United States Environmental Protection Agency

REGION 5 Enforcement and Compliance Assurance Division

INSPECTION REPORT

Inspection Date:	04/21/2022	Announced: Yes
Time:	Entry: 08:40 AM (ET)	Exit: 03:44 PM (ET)
Media:	Water	
Statute(s)/Program(s):	Clean Water Act, NPDES, WWTP	
Type of inspection:	CEI - Compliance Evaluation Inspection	
Access:	Granted	
Permittee Name:	CITY OF BELLEVUE	
Facility or Site Name:	BELLEVUE WATER POLLUTION CONTROL FACILITY	
Facility/Site Physical Address:	500 GREAT LAKES PARKWAY	
(City, state, zip code)	BELLEVUE, OH 44811	
County/Parish:	HURON	
Facility GPS Coordinates:	41.28061, -82.87076	
Facility/Site Identifier:	110002451962	
Permit Number:	OH0020672	
SIC or NAICS:		

Persons Participating in Inspection:

Title	Name	Phone	Email	Present at Opening Conf.	Present at Closing Conf.
Lead Inspector	Dean Maraldo	(312) 353-2098	Maraldo.Dean@epa.gov	Yes	Yes
Inspector	Matthew Schulte	(312) 886-2405	Schulte.Matthew@epa.gov	Yes	Yes
Wastewater Superintendent	Eric MacMichael	(419) 483-7514	Eric.MacMichael@cityofbellevue.com	Yes	Yes
Operator	Tate Schoen			Yes	No
Lab Technician	Bridget Shiets			No	No

Lead Inspector:

Dean Maraldo	*[Signature]*	DINO MARALDO Digitally signed by DINO MARALDO Date: 2022.05.03 15:36:52 -05'00'	*[Date]*
	REGION 5	Maraldo.Dean@epa.gov	(312) 353-2098

Supervisor Review:

Ryan Bahr	*[Signature]*	Bahr, Ryan Digitally signed by Bahr, Ryan Date: 2022.05.04 06:12:56 -05'00'	*[Date]*
	REGION 5	bahr.ryan@epa.gov	

SECTION I – INTRODUCTION

Site Entry and Inspection Objectives

WWTP CEI inspection

I, Region 5 Lead Inspector, Dean Maraldo, arrived at the Bellevue Water Pollution Control Facility (the "Site" or "Facility"), located at 500 Great Lakes Parkway, at 08:40 AM (ET) on 04/21/2022 for an announced inspection. Region 5 Inspector Matthew Schulte joined me for the inspection. I presented my credentials to Eric MacMichael and informed him that this was a Region 5 inspection to determine compliance with the Clean Water Act (CWA) and the National Pollutant Discharge Elimination System (NPDES) permit program. The inspection was conducted under the authority of the Federal CWA of Section 308. The table above identifies the attendees that participated in the inspection. This report is based on information supplied by Facility representatives, observations made by the Region 5 inspectors, and records and reports maintained by the permittee and the Region 5 inspectors, including: direct observations made by the Region 5 inspectors, photographs taken by Region 5 inspectors, physical evidence collected by the Region 5 inspectors, verbal or written statements made by or information supplied by Facility representatives (the permittee) during or subsequent to the on-site inspection, and materials, processes, data, photographs, or documents shown, demonstrated, or submitted to the Region 5 inspectors by Facility representatives during or subsequent to the on - site Inspection. In addition, information gathered prior to or subsequent to the inspection from a review of USEPA, State, and public records may be included in this report.

After opening introductions, we went over the inspection plan for the day. I asked if there were any confidential business information concerns. Eric MacMichael confirmed there were none.

Facility/Site Description

I began by asking about the Facility information provided in latest published permit fact sheet (2012). Eric MacMichael confirmed the following (his responses in italics):

- The Facility was originally constructed in 1969, with the most recent major modification occurring in 2005. *Yes*.
- Facility processes include: Bar screen (2) ; Influent pumping; Grit removal; Primary sedimentation; Activated sludge; Secondary alum addition; Secondary (intermediate) clarification; Trickling filter using plastic media; Final clarification; and Ultraviolet disinfection. *Description correct, except trickling filter should be called nitrification towers.*
- Sludge is processed by aerobic digestion, gravity thickening or mechanical dewatering using a filter press, and composting. Sludge is either disposed in a landfill or land applied. *Correct, except we have not land applied since early 2017.*
- The City of Bellevue's collection system includes separate sanitary and storm sewers. It serves the City of Bellevue, a total population of approximately 8,202 people. *Correct, and there are no CSOs.*
- The Facility has one internal bypass. Primary effluent flows above 3.0 MGD are routed over a weir to nitrification towers, to the final clarifiers, and then through ultraviolet disinfection before discharging through the final outfall to Snyder's Ditch. *Correct.*
- Bellevue implements an Ohio EPA-approved industrial pretreatment program. Local industries discharge an average of 0.353 MGD to the Bellevue plant. *Correct, except local industrial input is currently about*

1 MGD.

- There are four industrial users. *There are currently four (Tower, Bellevue Manufacturing, Mitsubishi, and Bungee), and adding D&D Truck Wash soon. Tower is a categorical industrial user. Bungee is a non-categorical SIU.*

Facility/Site Information

Responses below provided by Eric MacMichael.

Responsible official	Eric MacMichael
WWTP Design Capacity & Average Daily Flow	Average design dry 3.0 MGD, actual 1.09 MGD; wet weather 3.5-5.5 MGD
WWTP Approx. # of residents served	8,200
Contributing (or shared) Jurisdictions	No
Outfalls: (and do the numbers, locations, and receiving waters match the permit?)	One, #001 to Snyder's Ditch (per the Permit)
Operation schedule (days of operation, # shifts/day, # operators/shift, coverage overnight, weekends & emergencies), and is staffing sufficient for proper operation?	7 days, 8 hour days
Do you use in-house or contract out for laboratory analyses? (including for metals or WET testing?)	In-house, except metals, mercury, toxicity, etc
Is there currently any portion of the treatment train that is non-operational?	All in operation
Are there any plans for renovation or additional equipment to allow for increased wastewater flow?	Headworks, and lift station upgrades; 14 lift stations
Have you reapplied for permit?	Yes, reapplied
Other operators?	Two class 3; a class 2; and two class 1 operators. Two maintenance staff. Eric MacMichael a Class 4.
Are the records and reports maintained by the permittee for at least 3 years? (40CFR122.21(p), 40CFR122.41(j)(2)?	Yes
Facility's mailing address:	500 Great Lakes Parkway Bellevue, Ohio 44811 Bellevue, Ohio 44811

Inspection Units

Unit/Area	Description
Self Monitoring	Interview questions and observations
Operations and Maintenance	
Flow Monitoring	
CSOs/SSOs	
Review of Effluent Limit Exceedances	
Pretreatment	
Records Review	

Wastewater Treatment Plant Components	
Headworks	Physical inspection
Primary Clarifier	
Bypass Channel	
Aeration Tanks	
Intermediate Clarifier	
Nitrification Towers	
Final Clarifiers	
Ultraviolet (UV) Disinfection Building	
Final Outfall 001	
Effluent Vault (outdoor)	

SECTION II – INTERVIEW

Observations may not be in sequential order.

Unit: Self Monitoring	**Contains CBI:** No
Observation #: OB-01	**Date:** 04/21/2022

I asked a number of questions about self monitoring. Eric MacMichael provided the responses below (in italics):

- If composite samples are required, are they flow proportioned? Controlled by flow meter or manually done? *The facility does not measure effluent flow, so composite samples are time proportioned.*
- Are composite samples cooled to <4°C to properly preserve them during the compositing period? *They use refrigerated all-weather samplers. With a spare.*
- Do you measure the final composite sample temperature to make sure that the cooling is sufficient? *Yes.*
- Do you record these results? *Yes.*
- If a refrigerator is used for preserving composite samples, is there a thermometer in the refrigerator? *Yes, and recorded.*
- Is this thermometer checked each time that it is used and are the results of the checks recorded? *Yes.*
- Are DO and pH analyzed within 15 minutes? *Yes.*
- Are DO and pH probes calibrated on a regular basis? *Yes, every morning by lab technician.*
- What lab is used for any samples not analyzed at the Facility? *Alloway. Lima and Mansfield locations.*

Unit: Operations and Maintenance	**Contains CBI:** No
Observation #: OB-02	**Date:** 04/21/2022

Eric MacMichael provided copies of process flow diagrams for plant solids and liquids (see Appendix 3 - Reference Documents, "Bellevue_Process Flow Diagrams_20220421").

He provided responses (in italics) to the questions below:

- On a regular basis, do operators conduct process monitoring? *Yes, there's a solids probe in aeration tank and they run mixed liquor daily. Also test ammonia throughout the plant. DO probes on aeration tanks with set point controls. Sludge blanket measurements collected routinely.*
- Bypasses other than their internal bypass (outfall 602) within the last few years? *We had one collection system bypass in last few years. It was an extreme wet weather event.* We discussed this event later in the SSO review.
- Does the wastewater treatment Facility have an alarm system for all essential equipment? *Blower alarms, high and low flow, power, and return pumps.*
- Are alarms sent to qualified personnel who can respond immediately to remedy the problem? C*all or text me* (Eric MacMichael).
- Are routine and preventive maintenance scheduled, performed, and recorded? *All done verbally, but have a routine schedule. Procedures are in the operator's logbook.*
- Is a logbook kept which documents all plant activities on a daily basis? *There is one operator's logbook and I have my own logbook.*
- Does the Facility maintain an inventory of spare parts, sufficient to keep all of its treatment units operational? *We have a parts inventory for consumables every year, and capital assets every year. We have system parts but no written inventory.*
- Does the Facility have standby power for all treatment units? *Yes, a diesel generator can run the plant. One portable generator for lift stations, and some key lift stations with standby power. Plan to purchase standby power for remaining lift stations. Everything is on SCADA.*
- Is the standby power regularly exercised under load? *Yes, exercised every week.*

Document(s)

1. Bellevue_Process Flow Diagrams_20220421.pdf
2. Bellevue_Wastewater_email_20190620.pdf

Unit: Flow Monitoring	**Contains CBI:** No
Observation #: OB-03	**Date:** 04/21/2022

I asked Eric MacMichael questions regarding flow monitoring. The questions and his responses (in italics) are below:

- What type of influent meter is used? *Parshall flume at headworks with ultrasonic flow meter.*
- What type of effluent meter is used? *None. We estimate effluent based on influent flow.* [The permit requires continuous flow monitoring at outfall 001 (Part I.A.2) and outfall 602 (Part I.B.5.)].

- Is the influent flow measuring device professionally calibrated? *Yes. outside company does calibration every 5 years, and electrician does it every year.*
- Is influent flume marked for visual flow estimation? *No.*

Unit: CSOs/SSOs	**Contains CBI:** No
Observation #: OB-04	**Date:** 04/21/2022

SSOs:

I asked if there were any backups or overflows in the sanitary sewer collection system, over the last year? Eric MacMichael said no, adding that the last event, and only SSO in the last 5 years, occurred on June 19, 2019 after receiving 4 inches of rain. The event was reported on the DMR for that month (outfall 300). Also, he informed Ohio EPA via email on June 20, 2019 (see Appendix 3 - Reference Documents, "Bellevue_Wastewater_email_20190620.pdf"). The Facility did not send a 5-day report to Ohio EPA regarding the June 20, 2019 SSO, as required in Permit Part II.D.1.b.

I asked if they sent SSO annual reports to Ohio EPA by March 31 of each year, pursuant to Permit Part II.D.2.b., including the year of the only reported SSO within the last five years (2019). Eric MacMichael said they are not. He did not believe the annual reports were required if no SSOs occurred in a given year. I recommended he discuss this with Ohio EPA and seek clarification for the pending permit.

Eric MacMichael confirmed there are no CSOs in the system.

Unit: Review of Effluent Limit Exceedances	**Contains CBI:** No
Observation #: OB-05	**Date:** 04/21/2022

I reviewed effluent limit exceedances for the last couple years. See list of exceedances reviewed in Appendix 3 - Reference Documents (Bellevue_ELE_201706-202202.pdf).

We covered the following pollutants:

Toxicity: the Facility experiences sporadic toxicity limit exceedances, most recently in December 2021 (acute and chronic). Eric MacMichael said they tried to investigate the cause but at this point the cause of toxicity issues are unknown. [Toxicity further discussed in Records Review portion of the inspection].

Phosphorus: I asked about the recurring total phosphorus effluent limit exceedances, including the most recent in February 2022. Eric MacMichael said they had an issue with the alum feed line. The line was fixed after the February 2022 phosphorus exceedance. Eric MacMichael said there were no phosphorus exceedances in March 2022.

N-Ammonia: the Facility experiences recurring nitrogen-ammonia total (as N) effluent limit ("N-Ammonia") exceedances, the most recent in October 2021. Eric MacMichael said recent issues may have been due to a change out of aeration tank diffusers in early October 2021. Ammonia issues started soon after. They discovered an open recirculation valve. Once fixed, they noticed improvement. Also, Eric MacMichael said the filter press was in operation the day of the last exceedance. The filter press contributes 35,000 gallons per day of flow. He thinks the filter press discharge contributed to the ammonia exceedance. Eric MacMichael also provided a copy of a April 21, 2021 email to Ohio EPA describing efforts to address chronic N-ammonia effluent

limit exceedances experienced between January and April 2021 (see Appendix 3 - Reference Documents (Bellevue_Ammonia numbers_email_20210421.pdf).

E.coli: *E.coli* is a chronic summer issue at the Facility, with effluent limit exceedances occuring in four of the last five summers, the most recent in June and August 2021. Eric MacMichael said the summer 2021 exceedances were caused by fouling of the UV system. Their contractor failed to start the UV wiper system prior to spring restart. They restarted wipers after June. The exceedance in August 2021 was due to unknown damage caused by the lack of wiping earlier in summer, resulting in another treatment failure. I asked about the cause of the summer 2019 *E.coli* effluent limit exceedances. Eric MacMichael could not remember the cause.

TSS: the Facility experienced total suspended solids ("TSS") effluent limit exceedances in July and August 2020. Eric MacMichael attributed the issue to duckweed. They now implemented a process to skim duckweed with a vac truck as needed.

Document(s)

1. Bellevue_ELE_201706-202202.pdf
2. Bellevue_Ammonia numbers_email_20210421.pdf

Unit: Pretreatment	**Contains CBI:** No
Observation #: OB-06	**Date:** 04/21/2022

Matt Schulte asked some pretreatment questions, below:

Are all four existing IUs under control mechanisms? Eric MacMichael said yes and that D&D Truck Wash will be soon. Eric MacMichael and the operators do all sampling and inspections. Manholes are open access for sampling.

All IU permits are on the same 5-year cycle. The City provided an example of an IU permit. Part V. Special Condition C of the City's IU permit prohibits permits from exceeding two years. However, the most recent cycle of permits expired in 2017.

According to Eric MacMichael, the last IU inspection was conducted in 2019. The inspection program was stopped due to COVID. He plans to restart inspections soon.

Record: Phosphorous Compliance Schedule		**AOC:** No
Ref #: RR-01	**Reviewed By:** Dean Maraldo	**Reviewed Date:** 04/21/2022

I reviewed the following Phosphorus Compliance Schedule items.

- The Phosphorus Discharge Optimization Evaluation plan shall be completed and submitted to Ohio EPA by October 1, 2018 (Permit Part I.C.1.a.).
- The permittee shall submit a report detailing the progress in meeting the final effluent limit for Phosphorus by October 1, 2018 (Permit Part I.C.1.b.1).
- If the permittee determines that its existing treatment facilities are not capable of meeting the final effluent limit for Phosphorus, not later than 24 Months from the effective date of the permit (due October 1, 2019), the permittee shall submit an approvable Permit To Install for plant improvements necessary to meet the final effluent limit for Phosphorus. (Permit Part I.C.1.b.2).

Eric MacMichael said they began implementing phosphorus control measures ahead of schedule by increasing sodium aluminate in May 2016. I asked for copies of above phosphorus compliance schedule reports.

Record: Toxicity Reduction Evaluation (TRE)		**AOC:** Yes
Ref #: RR-02	**Reviewed By:** Dean Maraldo	**Reviewed Date:** 04/21/2022

I reviewed the TRE items in Permit Part I.C.2, including:

g. Within 48 Months of the effective date of this permit (due October 2, 2021), or as soon as possible, the permittee shall complete construction, if necessary, of an treatment upgrades necessary at the Facility. Eric MacMichael provided copies of an email from Ohio EPA stating this milestone was met and provided the last Toxic Reduction Evaluation Strategy sent to Ohio EPA (see Appendix 3 - Reference Documents, "Bellevue_ToxComlianceSchedule_email_20211007"; and "Bellevue_ToxStrategy_2021").

Eric MacMichael said they complied with TRC reporting, but can't figure out why they continue to have toxicity violations. (most recent in December 2021).

Document(s)

1. Bellevue_ToxComplianceSchedule_email_20211007.pdf
2. Bellevue_ToxStrategy_2021.pdf

Record: Local Sewer Ordinances		**AOC:** No
Ref #: RR-03	**Reviewed By:** Dean Maraldo	**Reviewed Date:** 04/21/2022

According to the Permit, a technical justification for revising local industrial user limitations to attain compliance with final table limits, along with a pretreatment program modification request, or technical justification for retaining existing local industrial user limitations shall be submitted to Ohio EPA, Central Office Pretreatment Unit, in duplicate, as soon as possible, but no later than 18 Months from the effective date of this permit for all required parameters. (Permit Part I.C.3.a).

Eric MacMichael said he submitted the technical justification for new local limits within 18 months of new permit. We asked for copy of technical justification to Ohio EPA.

He added that the proposed new local limits included "dropping phosphorus limits across the board".

Record: DMR Reports		**AOC:** Yes
Ref #: RR-04	**Reviewed By:** Dean Maraldo	**Reviewed Date:** 04/21/2022

I reviewed DMRs and bench sheets for January, February, and March 2022.

DO: I noticed that DO for effluent is recorded twice per day. DMR reports included the highest value. Regardless, effluent DO is well within limits. Eric MacMichael said he will start reporting the lowest daily value "today".

Orthophosphate: Eric MacMichael said the lab filters samples pursuant to the Permit.

The Lab technician, Bridget Shiets, joined us for the discussion. Bridget Shiets is a class 3 wastewater operator and class 2 lab analyst. I asked if the Lab records filtering time for Ortho-P samples. Bridget Shiets said the Lab does not record filtering time for Ortho-P. I recommended that, at a minimum, adding filter time and sample

collection times to chain of custody forms. The Permit requires filtering of Ortho-P within 15 minutes.

602 Bypass: I asked how bypass volume is estimated or recorded. Eric MacMichael said they use flow charts to estimate volume. Review of DMRs show bypass of treatment recorded at outfall 602 in 18 out of the last 55 months (see Appendix 3 - Reference Documents, "Bellevue_602 Bypass summary.pdf").

At this point we broke for lunch at 12:51pm.

SECTION III – PHYSICAL INSPECTION

Unit: Wastewater Treatment Plant Components/Headworks	**Contains CBI:** No
Observation #: OB-07	**Date:** 04/21/2022

The physical inspection of the Facility started with the headworks. Eric MacMichael said that all flow comes into the headworks from the main lift station. He also mentioned a new $3.5 million project to upgrade the headworks, including new grit chamber, bar screen, grit pumps, weir and flow metering. I observed the influent parshall flume, flow meter, and grit chamber (see Photo Log).

Photo(s)

1. BELL0001.JPG
2. BELL0002.JPG

Unit: Wastewater Treatment Plant Components/Primary Clarifier	**Contains CBI:** No
Observation #: OB-08	**Date:** 04/21/2022

I observed the Primary Clarifier (see Photo Log) and the open conveyance leading to the Primary Clarifier. I asked about routine maintenance. Eric MacMichael said the clarifier is cleaned weekly on Fridays with more in depth maintenance, like oil changes, every six months. He added that other maintenance is done as needed. I asked about any return flows back to the headworks or prior to primary clarifier. Eric MacMichael explained that return flows primary include filter press filtrate and lift station cleanout about two times per week, about 2,000 gallons. I asked if they receive septage. Eric MacMichael said they haven't accepted septage recently.

Photo(s)

1. BELL0003.JPG

Unit: Wastewater Treatment Plant Components/Bypass Channel	**Contains CBI:** No
Observation #: OB-09	**Date:** 04/21/2022

I observed the bypass channel where flow partially bypasses treatment (see Photo Log). Here, primary effluent flows above 3.0 MGD are routed over a weir to the nitrification towers, then to the final clarifiers, and then through ultraviolet disinfection before discharging through the final outfall.

Photo(s)

1. BELL0004.JPG

Unit: Wastewater Treatment Plant Components/Aeration Tanks	**Contains CBI:** No
Observation #: OB-10	**Date:** 04/21/2022

I asked Eric MacMichael about recent maintenance of the three aeration tanks (See Photo Log). He said they were cleaned out last fall, one at a time. He added that they recently installed new gate valves and diffusers.

Photo(s)

1. BELL0005.JPG

Unit: Wastewater Treatment Plant Components/Intermediate Clarifier	**Contains CBI:** No
Observation #: OB-11	**Date:** 04/21/2022

I observed the three intermediate clarifiers. I noticed some growth in the effluent trough of the east clarifier (see Photo Log). I asked about the maintenance schedule for the intermediate clarifiers. Eric MacMichael said they are cleaned every Friday with a jetter.

Photo(s) 1. BELL0006.JPG

Unit: Wastewater Treatment Plant Components/Nitrification Towers	**Contains CBI:** No
Observation #: OB-12	**Date:** 04/21/2022

I observed the two nitrification towers, sometimes referred to as "trickling filters" in some of the permitting documentation (see Photo Log). Eric MacMichael said they are primarily used for biological treatment for ammonia. The nitrification tower effluent chamber is captured in the Photo Log.

Photo(s)

1. BELL0007.JPG
2. BELL0014.JPG

Unit: Wastewater Treatment Plant Components/Final Clarifiers	**Contains CBI:** No
Observation #: OB-13	**Date:** 04/21/2022

I observed the two final clarifiers (east and west). I noted heavy growth and organic matter in the effluent trough of the east final clarifier, despite an auto raking system (see Photo Log). I observed the auto raking system in action and it did not appear to effectively remove growth and organic matter at the time of observation.

I also noted some duckweed on the surface of the clarifier, unusual for April. Eric MacMichael said the effluent trough auto raking system cycles every 20 minutes, and that they use a vac truck to suck out duckweed as needed (about once every other month).

I also observed heavy growth and organic matter in effluent trough in the west clarifier (see Photo Log). Eric MacMichael said the auto raking system has been out of service for the last two weeks. I asked about the maintenance routine since the auto raking system was out of service. He said the west clarifier is cleaned every Friday.

Photo(s)

1. BELL0008.JPG
2. BELL0009.JPG
3. BELL0012.JPG

Unit: Wastewater Treatment Plant Components/Ultraviolet (UV) Disinfection Building	**Contains CBI:** No
Observation #: OB-14	**Date:** 04/21/2022

The UV disinfection building includes the UV disinfection system and the effluent composite sampler. The UV system is offline for the winter and will be cleaned before starting up in May per the requirements of the Permit for summer (recreation) season disinfection. The UV system consists of two UV banks, with 66 bulbs each (see Photo Log).

I also observed the Endress & Hauser effluent composite sampler (see Photo Log). I noted the thermometer in the sampler. I asked about the frequency of sample tubing cleaning or replacement. Eric MacMichael said the tubes are replaced every six months.

Photo(s)

1. BELL0010.JPG
2. BELL0011.JPG

Unit: Wastewater Treatment Plant Components/Final Outfall 001	**Contains CBI:** No
Observation #: OB-15	**Date:** 04/21/2022

I observed the final effluent discharge to Snyder's Ditch from Outfall 001 (see Photo Log). Other than the froth from discharge cascading into the receiving water, the discharge appeared clear.

Photo(s)

1. BELL0013.JPG

Unit: Wastewater Treatment Plant Components/Effluent Vault (outdoor)	**Contains CBI:** No
Observation #: OB-16	**Date:** 04/21/2022
I observed the Outfall 001 Effluent Grab Sample Station. The open vault structure is adjacent to the UV Building. Effluent grab samples are collected at this location. I noted heavy growth along the bottom of the outfall (see Photo Log). The structure has two inlets and one outlet pipe. The outlet pipe flows to Outfall 001 at Snyder's Ditch. One inlet conveys plant effluent after UV disinfection, and the second inlet, according to Eric MacMichael, allows the Facility to convey treated water to the sodium aluminate room, with a flap gate (check valve) that prohibits water from flowing back to the final Outfall 001.	
Photo(s) 1. BELL0015.JPG	

SECTION IV – SAMPLING ACTIVITIES AND ANALYTICAL RESULTS

No sampling was conducted.

SECTION V - AREAS OF CONCERN

Areas of Concern may not be in sequential order.

The presentation of areas of concern does not constitute a formal compliance determination or violation.

Unit: Records Review	**Area:** Toxicity Reduction Evaluation (TRE)
RR-02	
Eric MacMichael said they complied with TRC reporting, but can't figure out why they continue to have toxicity violations. (most recent in December 2021).	**Citations:** Permit Effluent Limit Exceedance -Permit Part I.A.2.
Unit: Records Review	**Area:** DMR Reports
RR-04	
602 Bypass: I asked how bypass volume is estimated or recorded. Eric MacMichael said they use flow charts to estimate volume. Review of DMRs show bypass of treatment recorded at outfall 602 in 18 out of the last 55 months (see Appendix 3 - Reference Documents, "Bellevue_602 Bypass summary.pdf").	**Citations:** Bypass prohibition - Permit Part I.B.5.f.; Part III.11
Bridget Shiets said the Lab does not record filtering time for Ortho-P. I recommended that, at a minimum, adding filter time and sample collection times to chain of custody forms. The Permit requires filtering of Ortho-P within 15 minutes.	**Citations:** Sample quality assurance – 40 CFR 136. Permit Part III.6.

DO: I noticed that DO for effluent is recorded twice per day. DMR reports included the highest value. Regardless, effluent DO is well within limits. Eric MacMichael said will start reporting the lowest daily value "today".	**Citations:** Permit Part I. A.2. - Final Effluent Limitations And Monitoring Requirements
Unit: Self Monitoring	
OB-01	
The Facility does not measure effluent flow so composite samples are time proportioned.	**Citations:** Composite sampling requirements - Permit Part II.F; Permit Part I. A.2. - Final Effluent Limitations And Monitoring Requirements
Unit: Flow Monitoring	
OB-03	
Eric MacMichael confirmed there is no operable effluent flow meters in place. Instead they estimate effluent flow based on influent flow.	**Citations:** Continuous flow monitoring requirement at outfall 001 (Part I.A.2) and outfall 602 (Part I.B.5.)
Unit: CSOs/SSOs	
OB-04	
I asked if they send SSO annual reports to Ohio EPA by March 31 of each year, including the year of the only reported SSO within the last five years (2019). Eric MacMichael said they are not.	**Citations:** Permit Part II.D.2.b. requires SSO annual reports to Ohio EPA by March 31 of each year
The Facility did not send a 5-day report to Ohio EPA regarding the June 20, 2019 SSO, as required in Permit Part II.D.1.b.	**Citations:** SSO reporting - Permit Part II.D.1.b
Unit: Review of Effluent Limit Exceedances	
OB-05	
Toxicity: the Facility experiences sporadic toxicity limit exceedances, most recently in December 2021 (acute and chronic). Eric MacMichael said they tried to investigate the cause but at this point the causes of toxicity issues are unknown. Phosphorus: I asked about the recurring total phosphorus effluent limit exceedances, including the most recent in February 2022. Eric MacMichael said they had an issue with the alum feed line. The line was fixed after the February 2022 phosphorus exceedance. N-Ammonia: the Facility experiences recurring nitrogen-ammonia total (as N) effluent limit ("N-Ammonia") exceedances, the most recent in October 2021. Eric MacMichael said recent issues may have been due to a change out of aeration tank diffusers in early October	**Citations:** Permit Effluent Limit Exceedance -Permit Part I.A.2.

2021. Ammonia issues started soon after. They discovered an open recirculation valve. Once fixed, they noticed improvement. Also, Eric MacMichael said the filter press was in operation the day of the last exceedance. The filter press contributes 35,000 gallons per day of flow. He thinks the filter press discharge contributed to the ammonia exceedance. Eric MacMichael also provided a copy of a April 21, 2021 email to Ohio EPA describing efforts to address chronic N-ammonia effluent limit exceedances experienced between January and April 2021 (see Appendix 3 - Reference Documents (Bellevue_Ammonia numbers_email_20210421.pdf). *E.coli*: *E.coli* is a chronic summer issue at the Facility, with effluent limit exceedances occuring in four of the last five summers, the most recent in June and August 2021. Eric MacMichael said the summer 2021 exceedances were caused by fouling of the UV system. Their contractor failed to start the UV wiper system prior to spring restart. They restarted wipers after June. Exceedance in August 2021 due to unknown damage caused by the lack of wiping earlier in summer, resulting in another treatment failure. I asked about the cause of the summer 2019 *E.coli* effluent limit exceedances. Eric MacMichael could not remember the cause.	
Unit: Pretreatment	
OB-06	
According to Eric MacMichael, the last IU inspection was conducted in 2019. The inspection program was stopped due to COVID. He plans to restart inspections soon.	**Citations:** Industrial Compliance Monitoring - Permit Part II.X.7
Part V. Special Condition C of the City's IU permit prohibits permits from exceeding two years. However, the most recent cycle of permits expired in 2017.	**Citations:** Control Mechanism - Permit Part II.X.6
Unit: Wastewater Treatment Plant Components	**Area:** Final Clarifiers
OB-13	
I noted heavy growth and organic matter in the effluent trough of the east final clarifier, despite an auto raking system (see Photo Log). I observed the auto raking system in action and it did not appear to effectively remove growth and organic matter at the time of observation.	**Citations:** Facility Operation And Quality Control- Permit Part III.A.
I also observed heavy growth and organic matter in effluent trough in the west clarifier (see Photo Log). Eric MacMichael said the auto raking system has been out of service for the last two weeks. I asked about the maintenance routine since the auto raking system was out of service. He said the west clarifier is cleaned every Friday.	**Citations:** Facility Operation And Quality Control- Permit Part III.A.

Unit: Wastewater Treatment Plant Components	**Area:** Effluent Vault (outdoor)
OB-16	
I noted heavy growth along the bottom of the outfall (see Photo Log).	**Citations:** Facility Operation And Quality Control- Permit Part III.A.

SECTION VI – CLOSING CONFERENCE AND FOLLOW UP

Closing Conference

We returned from the field inspection at 2:50 pm. After reviewing inspection notes, we began the closing conference at 3:20 pm, with Eric MacMichael. During the closing conference, I discussed the observations, preliminary Areas of Concern, and followup items identified during the inspection. Observations and Areas of Concern have not yet been evaluated for a formal compliance determination.

Eric MacMichael asked about next steps. I provided a summary of our range of tools to resolve areas of concerns and timing for the inspection report.

Follow Up

The following items were requested by the inspector at the time of the inspection.

Unit: Records Review	**Area:** Phosphorous Compliance Schedule
RR-01	
I asked Eric MacMichael for copies of phosphorus compliance schedule reports.	
Unit: Records Review	**Area:** Local Sewer Ordinances
RR-03	
I asked Eric MacMichael for a copy of technical justifications for Local Sewer Ordinances sent to Ohio EPA.	
Unit: CSOs/SSOs	
OB-04	
Eric MacMichael did not believe the annual SSO reports were required if no SSOs occurred in a given year. I recommended he discuss this with Ohio EPA and seek clarification for the pending permit.	

Communication Log

The following information was received by Region 5 after exiting the Facility on 04/21/2022.

Document Type	Document Name	Contains CBI	Contains PII	Date Received
Communications (email) Ohio EPA to City	Bellevue_phosphorusCS_email_20210422.pdf (re Phosphorus Compliance Schedule)	No	No	04/22/2022
Communications (email) City to Ohio EPA	Bellevue_Recent US EPA SNC Notice Compliance Milestones.pdf (re phosphorus compliance schedule, toxicity compliance, and local limits)	No	No	04/22/2022
Communications – Local Limits Review	FW_ Bellevue Local Limit review_20220422.pdf	No	No	04/22/2022
Communications (email) City to US EPA	RE_ City of Bellevue WWTP ComplianceMilestones_20220425.pdf (re internal bypasses)	No	No	04/25/2022

SECTION VII – LIST OF APPENDICES

1. Photo Log
2. Document Log
3. Reference Documents

APPENDIX 1: PHOTOLOG

Parshall flume and influent flow meter	
BELL0001.JPG	
04/21/2022 01:52 PM (ET)	
Dean Maraldo	
Wastewater Treatment Plant Components/Headworks	
No CBI	
No PII	
Headworks	
Grit Chamber	
BELL0002.JPG	
04/21/2022 01:58 (ET)	
Dean Maraldo	
Wastewater Treatment Plant Components/Headworks	
No CBI	
No PII	
Headworks	
Primary Clarifier	
BELL0003.JPG	
04/21/2022 02:00 PM (ET)	
Dean Maraldo	
Wastewater Treatment Plant Components/Primary Clarifier	
No CBI	
No PII	
Headworks	

Bypass Channel BELL0004.JPG 04/21/2022 02:03 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Bypass Channel No CBI No PII Point where primary effluent flows above 3.0 MGD are routed over a weir to nitrification towers, to the final clarifiers, and then through ultraviolet disinfection before discharging through the final outfall.	
Aeration Tanks BELL0005.JPG 04/21/2022 02:07 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Aeration Tanks No CBI No PII Photo of the three aeration tanks.	
Intermediate Clarifier (east) BELL0006.JPG 04/21/2022 02:13 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Intermediate Clarifier No CBI No PII One of three intermediate clarifiers. Note the growth in effluent trough.	

Nitrification Towers BELL0007.JPG 04/21/2022 02:16 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Nitrification Towers No CBI No PII Two nitrification towers.	
East Final Clarifier BELL0008.JPG 04/21/2022 02:18 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Final Clarifiers No CBI No PII Note heavy growth in effluent trough.	
East Final Clarifier BELL0009.JPG 04/21/2022 02:19 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Final Clarifiers No CBI No PII Close up of effluent trough auto raking system.	

UV Banks BELL0010.JPG 04/21/2022 02:22 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Ultraviolet (UV) Disinfection Building No CBI No PII UV system offline at time of inspection.	
Effluent Composite Sampler BELL0011.JPG 04/21/2022 02:25 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Ultraviolet (UV) Disinfection Building No CBI No PII Endress & Hauser	
West Final Clarifier BELL0012.JPG 04/21/2022 02:27 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Final Clarifiers No CBI No PII Note heavy growth in effluent trough.	

Final Outfall 001 BELL0013.JPG 04/21/2022 02:33 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Final Outfall 001 No CBI No PII Final effluent outfall to Snyder's Ditch.	
Nitrification Tower Effluent Chamber BELL0014.JPG 04/21/2022 02:39 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Nitrification Towers No CBI No PII	
Effluent Grab Sample Vault BELL0015.JPG 04/21/2022 02:46 PM (ET) Dean Maraldo Wastewater Treatment Plant Components/Effluent Vault (outdoor) No CBI No PII	

APPENDIX 2: DOCUMENT LOG (DOCUMENTS INCLUDED IN APPENDIX 3)

Document Type	Document Name	Contains CBI	Contains PII	Pages	Date Received
Inspection Sign-in Sheet	Bellevue_SigninSheet_20220421.pdf	No	No	1	04/21/2022
Communications	Bellevue_Ammonia numbers_email_ 20210421.pdf	No	No	1	04/21/2022
Process Description/Flow Diagram	Bellevue_Process Flow Diagrams_20220421.pdf	No	No	2	04/21/2022
Communications - Overflow/Bypass/Upset Reports or Notifications	Bellevue_Wastewater_email_20190620.pdf	No	No	2	04/21/2022
Communications -Toxicity Reduction Evaluation (TRE)	Bellevue_ToxComplianceSchedule_email_ 20211007.pdf	No	No	1	04/21/2022
Status Report - Toxicity Reduction Evaluation (TRE)	Bellevue_ToxStrategy_2021.pdf	No	No	2	04/21/2022
IU Permit	Bellevue IU Permit_Tower Auto.pdf	No	No	10	04/21/2022

APPENDIX 3: REFERENCE DOCUMENTS (ATTACHED)

Document Type	Document Name	Contains CBI	Contains PII	Pages	Date Received
Violation History Summary	Bellevue_ELE_201706-202202.pdf	No	No	2	04/26/2022
Inspection Sign-in Sheet	Bellevue_SigninSheet_20220421.pdf	No	No	1	04/21/2022
Communications	Bellevue_Ammonia numbers_email_ 20210421.pdf	No	No	1	04/21/2022
Process Description/Flow Diagram	Bellevue_Process Flow Diagrams_20220421.pdf	No	No	2	04/21/2022
Communications - Overflow/Bypass/Upset Reports or Notifications	Bellevue_Wastewater_email_20190620.pdf	No	No	2	04/21/2022
Communications - Toxicity Reduction Evaluation (TRE)	Bellevue_ToxComplianceSchedule_email_ 20211007.pdf	No	No	1	04/21/2022
Status Report - Toxicity Reduction Evaluation (TRE)	Bellevue_ToxStrategy_2021.pdf	No	No	2	04/21/2022
Communications (email) Ohio EPA to City	Bellevue_phosphorusCS_email_20210422.pdf (re Phosphorus Compliance Schedule)	No	No	3	04/22/2022
Communications (email) City to Ohio EPA	Bellevue_Recent US EPA SNC Notice Compliance Milestones.pdf (re phosphorus compliance schedule, toxicity compliance, and local limits)	No	No	3	04/22/2022
Communications – Local Limits Review	FW_ Bellevue Local Limit review_20220422.pdf	No	No	2	04/22/2022
Communications (email) City to US EPA	RE_ City of Bellevue WWTP ComplianceMilestones_20220425.pdf (re internal bypasses)	No	No	5	04/25/2022
Bypass Summary	Bellevue_602 Bypass summary.pdf	No	No	1	04/26/2022

Effluent Limit Exceedances Report
OH0020672: CITY OF BELLEVUE WWTP, BELLEVUE, OH 44811-8709
Monitoring Period Date Range: 03/01/2017 to 02/28/2022

Exceedance Details

Monitoring Period Date	Parameter Description	Limit Type	DMR Value	DMR Value Unit	Limit Value	Limit Value Qualifier	% Exceedance
6/30/2017	Solids, total dissolved- 180 deg. C	MO AVG	1668	mg/L	1504	<=	11
7/31/2017	Copper, total recoverable	MO AVG	0.17	kg/d	0.164	<=	4
8/31/2017	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation
8/31/2017	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
8/31/2017	Solids, total dissolved- 180 deg. C	MO AVG	1622	mg/L	1504	<=	8
9/30/2017	Solids, total dissolved- 180 deg. C	MO AVG	1555	mg/L	1504	<=	3
2/28/2018	pH, maximum	DAILY MX	9.3	SU	9	<=	
5/31/2018	Nitrogen, ammonia total (as N)	WKLY MAX	4.11	mg/L	2.2	<=	87
5/31/2018	Nitrogen, ammonia total (as N)	WKLY MAX	20.9	kg/d	20	<=	5
5/31/2018	Nitrogen, ammonia total (as N)	MO AVG	15.6	kg/d	13.7	<=	14
5/31/2018	Nitrogen, ammonia total (as N)	MO AVG	2.96	mg/L	1.5	<=	97
5/31/2018	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation
5/31/2018	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
6/30/2018	Copper, total recoverable	MO AVG	0.038	mg/L	0.018	<=	111
6/30/2018	Copper, total recoverable	MO AVG	0.18	kg/d	0.164	<=	10
6/30/2018	Copper, total recoverable	DAILY MX	0.038	mg/L	0.028	<=	36
7/31/2018	Copper, total recoverable	MO AVG	0.065	mg/L	0.018	<=	261
7/31/2018	Copper, total recoverable	DAILY MX	0.065	mg/L	0.028	<=	132
7/31/2018	Copper, total recoverable	DAILY MX	0.26	kg/d	0.255	<=	2
7/31/2018	Copper, total recoverable	MO AVG	0.26	kg/d	0.164	<=	59
8/31/2018	Toxicity, ceriodaphnia chronic	MO AVG	1.41	tox chronic	1	<=	41
11/30/2018	Phosphorus, total (as P)	WKLY MAX	2.47	mg/L	1.5	<=	65
11/30/2018	Phosphorus, total (as P)	MO AVG	1.58	mg/L	1	<=	58
12/31/2018	Phosphorus, total (as P)	WKLY MAX	1.69	mg/L	1.5	<=	13
6/30/2019	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
6/30/2019	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation
6/30/2019	Toxicity, ceriodaphnia chronic	MO AVG	1.41	tox chronic	1	<=	41
7/31/2019	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation
7/31/2019	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
8/31/2019	Toxicity, ceriodaphnia chronic	MO AVG	1.41	tox chronic	1	<=	41
11/30/2019	Nitrogen, ammonia total (as N)	WKLY MAX	5.656	mg/L	4.5	<=	26
11/30/2019	Nitrogen, ammonia total (as N)	MO AVG	3.28	mg/L	3	<=	9
7/31/2020	Solids, total dissolved- 180 deg. C	MO AVG	1512	mg/L	1504	<=	1
8/31/2020	Solids, total dissolved- 180 deg. C	MO AVG	1528	mg/L	1504	<=	2
11/30/2020	Phosphorus, total (as P)	DAILY MX	0.6	mg/L	0.5	<=	20
1/31/2021	Nitrogen, ammonia total (as N)	WKLY MAX	5.89	mg/L	4.5	<=	31
1/31/2021	Nitrogen, ammonia total (as N)	MO AVG	4.75	mg/L	3	<=	58
2/28/2021	Nitrogen, ammonia total (as N)	MO AVG	6.47	mg/L	3	<=	116
2/28/2021	Nitrogen, ammonia total (as N)	MO AVG	27.5	kg/d	27.3	<=	1
2/28/2021	Nitrogen, ammonia total (as N)	WKLY MAX	6.94	mg/L	4.5	<=	54
2/28/2021	Phosphorus, total (as P)	WKLY MAX	1.01	mg/L	1	<=	1
3/31/2021	Nitrogen, ammonia total (as N)	MO AVG	5.66	mg/L	3	<=	89
3/31/2021	Nitrogen, ammonia total (as N)	WKLY MAX	6.52	mg/L	4.5	<=	45
4/30/2021	Nitrogen, ammonia total (as N)	WKLY MAX	5.65	mg/L	4.5	<=	26
4/30/2021	Nitrogen, ammonia total (as N)	MO AVG	4.05	mg/L	3	<=	35
6/30/2021	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
6/30/2021	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation

Monitoring Period Date	Parameter Description	Limit Type	DMR Value	DMR Value Unit	Limit Value	Limit Value Qualifier	% Exceedance
8/31/2021	E. coli, MTEC-MF	WK GEOMN		MPN/100mL	2318	<=	Limit Violation
8/31/2021	E. coli, MTEC-MF	MO GEOMN		MPN/100mL	1030	<=	Limit Violation
10/31/2021	Nitrogen, ammonia total (as N)	WKLY MAX	2.34	mg/L	2.2	<=	6
10/31/2021	Phosphorus, total (as P)	WKLY MAX	1.34	mg/L	1	<=	34
11/30/2021	Phosphorus, total (as P)	WKLY MAX	2.05	mg/L	1	<=	105
11/30/2021	Phosphorus, total (as P)	DAILY MX	2.43	mg/L	0.5	<=	386
12/31/2021	Toxicity, pimephales acute	DAILY MX	1.49	tox acute	1	<=	49
12/31/2021	Toxicity, pimephales chronic	MO AVG	2.91	tox chronic	1	<=	191
2/28/2022	Phosphorus, total (as P)	WKLY MAX	1.33	mg/L	1	<=	33

MEETING SIGN-IN SHEET

Project:	U.S. EPA Inspection	**Meeting Date:**	4/21/2022
Facilitator:	City of Bellevue, Ohio WWTP	**Place/Room:**	Conference Room

Name	Title	Company	Phone	E-Mail
Eric MacMichael	Wastewater Superintendent	City of Bellevue, OH	419-217-8418	Eric.MacMichael@CityofBellevue.com
Tate D Schoen	Wastewater Operator	City of Bellevue		
Matthew Schulte	EPA	EPA	312-886-2405	Schulte.matthew@epa.gov
DEAN MARALDO	EPA INSPECTOR	EPA	312-353-2098	MARALDO.DEAN@EPA.GOV

Eric MacMichael

From: Eric MacMichael
Sent: Wednesday, April 21, 2021 11:05 AM
To: Gary.Christie@epa.ohio.gov
Subject: Ammonia numbers

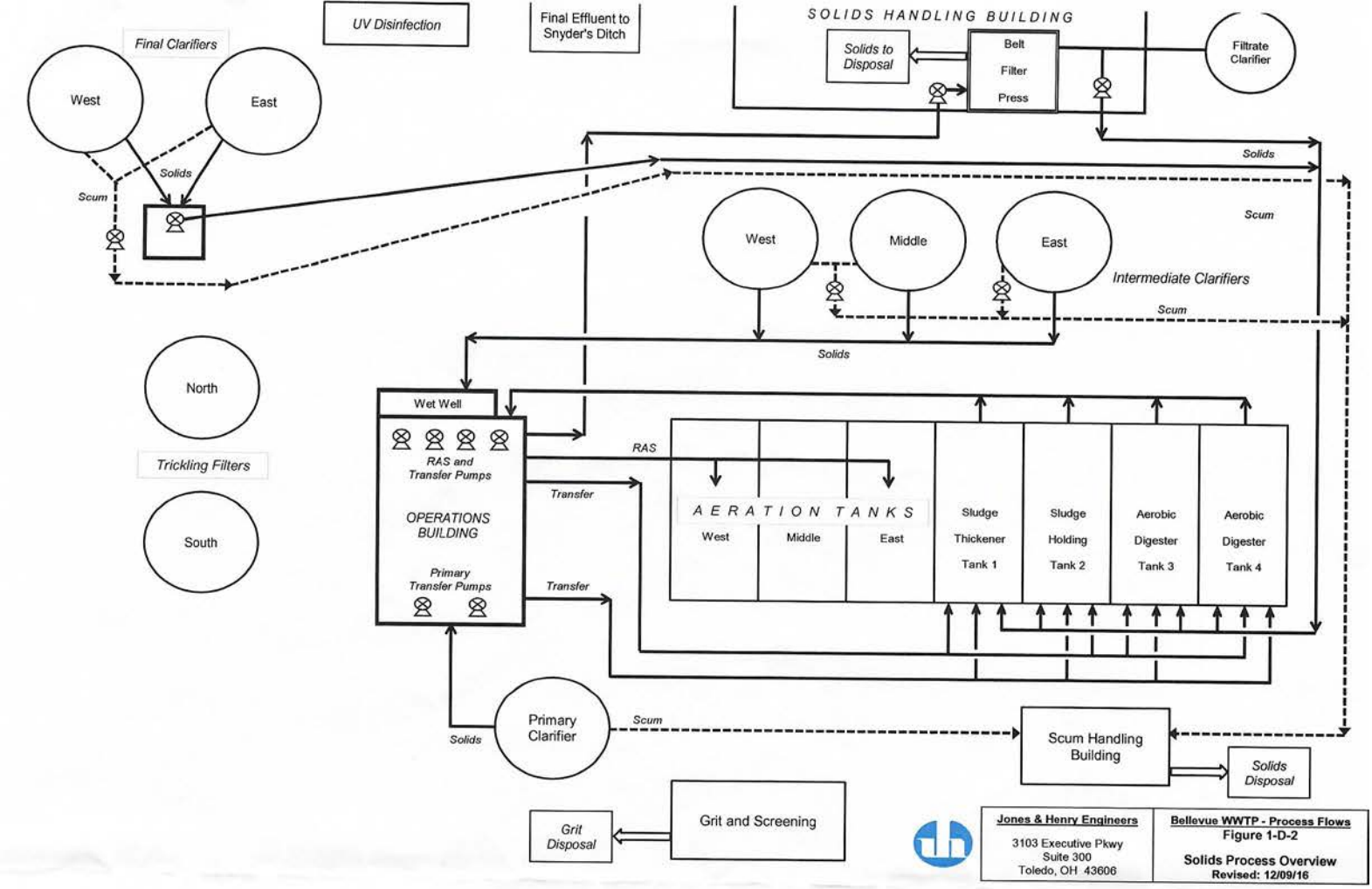
Gary,
Good morning!
As of today our NH3 number going out on effluent was 2.67mg/l. It was a 3.3 mg/l yesterday. I think we are on the right track but it is very early yet. Here is what we did.

I had Bridget graph NH3 and solids from influent to effluent and trended back to 2018. We looked closely at what our numbers were and how it compared to what we had previously. What we found was that we were running light on our MLSS and RAS spins were light as well. Sludge blankets were stretched and settling was not the greatest. So we took this approach very slowly and brought our RAS spin back up to 6 (we were at between 3 and 4) gained our solids in aeration from 2800 to roughly around 4k. Sludge blankets that were stretched are now 1 to 1.5 ft and very clear on separation. Our settling has improved a lot and our ½ hr set tests are showing less than 800 after 5 mins, where before we were lucky to get 900 after 5 mins. The moral of the story is to say that we were not nitrifying like we should have been. It still doesn't explain why we were picking it up in the final effluent when coming off the towers it was less then 2mg/l. I'll dig into that after we get this dialed in. So as of right now we are on the right track and seem to be on the right path.

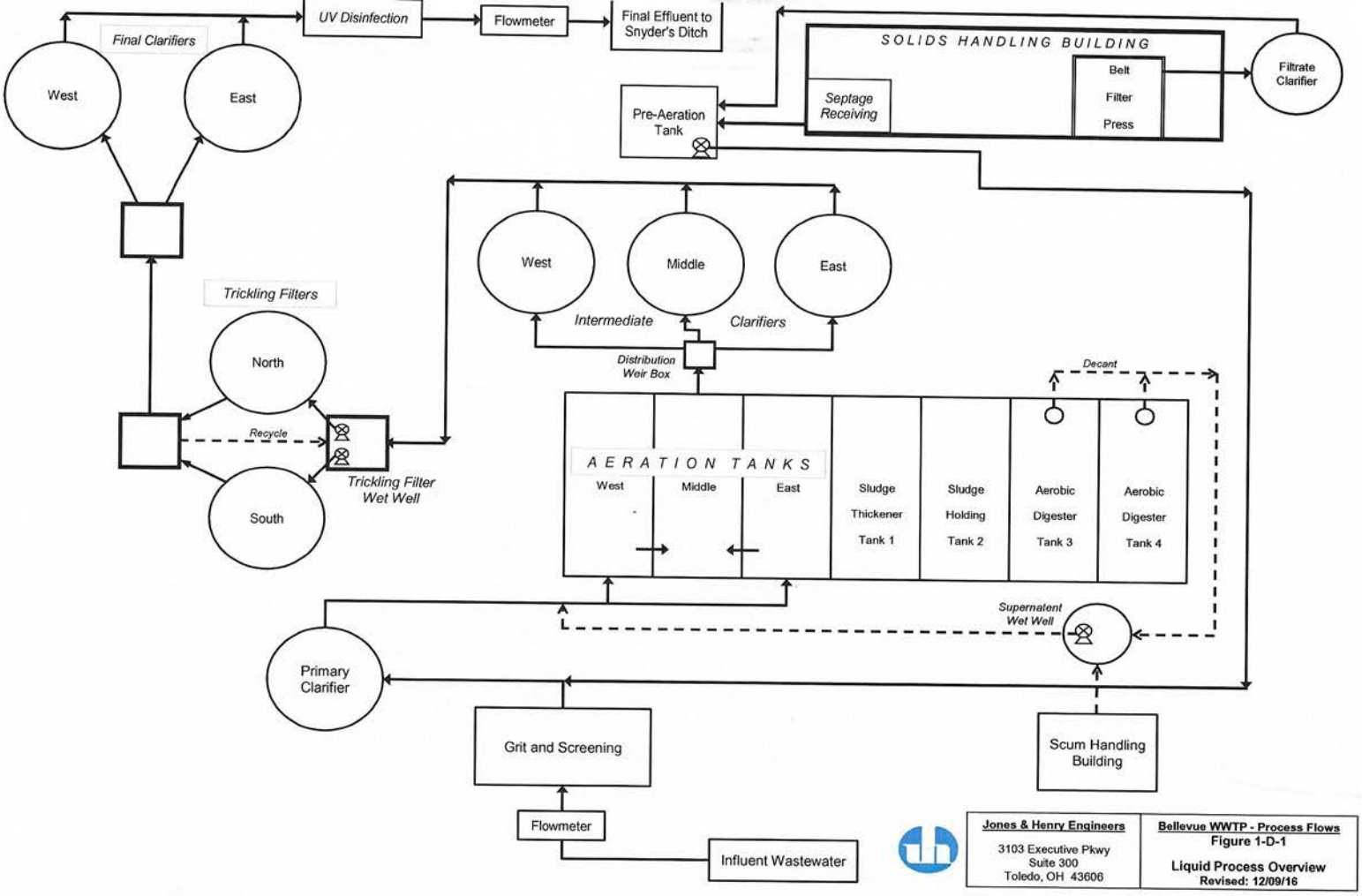
Just wanted to keep you in the loop and to let you know that we have been trying hard to figure this out and I think we found the issue.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio


UV Disinfection
Final Effluent to Snyder's Ditch
SOLIDS HANDLING BUILDING
Solids to Disposal
Belt Filter Press
Filtrate Clarifier
Final Clarifiers
West
East
Solids
Scum
Solids
Scum
West
Middle
East
Intermediate Clarifiers
Scum
Solids
North
Trickling Filters
South
Wet Well
RAS and Transfer Pumps
OPERATIONS BUILDING
Primary Transfer Pumps
RAS
Transfer
Transfer
AERATION TANKS
West
Middle
East
Sludge Thickener Tank 1
Sludge Holding Tank 2
Aerobic Digester Tank 3
Aerobic Digester Tank 4
Primary Clarifier
Solids
Scum
Scum Handling Building
Solids Disposal
Grit Disposal
Grit and Screening
Jones & Henry Engineers
3103 Executive Pkwy
Suite 300
Toledo, OH 43606
Bellevue WWTP - Process Flows
Figure 1-D-2
Solids Process Overview
Revised: 12/09/16

Solid Flow


Final Clarifiers
West
East
UV Disinfection
Flowmeter
Final Effluent to Snyder's Ditch
SOLIDS HANDLING BUILDING
Belt Filter Press
Filtrate Clarifier
Septage Receiving
Pre-Aeration Tank
Trickling Filters
North
South
Recycle
Trickling Filter Wet Well
West
Middle
East
Intermediate Clarifiers
Distribution Weir Box
Decant
AERATION TANKS
West
Middle
East
Sludge Thickener Tank 1
Sludge Holding Tank 2
Aerobic Digester Tank 3
Aerobic Digester Tank 4
Supernatent Wet Well
Primary Clarifier
Grit and Screening
Scum Handling Building
Flowmeter
Influent Wastewater
Jones & Henry Engineers
3103 Executive Pkwy
Suite 300
Toledo, OH 43606
Bellevue WWTP - Process Flows
Figure 1-D-1
Liquid Process Overview
Revised: 12/09/16

Eric MacMichael

From: Dana.Martin-Hayden@epa.ohio.gov
Sent: Friday, June 21, 2019 11:24 AM
To: Eric MacMichael
Subject: RE: Bellevue Wastwater

Hi Eric,

Thank you for your email.

We appreciate the efforts you are making to address, what sounds like extreme flooding conditions.

Please continue to keep us informed,

Dana Martin-Hayden
Division of Surface Water
Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
Ohio EPA
419-373-3067

From: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Sent: Thursday, June 20, 2019 6:51 PM
To: Martin-Hayden, Dana <Dana.Martin-Hayden@epa.ohio.gov>
Cc: Mike Lantz <mike.lantz@cityofbellevue.com>
Subject: Bellevue Wastwater

Dana,
Good evening!
I am emailing you this evening to inform you that we had 4.32 inches of rain in roughly 3 hours here in Bellevue. While the plant is running at max capacity and all lift stations are running at max capacity, the sewer mains are completely full from this heavy downpour that we got here.
Myself and my wastewater crew have been in doing rounds on lift stations and checking sewer mains. There are a lot of areas of town that we cannot get to due to the flooding. I apologize for not sending this email earlier, but I had other priorities with what we were dealing with.
We did have 1 manhole # 309 overflowing at the intersection of Broad and Main St. (route 20). It would be easier for me to tell you what streets didn't flood then to list out which ones are. I'm not just saying a little flooded, I'm talking knee deep or higher flooded. The rec center pond came over the banks and was flooding Cherry Blvd. and Monroe St. We have a 8 inch pump out there now at the pond trying to relieve the pressure.

I know that I am to respond within 5 days of what we did to correct the problem, but there is nothing to respond too and nor is there a corrective answer. We are working around the clock to make sure that all lift stations are operating and to ensure that the wastewater plant is operating.

Please advise me of what steps I need to do next to ensure that we are within compliance.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

Did You Know: Children of parents who talk to their teens about drugs are up to 50% less likely to use. Start the conversation: StartTalking.Ohio.Gov

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Total Control Panel Login

To: eric.macmichael@cityofbellevue.com Remove this sender from my allow list

From: dana.martin-hayden@epa.ohio.gov

You received this message because the sender is on your allow list.

Eric MacMichael

From: Gary.Christie@epa.ohio.gov
Sent: Thursday, October 7, 2021 3:55 PM
To: Eric MacMichael
Subject: RE: CONSTRUCTION Compliance Milestone Due this Month for - 2PD00037*MD

Eric
I will accept your email as a report stating that your construction project was not needed, therefore your milestone has been met.

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water

347 N. Dunbridge Rd.
Bowling Green, Oh 43402
Phone: 419.373.3019
gary.christie@epa.ohio.gov

From: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Sent: Thursday, October 7, 2021 10:49 AM
To: Christie, Gary <Gary.Christie@epa.ohio.gov>
Subject: RE: CONSTRUCTION Compliance Milestone Due this Month for - 2PD00037*MD

Gary,
I'm not finding it either. I dislike technology.

My email yesterday was explaining that for the second part of the report, we have not done any construction to reduce or eliminate toxicity, because we have not had any hits to date since the last report. So I'm not to sure on what to report on besides that we are hit free. If we do experience a hit for toxicity, the protocol is to resample and review what the notes were on day of sampling. Meaning was it raining day of, day before, temps, Do's throughout plant, and NH3. Which NH3 in the past if its high going out has created an issue with toxicity. At least that is my opinion.

Please advise me of what I need to do for the report, since I really don't have anything to report on.

Thanks,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Thursday, October 7, 2021 10:28 AM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Subject: RE: CONSTRUCTION Compliance Milestone Due this Month for - 2PD00037*MD

SENT 8/9/19
TO OEPA

Toxic Reduction Evaluation Strategy for The City of Bellevue, Ohio WWTP

Introduction:

The October 1 2020 Toxicity Reduction Evaluation (TRE) and resulting plan will be referenced in this 2020 Toxic Reduction Strategy update.

The plan to attain compliance with the required WET limits of 1.0 TUa and 1.0 TUc at final outfall station 001, is based on The City of Bellevue's current NPDES permit that became effective on October 1, 2017.

Toxicity Reduction Evaluation Actions Taken:

The City of Bellevue WWTP has stop taken all septage as of November 2019. This was due to the amount of money needed to fix the septage receiving station. Since stopping septage from coming into the WWTP, we have seen an improvement within the plant processes and effluent quality.

In the last permit 2PD00037*LD, we took the TRE plan that was in place and went the extra mile to find the source of Toxicity on station 001. We took samples while pressing, when not pressing, high flow event, normal flow event, extra sampling on heavy metals, different days of the week, and different times. We would do a full scale toxicity testing once a quarter per our NPDES permit, but to include half scale testing on off months of the quarter to track the toxicity better. The results were non conclusive of where or why we were getting toxicity hits on station 001. At first, we thought it was polymer for the belt filter press, however, we were getting hits on the days that we weren't pressing. TDS was also brought up, that as the TDS number increases it becomes more toxic. This was not proven. We would have hits at TDS numbers of 900 and be AA with TDS numbers of 1500.

To date, we have not had any hits of Toxicity on station 001 since July 21st of 2019. I have attached all Toxicity data for 2021 to exclude 4th quarter sampling. I have listed by year from 2018 to current of any violations

2018:

July 22- C.dubia chronic 1.41

2019:

April 18- C. dubia acute 0.2

C. dubia chronic 1.41

July 21- C.dubia chronic 1.41

2020:

NONE

2021:

February 22- P.promelas acute 0.4

C.dubia chronic 1.41

Future Action Planned:

Toxicity sampling will continue as per our NPDES permit. We will continue to monitor process control parameters, TDS, pH, and weather when we collect samples. This helps with identifying probably problem areas that may stick out when we are testing.

Issue Date: 11/08/2012

Effective Date: 12/01/2012

Expiration Date: 12/01/2017

City of Bellevue, Ohio
Water Pollution Control Facility

Industrial User Permit

Permit # 04 –12

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, the Ohio Water Pollution Control Act, and the City of Bellevue sewer use ordinance,

Tower Automotive Operations USA 1 LLC
630 South West St. Bellevue Ohio 44811

is hereby authorized to discharge wastewater from its facility located at the address listed above to the Water Pollution Control Facility (WPCF) of the City of Bellevue, Ohio (City). All discharges from this facility, actions and reports relating thereto shall be in accordance with the terms and conditions listed in Parts 1 through 5 of this Industrial User permit as well as the provisions of the City of Bellevue sewer use ordinance chapter 925.

Compliance with this permit does not relieve the permittee of its obligation to comply with any or all applicable pretreatment regulations, standards, or requirements under local, state, and federal law, including any such regulations, standards, requirements, or laws that may become effective during the terms of this permit. This permit is conditioned upon payment of applicable fees This permit and the authorization to discharge shall expire at midnight on the expiration date shown above. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information and forms as are required by the City of Bellevue, no later than 90 days prior to the above date of expiration.

If you wish to appeal or challenge any conditions imposed in this permit, a petition shall be filed for modification or rescission of this permit in accordance with the requirements of Section 925.51 of the ordinance. Request for modification or reissuance shall be made in writing to Wastewater Superintendent's office.

The permittee must remit a $100.00 fee to the "City of Bellevue" prior to the effective date listed above to begin coverage under this permit.

Sincerely,

Eric MacMichael

WPCF Superintendent

City of Bellevue, Ohio

Part 1 Effluent Limitations

A. During the period beginning on the effective date of this permit, and lasting until the expiration date of this permit, the permittee is authorized to discharge process wastewater to the Bellevue WPCF, only from the outfall(s) as listed below:

Outfall	Description of Location
001	End of process/pretreatment effluent

B. During the effective period of this permit, the discharge from the outfall(s) as described shall not exceed the following effluent limitations. Effluent regulated by this permit shall be limited as follows:

Parameter	Daily Maximum
pH	6-10 Std Units
CBOD	200 mg/l
TSS	230 mg/l
Phosphorus (Total)	15.0 mg/l
Arsenic	0.39 mg/l
Cadmium	0.12 mg/l
Chromium (Total)	1.71 mg/l
Cyanide	0.01 mg/l
Copper (Total)	0.15 mg/l
Lead (Total)	0.43 mg/l
Mercury (Total)	BMP [a]
Molybdenum	1.70 mg/l
Nickel (Total)	1.52 mg/l
Selenium	0.07 mg/l
Silver (Total)	0.04 mg/l
Zinc (Total)	1.48 mg/l
TTO	2.13 mg/l
Oil & Grease	50.0 mg/l

Notes:

(a) BMP – Best Management Practices. See Special Conditions; Part 4, Section 4

C. In addition, all discharges shall comply with all other applicable laws, regulations, standards and requirements as contained in the City sewer use ordinance chapter 925.

D. Industrial User is classified as: Catagorical Non-Significant

Part 2 Monitoring Requirements

A. During the period beginning on the effective date of this permit, and lasting until the expiration date of this permit, the permittee shall monitor Outfall(s) [001] for the following parameters, at the indicated frequency:

Parameter	Units	Frequency [1]	Sample Type [2]
Flow	gal/day	Daily	Meter
pH	Std.	Continuous	Meter
CBOD	mg/l	Semi-Annual	Grab
TSS	mg/l	Semi-Annual	Grab
Phosphorus (Total)	mg/l	Semi-Annual	Grab
Kjeldahl TKN	mg/l	Semi-Annual	Grab
Ammonia (N)	mg/l	Semi-Annual	Grab
Arsenic	mg/l	Semi-Annual	Composite
Cadmium	mg/l	Semi-Annual	Composite
Chromium (Total)	mg/l	Semi-Annual	Composite
Cyanide	mg/l	Semi-Annual	Composite
Copper (Total)	mg/l	Semi-Annual	Composite
Iron	mg/l	Semi-Annual	Composite
Mercury (Total)	ng/l	Semi-Annual	Composite
Molybdenum	mg/l	Semi-Annual	Composite
Nickel (Total)	mg/l	Semi-Annual	Composite
Lead (Total)	mg/l	Semi-Annual	Composite
Selenium	mg/l	Semi-Annual	Composite
Silver (Total)	mg/l	Semi-Annual	Composite
Zinc (Total)	mg/l	Semi-Annual	Composite
TTO	mg/l	Semi-Annual	Grab
TDS	mg/l	TBD	Grab
Oil & Grease	mg/l	Monthly	Grab

Notes:

[1] **Sampling Frequency:**

Total flow is to be recorded **daily** from permittee's flow meter.

pH measurements are a **continuous** measurement from the permittee's pH meter.

Semi-Annual sampling means March and September.

Monthly sampling means at least one sample per calendar month.

TBD- To be determined. Ohio EPA has mandated TDS limits be imposed upon all permitees discharging to Bellevue WPCF

[2] **Sampling Types:**

Meter *samples refers to the permittee's installed flow and pH meters.*

Grab *samples shall be collected at such times and locations, and in such a fashion, as to be representative of the facility's normal wastewater discharge.*

Composite *samples shall be composed of at least 3 grab samples proportionate in volume to the wastewater flow rate at the time of sampling and collected at; not less than 30 minutes and not more than 2 hour intervals during the facility's normal production period. Each*

sample shall be collected at such times and locations and in such a fashion, as to be representative of the facility's normal wastewater discharge.

B. All analyses shall be conducted using the analytical method as listed in 40 CFR Part 136.

a. Alternative analytical methods may only be used with the written approval of the Wastewater Superintendent.

C. If the permittee monitors any pollutants more frequently than required by this permit, using test procedures prescribed in this permit or amendment thereof, or an otherwise required analytical method, the results of such monitoring shall be included in any calculation of daily maximum or monthly average pollutant discharge, and results shall be reported in the monthly report submitted to the City.

Part 3 Reporting Requirements

A. Monitoring results obtained shall be summarized and reported on an Industrial User Monitoring Report Form on a monthly basis, unless otherwise required by the City of Bellevue. This Monitoring Report is due by the 15th of the following month, beginning in the second month following the effective date of this permit. The report shall indicate the nature and concentration of all pollutants in the effluent for which sampling and analyses were performed during the calendar month preceding the submission of the report including measured maximum and average flows. If the permittee monitors any pollutants more frequently than required by this permit, using test procedures prescribed in this permit or amendment thereof, or an otherwise required analytical method, the results of such monitoring shall be included in any calculation of daily maximum or monthly average pollutant discharge, and results shall be reported in the monthly report submitted to the City.

B. If the results of the permittee's wastewater analysis indicate that a violation of this permit has occurred, the permittee must:

1. Inform the City of the violation within 24 hours of first becoming aware of the violation.
2. Repeat the sampling and pollutant analysis and submit in writing, the results of this analysis within 30 days of the first violation unless otherwise directed by the City.

C. Accidental Discharge:

1. In the event of an accidental discharge, slug discharge or other upset that causes a discharge of prohibited or limited materials regulated by this permit, the permittee shall notify the Wastewater Superintendent, WPCF or Police, immediately.
   a. Wastewater Superintendent / WPCF: **(419) 483-7514**
   b. Police: **911**
2. The notification shall include the location of the discharge, type of waste(s), concentration, volume, and corrective action taken. Within 5 days following the event, the permittee shall submit to the Wastewater Superintendent's office a detailed written report including the following facts:
   a. A description and cause of the upset or prohibited discharge. The description should also include the location of the discharge, the cause thereof, and the impact of the permittee's compliance status.
   b. Duration of noncompliance, including exact dates and times of noncompliance, and if noncompliance is continuing, the time by which compliance is reasonably expected to occur.
   c. All steps taken or to be taken to reduce, eliminate and/or prevent recurrence of such conditions of noncompliance.

D. Reporting:

All reports required by this permit shall be submitted to the Wastewater Superintendent at the following address:

City of Bellevue, Ohio
Water Pollution Control
3000 Seneca Industrial Parkway
Bellevue, Ohio 44811

Part 4 Special Conditions

Section 1 – Additional Requirements

A. Slug Discharge Control Plan

The Permittee shall develop, within 3 months of the effective date of this permit, an accidental spill prevention plan to eliminate or minimize the possibility of an accidental slug discharge of pollutants into the POTW which could affect the City WPCF, sludge application program, or cause the City to violate its NPDES permit. This plan shall be submitted to the Wastewater Superintendent for review and approval.

B. TTO Management

If results of sampling reported in the permitee's permit application for Total Toxic Organics (TTO) are below 0.01 mg/l (10 ppb) the permittee has the option to develop a Toxic Organic Management Plan (TOMP).

If the permittee elects to develop a plan, it will be developed within 90 days of the effective date of this permit. The plan will be submitted to the City for review and approval. Once approved, the permittee must comply with the plan and the reporting requirements specified by the City.

In lieu of an approved plan the permittee is required to submit twice yearly, the results of an analysis for TTO. This analysis shall be conducted at the time of the facility's normal monthly sampling, during the months of March and September. Results of this TTO analysis shall be submitted along with the permittee's monthly monitoring report.

C. Additional Pollutant Monitoring

Section 2 – Reopener Clause

A. The terms and conditions of this permit may be subject to modification by the City at any time as limitations or requirements, as identified in the City ordinance, are modified or for other just cause.

B. This permit may also be modified to incorporate special conditions resulting from the issuance of a special order.

C. The term and conditions may be modified as a result of promulgation of new Federal Pre-Treatment Standards.

D. Any permit modification which results in new conditions in the permit shall include a reasonable time schedule for compliance.

Section 3 – Compliance Schedule

A. In order to meet the wastewater discharge limitations in Part 1, the permittee will be required to install pretreatment facilities or make in-plant modifications to their existing system as required to meet limitations. A compliance schedule shall be negotiated with the City prior to initiating any improvements to the pretreatment system. The schedule shall be adhered to and reports on progress shall be submitted to the City at the address listed in Part 3.

B. No later than 14 days following each date in the compliance schedule, the permittee shall submit a progress report to the City. This report must indicate whether or not the increments of progress have been met, any reason(s) for delays, and what steps are being taken by the permittee to return to the established schedule.

C. Within 90 days, following the final compliance date as specified in this section, the permittee will be required to sample its wastewater for the pollutants specified in Part 1, and report compliance. Any reason for not complying and any steps being taken by the permittee to comply shall be part of this report.

D. Compliance Plan Schedule:

Section 4 – Best Management Practices (BMP) Plan (Mercury)

A. The goal of the BMP plan is to maintain effluent concentrations of mercury with a goal of meeting the WPCF discharge benchmark of 5.4 nanograms/liter (ng/l) however, the effluent shall not exceed the permittee's previous numeric local limit of 200 ng/l.

B. Within nine (9) months of the effective date of this permit, the permittee shall develop a BMP plan and submit it to the City for review and approval. The objective of this plan is to identify any potential sources of mercury within the facility and implement opportunities to eliminate them. The plan shall include the following:

1. A list of members of a cross-functional team responsible for developing and implementing the BMP plan.
2. An inventory of wastewater sources subject to the BMP plan. The inventory shall include a description of each source and any previous data on mercury concentrations.
3. A description of current and past mercury reduction activities and their effectiveness.
4. A technical and economic evaluation of the new BMP. It should include the following if necessary: Substitution of materials; reformulation or redesign of products; modification of equipment, facilities, technology, processes, and procedures; and improvement in management, inventory control, materials handling or general operational phases of the facility.
5. A schedule for implementation of economically feasible options in the BMP.
6. The method used for measuring progress towards the BMP goal and updating the BMP plan.

C. The permittee shall monitor for mercury as listed in Part 2 of this permit using low-level detection (ng/l) analytical method as listed in 40 CFR Part 136.

D. Within 12 months of the effective date of this permit and every year thereafter, the permittee shall submit an annual report to the City on the progress of the BMP. The annual report shall include:

a. All BMP plan monitoring results for the year;

b. An updated inventory of sources of pollutants subject to the BMP plan;

c. A summary of effectiveness of all BMPs implemented to meet the BMP plan goal;

d. Any updates to the BMP plan.

Part 5 Standard Conditions

General Permit Conditions

A. The permittee shall comply with all conditions of this permit as well as the general prohibitive discharge standards and procedures listed in Chapter 925 of the Bellevue City Ordinance.

B. The permittee shall take all reasonable steps to minimize or correct any adverse impact to the WPCF or the environment resulting from noncompliance with this permit, including accelerated or additional monitoring to determine the nature and impact of the noncomplant discharge.

C. This Industrial User Permit shall be issued for a period not to exceed two years. The City shall notify the permittee one hundred eighty (180) days prior to the expiration date of the permit. The permittee shall apply for permit reissuance a minimum of 90 days prior to the expiration of the existing permit. The terms and conditions of this permit may be subject to modification by the City during the term of the permit as limitations or requirements in this chapter are modified or other just cause exists. The permittee shall be informed of any proposed changes in this permit at least sixty (60) days prior to the effective date of change. Any changes or new conditions in the permit shall include a reasonable time schedule for compliance.

D. The permittee shall, after reasonable notification by the City, shall allow the City representatives, exhibiting the proper credentials and identification, to enter upon the premises, at a reasonable hour, for the purposes of inspection, sampling or records inspection. Reasonable hours in the context of inspection and sampling include any time the permittee is operating a process which results in a wastewater discharge to the City's WPCF.

E. Industrial User Permits are issued to a specific permittee for a specific operation. A permit shall not be transferred or sold to a new owner, new permittee, different premises, or a new or changed operation without the approval of the Wastewater Superintendent. Any succeeding owner or permittee shall also comply with the terms and conditions of the existing permit.

F. No Industrial User shall increase the use of the potable process water or in any way attempt to dilute a wastewater discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in this permit.

G. In the event that the permittee's operation requires the use of cooling or water treatment additives that are discharges to surface waters of the state, written permission must be obtained from the Director of the Ohio EPA prior to use. Reporting and testing requirements to apply for permission to use additives can be obtained from the Ohio EPA, Central Office, Division of Surface Water, Enforcement and Compliance Section. Reported information will be used to evaluate whether the use of the additive(s) at concentrations expected in the final discharge will be harmful or inimical to aquatic life.

H. Any permittee who violates the following conditions of their permit, or applicable state, and federal regulations, is subject to having the Industrial User Permit revoked in accordance with the procedures as outlined in Chapter 925 of the Bellevue City Ordinance.

1. Failure of the permittee to factually report the wastewater constituents and characteristics of their discharge.
2. Failure of an permittee to report significant changes in operations, or wastewater characteristics and constituents.
3. Refusal of reasonable access to permittee's premises for the purpose of inspection, sampling or monitoring.
4. Violations of the conditions of this permit.

I. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any invasion of personal rights, or any infringement of Federal, State, or local regulations.

Pretreatment Operation and Maintenance

A. The permittee shall at all times properly operate and maintain all treatment and control systems (and related appurtenances) which are installed or used to achieve compliance with the terms of this permit.

B. Upon loss of efficiency, or the loss or failure of all on any part of the treatment system, the permittee shall control its production and/or discharge to the extent necessary to maintain compliance with this permit.

C. Bypass of the permittee's treatment process is prohibited unless it is unavoidable to prevent loss of life, personal injury, severe property damage or when no feasible alternatives exist.

1. The permittee shall immediately notify the WPCF in the event of an unanticipated bypass. It shall also submit a written notice to the WPCF specifying:
   a. A description of the bypass and its duration.
   b. The cause of the bypass and whether it has been corrected;
   c. The steps being taken or to be taken to reduce or eliminate the possibility of a future occurrence of this bypass.
2. If the permittee knows in advance of the need for a bypass, it shall submit a written notice to the WPCF at least ten (10) days prior to the bypass.

D. The disposal of sludge's and spent chemicals generated by the permittee as a result of treatment operations shall be done in accordance with Section 405 of the Clean Water Act and Subtitles C and D of the Resource Conservation and Recovery Act.

Monitoring and Record Keeping

A. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original charts recordings for continuous instrumentation, copies of all reports and correspondence required by this permit, and records of all data used to complete the application for this permit, for a period at least (3) three years from the date of the samples, measurements, reports, correspondence, or application.

B. All records that pertain to matters that are subject of special orders or any other enforcement of litigation brought by the City shall be retained and preserved by the permittee until enforcement activities have concluded and all periods of limitations with respect to any and all appeals have expired.

C. For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

1. The exact place, date and time of sampling
2. The dates the analyses were performed
3. The person(s) who performed the sampling and analyst name
4. The analytical methods used
5. The results of the required analyses

D. Except for data determined to be confidential under Chapter 925.33 of the City ordinance, all reports required by this permit shall be available for public inspection at the office of the Wastewater Superintendent, City of Bellevue WPCF.

E. All reports required by this permit shall be signed by a principal executive officer of the permittee, or their authorized representative.

F. Knowingly making any false statements on any report or other document required by this permit or knowingly rendering any monitoring device or method inaccurate may result in punishment under criminal laws of the City, as well as being subjected to civil penalties and relief.

From: Eric MacMichael
To: Maraldo, Dean
Cc: Schulte, Matthew
Subject: FW: City of Bellevue WWTP Compliance Milestones
Date: Friday, April 22, 2022 9:28:15 AM

Here is the response back from NWOEPA stating that we met the milestones as requested.

This email shows that we did indeed have milestones meet as you requested that I send confirmation.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Friday, February 28, 2020 2:06 PM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Subject: RE: City of Bellevue WWTP Compliance Milestones

Eric

Thank you for your prompt reply. I will update our database to indicate that Bellevue has met its Phosphorus Milestone # 1 and 2 on page 20 of your NPDES permit.

Can you give me a similar report for Toxic Reduction Milestones on Page 21 of your NPDES Permit and Pretreatment Milestones on Page 22 of the NPDES Permit?

I have scanned and attached the pages that I am referencing.

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water
Phone: 419.373.3019

From: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Sent: Friday, February 28, 2020 10:04 AM
To: Christie, Gary <Gary.Christie@epa.ohio.gov>
Cc: Wick, Elizabeth <Elizabeth.Wick@epa.ohio.gov>; Mike Lantz <mike.lantz@cityofbellevue.com>
Subject: RE: City of Bellevue WWTP Compliance Milestones

Gary,

Good morning!
So this whole phosphorus milestone is something I am having a very hard time with.

When this whole lowering phosphorus limit issue was being talked about and when it was going to start, there were a few things that I wanted to find out on my end so I started May 1 2017 lowering our phosphorus to 0.5 or lower. This gave me over a year to find how much more product we were going to be using so I could budget chemical money for 2018 when the limits were going to be lowered. The other thing I wanted to find out was how was adding more product to lower our phosphorus going to effect our TDS, since that was going to be lowered also.

I sat in a meeting at BG office with Dana, Elizabeth, and Walter in Columbus on the phone discussing these issues. I was very open as I am, and explained I can get phosphorus to 0.5 with out a problem and have been for the past year, however, this is going to cause an issue with TDS. I can't fix one problem without creating another problem. If lowering phosphorus was more of the important source than it will be done, but I can't control the TDS. The biggest thing I wanted to make sure that I wasn't going to get dinged on with the limits changing was the TDS issue.

The issue I have with the milestone compliance items is this. I started a year in advance to lower the phosphorus and have been at 0.5 or lower since May 1st 2017. It is documents on every monthly report of what our outcome has been on station 001. So I don't understand why I have to explain something when it has already been done and have the eDMR to back up that it has been met.

So to answer the question of were the milestone items submitted? No, nothing in writing was submitted because I figured that lowering our number to 0.5 a year in advance and reporting it monthly on the eDMR would give me enough evidence to OEPA, that I wouldn't need to submit something when I already proved it can be met. That was the whole purpose of doing it a year prior, to find out how much more money it would cost me to keep it at 0.5 or lower, if it would increase my TDS, which it did slightly, and to see what it would do to our sludge production which was nothing. It didn't increase our sludge production at all. Which I explained to Dana in one of our plant inspections.
If you want me to submit a letter or an email explaining what I did, then I will do so. I do not know what to even say on a letter every year except that we met it.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Thursday, February 27, 2020 2:53 PM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>

Subject: City of Bellevue WWTP Compliance Milestones

Eric

I am seeking feedback from you on some of the compliance milestones in your NPDES Permit. I have scanned the milestone information form the permit and attached. I have marked the items that I need a status. It could be that you already reported it, but between Dana and I we did not update the data base.

Please review the document and reply with a date when the milestone was met.

Thanks.

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water

347 N. Dunbridge Rd.
Bowling Green, Oh 43402
Phone: 419.373.3019
gary.christie@epa.ohio.gov

From:	Eric MacMichael
To:	Maraldo, Dean
Cc:	Schulte, Matthew
Subject:	FW: Recent US EPA SNC Notice Compliance Milestones
Date:	Friday, April 22, 2022 9:24:34 AM
Attachments:	ATT00001.txt

Gentlemen,

Good morning

Here is the email thread to NWOEPA for phosphorus and toxicity milestone compliance.

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Eric MacMichael
Sent: Wednesday, October 7, 2020 12:33 PM
To: Gary.Christie@epa.ohio.gov
Subject: RE: Recent US EPA SNC Notice Compliance Milestones

Gary,

I wanted to give some insight before tomorrow and not wasting awhole lot of your time.

Phosphorus Compliance Schedule:

I started looking at getting Phosphorus down to 0.5 mg/l or lower back in May of 2017. I did this to find out how much money it was going to cost the plant to get that low and to find out if it was going to increase our TDS. I had a in meeting conversation with NWOEPA, City of Bellevue, and Walter Ariss on this same discussion back in early 2017. I told everyone in that meeting that I could get down to 0.5 and what my game plan was, but it would increase my effluent TDS by increase my dosage rate of sodium aluminate. I don't understand what I am supposed to report on when we have been down to 0.5 mg/l since May of 2017. There has been no impact by doing this. In fact, our plant numbers over past 3 years have been awesome and that is something I pride this plant on. If you need a letter head every year to explain that we are at a 0.5 mg/l and have been since May of 2017 then I will do that. I figured that someone would be looking at our numbers and see that we are there and have been with no impact, except TDS. That is whole different story I don't want to get on right now.

Toxicity:

We have done so much on this and it proved nothing or where/why we get hit. We have tried testing when not pressing, while pressing, during high rain event, dry events, if we got hit with heavy metals, normal. We've tested different times of day, different days, yet nothing proved anything. I even caught minnows that were spawning in our effluent, put 10 of them in a 5 gallon pail and kept them alive for 8 months, and all I did was change out the effluent water every other day, never feed them food, strictly effluent water and they stayed alive for 8 months. I even showed Dana during an inspection. I contacted EnviroScience and asked questions. I was told that the minnows that they use are young minnows. My argument was well, the fish I caught just didn't become adults, they grew up in that water. So how are we still getting toxicity hit and miss.

I pulled last 1.5 years worth of data and we have had no Toxicity hits since July 2019. What am I supposed to report on? And even if we were getting hit, I've spent the last permit cycle trying to figure it out and come up with nothing. I even went to the extent to test every month. Full toxicity screening once a quarter, half screening on other months. Still nothing…

Pretreatment:

Jones and Henry did our local limits and submitted them to Columbus for review Jan/Feb 2018. I'm still waiting on that. So how can I be in SNC when I am still waiting on the approval?

Gary, I have done all the background things in the last permit cycle and found nothing for toxicity and got our limit to 0.5mg/l for phosphorus. Had local limit review done and submitted way before deadline.

I don't understand what reporting would be on. I'll be honest, I figured since I did all the research in previous permit cycle that this was for if we were having problems or couldn't get to limit. There is nothing to report on.

Look forward to speaking with you!

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Wednesday, October 7, 2020 11:45 AM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Subject: Recent US EPA SNC Notice Compliance Milestones

Eric

I will call you to discuss. When is a good time tomorrow?

"As a precautionary response to COVID-19, Ohio EPA is currently operating with most staff working remotely. During this time, we will not be issuing hard-copy mail. Any attached (unsigned) letter is an official response from Ohio EPA that will be maintained as a public record. If you have any questions regarding this letter please contact me."

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water

347 N. Dunbridge Rd.
Bowling Green, Oh 43402
Phone: 419.373.3019
gary.christie@epa.ohio.gov

From: Eric MacMichael
To: Maraldo, Dean
Cc: Schulte, Matthew
Subject: FW: Bellevue Local Limit review
Date: Friday, April 22, 2022 7:09:09 AM

Gentlemen,
Good afternoon!
1st off I wanted to say it was nice meeting you both today.
I have forwarded the email back from EPA (Columbus, central office) pertaining the local limits for the permit cycle 2017/2022.

This should clear the reason why we did not have updated local limits in place while you were here for inspection.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Joshua.Griffin@epa.ohio.gov <Joshua.Griffin@epa.ohio.gov>
Sent: Thursday, October 7, 2021 3:21 PM
To: Eric MacMichael <eric.macmichael@cityofbellevue.com>
Cc: Gary Bauer <gbauer@jheng.com>; Phoebe.Low@epa.ohio.gov; Thomas.Poffenbarger@epa.ohio.gov; Peggy.Christie@epa.ohio.gov
Subject: Bellevue Local Limit review

Eric,
Thanks for your time and the discussion today. Given where we are at in our review process and where the NPDES permit is in the permit cycle we agree that moving forward with the review that is soon to be revisited is not the most efficient option. We will pause any further review of the proposed changes as our initial review indicated that the treatment plant was operating well. When the permit is renewed we see the following two options:

1. If the technical evaluation shows that the 2018 submittal is still adequate submit a technical evaluation that supports that determination. We can then act on the previous one that has be PE stamped.
2. If changes are necessary from the 2018 submittal the technical evaluation will need to support the changes and will require a PE stamp.

If you have any questions about that submittal please reach out to Phoebe or myself.
Thanks,
Josh Griffin

Joshua E. Griffin
Ohio EPA
Central Office – Division of Surface Water
Environmental Supervisor
614-644-2874

How did we do? Please take a few minutes to provide us with your feedback

From:	Eric MacMichael
To:	Maraldo, Dean
Cc:	Schulte, Matthew
Subject:	RE: City of Bellevue WWTP Compliance Milestones
Date:	Monday, April 25, 2022 11:46:36 AM

Dean,
To answer your questions,
#1: The City never did a NFA regarding internal bypass. To know if Ohio EPA approved it is a good question. I don't know. All I know is station number 602 was put into our permit. So I am guessing so, but never received any documentation saying yes or no, just was put into permit

#2: DMR's are not electronical from my end, only paper copies.

Sorry that I am not much help on your questions, only telling you what I know.

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Maraldo, Dean <Maraldo.Dean@epa.gov>
Sent: Monday, April 25, 2022 12:24 PM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Cc: Schulte, Matthew <Schulte.Matthew@epa.gov>
Subject: RE: City of Bellevue WWTP Compliance Milestones

Thanks Eric. I have a couple followup questions and requests.

1. Do you know if the City ever conducted a No Feasible Alternatives Analysis (NFA) regarding your wet-weather bypass? If so, has Ohio EPA approved the wet-weather bypass? If so, please provide the NFA and Ohio EPA approval(s).
2. Are your DMRs available electronically? If so, could you email DMRs from Jan 2018 to present? If not, I will request from Ohio EPA. I didn't want to ask for paper copies as we are trying to go paperless.

Thanks again,
Dean

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Dean Maraldo
Water Enforcement and Compliance Assurance Branch
U.S. EPA - Region 5
77 West Jackson Blvd. (ECW-15J)
Chicago, Illinois 60604

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e-mail: maraldo.dean@epa.gov
(Pronouns: he/him/his)

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From: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Sent: Friday, April 22, 2022 9:28 AM
To: Maraldo, Dean <Maraldo.Dean@epa.gov>
Cc: Schulte, Matthew <Schulte.Matthew@epa.gov>
Subject: FW: City of Bellevue WWTP Compliance Milestones

Here is the response back from NWOEPA stating that we met the milestones as requested.

This email shows that we did indeed have milestones meet as you requested that I send confirmation.

Sincerely,

Eric MacMichael
Wastewater Superintendent
City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Friday, February 28, 2020 2:06 PM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Subject: RE: City of Bellevue WWTP Compliance Milestones

Eric

Thank you for your prompt reply. I will update our database to indicate that Bellevue has met its Phosphorus Milestone # 1 and 2 on page 20 of your NPDES permit.

Can you give me a similar report for Toxic Reduction Milestones on Page 21 of your NPDES Permit and Pretreatment Milestones on Page 22 of the NPDES Permit?

I have scanned and attached the pages that I am referencing.

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water

Phone: 419.373.3019

From: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Sent: Friday, February 28, 2020 10:04 AM
To: Christie, Gary <Gary.Christie@epa.ohio.gov>
Cc: Wick, Elizabeth <Elizabeth.Wick@epa.ohio.gov>; Mike Lantz <mike.lantz@cityofbellevue.com>
Subject: RE: City of Bellevue WWTP Compliance Milestones

Gary,
Good morning!
So this whole phosphorus milestone is something I am having a very hard time with.

When this whole lowering phosphorus limit issue was being talked about and when it was going to start, there were a few things that I wanted to find out on my end so I started May 1 2017 lowering our phosphorus to 0.5 or lower. This gave me over a year to find how much more product we were going to be using so I could budget chemical money for 2018 when the limits were going to be lowered. The other thing I wanted to find out was how was adding more product to lower our phosphorus going to effect our TDS, since that was going to be lowered also.

I sat in a meeting at BG office with Dana, Elizabeth, and Walter in Columbus on the phone discussing these issues. I was very open as I am, and explained I can get phosphorus to 0.5 with out a problem and have been for the past year, however, this is going to cause an issue with TDS. I can't fix one problem without creating another problem. If lowering phosphorus was more of the important source than it will be done, but I can't control the TDS. The biggest thing I wanted to make sure that I wasn't going to get dinged on with the limits changing was the TDS issue.

The issue I have with the milestone compliance items is this. I started a year in advance to lower the phosphorus and have been at 0.5 or lower since May 1st 2017. It is documents on every monthly report of what our outcome has been on station 001. So I don't understand why I have to explain something when it has already been done and have the eDMR to back up that it has been met.

So to answer the question of were the milestone items submitted? No, nothing in writing was submitted because I figured that lowering our number to 0.5 a year in advance and reporting it monthly on the eDMR would give me enough evidence to OEPA, that I wouldn't need to submit something when I already proved it can be met. That was the whole purpose of doing it a year prior, to find out how much more money it would cost me to keep it at 0.5 or lower, if it would increase my TDS, which it did slightly, and to see what it would do to our sludge production which was nothing. It didn't increase our sludge production at all. Which I explained to Dana in one of our plant inspections.
If you want me to submit a letter or an email explaining what I did, then I will do so. I do not know what to even say on a letter every year except that we met it.

Sincerely,

Eric MacMichael

Wastewater Superintendent

City of Bellevue, Ohio

From: Gary.Christie@epa.ohio.gov <Gary.Christie@epa.ohio.gov>
Sent: Thursday, February 27, 2020 2:53 PM
To: Eric MacMichael <Eric.MacMichael@cityofbellevue.com>
Subject: City of Bellevue WWTP Compliance Milestones

Eric

I am seeking feedback from you on some of the compliance milestones in your NPDES Permit. I have scanned the milestone information form the permit and attached. I have marked the items that I need a status. It could be that you already reported it, but between Dana and I we did not update the data base.

Please review the document and reply with a date when the milestone was met.

Thanks.

Gary D Christie
Environmental Engineer II
Ohio EPA, Northwest District Office
Division of Surface Water

347 N. Dunbridge Rd.
Bowling Green, Oh 43402
Phone: 419.373.3019
gary.christie@epa.ohio.gov

Bellevue WWTP Bypass Summary (Outfall 602)
NPDES Permit OH0020672

Outfall	Outfall Type	Permit Parameter	limit_unit_code	limit_unit_desc	standard_unit_code	standard_unit_desc	statistical_base_code	statistical_base_short_desc	statistical_base_type_code	statistical_base_type_desc	monitoring_period_end_date	dmr_value_nmbr
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	7/31/2017	3.3
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	7/31/2017	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	11/30/2017	9
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	11/30/2017	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	1/31/2018	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	1/31/2018	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	2/28/2018	8
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	2/28/2018	5.5
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	3/31/2018	1
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	3/31/2018	1
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	4/30/2018	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	4/30/2018	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	11/30/2018	10
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	11/30/2018	10
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	1/31/2019	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	1/31/2019	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	2/28/2019	6
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	2/28/2019	6
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	4/30/2019	3
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	4/30/2019	3
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	6/30/2019	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	6/30/2019	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	3/31/2020	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	3/31/2020	12
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	5/31/2020	5
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	5/31/2020	5
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	9/30/2020	6
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	9/30/2020	6
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	10/31/2020	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	10/31/2020	4
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	5/31/2021	3
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	5/31/2021	3
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	9/30/2021	5
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	9/30/2021	5
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	MK	MO AVG	AVG	Average	2/28/2022	6
602	External Outfall	Bypass of treatment	82	hr/mo	84	d/mo	DD	DAILY MX	MAX	Maximum	2/28/2022	6