

National Pollutant Discharge Elimination System (NPDES) Permit Program

F A C T S H E E T

Regarding a Modification to an NPDES Permit To Discharge to Waters of the State of Ohio
for the West Unity Wastewater Treatment Plant

Public Notice No.: 10-09-051
Public Notice Date: September 20, 2010
Comment Period Ends: October 19, 2010

OEPA Permit No.: 2PB00021*JD
Application No.: OH0020303

Name and Address of Applicant:

Village of West Unity
118 West Jackson Street
P.O. Box 207
West Unity, Ohio 43570

Name and Address of Facility Where
Discharge Occurs:

West Unity Wastewater Treatment Plant
317 South Liberty Street
West Unity, Ohio

Receiving Water: Walnut Run

Subsequent
Stream Network: Tiffin River, Maumee River
Maumee Bay, Lake Erie

Introduction

Development of a Fact Sheet for NPDES permits is mandated by Title 40 of the Code of Federal Regulations, Section 124.8 and 124.56. This document fulfills the requirements established in those regulations by providing the information necessary to inform the public of actions proposed by the Ohio Environmental Protection Agency, as well as the methods by which the public can participate in the process of finalizing those actions.

This Fact Sheet is prepared in order to document the technical basis and risk management decisions that are considered in the determination of water quality based NPDES Permit effluent limitations. The technical basis for the Fact Sheet may consist of evaluations of promulgated effluent guidelines, existing effluent quality, instream biological, chemical and physical conditions, and the relative risk of alternative effluent limitations. This Fact Sheet details the discretionary decision-making process empowered to the Director by the Clean Water Act and Ohio Water Pollution Control Law (ORC 6111). Decisions to award variances to Water Quality Standards or promulgated effluent guidelines for economic or technological reasons will also be justified in the Fact Sheet where necessary.

In accordance with the antidegradation rule, OAC 3745-1-05, the Director has determined that a lowering of water quality in Walnut Run is necessary. Provision (F)(2)(d) was applied to this application. This provision excludes the need for the submittal and subsequent review of technical alternatives and social and economic issues related to the degradation. Other rule provisions, however, including public participation and appropriate intergovernmental coordination were required and considered prior to reaching this decision.

Procedures for Participation in the Formulation of Final Determinations

The proposed modification is tentative but shall become final on the effective date unless (1) an adjudication hearing is requested, (2) the Director withdraws and revises the proposed modification after consideration of the record of a public meeting or written comments, or (3) upon disapproval by the Administrator of the U.S. Environmental Protection Agency.

Within thirty (30) days of publication of this notice, any person may submit written comments, a statement as to why the proposed modification should be changed, a request for a public meeting on the proposed modification and/or a request for notice of further actions concerning the modification. All communications timely received will be considered in the final formulation of the modification. If significant public interest is shown a public meeting will be held prior to finalization of the modification.

Within thirty (30) days of the issuance of the proposed modification any officer of an agency of the state or of a political subdivision, acting in his representative capacity or any person aggrieved or adversely affected by issuance of it may request an adjudication hearing by submitting a written objection in accordance with Ohio Revised Code Section 3745.07. Since all other conditions of the permit remain in effect, a hearing may not be requested on any issues other than the proposed modification. If an adjudication hearing is requested, the existing NPDES permit will remain in effect until the hearing is resolved. Following the finalization of the modification by the Director, any person who was a party to an adjudication hearing may appeal to the Environmental Review Appeals Commission.

Requests for public meetings shall be in writing and shall state the action of the Director objected to, the questions to be considered, and the reasons the action is contested. Such requests should be addressed to:

**Legal Records Section
Ohio Environmental Protection Agency
Lazarus Government Center
P.O. Box 1049
Columbus, Ohio 43216-1049**

Interested persons are invited to submit written comments upon the proposed modification. Comments should be submitted in person or by mail no later than 30 days after the date of this Public Notice. Deliver or mail all comments to:

**Ohio Environmental Protection Agency
Attention: Division of Surface Water
Permits and Compliance Section
Lazarus Government Center
P.O. Box 1049
Columbus, Ohio 43216-1049**

The OEPA permit number and Public Notice numbers should appear on each page of any submitted comments. All comments received no later than 30 days after the date of the Public Notice will be considered.

Citizens may conduct file reviews regarding specific companies or sites. Appointments are necessary to conduct file reviews, because requests to review files have increased dramatically in recent years. The first 250 pages copied are free. For requests to copy more than 250 pages, there is a five-cent charge for each page copied. Payment is required by check or money order, made payable to Treasurer State of Ohio.

For additional information about this fact sheet or the draft permit, contact Jason Ko, (419) 373-3021, Jason.Ko@epa.ohio.gov .

Location of Discharge/Receiving Water Use Classification

The West Unity wastewater treatment plant discharges to Walnut Run at River Mile (RM) 3.75. Figure 1 shows the approximate location of the facility.

This segment of Walnut Run is described by Ohio EPA River Code: 04-621, County: Williams, Ecoregion: Eastern Corn Belt Plains. Walnut Run is designated for the following uses under Ohio's Water Quality Standards (OAC 3745-1-11): Warmwater Habitat (WWH), Agricultural Water Supply (AWS), Industrial Water Supply (IWS), and Class B Primary Contact Recreation (PCR).

Facility Description

The West Unity wastewater treatment plant has an average daily design flow of 0.325 MGD (million gallons per day). Wet stream processes are influent pumping, grit removal, activated sludge aeration using oxidation ditches, final clarification and ultraviolet disinfection. Solid stream processes are aerobic digestion followed by disposal of the stabilized sludge by land application at agronomic rates.

The West Unity wastewater plant is served by a separate sanitary sewer system. Based on information in the most recent NPDES renewal application, seven significant noncategorical industrial users discharge to the wastewater plant.

Description of Existing Discharge

Table 1 presents a summary of unaltered Discharge Monitoring Report (DMR) data for outfall 2PB00021001. Data are presented for the period August 2005 through July 2010.

Basis of the Modification

The Village of West Unity has applied for coverage under the general mercury variance, Rule 3745-33-07(D)(10) of the Ohio Administrative Code. Based on the results of low-level mercury monitoring, the permittee has determined that its wastewater treatment plant cannot meet the 30-day average water quality based effluent limit (WQBEL) of 1.3 nanograms per liter (ng/l). However, the permittee believes that the plant will be able to achieve an annual average mercury effluent concentration of 12 ng/l. The variance application also demonstrated to the satisfaction of Ohio EPA that there is no readily apparent means of complying with the WQBEL without constructing prohibitively expensive end-of-pipe controls for mercury. Based on these factors, the permittee is eligible for coverage under the general mercury variance.

Ohio EPA has reviewed the mercury variance application and has determined that it meets the requirements of the Ohio Administrative Code. As a result, Ohio EPA is proposing a modification to the NPDES permit. Mercury variance provisions are being added as Items R, S and T in Part II of the NPDES permit. The following requirements have been included in the draft modification:

- A variance-based monthly average effluent limit of 6.0 ng/l, which was requested by the Village in the antidegradation addendum it submitted as part of the variance application. This value is lower than the facility's average Projected Effluent Quality for mercury.
- A requirement that the permittee make reasonable progress to meet the water-quality-based effluent limit for mercury by implementing the plan of study, which has been developed as part of the Pollutant Minimization Program (PMP);
- Low-level mercury monitoring of the plant's influent and effluent;
- A requirement that the annual average mercury effluent concentration is less than or equal to 12 ng/l as specified in the plan of study;
- A summary of the elements of the plan of study;

- A requirement to submit an annual report on implementation of the PMP; and
- A requirement for submittal of a certification stating that all permit conditions related to implementing the plan of study and the PMP have been satisfied, but that compliance with the monthly average water quality based effluent limit for mercury has not been achieved.

Other Changes

Station 300 SSO Monitoring and Reporting Table

The third foot note was changed to “All sanitary sewer overflows are prohibited.” to be consistent with current regulations.

Part II, Item E, SSO Reporting Requirements

Revised the first paragraph to state that “All sanitary sewer overflows are prohibited.” to be consistent with current regulations. In paragraph 1.a, changed the time for telephone reporting from one hour to 24 hours.

Operator Certification and Minimum Staffing

Updated operator certification requirements have been included in Part II, Item A of the permit to be consistent with rules adopted in December 2006. These rules require the Coshocton wastewater treatment plant to have a Class II wastewater treatment plant operator in charge of the sewage treatment plant operations discharging through outfall 001 .

Operator of Record

In December 2006, Ohio Administrative Code rule revisions became effective that affect the requirements for certified operators for sewage collection systems and treatment works regulated under NPDES permits. Part II, Item A of this NPDES permit has been updated to be consistent with rule 3745-7-02 of the Ohio Administrative Code (OAC). It requires the permittee to designate one or more operator of record to oversee the technical operation of the treatment works.

Outfall Signage

Part II, Item U was added to the permit. It includes requirements for signs to be placed at each outfall to Walnut Run providing information about the discharge. Signage at outfalls is required pursuant to Ohio Administrative Code 3745-33-08(A).



Figure 1. Location of the West Unity wastewater treatment plant.

Table 1. Effluent Characterization Using Self-Monitoring Data

Summary of unaltered discharge monitoring report data for West Unity outfall 2PB00021001 (August 2005 – July 2010). All values are based on annual records unless otherwise indicated.

Parameter	Season	Units	# Obs.	Percentiles		Data Range
				50 th	95 th	
Water Temperature	Annual	C	1264	15.1	21.5	2.4-23.9
Dissolved Oxygen	Summer	mg/l	645	7.6	9.78	5.7-15.4
Dissolved Oxygen	Winter	mg/l	619	8.3	10.4	5-14.7
pH	Annual	S.U.	1264	7.6	8	6.2-8.4
Total Suspended Solids	Annual	mg/l	481	3	10	0-36
Oil and Grease, Hexane	Annual	mg/l	13	0	3.46	0-5.2
Oil and Grease, Freon	Annual	mg/l	47	0	3.28	0-5.5
Nitrogen, Ammonia (NH3)	Summer	mg/l	242	0.22	2	0.06-3.7
Nitrogen, Ammonia (NH3)	Winter	mg/l	240	0.4	3.11	0.01-4.9
Nitrite Plus Nitrate, Total	Annual	mg/l	60	11.4	23.7	0.1-32
Phosphorus, Total (P)	Annual	mg/l	60	0.85	1.37	0.01-3.2
Cyanide, Free	Annual	mg/l	20	0	0	0-0
Nickel, Total Recoverable	Annual	ug/l	20	0	6.1	0-122
Zinc, Total Recoverable	Annual	ug/l	20	44	74	11-92
Cadmium, Total Recoverable	Annual	ug/l	20	0	0	0-0
Lead, Total Recoverable	Annual	ug/l	20	0	1.1	0-22
Chromium, Total Recoverable	Annual	ug/l	20	0	0	0-0
Copper, Total Recoverable	Annual	ug/l	20	5	24.2	0-46
Chromium, Dissolved Hexavalent	Annual	ug/l	20	0	0	0-0
Fecal Coliform	Annual	#/100 ml	240	50	957	0-60000
Flow Rate	Summer	MGD	920	0.199	0.409	0.064-1.16
Flow Rate	Winter	MGD	906	0.242	0.48	0.098-0.91
Flow Rate	Annual	MGD	1826	0.219	0.426	0.064-1.16
Mercury, Total (Low Level)	Annual	ng/l	5	1.45	3.74	0.69-4.22
Mercury, Total (Low Level)	Annual	ng/l	14	2.52	8.1	0-12.3
CBOD 5 day	Summer	mg/l	238	2.6	6.72	0-8.5
CBOD 5 day	Winter	mg/l	231	3.4	8.05	0-14.4

Table 2. Modified final effluent limits and monitoring requirements for West Unity outfall 2PB00021001 and the basis for their recommendation.

Parameter	Units	Effluent Limits				Basis ^b
		Concentration		Loading (kg/day) ^a		
		30 Day Average	Daily Maximum	30 Day Average	Daily Maximum	
Mercury, T.	ng/l	6.0	1700	0.0000074	0.00209	VAR (avg), WQS (max)

^a Effluent loadings based on average design discharge flow of 0.325 MGD.

^b Definitions: VAR = General mercury variance, Rule 3745-33-07(D)(10) of the Ohio Administrative Code; WQS = Ohio Water Quality Standards (OAC 3745-1-07).

^c No change from current permit.