 4991.1 | 6401.5 | < 4899.6 | 4725.5 | < 3779.9 | 6551.5 | 6537.7 | 5578.8 | 5937.3 | 7071.5 | 5712.9 | 5896.5 |
| Total Phosphorus (mg/L) Average Monthly | 1.04 | 1.12 | 1.04 | 1.14 | 0.98 | 0.98 | 0.98 | 1.05 | 1.01 | < 0.93 | 1.19 | 1.5 |
| Total Phosphorus (mg/L) Intake Average Monthly | < 0.03 | < 0.03 | < 0.04 | < 0.04 | < 0.04 | < 0.03 | < 0.03 | < 0.03 | < 0.06 | < 0.21 | < 0.08 | 0.13 |

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Phosphorus (lbs)<br>Effluent Net<br>Total Monthly | <<br>1569.8 | <<br>1526.3 | <<br>1409.6 | <<br>1718.5 | <<br>1276.2 | <<br>1445.00 | <<br>1254.60 | <<br>1399.4 | <<br>1368.2 | <<br>1114.7 | <<br>1471.9 | 1829.4 |
| Total Phosphorus (lbs)<br>Intake<br>Total Monthly | < 47 | < 44 | < 56.0 | < 68 | < 47 | < 49 | < 40.0 | < 41.0 | < 78 | < 248.0 | < 105 | 171 |
| Total Phosphorus (lbs)<br>Total Monthly | 1616.8 | 1570.3 | 1465.6 | 1786.5 | 1323.2 | 1494 | 1294.6 | 1440.4 | 1446.2 | <<br>1362.7 | 1576.9 | 2000.4 |
| Total Phosphorus (lbs)<br>Effluent Net<br>Total Annual | | | | | | | | | | | | <<br>16381.5 |
| Total Phosphorus (lbs)<br>Total Annual | | | | | | | | | | | | 17414 |
| Total Aluminum (lbs/day)<br>Average Monthly | 6.70 | 6.07 | 7.33 | < 4.61 | 4.20 | < 2.50 | < 2.51 | < 1.79 | < 2.35 | 8.74 | 8.53 | 14.64 |
| Total Aluminum (lbs/day)<br>Daily Maximum | 11.0 | 9.00 | 10.0 | 6.0 | 5.0 | < 3.00 | < 3.0 | < 2.0 | < 3.0 | 10.0 | 13.0 | 18.0 |
| Total Aluminum (mg/L)<br>Average Monthly | 0.14 | 0.14 | 0.18 | < 0.11 | 0.09 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | 0.18 | 0.19 | 0.34 |
| Total Aluminum (mg/L)<br>Daily Maximum | 0.20 | 0.19 | 0.20 | 0.16 | 0.12 | 0.05 | < 0.05 | < 0.05 | < 0.05 | 0.21 | 0.27 | 0.41 |
| Total Iron (lbs/day)<br>Average Monthly | 10.18 | 8.20 | 9.75 | 6.74 | 6.03 | < 4.08 | < 3.64 | < 2.64 | < 3.46 | 10.48 | 8.73 | 12.98 |
| Total Iron (lbs/day)<br>Daily Maximum | 14.88 | 10.22 | 12.45 | 7.55 | 6.95 | 4.64 | 4.13 | < 3.13 | < 4.09 | 11.60 | 13.26 | 16.51 |
| Total Iron (mg/L)<br>Average Monthly | 0.20 | 0.19 | 0.24 | 0.15 | 0.13 | < 0.09 | < 0.07 | < 0.08 | < 0.07 | 0.21 | 0.20 | 0.30 |
| Total Iron (mg/L)<br>Daily Maximum | 0.28 | 0.23 | 0.25 | 0.17 | 0.16 | 0.12 | 0.08 | 0.08 | 0.08 | 0.24 | 0.27 | 0.37 |
| Total Manganese (lbs/day)<br>Average Monthly | 2.16 | 2.06 | 2.31 | 2.51 | 1.46 | 1.00 | 1.00 | 0.70 | 1.22 | 1.61 | 1.43 | 1.88 |
| Total Manganese (lbs/day)<br>Daily Maximum | 2.66 | 2.44 | 2.49 | 3.43 | 2.19 | 1.22 | 1.04 | 0.09 | 1.47 | 1.83 | 1.96 | 2.56 |
| Total Manganese (mg/L)<br>Average Monthly | 0.05 | 0.05 | 0.06 | 0.06 | 0.03 | 0.02 | 0.02 | 0.02 | 0.03 | 0.03 | 0.03 | 0.04 |
| Total Manganese (mg/L)<br>Daily Maximum | 0.05 | 0.05 | 0.07 | 0.07 | 0.04 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.04 | 0.05 |

**Outfall 001**

| Parameter | AUG-21 | JUL-21 | JUN-21 | MAY-21 | APR-21 | MAR-21 | FEB-21 | JAN-21 | DEC-20 | NOV-20 | OCT-20 | SEP-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH (S.U.)<br>Semi-Annual Average | | | 7.8 | | | | | | 7.4 | | | |
| COD (mg/L)<br>Semi-Annual Average | | | 32.1 | | | | | | 32.1 | | | |
| TSS (mg/L)<br>Semi-Annual Average | | | 48 | | | | | | 38.0 | | | |

**Outfall 002**

| Parameter | AUG-21 | JUL-21 | JUN-21 | MAY-21 | APR-21 | MAR-21 | FEB-21 | JAN-21 | DEC-20 | NOV-20 | OCT-20 | SEP-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH (S.U.)<br>Semi-Annual Average | | | 7.4 | | | | | | 7.76 | | | |
| COD (mg/L)<br>Semi-Annual Average | | | < 25 | | | | | | < 15.0 | | | |
| TSS (mg/L)<br>Semi-Annual Average | | | < 4.0 | | | | | | 3.4 | | | |

**Outfall 004**

| Parameter | AUG-21 | JUL-21 | JUN-21 | MAY-21 | APR-21 | MAR-21 | FEB-21 | JAN-21 | DEC-20 | NOV-20 | OCT-20 | SEP-20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| pH (S.U.)<br>Semi-Annual Average | | | 7.3 | | | | | | 7.37 | | | |
| COD (mg/L)<br>Semi-Annual Average | | | < 25 | | | | | | < 15.0 | | | |
| TSS (mg/L)<br>Semi-Annual Average | | | < 4.0 | | | | | | 1.8 | | | |

The most recent Department inspection, a compliance evaluation inspection (CEI), was performed on July 15, 2021. No violations were identified during the inspection. At that time, all required treatment units were online and operational at the time of the inspection. The effluent was observed and described as relatively clear.

*CONTINUED on the next page.*

EXISTING PERMIT

The following effluent limitations and monitoring requirements were finalized in the NPDES permit issuance which occurred January 09, 2019.

Outfall 003 - Effective Period: Permit Effective Date through Permit Expiration Date

| Discharge Parameter | Mass Limits (lb/day) | | Concentration Limits (mg/L) | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Monthly Average | Daily Maximum | Minimum | Monthly Average | Daily Maximum | IMAX | Minimum Measurement Frequency | Required Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (SU) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 1/Day | Grab |
| Dissolved Oxygen | XXX | XXX | Report | XXX | XXX | XXX | 1/Day | Grab |
| $BOD_5$ | 4,010 | 8,020 | XXX | 65 | 130 | 160 | 1/Week | 24 Hour Comp |
| Total Suspended Solids | 3,270 | 6,540 | XXX | 53 | 105 | 130 | 1/Week | 24 Hour Comp |
| Total Aluminum | 35.02 | 70.0 | XXX | 0.92 | 1.84 | 2.30 | 1/Week | 24 Hour Comp |
| Total Iron | 20.34 | 40.69 | XXX | 0.53 | 1.07 | 1.33 | 1/Week | 24 Hour Comp |
| Total Manganese | 5.13 | 10.27 | XXX | 0.13 | 0.27 | 0.33 | 1/Week | 24 Hour Comp |

| Parameter | Mass Units (lbs) | | Concentrations (mg/L) | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|
| | Monthly | Annual | Minimum | Monthly Average | Maximum | Minimum Measurement Frequency | Required Sample Type |
| Ammonia-N | Report | Report | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Kjeldahl-N | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Nitrogen | Report | Report | XXX | Report | XXX | 2/Week | Calculation |
| Total Nitrogen INTAKE | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Phosphorus | Report | Report | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Phosphorus INTAKE | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| NET Total Nitrogen | Report | Report | XXX | XXX | XXX | 1/Month | Calculation |
| NET Total Phosphorus | Report | Report | XXX | XXX | XXX | 1/Month | Calculation |

Outfalls 001, 002 & 004 - Effective Period: Permit Effective Date through Permit Expiration Date

| Parameter | Monitoring Requirements | | Benchmark Values |
|---|---|---|---|
| | Minimum Measurement Frequency | Sample Type | |
| pH (SU) | 1/6 Months | Grab | XXX |
| Chemical Oxygen Demand (mg/L) | 1/6 Months | Grab | 120 |
| Total Suspended Solids (mg/L) | 1/6 Months | Grab | 100 |

BASIS OF LIMITATIONS AND MONITORING

See the 2018 Fact Sheet and the 2019 Fact Sheet Addendum for the basis of limitations and monitoring requirements contained in the 2019 NPDES permit.

OUTFALLS

Both wastewater and stormwater are discharged through four outfalls to Bald Eagle Creek.

| Outfall | Latitude | Longitude | Receiving Stream | Wastewater |
|---|---|---|---|---|
| 001 | 41° 07' 01" | -77° 27' 51" | Bald Eagle Creek | Stormwater |
| 002 | 41° 07' 03" | -77° 27' 29" | Bald Eagle Creek | Stormwater |
| 003 | 41° 07' 23" | -77° 26' 49" | Bald Eagle Creek | Industrial Process |
| 004 | 41° 07' 20" | -77° 26' 40" | Bald Eagle Creek | Stormwater |

This amendment will deal with industrial process wastewater effluent discharged through Outfall 003.

*CONTINUED on the next page.*

SAMPLE RESULTS

At the time of the last issuance in 2019, the applicant failed to provide projected sample result data for the addition of the third paper machine (via Outfall 003). The incomplete effluent sampling results submitted with the application prevented a thorough Reasonable Potential (RP) analysis at that last application review. Because of this, the renewed 2019 NPDES permit contained a special condition (Part C.V) which required FQT to provide sampling data six months after the start-up of the third paper production line. This data was received by the Department in July 2020.

The current permit was issued February 01, 2019 and will expire January 31, 2024.

TOXICS SCREENING ANALYSIS

From the latest data (submitted for the required amendment application), maximum pollutant concentrations, and non-detects (NDs) at the assumed Target QLs, for Pollutant Groups (PGs) 1 through 6 were entered into the Department's Toxics Management Spreadsheet (TMS). The TMS has since replaced both the Toxics Screening Analysis (TSA) spreadsheet and PENTOXSD models used in the last renewal.

The TMS is used to determine reasonable potential (RP) and calculate water quality-based effluent limitations (WQBELS) for discharges of toxic pollutants from a single discharge point. The TMS utilizes the following logic to assign either no action, effluent limitation or monitoring; 1. Establish average monthly, daily maximum and IMAX limits in the draft permit where the maximum reported concentration exceeds 50% of the WQBEL (RP is demonstrated), 2. Establish monitoring requirements for non-conservative pollutants where the maximum reported concentrations is between 25% to 50% of the WQBEL and 3. Establish monitoring requirements for conservative pollutants where the maximum reported concentration is between 10% to 50% of the WQBEL.

The TMS recommended the following monitoring and limitations.

| | Mass Limits (lbs/day) | | Concentration (ug/L, unless noted) | | | | |
|---|---|---|---|---|---|---|---|
| **Pollutants** | **AML** | **MDL** | **AML** | **MDL** | **IMAX** | **WQBEL** | **Basis** |
| Cadmium, Total | Report | Report | Report | Report | Report | 3.04 | CFC |
| Hexavalent Chromium | Report | Report | Report | Report | Report | 25.9 | AFC |
| Silver, Total | 0.34 | 0.52 | 5.41 | 8.44 | 13.5 | 5.41 | AFC |
| Acrylonitrile | 0.22 | 0.35 | 3.60 | 5.62 | 9.01 | 3.60 | CRL |
| Butyl Benzyl Phthalate | 0.07 | 0.11 | 1.13 | 1.77 | 2.84 | 1.13 | THH |
| 2,4-Dinitrotoluene | 0.19 | 0.29 | 3.00 | 4.68 | 7.50 | 3.00 | CRL |
| Hexachlorobutadiene | 0.037 | 0.058 | 0.60 | 0.94 | 1.50 | 0.60 | CRL |
| Phenanthrene | Report | Report | Report | Report | Report | 7.93 | AFC |
| 1,2,4-Trichlorobenzene | 0.049 | 0.076 | 0.79 | 1.24 | 1.99 | 0.79 | THH |
| 4,4-DDT | 0.0001 | 0.0002 | 0.002 | 0.003 | 0.005 | 0.002 | CRL |
| 4,4-DDE | 0.00007 | 0.0001 | 0.001 | 0.002 | 0.003 | 0.001 | CRL |
| 4,4-DDD | 0.0004 | 0.0006 | 0.006 | 0.009 | 0.015 | 0.006 | CRL |
| Dieldrin | 0.000004 | 0.000006 | 0.00006 | 0.00009 | 0.0002 | 0.00006 | CRL |
| Endrin | Report | Report | Report | Report | Report | 0.14 | AFC |
| 2,3,7,8-TCDD (ng/L) | 1.85E-08 | 2.89E-08 | 0.0003 | 0.0005 | 0.0008 | 0.0003 | CRL |

In accordance with the Department Standard Operating Procedure (SOP) #BPNPSM-PMT-033, FQT can demonstrate through additional sampling (at the Department's Target Quantitation Limits (QLs)) during the draft permit comment period that certain pollutants, not previously detected in the FQT effluent, are not present in the treated effluent and therefore eliminate the need for future monitoring and limitations.

See Attachment 03 for the TMS Output.

REMAINING PERMIT REQUIREMENTS

All remaining limitations, monitoring requirements, special conditions (with the exception of Part C.V, which required the sampling results for this amendment) and supplemental DMRs (with the exception of the sDMR Daily, which was amended to include the new parameters) will remain the same in the amended permit.

*CONTINUED on the next page.*

PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The limitations and monitoring requirements specified below are proposed for the draft permit and reflect the most stringent limitations amongst technology, water quality and BPJ.

Outfall 003 - Effective Period: Permit Effective Date through Permit Expiration Date

| Discharge Parameter | Mass Limits (lb/day) | | Concentration Limits in mg/L, unless noted | | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|---|
| | Monthly Average | Daily Maximum | Minimum | Monthly Average | Daily Maximum | IMAX | Minimum Measurement Frequency | Required Sample Type |
| Flow (MGD) | Report | Report | XXX | XXX | XXX | XXX | Continuous | Metered |
| pH (SU) | XXX | XXX | 6.0 | XXX | XXX | 9.0 | 1/Day | Grab |
| Dissolved Oxygen | XXX | XXX | Report | XXX | XXX | XXX | 1/Day | Grab |
| $BOD_5$ | 4,010 | 8,020 | XXX | 65 | 130 | 160 | 1/Week | 24 Hour Comp |
| Total Suspended Solids | 3,270 | 6,540 | XXX | 53 | 105 | 130 | 1/Week | 24 Hour Comp |
| Total Aluminum | 35.02 | 70.0 | XXX | 0.92 | 1.84 | 2.30 | 1/Week | 24 Hour Comp |
| Total Iron | 20.34 | 40.69 | XXX | 0.53 | 1.07 | 1.33 | 1/Week | 24 Hour Comp |
| Total Manganese | 5.13 | 10.27 | XXX | 0.13 | 0.27 | 0.33 | 1/Week | 24 Hour Comp |
| Cadmium, Total | Report | Report | XXX | Report | Report | XXX | 1/Week | 24 Hour Comp |
| Hexavalent Chromium | Report | Report | XXX | Report | Report | XXX | 1/Week | 24 Hour Comp |
| Silver, Total (µg/L) | 0.34 | 0.52 | XXX | 5.41 | 8.44 | 13.5 | 1/Week | 24 Hour Comp |
| Acrylonitrile (µg/L) | 0.22 | 0.35 | XXX | 3.60 | 5.62 | 9.01 | 1/Week | 24 Hour Comp |
| Butyl Benzyl Phthalate (µg/L) | 0.07 | 0.11 | XXX | 1.13 | 1.77 | 2.84 | 1/Week | 24 Hour Comp |
| 2,4-Dinitrotoluene (µg/L) | 0.19 | 0.29 | XXX | 3.00 | 4.68 | 7.50 | 1/Week | 24 Hour Comp |
| Hexachlorobutadiene (µg/L) | 0.037 | 0.058 | XXX | 0.60 | 0.94 | 1.50 | 1/Week | 24 Hour Comp |
| Phenanthrene (µg/L) | Report | Report | XXX | Report | Report | XXX | 1/Week | 24 Hour Comp |
| 1,2,4-Trichlorobenzene (µg/L) | 0.049 | 0.077 | XXX | 0.79 | 1.24 | 1.99 | 1/Week | 24 Hour Comp |
| 4,4-DDT (µg/L) | 0.0001 | 0.0002 | XXX | 0.002 | 0.003 | 0.005 | 1/Week | 24 Hour Comp |
| 4,4-DDE (µg/L) | 0.00007 | 0.0001 | XXX | 0.001 | 0.002 | 0.003 | 1/Week | 24 Hour Comp |
| 4,4-DDD (µg/L) | 0.0004 | 0.0006 | XXX | 0.006 | 0.009 | 0.015 | 1/Week | 24 Hour Comp |
| Dieldrin (ng/L) | 0.000004 | 0.000006 | XXX | 0.06 | 0.09 | 0.1 | 1/Week | 24 Hour Comp |
| Endrin (µg/L) | Report | Report | XXX | Report | Report | XXX | 1/Week | 24 Hour Comp |
| 2,3,7,8-TCDD (ng/L) | 1.85E-08 | 2.89E-08 | XXX | 0.0003 | 0.0005 | 0.0008 | 1/Week | 24 Hour Comp |

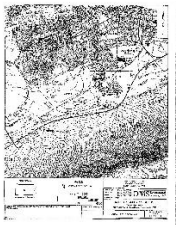
| Parameter | Mass Units (lbs) | | Concentrations (mg/L) | | | Monitoring Requirements | |
|---|---|---|---|---|---|---|---|
| | Monthly | Annual | Minimum | Monthly Average | Maximum | Minimum Measurement Frequency | Required Sample Type |
| Ammonia-N | Report | Report | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Kjeldahl-N | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Nitrate-Nitrite as N | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Nitrogen | Report | Report | XXX | Report | XXX | 2/Week | Calculation |
| Total Nitrogen INTAKE | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Phosphorus | Report | Report | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| Total Phosphorus INTAKE | Report | XXX | XXX | Report | XXX | 2/Week | 24-Hr Comp |
| NET Total Nitrogen | Report | Report | XXX | XXX | XXX | 1/Month | Calculation |
| NET Total Phosphorus | Report | Report | XXX | XXX | XXX | 1/Month | Calculation |

Outfalls 001, 002 & 004 - Effective Period: Permit Effective Date through Permit Expiration Date

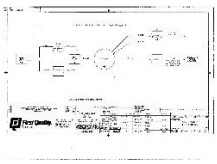
| Parameter | Monitoring Requirements | | Benchmark Values |
|---|---|---|---|
| | Minimum Measurement Frequency | Sample Type | |
| pH (SU) | 1/6 Months | Grab | XXX |
| Chemical Oxygen Demand (mg/L) | 1/6 Months | Grab | 120 |
| Total Suspended Solids (mg/L) | 1/6 Months | Grab | 100 |

*END of Fact Sheet.*

*ATTACHMENT 01*



*ATTACHMENT 02*



*ATTACHMENT 03*