pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NORTHEAST REGIONAL OFFICE
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET ADDENDUM

Application Type	**Renewal**	Application No.	**PA0020176**
Facility Type	**Sewage**	APS ID	**991946**
Major / Minor	**Major**	Authorization ID	**1270907**

Applicant and Facility Information

Applicant Name	**Slatington Joint Client (Slatington Borough and Slatington Borough Authority)**	Facility Name	**Slatington WWTP**
Applicant Address	125 S Walnut Street Slatington, PA 18080-2099	Facility Address	900 Railroad Street (Route 873) Slatington, PA 18080
Applicant Contact	Daniel Stevens	Facility Contact	Duane Szczesny
Applicant Phone	(610) 767-2131	Facility Phone	(610) 767-5871
Client ID	349454 (Slatington Joint Client for E-facts) 85660 (Slatington Borough) 823070 (Slatington Borough Authority)	Site ID	449306
SIC Code	4952	Municipality	Slatington Borough
SIC Description	Trans. & Utilities - Sewerage Systems	County	Lehigh
Date Published in PA Bulletin	October 26, 2019 (draft); TBD	EPA Waived?	No
Comment Period End Date	December 10, 2019 (draft); TBD	If No, Reason	Major Facility
Purpose of Application	Application for a renewal of an NPDES permit for discharge of treated Sewage to co-permittees		

Internal Review and Recommendations

This is the Fact Sheet Addendum for a Redraft NPDES Permit. The Redraft is being issued for two reasons:

- **Revised Copper limits:** The Department updated the copper water quality modeling and permit limits using additional copper sampling data provided by Slatington. The DEP TOXCONC Spreadsheet used EPA-approved statistical methodologies was used to calculate the Long Term Average Monthly Effluent Concentration (LTAMEC) and Coefficient of Variability (COV) as water quality modeling input values (using the new data). The scientifically-based DEP PENTOXSD water quality program was used to recalculate the applicable Toxics Water Quality-Based Effluent Limits (WQBELs), with previously used input values other than the TOXCONC data. See Copper related public comments below for more details.
- **Permit Template Changes**: DEP SOP No. BCW-PMT-002 Part IV.O.2 states: "If a draft permit is issued and then is not finalized for 6 months or more, and during this time standard permit language in WMS is modified in a way that would affect the permittee…". The Municipal Sewage NPDES Permit Template was updated in January 2020. The Redraft NPDES Permit was regenerated using the current template conditions.

Public Comments: Responses are bolded.

EPA Public Comments: **11/7/2019 EPA Public Comment E-mail (Michelle Price-Fay):** "The permit affords a four year schedule to comply with the final copper limit, but the compliance schedule only provides two years to conduct a TRE. If a two - three year schedule is appropriate, the final compliance deadlines should be adjusted in Part A of the permit. If the

Approve	Return	Deny	Signatures	Date
X			James D. Berger (signed) James D. Berger, P.E. / Environmental Engineer	August 18, 2020
X			Amy M. Bellanca (signed) Amy M. Bellanca, P.E. / Environmental Engineer Manager	8-26-20
NA			NA – not required for Redraft. Bharat Patel, P.E. / Environmental Program Manager	-

Internal Review and Recommendations

TRE is expected to be conducted over this four year period, the TRE completion date should be extended and additional interim milestones will need to be added to justify the time needed to comply. We offer some suggestions for milestones that could be used between the "Complete TRE Work Plan" and "Complete TRE" milestones: Initiate TRE (within X months), Implement TRE Workplan Schedule (within X months), Implement TRE controls (within X months). Of course if the facility has specific actions it knows it will undertake, those should be utilized." **The Department thanks EPA for its comments but does not believe additional interim compliance milestones are needed or appropriate in this case. To clarify the Part C.III Schedule of Compliance for all parties:**

- **The TRE (Toxic Reduction Evaluation) process is a part of the NPDES Part C.III (Water Quality-Based effluent Limitations for Toxic Pollutants: Copper) 4-Year Schedule of Compliance, not the whole:**

Action	Due Date*
Complete TRE Work Plan and Submit Work Plan **meeting Part C.III.C requirements****	12 months after Permit Effective Date **(Chapter 92a.51 does not allow for more than one (1) year between interim compliance dates).**
Complete TRE and Site-Specific Data Collection **meeting Part C.III.B requirements*****	24 months after Permit Effective Date
Submit Final WQBEL Compliance Report **meeting Part C.III.D.2 requirements (including Final TRE Report with any required feasibility analysis)********	36 months after Permit Effective Date
Effective Date of New Copper Limits after completion of any required DEP decision-making per Part C.III.D.3 *******	**48 months after Permit Effective Date**

***Due Dates are the interim or final compliance milestones (to be modified per Chapter 92a.51 to reflect quarterly calendar reporting dates as needed). The dates reflect the latest acceptable date for completion of the required milestone. See NPDES Permit Parts A.III.C.5 and Part B.I.A (Compliance Schedule) requirements in event interim/final compliance dates are not met.**
****The Department does not approve Toxic Reduction Evaluation (TRE) Work Plans. The Department is allowing up to one (1) year for the permittee(s) to develop the TRE Work Plan. The Department recommends that the permittee(s) also look at the plant's condition/operational issues, old technology (Trickling filters) limitations, and long-term O&M requirements to determine if other substantial plant upgrades are needed. A 20-year planning horizon is recommended.**
****The Department is allowing for one (1) year for completion of <u>all</u> site-specific data collection and complete implementation of the TRE. The burden falls on the permittee to make any technical/regulatory case that the proposed copper limits should be modified or eliminated. The permittee(s) have the option of gathering <u>additional</u> information, evaluate feasible plant upgrade options, etc.**
***** The Department is allowing for one (1) year for completion of the Final WQBEL Compliance Report as this provides adequate time-frame to determine if complete TRE implementation allows for compliance with the new permit limits, preparation of any required NPDES/WQM permit applications (including any Planning-related requirements), etc. See Chapter 95.4 (Extensions of time to achieve water quality based effluent limitations) requirements in event the permittee(s) come to believe the new permit limits cannot be met. The regulatory burden falls on the permittee(s) to make any such case. Please note Chapter 93 places the regulatory burden solely on the applicant in terms of any proposed Part C.III.D.3 site-specific water quality criteria and requires a Copper Biotic Ligand Model (BLM).**
******After the new permit limits' effective date, the permit limits cannot be made less stringent unless the permittee(s) demonstrate that an Antibacksliding Exception applies.**

<u>Slatington Public Comments</u>: The 11/24/2019 Slatington (K.L. Fulford Associates Inc.) Letter, received 12/6/2019, provided the co-permittees public comments on the Draft NPDES Permit and 1/1/2020 Slatington (Fulford) E-mail regarding copper sampling plan:

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Part C.I.G (High Flow Management Plan (HFMP) Submittal within ninety days of PED): The request was for deletion of this condition and the HFMP submittal requirement. The comment indicated the previous "wet weather operating strategy" was not an operating strategy. The previous "wet weather operating strategy" was indicated to give no O&M guidance for handling peak wet weather flows (but was characterized as only a wish-list of items that the previous engineer/operator wanted to purchase). The facility believes that there is "virtually no chance for predictively optimizing unit processes for extraneous flows" other than the present O&M procedure of emptying all scum pits prior to receiving excess flows and removing the Trickling Filter arm splash guards (already permanently removed). All recirculation from the final clarifiers to the primary clarifiers automatically ceases when the influent flow rates reaches 1.5 MGD (controlled by electronic feedback loop between influent flow meter and recirculation pumps without operator intervention). Some previous plant backflow/overflows were attributed to effluent piping occlusion, since rectified. The comment noted the condition referenced existing NPDES Permit standard conditions already in the permit. **The Department could not grant this request.**

- **High flow issues can impact overall plant operation and treatment unit operation. There have been continuing plant overflows. See related Part C.I.H issues.**
- **A High Flow Management Plan (a.k.a. wet weather operating strategy) is a normal O&M requirement for a facility experiencing operational problems during significant peak wet weather flows, including (but not limited to):**
    - **Incorporation of the public comment-cited wet weather actions and any other existing O&M Manual-identified recommendations. Other options exist. For example, the New York DEC "Wet Weather Operating Practices for POTWs With Combined Sewers", available via the Internet, includes general guidance for handling wet weather flows at Treatment Plants to prevent overflows and other negative impacts. Other facilities have had to install additional flow equalization to address peak wet weather flows and/or conducted substantial collection system Inflow & Infiltration (I&I) corrective actions.**
    - **Addressing ongoing plant overflow events (primary clarifier overflows attributed to heavy rain and primary digester foam overflows).**
    - **Addressing apparent noncompliance with existing 85% minimum monthly average reduction requirements as documented in the Draft NPDES Permit Fact Sheet.**
    - **Addressing high fecal coliform IMAX concentrations (exceeding Chapter 92a.47 IMAX concentrations) during high flow conditions:**
        - **20,000/100 ml Fecal Coliforms on 1/24/2019 during a 4.195 MGD daily max flow and**
        - **3600/100 ml Fecal Coliforms on 5/6/2019 during a 2.694 MGD daily max flow**

Part C.I.H (Influent Flow-Meter/Chamber & Flow-Proportional Influent Composite Sampler): The public comment requested deletion of this permit condition requirement for a PA Professional Engineer-signed and sealed verification that the influent flows are being accurately measured and representatively sampled, with corrective action schedule(s) in event that the Engineer due to issues identified set forth in the facility's previous Engineer's PA Professional Engineer-signed and sealed Report. The issues involved inaccurate influent flow measurement at high flow conditions (necessarily also impacting influent flow-proportional composite sampling accuracy and representativeness during high flow conditions). The periodic high flow problems were attributed to both collection system I&I and offsite Walnutport Pump Station flow surges. See Original Fact Sheet and "11/17/2015 (revised 11/25/2015) Slatington WWTP Report entitled "Wastewater Treatment Plant Process Analysis of the Trickling Filter Units", Prepared for Slatington Borough, November 2015, SEA Project No. 0025-016", prepared by Karl Schreiter P.E." (with PA Professional Engineer Seal & Signature) for further details. The facility indicated it had taken the following actions.

- The facility had converted to flow-proportional composite sampling on 12/14/2018, with a Manufacturer representative assessment (attached to the public comment letter).
- The facility "asserted" that the previous Engineer flow readings were not based upon accurate data due to a discovered damaged element in the effluent flow meter (since repaired), not influent flow chamber design issues.
- The facility indicated it has increased the frequency of flow meter calibrations from yearly to quarterly to account for flow-meter calibration "drift".
- Recirculation rates are now set automatically to yield optimized and consistent flow rates to the primary clarifiers and subsequently to the Trickling Filter. A set point of 1.5 MGD influent flow was established. Clarified Trickling Filter effluent is returned to the influent flowmeter to a variable frequency drive on the recirculation pumps to produce a constant 1.5 MGD flow rate at the primary clarifiers (i.e. the recirculation pump will make up the difference to achieve the 1.5 MGD instantaneous flow).

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The Department could not grant this request.

- **The Department gives weight to the professional judgment of a PA Professional Engineer as explicitly covered by his/her Professional Seal and Signature. The Flow Meter Manufacturer representative and/or engineer did not identify himself as a PA Professional Engineer. He did not sign & seal his "assessment" which did not explicitly address the high influent flow issues identified by the previous Engineer. The Facility "asserted" the previous Engineer used inaccurate data, <u>without</u> new data (influent flow versus effluent flow data; additional sampling data collected during extended high flow conditions; etc.) and/or technical analysis to prove the previous Engineer's conclusions were incorrect. Bad data necessarily impacts proper Operation of any treatment plant, especially during peak wet weather flow events. High flows issues are also cumulative (i.e. offsite Walnut Street Pump Station surges would have greater negative impacts during peak wet weather flow conditions).**
- **The available January through November 2019 "DMR Supplemental Form" (EDMR submittals post-dating 12/14/2018 conversion to flow-proportional composite sampling) indicate problems during high flows (>1.5 MGD Hydraulic Capacity) continued after conversion to flow-proportional composite sampling. See below for comparison of identified high flow days compared to monthly average (MA) loadings for comparison. Examples included:**

Date	Daily Max Flow & Monthly Average (MGD)	Influent BOD5	Influent TSS
12/31/2018	1.955 1.3074 (MA)	424 mg/l (147 mg/l monthly MA) 6914.5 lbs/d (1824 lbs/d MA)	206 mg/l (217 mg/l MA) 3359.4 lbs/d (2543 lbs/d MA)
1/24/2019*	4.195 (1.3074 MA)	174 mg/l (147 mg/l monthly MA) 6088.2 lbs/d (1824 lbs/d MA)	232 mg/l (217 mg/l MA) 8117.6 lbs/d (2543 lbs/d MA)

*20,000/100 ml IMAX Fecal Coliforms

- **<u>Part C.III (Copper Toxics WQBEL Analyses)</u>**: The facility requested an additional 90 days before final NPDES Permit Action to allow for collection of additional Total Copper effluent concentration data (two 24-hour composite samples per week for 12 weeks, i.e. 24 samples) to allow for re-evaluation of the need for future copper limits. The facility believes there is no significant industrial copper contribution and that the Slatington PWS has never demonstrated corrosive drinking water under the Lead and Copper Rule. Related comment was found in the 1/1/2020 Slatington (Fulford) E-mail clarifying their proposed copper sampling plan: "The Borough PWS is already meeting the Lead and Copper Rule, based on the 2019 triennial sampling program, and per Chapter 109, is considered optimized for drinking water. Results for distribution system sample copper for 2019 are summarized in the attached pdf. No investigation has been undertaken to optimize the PWS for copper relative to WQBEL. This would be a massive and expensive undertaking, since the WWTF accepts waste from its own PWS plus signatories including Washington Township, LCA, and LTMA through Washington Township. There are also individual wells contributing to the system. There are no significant industrial contributors to the system. We understand that this requirement was listed in the draft permit to be completed several years after the issuance of the final permit, but are confident that the additional data will provide the Department with a better statistical basis than the limited data submitted in the original permit renewal application. We ultimately hope this will eliminate the copper WQBEL from the final permit."
  - **The Department allowed the copper sampling program to proceed. The Department subsequently received the Slatington copper sampling data in the form of e-mails tabulating the results (see Communications Log) without lab sheets. The new data was then incorporated into the DEP Reasonable Potential Analysis (Copper) as discussed below.**
  - **The Department thanks Slatington for the additional copper background information, but the burden of meeting the copper water quality criteria in the receiving stream remains. The TRE will require additional efforts in terms of copper source(s) identification and reduction.**
  - **The Department could <u>not</u> grant the request to delete copper permit limits as the calculated effluent LTAMEC (55.74 ug/l) <u>exceeded</u> the recalculated WQBEL (43.164 ug/l). The permittee retains all**

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options set forth in the NPDES Permit Part C.III (Toxics WQBELs) to come into compliance with the new limits by the end of the fourth year of the permit term and/or to justify amendment of the permit limits prior to their effective date. After the effective dates, Slatington would have to require demonstrate that a regulatory Antibacksliding Exception applies. In terms of how the revised proposed Copper WQBELs were calculated (see also attachments):

- **TOXCONC: Applicant-provided copper data was used in the TOXCONC Spreadsheet. The DEP TOXCONC Spreadsheet used EPA-approved statistical methodologies to calculate the Long Term Average Monthly Effluent Limits (LTAMEC) and (daily) Coefficient of Variability (COV) for inputting into water quality modeling. See attached TOXCONC input and output tables for details.**
  - **LTAMEC: 0.0557300 mg/l**
  - **COV (daily): 0.1609460**

  NOTE: 5/22/2004 DEP No. 391-2000-011 (Technical Reference Guide (TRG) PENTOXSD for Windows PA Single Discharge Wasteload Allocation Program for Toxics Version 2.0, available on DEP website) Appendix C (PENTOXSD for Windows (Version 2.0) Supplemental Information) Input Data, Discharge Daily CV/Discharge Hourly CV, page 55: "For AFC-governed parameters, recommended effluent limits are very sensitive to changes in discharge CV. When the Discharge Daily CV is reduced below the default 0.5, the recommended effluent limit for AFC-governed parameters will decrease". (Underlining added)
- **PENTOXSD Results: First model run using original inputs replicated previous modeled limit to verify all other inputs remained the same. Second Run (see attachments) inputted TOXCONC generated LTAMEC and COV (daily). This resulted in more stringent limits (see above note). See attached PENTOXSD Effluent Limits and WLA (AFC) outputs.**
  - **Monthly average Copper limit: 43.164 ug/l (rounding to 0.043 mg/l)**
  - **Max Daily Limit: 51.446 ug/l (rounding to 0.051 mg/l)**
- **Reasonable Potential Analysis: With the LTAMEC exceeding the revised copper limits, permit limits are required.**
- **New Toxics Management Spreadsheet: The Department is in the process of developing a new Toxics Management Spreadsheet that will eventually replace PENTOXSD. The latest version's Output is provided to show that there would be no significant difference in results, except the Spreadsheet also calculated an IMAX value. The calculated IMAX value (using standard DEP multiplier) has been incorporated into the Redraft NPDES Permit.**
  - **Monthly average Copper limit: 43.2 ug/l**
  - **Max Daily Limit: 51.4 ug/l**
  - **IMAX: 108 ug/l**

Compliance History Update: Two open WPC violations per 8/17/2020 WMS Query (Open violations by client number). The open violations will be noted in the Redraft NPDES Permit Cover Letter.

- **2/25/2020 NOV was issued due to a CBOD5 exceedance and a primary digester foam overflow.**
- **4/24/2020 NOV was issued regarding a primary clarifier overflow during heavy rains.**

FACILITY	INSP PROGRAM	INSP ID	VIOLATION ID	VIOLATION DATE	VIOLATION CODE
SLATINGTON WWTP	WPC NPDES	3007972	879449	02/25/2020	92A.44
SLATINGTON WWTP	WPC NPDES	3007972	879450	02/25/2020	92A.47(C)

Communication Log:

Internal Review and Recommendations

10/11/2019: Draft NPDES Permit issued. Electronic copy sent to Slatington as well.

10/17/2019: Ken Fulford (Slatington consultant who prepared the 2018 Chapter 94 Report) called about Draft NPDES Permit. He asked about the following:

- **Public Comment Period**: He asked about the public comment period.
  - **I told him the 30-day public comment period starts with the PA Bulletin notice publication. They can ask for the automatic 15-day extension (per cover letter) by e-mail so that we could respond in writing. They could ask for more time if they gave a target date and explained what they would be using the time for.**
  - **We need the other information we asked for within 30-days of (10/11/2019) Draft NPDES Permit issuance. They could include a time-extension request or meeting request with that submittal.**
  - **They can ask for a meeting to discuss the draft permit. We would need a detailed agenda (partly to know whom to invite to the meeting). We might add to the agenda.**
  - **We would respond to all public comments in the Fact Sheet at one time.**
  - **Not sure how separate Compliance/legal issues might affect the overall permitting process time-frame.**
- **Copper**: He asked if additional sampling results could remove copper limit (effective in 4 years). He noted application sampling data is old and predated facility maintenance work (now better effluent). **Told him 10 weeks of copper data needed to determine LTAMEC (using EPA-approved statistical methods) to update the analysis (Reasonable Potential). The more data the better to get more accurate/precise (less conservative) LTAMEC. This sampling could occur before or after final permit action. The Part C condition and WQBEL SOP lays out options that the permittee can pursue, but what they wanted to do was up to them. The DEP SOPs (on website) include Sewage Effluent limitations SOP. Central Office is also working on new Copper SOP that will likely be issued prior to effective date of new Copper limits. They can start copper sampling now (not waiting for Department approval) to have something to show us.**
- **Lead Operator:** He said he was not the lead certified operator. He asked if the lead operator had to cover both collection system and treatment works. They have two different persons at present. **POTW definition includes collection system. If they wanted to split up who is responsible for what, they could talk to us about it.**
- **Ammonia-N**: They think that they can meet the proposed NPDES and future DRBC ammonia-N limits based on what they are seeing. They are concerned that substantial facility upgrades might trigger more stringent BDT limits. ARRO was looking at the treatment plant. **I noted the future DRBC ammonia-N limits would be 20 mg/l monthly average, 40 mg/l IMAX including winter.**
- **Influent Flow Meter and potential need to upgrade influent flow meter location:** He thought the influent and effluent flow meters' data correlated very well. **I told him the old (2015) Authority Engineer Report indicated problems during high flow conditions. We have not seen any technical data or argument that the Engineer Report was wrong.**
- **Offsite Pump Station:** He said the other municipality-owned pump station needs a VFD to smooth out peak high flows noted in old Engineers Report, but the permittee might need DEP help as that municipality had an inter-municipality agreement that did not address this type of issue & was not cooperating. **I noted most people would allow someone else to pay to fix their problems (i.e. his client could probably get permission to do the work).**
- **WET Testing:** He asked if this was a standard requirement. **I told him it applied to all major STPs. I also told him that if they were going to do WET testing, check with the Department on the specific lab. Apparently, a particular lab is in trouble. We could check at that time to make sure the proposed lab was not the one in trouble.**
- **Other Permit Requirements:** He thought the requirements were mostly standard from what he had seen in other permits, but something of a shock to his client which had not seen updated permit requirements for the last 10 years.

10/25/2019: Slatington (Fulford) E-mail asking for additional 15 days for public comment. **10/25/2019 DEP (Bellanca) E-mail granting the additional 15 days for public comment. Public comment period ends December 10, 2019.**

11/7/2019: EPA Public Comment E-mail (Michelle Price-Fay) received. "The permit affords a four year schedule to comply with the final copper limit, but the compliance schedule only provides two years to conduct a TRE. If a two - three year schedule is appropriate, the final compliance deadlines should be adjusted in Part A of the permit. If the TRE is expected to be conducted over this four year period, the TRE completion date should be extended and additional interim milestones will need to be added to justify the time needed to comply. We offer some suggestions for milestones that could

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be used between the "Complete TRE Work Plan" and "Complete TRE" milestones: Initiate TRE (within X months), Implement TRE Workplan Schedule (within X months), Implement TRE controls (within X months). Of course if the facility has specific actions it knows it will undertake, those should be utilized."

11/8/2019: Berger E-mail forwarding 11/7/2019 EPA E-mail comments to Slatington (Borough, Authority and their consultant – Fulford). Included reminder of public comment deadline (12/10/2019) and 10/11/2019 Draft NPDES Permit Renewal/Transfer Cover Letter Item 1.c and 1.d application update informational requests (due within 30 days of letter issuance). An electronic copy of the response was requested to facilitate forwarding the new information to EPA.

11/8/2019: Fulford called about Letter application update requirements.

- He will try to get response to Letter Items 1.c and 1.d application updating requirements by 11/12/2019 (to address the various EPA-identified compliance issues and how previous (Schreiter) Engineer Report facility recommendations). **His client had not asked for more time to respond to these items. It is important to update the application as required. The contact information should be submitted on time. He can ask for more time (until 12/10/2019 public comment deadline) for other issues if he needed more time to show the issues have been addressed.**
- He said his client might ask for a 3-month extension of the NPDES public comment period to allow for more copper sampling.

11/10/2019: E-mailed Application update received (new GIF, response to Draft NPDES Permit Letter Items 1.c and 1.d informational requests). Information forwarded to US EPA via 11/12/2020 E-mail.

12/5/2020: Slatington (Fulford) courtesy electronic copy of Slatington public comments received.

12/31/2020: DEP (Berger) E-mail asking for details on the proposed copper sampling program.

1/1/2020: Slatington (Fulford) E-mail with more details regarding its copper sampling proposal with copper-related comment. **Additional public comment was noted**: "The Borough PWS is already meeting the Lead and Copper Rule, based on the 2019 triennial sampling program, and per Chapter 109, is considered optimized for drinking water. Results for distribution system sample copper for 2019 are summarized in the attached pdf. No investigation has been undertaken to optimize the PWS for copper relative to WQBEL. This would be a massive and expensive undertaking, since the WWTF accepts waste from its own PWS plus signatories including Washington Township, LCA, and LTMA through Washington Township. There are also individual wells contributing to the system. There are no significant industrial contributors to the system. We understand that this requirement was listed in the draft permit to be completed several years after the issuance of the final permit, but are confident that the additional data will provide the Department with a better statistical basis than the limited data submitted in the original permit renewal application. We ultimately hope this will eliminate the copper WQBEL from the final permit.

2/5/2020: Slatington (Fulford) E-mail with additional Copper sampling data

3/10/2020: Slatington (Fulford) E-mail with additional Copper sampling data

4/6/2020: Slatington (Fulford) E-mail with additional Copper sampling data

TOXCONC Spreadsheet Output:

Reviewer/Permit Engineer: James Berger

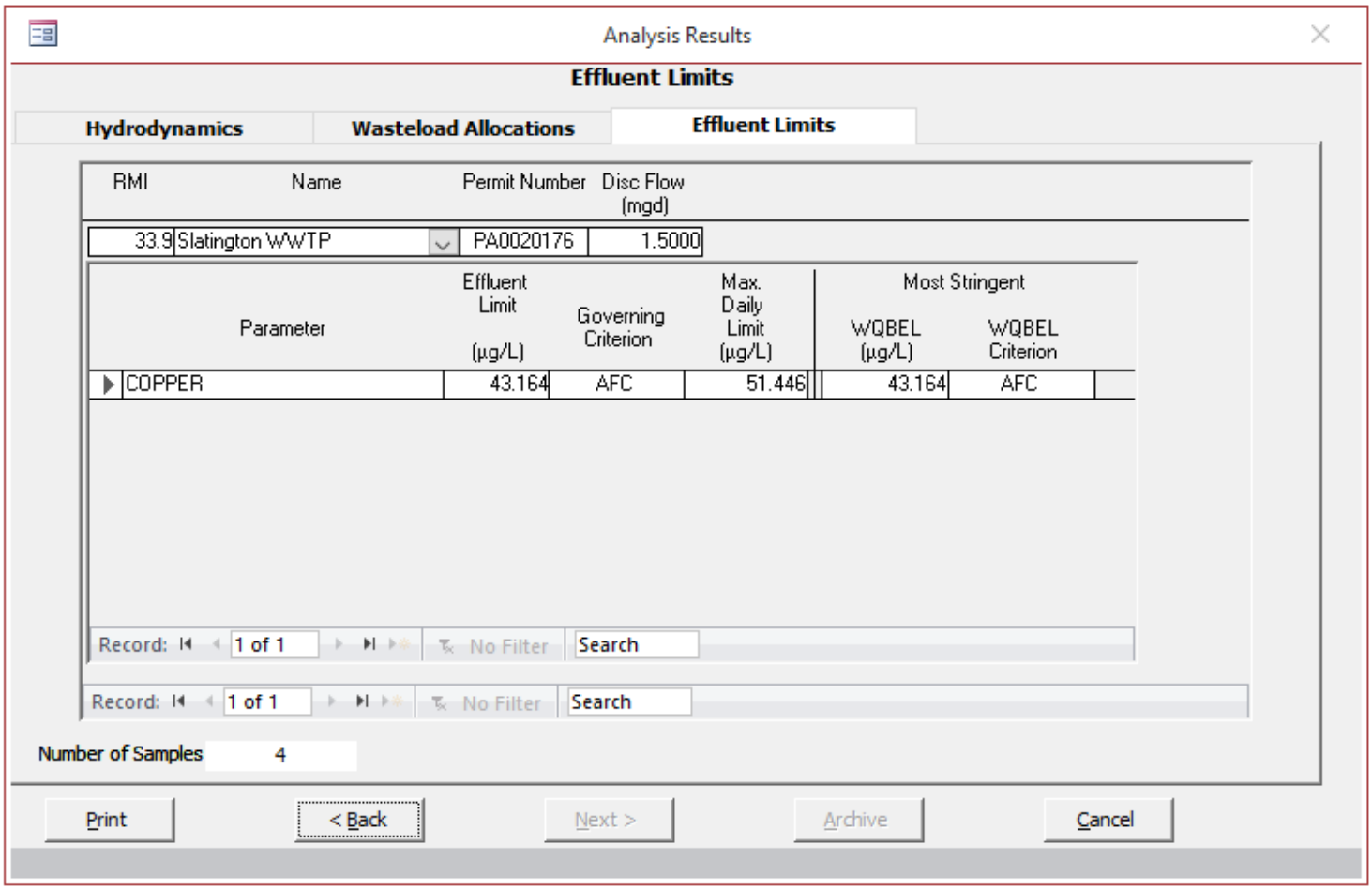
Facility: Slatington WWTP
NPDES #: PA0020176
Outfall No: 001
n (Samples/Month): 4

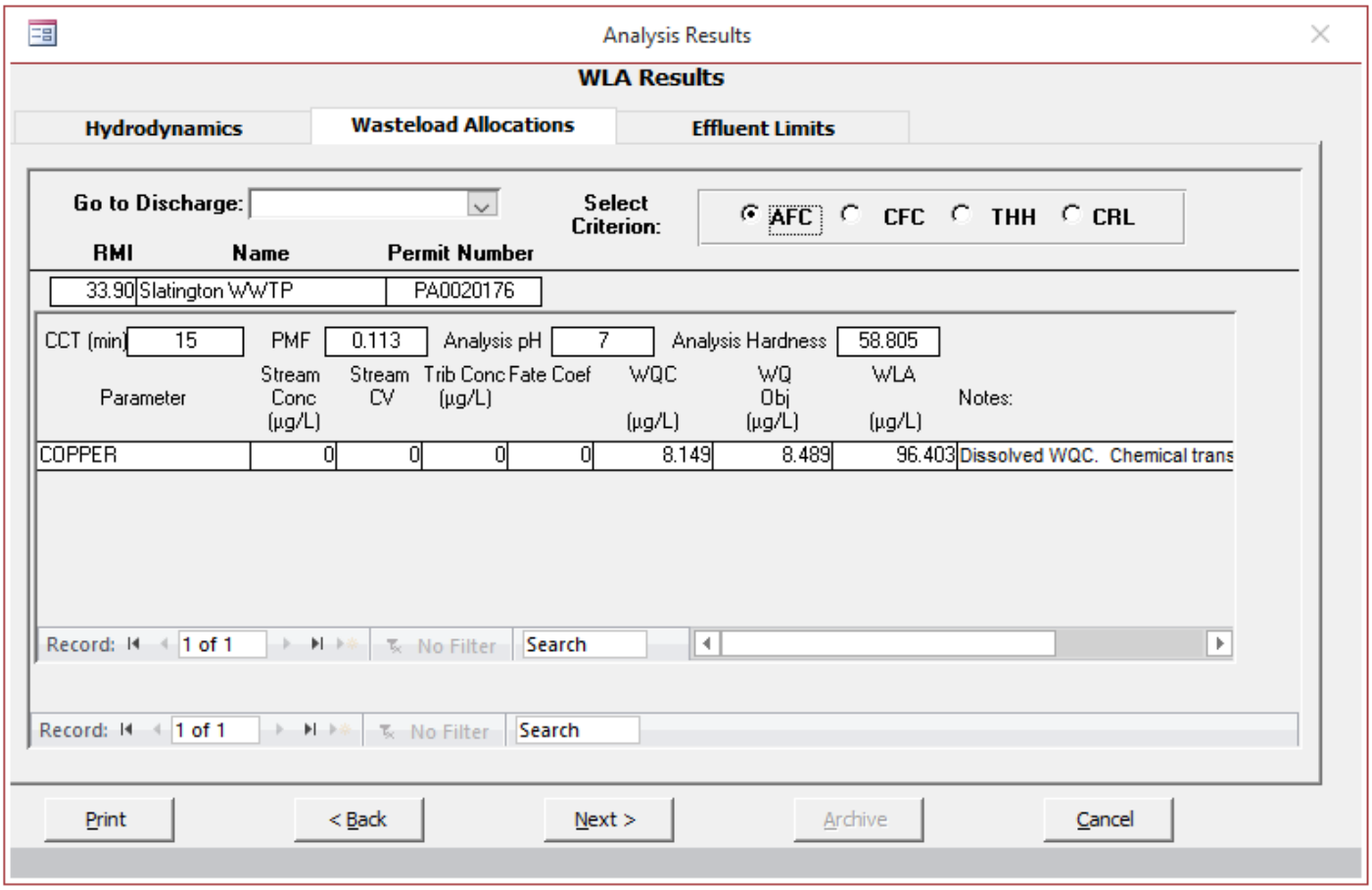
Parameter	Distribution Applied	Coefficient of Variation (daily)	Avg. Monthly
Copper (mg/L)	Lognormal	0.1609460	0.0557300

TOXCONC Input:

	Outfall No:	001											
	n (Samples/Month):	4											
	Reviewer/Permit Engineer:	James Berger											
Parameter Name	Copper												
Units	mg/L												
Detection Limit	0.004												
Sample Date	***When entering values below the detection limit, enter "ND" or use the < notation (eg. <0.02)***												
1/2/2020	0.044												
1/6/2020	0.045												
1/9/2020	0.051												
1/13/2020	0.054												
1/16/2020	0.051												
1/20/2020	0.058												
1/23/2020	0.054												
1/27/2020	0.029												
1/30/2020	0.041												
2/3/2020	0.051												
2/6/2020	0.062												
2/10/2020	0.046												
2/12/2020	0.042												
2/16/2020	0.041												
2/20/2020	0.046												
2/24/2020	0.05												
2/27/2020	0.043												
3/2/2020	0.059												
3/5/2020	0.039												
3/9/2020	0.044												
3/12/2020	0.042												
3/16/2020	0.044												
3/19/2020	0.045												
3/23/2020	0.045												
3/26/2020	0.038												
3/30/2020	0.041												

PENTOXSD:


Analysis Results
Effluent Limits
Hydrodynamics
Wasteload Allocations
Effluent Limits
RMI
Name
Permit Number
Disc Flow (mgd)
33.9
Slatington WWTP
PA0020176
1.5000
Parameter
Effluent Limit (µg/L)
Governing Criterion
Max. Daily Limit (µg/L)
Most Stringent
WQBEL (µg/L)
WQBEL Criterion
COPPER
43.164
AFC
51.446
43.164
AFC
Record: 1 of 1
No Filter
Search
Record: 1 of 1
No Filter
Search
Number of Samples
4
Print
< Back
Next >
Archive
Cancel


Analysis Results
WLA Results
Hydrodynamics
Wasteload Allocations
Effluent Limits
Go to Discharge:
Select Criterion:
AFC
CFC
THH
CRL
RMI
Name
Permit Number
33.90
Slatington WWTP
PA0020176
CCT (min)
15
PMF
0.113
Analysis pH
7
Analysis Hardness
58.805
Parameter
Stream Conc (µg/L)
Stream CV
Trib Conc (µg/L)
Fate Coef
WQC (µg/L)
WQ Obj (µg/L)
WLA (µg/L)
Notes:
COPPER
0
0
0
0
8.149
8.489
96.403
Dissolved WQC. Chemical trans
Record: 1 of 1
No Filter
Search
Record: 1 of 1
No Filter
Search
Print
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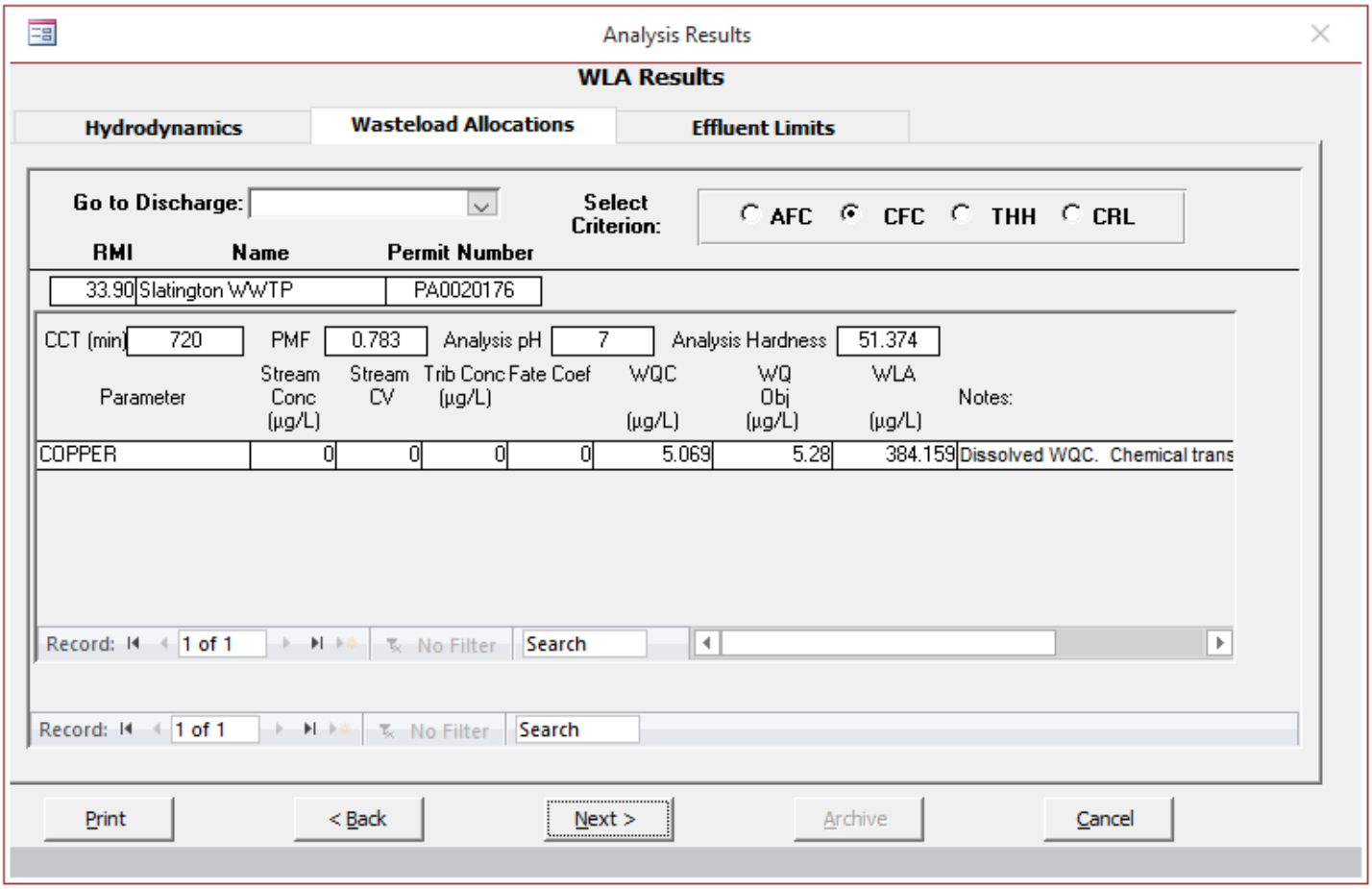
Next >
Archive
Cancel



Toxic Screening Spreadsheet:

TOXICS SCREENING ANALYSIS
WATER QUALITY POLLUTANTS OF CONCERN
VERSION 2.7

CLEAR FORM

Facility: **Slatington WWTP** NPDES Permit No.: **PA0020176** Outfall: **001**
Analysis Hardness (mg/L): **58.808** Discharge Flow (MGD): **1.5** Analysis pH (SU): **7**
Stream Flow, Q_{7-10} (cfs): **212.57**

Parameter	Maximum Concentration in Application or DMRs (µg/L)		Most Stringent Criterion (µg/L)	Candidate for PENTOXSD Modeling?	Most Stringent WQBEL (µg/L)	Screening Recommendation
Total Dissolved Solids			500000			
Chloride			250000			
Bromide			N/A			
Sulfate			250000			
Total Aluminum			750			
Total Antimony			5.6			
Total Arsenic			10			
Total Barium			2400			
Total Beryllium			N/A			
Total Boron			1600			
Total Cadmium			0.183			
Total Chromium			N/A			
Hexavalent Chromium			10.4			
Total Cobalt			19			
Total Copper		55.73	5.9	Yes	43.164	Establish Limits
Free Available Cyanide			5.2			

New Toxics Management Spreadsheet: The Department will be phasing out PENTOXSD with a new Spreadsheet. Using the same input values, the output results are equivalent:

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.0, July 2020

Model Results

Slatington WWTP, NPDES Permit No. PA0020176, Outfall 001

Instructions | Results | RETURN TO INPUTS | SAVE AS PDF | PRINT | All | Inputs | Results | Limits

☐ *Hydrodynamics*

☐ *Wasteload Allocations*

☑ *Recommended WQBELs & Monitoring Requirements*

No. Samples/Month: 4

	Mass Limits		Concentration Limits						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	0.54	0.64	43.2	51.4	108	µg/L	43.2	AFC	Discharge Conc ≥ 50% WQBEL (RP)

☐ *Other Pollutants without Limits or Monitoring*