

**Environmental
Protection Agency**

Ted Strickland, Governor
Lee Fisher, Lt. Governor
Chris Korleski, Director

August 3, 2010

RE: CUYAHOGA COUNTY
NEORSD EASTERLY WWTP
NPDES PERMIT NO. OH0024643
OHIO EPA PERMIT NO. 3PF00001
COMPLIANCE EVALUATION INSPECTION

Mr. David McNeeley
Director of Operation & Maintenance
Northeast Ohio Regional Sewer District
3900 Euclid Avenue
Cleveland, OH 44115

Dear Mr. McNeeley:

On June 29, 2010, an inspection was conducted of the Northeast Ohio Regional Sewer District (NEORSD) Easterly Wastewater Treatment Plant (WWTP) by Mr. Chris Moody and the undersigned. The facility was represented by Robert Bonnet, Superintendent, Mike Sullivan, Asst. Superintendent, Andy Rossiter, Asst. Superintendent and Robin Halperin, Mgr. Environmental & Regulatory Support. The purpose of the inspection was to evaluate the facility's compliance status with respect to the 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 performance, and biosolids management.

NPDES Permit Status

The NPDES permit for this facility expired on March 31, 2005. Receipt of a timely renewal application by Ohio EPA on October 4, 2004 authorizes NEORSD to discharge beyond the expiration date.

Facility Description

NEORSD Easterly WWTP serves a population of greater than 300,000 on the east side of Cleveland and neighboring suburbs through a combined sewer system. The 155 MGD facility provides treatment to an average daily flow rate flow of 85 - 91 MGD, with peak capacities of 300 MGD (secondary) and 400 MGD (primary). The treatment processes include screening, grit removal, grease collection, primary settling, activated sludge biological process, final settling, chlorination and dechlorination. The treated effluent is discharged at the Lake Erie shoreline via Outfall 3PF00001001. Solids removed from Easterly's various treatment processes (excluding grease) are collected, stored, and pumped to the Southerly WWTP via a 16-inch force main for processing. Grease from the facility, as well as from Southerly and Westerly, are incinerated onsite.

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During excessive wet weather events, flows exceeding the hydraulic capacity at Outfall 3PF000010031 can be diverted to Lake Erie via NPDES outfall 3PF00001003.

Inspection Findings

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

1. The facility appeared to be well maintained and operated. All treatment processes necessary for the treatment of dry and wet weather flows were in service. The final effluent at Outfall 001 was visually clear with no observable floating debris or Oil & Grease in the discharge.
2. The facility was proceeding with replacement of the existing aeration tank ceramic discs with membrane-style diffusers. Four of the eight tanks are expected to be completed by next year.
3. Energy dissipating inlets (EDIs) have been installed on 12 of the 20 final clarifiers. The remaining 8 tanks are to be upgraded as part of the ongoing clarifier rehabilitation project. We also understand that Stamford baffles are being considered as part of future improvements. It has been widely demonstrated that the use of these baffles enhance the solids removal efficiency of final clarifiers.
4. NEORSD continues to have concerns with the existing pH limitation of 6.5. The facility currently maintains a Sodium Hydroxide feed system to address these infrequent events. In order for Ohio EPA to consider a lower pH limitation of 6.0, NEORSD must submit the results of a mixing zone demonstration for review and approval.
5. Sampling and onsite analytical procedures for field parameters (e.g. pH, Chlorine, Temperature, etc.) appear to be consistent with the requirements of the NPDES permit. All other analytical testing is performed at NEORSD's Environmental and Maintenance Services Center (EMSC).

Discharge Monitoring Reports (DMR)

Discharge monitoring reports (DMR) received by Ohio EPA for the period January 2007 through June 2010, were reviewed. A summary of the Outfall 001 and Outfall 003 discharge data is listed in Attachment A. Additionally, the effluent data was reviewed for compliance with the final effluent limitations and monitoring requirements of the NPDES permit. A summary of the specific violations are cited in Attachment B.

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Please be advised that any violations referenced herein are subject to appropriate enforcement actions pursuant to Chapter 6111 of the Ohio Revised Code. Such actions can result in the imposition of fines of up to \$10,000 per day of violation.

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: Bob Bonnett, Superintendent, NEORS D Easterly WWTP

ATTACHMENT A: NEORS D EASTERLY EFFLUENT SUMMARY (1/2007 – 6/2010)

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Outfall 001						
Water Temperature	Annual	C	1277	15.9	23.4	7.6-24.3
Dissolved Oxygen	Summer	mg/l	613	7.7	9.2	3-10.1
Dissolved Oxygen	Winter	mg/l	664	8.5	10.9	4.7-11.8
Total Suspended Solids	Annual	mg/l	1271	4	13	0-100
Oil and Grease, Hexane Extr Method	Annual	mg/l	91	0	2.4	0-6.3
Nitrogen, Ammonia (NH3)	Summer	mg/l	608	0.79	4.96	0.07-8.82
Nitrogen, Ammonia (NH3)	Winter	mg/l	643	1.68	4.95	0.13-10.5
Nitrite Plus Nitrate, Total	Annual	mg/l	1252	3.63	6.63	0.39-10.2
Phosphorus, Total (P)	Annual	mg/l	1251	0.34	0.955	0.06-2.51
Cyanide, Free	Annual	mg/l	90	0.001	0.00432	0-0.0109
Nickel, Total Recoverable	Annual	ug/l	179	3.7	8.51	1.9-17.9
Silver, Total Recoverable	Annual	ug/l	179	0	0.146	0-0.4
Zinc, Total Recoverable	Annual	ug/l	179	22	33	11.8-81.2
Cadmium, Total Recoverable	Annual	ug/l	179	0.2	0.5	0-2.8
Lead, Total Recoverable	Annual	ug/l	179	0	0.9	0-3.5
Chromium, Total Recoverable	Annual	ug/l	179	1.1	2.53	0-8.3
Copper, Total Recoverable	Annual	ug/l	179	9.2	13.2	3.7-17.4
Chromium, Dissolved Hexavalent	Annual	ug/l	92	3.13	5	0-6.76
Fecal Coliform	Annual	#/100 ml	612	52	2170	0-320000
Bis(2-ethylhexyl) Phthalate	Annual	ug/l	13	0	14	0-20
Flow Rate	Summer	MGD	613	70.5	140	56.3-204
Flow Rate	Winter	MGD	664	87.7	189	57.7-286
Flow Rate	Annual	MGD	1277	78.7	170	56.3-286
Chlorine, Total Residual	Annual	mg/l	627	0	0	0-2.05
Acute Toxicity, Ceriodaphnia dubia	Annual	TUa	7	0	0	0-0
Chronic Toxicity, Ceriodaphnia dubia	Annual	TUc	6	0	6.58	0-8.3
Acute Toxicity, Pimephales promelas	Annual	TUa	7	0	0	0-0
Chronic Toxicity, Pimephales promelas	Annual	TUc	7	0	0	0-0
pH, Maximum	Annual	S.U.	1277	7.2	7.3	6.9-8.6
pH, Minimum	Annual	S.U.	1277	7	7.2	6.5-7.4
Mercury, Total Recoverable	Annual	ug/l	42	0.002	0.00561	0.0007-0.0112
CBOD 5 day	Summer	mg/l	610	2.15	7	0-24
CBOD 5 day	Winter	mg/l	657	3	6	0-15
Outfall 003						
Total Suspended Solids	Annual	mg/l	180	75	150	19-198
Flow Rate	Summer	MGD	89	8.5	30.9	0.8-60.7
Flow Rate	Winter	MGD	94	11.3	40.7	0.5-49.2
Flow Rate	Annual	MGD	183	9.2	35.5	0.5-60.7
CBOD 5 day	Summer	mg/l	88	36.5	93.4	6.1-137
CBOD 5 day	Winter	mg/l	91	33	89.5	9.5-148

ATTACHMENT A: NEORSD EASTERLY EFFLUENT SUMMARY (1/2007 – 6/2010)						
Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Bypass Occurrence, Number per month	Annual	No./Month	183	1	2	1-4
Bypass Duration, Hours per month	Annual	Hr/Month	183	3.98	12.8	0.52-23.8

ATTACHMENT B: NEORSD EASTERLY OUTFALL 001 EFFLUENT VIOLATIONS (1/2007 – 3/2010)						
Reporting Period	Station	Parameter	Limit Type	Limit	Reported Value	Violation Date
May 2007	001	Fecal Coliform	7D Conc	2000	3098.53	5/22/2007
July 2008	001	Chlorine, Total Residu	1D Conc	.038	2.05	7/1/2008