



Environmental
Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

June 22, 2011

RE: CITY OF EUCLID WWTP
CUYAHOGA COUNTY
COMPLIANCE EVALUATION INSPECTION
NPDES PERMIT NO. OH0031062
OHIO EPA PERMIT NO. 3PE00003

Mayor and Council
Euclid City Hall
585 East 222nd Street
Euclid, OH 44123

Dear Mayor and Council:

On May 5, 2011, a Compliance Evaluation Inspection (CEI) was conducted at the City of Euclid Wastewater Treatment Plant (WWTP). The facility was represented by John Hall, Asst. Superintendent Bill Donner, and Pretreatment Coordinator Jeanne Fresenko. A follow-up laboratory inspection was conducted on May 17, 2011. The purpose of the CEI was to evaluate the facility's compliance with terms and conditions of the National Pollutant Discharge Elimination System (NPDES) permit. During the course of the inspection, evaluations were conducted of the treatment processes, effluent discharge quality, laboratory, collection system, and biosolids management.

NPDES Permit Status

The NPDES permit for this facility was issued on May 1, 2010 and expires on April 30, 2015. The permit authorizes an average daily discharge of 22.0 MGD from the facility to Lake Erie. A Mercury Variance Application was submitted on March 30, 2011.

Facility Description

The City of Euclid WWTP provides service to the cities of Euclid, Wickliffe, and Willowick, as well as portions of the cities of Richmond Heights, Willoughby Hills, South Euclid, and Cleveland. The treatment process consists of preliminary screening, grit removal, primary settling, pure oxygen activated sludge process, secondary clarification, alum addition for phosphorus removal, microstrainers, chlorination and dechlorination. The treated effluent is discharged to Lake Erie via NPDES outfall 3PE00003001.

The treatment plant's peak design flow of 66 MGD is currently not achievable due to hydraulic restrictions in the unit processes. Presently, wet weather flows in excess of 28 +/- MGD at the headworks is diverted to the wet weather auxiliary treatment facility (WWATF) consisting of swirl concentrators and chlorination. The effluent from the WWATF is discharged to Lake Erie via NPDES outfall 3PE00003002. Additionally, the NPDES permit identifies 17 combined sewer overflows (CSOs), as well as separate sewer overflows (SSOs) in the collection system. The headworks bypass and the respective collection system overflows have been subjects of ongoing Consent Order negotiations between the City, US EPA, and Ohio EPA.

Waste activated sludge is transferred to the solids handling facility located on Lakeland Boulevard via a dedicated pipeline. The sludge cake is hauled off-site for proper disposal.

At the time of the inspection, the following observations and comments were noted:

- The general operation and maintenance of the treatment plant appeared to be satisfactory. A visual observation of the plant effluent revealed no signs of floating debris, oil & grease, or foam in the discharge during the plant tour on May 5th.
- Please ensure that light-weight covers are installed over any exposed gear boxes. Additionally, please replace any missing chains around the open tank walkways.
- The flow meter at the WWATF was out of service due to a bad sensor. We understand that the unit has since been repaired.
- We understand that the City has contracted with CT Consultants to design the necessary improvements to the facility.
- The City has purchased the level sensing equipment for installation at the 17 CSO locations. The installation is expected to be completed at all CSO locations by December 31, 2011.

Laboratory

The review of the plant laboratory noted that the following permit parameters are currently being analyzed in-house: DO, pH, Temperature, cBOD, Suspended Solids, Fecal Coliform, E. Coli, Ammonia, Chlorine, and Phosphorus. The balance of the permit parameters are analyzed by Wastewater Labs (e.g. Metals, O&G) and Ginosko (Mercury). The following highlights were noted during the review:

- The laboratory was clean and well organized. The lab technicians were well-versed in the required sampling and analytical testing protocols.
- The facility laboratory, as well as the contract laboratories, reported all of its parameters on the 2010 DMR-QA Study as "Acceptable".
- It appears that the "distillation versus no distillation" comparison study for Ammonia needs to be updated.
- It was noted that bacterial samples are routinely reported as "AH" on Fridays. Please note that the NPDES permit only includes exceptions for days when the plant is not normally staffed. For daily parameters, this provision only applies to Saturdays, Sundays, and legal municipal holidays.

Mayor and Council
City of Euclid
June 22, 2011
Page 3

Discharge Monitoring Reports

Discharge monitoring reports (DMR) received by Ohio EPA for the period, May 2010 – April 2011, were reviewed. A summary of the data, including bypasses and/or overflows, is listed in Attachment A.

Pending NPDES Permit Hg Variance Application

Ohio EPA has reviewed the facility's historical discharge data. Based on most recent data (January 2008 – May 2011), the average projected effluent quality (PEQ) was calculated as 10.0 ng/l. Hence, we anticipate public-noticing the permit modification with this value as the variance-based limit.

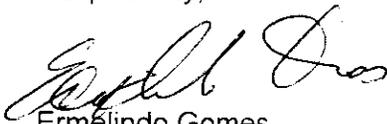
A draft copy of the permit modification will be sent under separate cover. Any comments regarding the draft permit must be submitted in writing during the public notice period.

Summary

Please be advised, failure to comply with the terms and conditions of the NPDES permits may be cause for enforcement pursuant to the Ohio Revised Code Chapter 6111.

If you should have any questions please contact this office at (330) 963-1196.

Respectfully,



Ermelindo Gomes
Environmental Engineer
Division of Surface Water

EG/mt

cc: John Hall, Superintendent, City of Euclid

Attachment A: Euclid WWTP Data Summary (5/2010- 4/2011)

Station Code	Parameter Name	Units	# of Obs.	# < MDL	Min	Avg	Max
1	Water Temperature	C	392	0	8	16.21	23
1	Dissolved Oxygen	mg/l	392	0	1	11.24	20
1	Total Suspended Solids	mg/l	268	0	2	9.36	51
1	Oil and Grease, Hexane Extr Method	mg/l	52	19	0	2.63	9
1	Nitrogen, Ammonia (NH3)	mg/l	268	0	2	9.81	17
1	Nitrite Plus Nitrate, Total	mg/l	26	0	0.26	1.06	2.2
1	Phosphorus, Total (P)	mg/l	105	0	0.18	0.33	0.82
1	Cyanide, Free	mg/l	26	26	0	0.00	0
1	Nickel, Total Recoverable	ug/l	13	13	0	0.00	0
1	Silver, Total Recoverable	ug/l	26	26	0	0.00	0
1	Zinc, Total Recoverable	ug/l	13	0	20	27.92	40
1	Cadmium, Total Recoverable	ug/l	13	13	0	0.00	0
1	Lead, Total Recoverable	ug/l	13	13	0	0.00	0
1	Chromium, Total Recoverable	ug/l	13	13	0	0.00	0
1	Copper, Total Recoverable	ug/l	26	5	0	11.35	49
1	Chromium, Dissolved Hexavalent	ug/l	13	13	0	0.00	0
1	Fecal Coliform	#/100 ml	116	0	2	1622.65	58000
1	E. coli	#/100 ml	39	3	0	809.89	21000
1	Flow Rate	MGD	375	0	8.5	14.36	30.57
1	Chlorine, Total Residual	mg/l	149	135	0	0.00	0.024
1	Mercury, Total (Low Level)	ng/l	13	0	2.5	6.46	9.2
1	Acute Toxicity, Ceriodaphnia dubia	TUa	1	0	1.4	1.40	1.4
1	Acute Toxicity, Pimephales promelas	TUa	1	0	0.8	0.80	0.8
1	pH, Maximum	S.U.	389	0	6.4	6.89	7.5
1	pH, Minimum	S.U.	389	0	6.3	6.77	7.3
1	CBOD 5 day	mg/l	257	0	2	6.52	19

Attachment A: Euclid WWTP Data Summary (5/2010- 4/2011)

Station Code	Parameter Name	Units	# of Obs.	# < MDL	Min	Avg	Max
2	Total Suspended Solids	mg/l	90	0	8	67.42	286
2	E. coli	#/100 ml	13	0	1	1889.82	15200
2	Flow Rate	MGD	61	0	0.38	15.50	89.65
2	Chlorine, Total Residual	mg/l	11	1	0	5.36	13.9
2	CBOD 5 day	mg/l	85	0	3	29.41	170
2	Bypass Occurrence, Number per month	No./Month	52	0	1	1.00	1
2	Bypass Duration, Hours per month	Hr/Month	91	0	0.25	11.43	24
5	Overflow Occurrence	No./Month	2	0	1	1.00	1
6	Total Suspended Solids	mg/l	7	0	16	62.86	218
6	E. coli	#/100 ml	2	0	7000	40500.00	74000
6	Overflow Occurrence	No./Month	40	0	1	1.00	1
6	CBOD 5 day	mg/l	7	0	5	26.86	79
7	Overflow Occurrence	No./Month	33	0	1	1.00	1
8	Overflow Occurrence	No./Month	1	0	1	1.00	1
9	Overflow Occurrence	No./Month	8	0	1	1.00	1
10	Total Suspended Solids	mg/l	4	0	68	151.50	216
10	E. coli	#/100 ml	1	0	780	780.00	780
10	Overflow Occurrence	No./Month	17	0	1	1.00	1
10	CBOD 5 day	mg/l	4	0	6	30.50	62
11	Overflow Occurrence	No./Month	29	0	1	1.00	1
12	Total Suspended Solids	mg/l	1	0	19	19.00	19
12	Overflow Occurrence	No./Month	38	0	1	1.00	1
12	CBOD 5 day	mg/l	1	0	49	49.00	49
13	Total Suspended Solids	mg/l	1	0	182	182.00	182
13	Overflow Occurrence	No./Month	8	0	1	1.00	1
13	CBOD 5 day	mg/l	1	0	7	7.00	7
14	Overflow Occurrence	No./Month	16	0	1	1.00	1

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Station Code	Parameter Name	Units	# of Obs.	# < MDL	Min	Avg	Max
15	Total Suspended Solids	mg/l	1	0	116	116.00	116
15	Overflow Occurrence	No./Month	5	0	1	1.00	1
15	CBOD 5 day	mg/l	1	0	13	13.00	13
18	Overflow Occurrence	No./Month	5	0	1	1.00	1
19	Total Suspended Solids	mg/l	1	0	440	440.00	440
19	Overflow Occurrence	No./Month	4	0	1	1.00	1
19	CBOD 5 day	mg/l	1	0	6	6.00	6
20	Total Suspended Solids	mg/l	1	0	18	18.00	18
20	Overflow Occurrence	No./Month	33	0	1	1.00	1
20	CBOD 5 day	mg/l	1	0	5	5.00	5
22	Overflow Occurrence	No./Month	33	0	1	1.00	1
23	Overflow Occurrence	No./Month	2	0	1	1.00	1
24	Overflow Occurrence	No./Month	2	0	1	1.00	1
25	Overflow Occurrence	No./Month	2	0	1	1.00	1
28	Overflow Occurrence	No./Month	8	0	1	1.00	1
30	Overflow Occurrence	No./Month	4	0	1	1.00	1
31	Overflow Occurrence	No./Month	5	0	1	1.00	1
32	Overflow Occurrence	No./Month	5	0	1	1.00	1
33	Overflow Occurrence	No./Month	2	0	1	1.00	1
36	Overflow Occurrence	No./Month	2	0	1	1.00	1
37	Overflow Occurrence	No./Month	3	0	1	1.00	1
300	Overflow Occurrence	No./Month	13	0	0	3.85	10
586	Sludge Fee Weight	dry tons	1	0	3385.71	3385.71	3385.71
601	Total Suspended Solids	mg/l	269	0	46	157.33	402
601	Cyanide, Total	mg/l	13	13	0	0.00	0
601	Nickel, Total Recoverable	ug/l	13	13	0	0.00	0
601	Silver, Total Recoverable	ug/l	13	11	0	0.77	5

Attachment A: Euclid WWTP Data Summary (5/2010- 4/2011)

Station Code	Parameter Name	Units	# of Obs.	# < MDL	Min	Avg	Max
601	Zinc, Total Recoverable	ug/l	13	0	48	79.31	130
601	Cadmium, Total Recoverable	ug/l	13	13	0	0.00	0
601	Lead, Total Recoverable	ug/l	13	13	0	0.00	0
601	Chromium, Total Recoverable	ug/l	13	10	0	5.00	25
601	Copper, Total Recoverable	ug/l	13	0	25	44.77	100
601	Chromium, Dissolved Hexavalent	ug/l	13	13	0	0.00	0
601	Mercury, Total (Low Level)	ng/l	13	1	0	87.12	306
601	pH, Maximum	S.U.	395	0	7	8.03	10
601	pH, Minimum	S.U.	395	0	3.7	7.49	8.5
601	CBOD 5 day	mg/l	258	0	23	107.78	214