STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO. 20230818 – IN0022497 – D
DATE OF NOTICE: AUGUST 18, 2023
DATE RESPONSE DUE: SEPTEMBER 18, 2023

The Office of Water Quality proposes the following NPDES DRAFT PERMIT:

MAJOR - RENEWAL

CARMEL CITY (CITY) WWTP, Permit No. IN0022497, HAMILTON COUNTY, 9609 Hazel Dell Parkway. Careml, IN. This Major Municipal facility discharges 14 million gallons daily of treated sanitary wastewater into the West Fork White River Outfall 001, located at GPS coordinates 39° 55' 45" N, 86° 04' 35" W. All solids are benifically reused in accordance with Biosolids Permits INLA00021 & INLA00073 Permit Manager: Jay Hanko 317/233-0704, JHanko@idem.IN.gov. Posted online at https://www.in.gov/idem/public-notices/.

PROCEDURES TO FILE A RESPONSE

Draft can be viewed or copied (10¢ per page) at IDEM/OWQ NPDES PS, 100 North Senate Avenue, (Rm 1203) Indianapolis, IN, 46204 (east end elevators) from 9 – 4, Mon - Fri, (except state holidays). A copy of the Draft Permit is on file at the local County Health Department. Please tell others you think would be interested in this matter. For your rights & responsibilities see these sites: Public Notices: https://www.in.gov/idem/public-notices/;
Citizen Guide: https://www.in.gov/idem/resources/citizens-guide-to-idem/. Please tell others whom you think would be interested in this matter.

Response Comments: The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the Draft permit. All comments must be postmarked no later than the Response Date noted to be considered in the decision to issue a Final permit. Deliver or mail all requests or comments to the attention of the Permit Writer at the above address, (mail code 65-42 PS).

To Request a Public Hearing:
Any person may request a Public Hearing. A written request must be submitted to the above address on or before the Response Date noted. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the Hearing. IDEM will determine whether to hold a Public Hearing based on the comments and the rationale for the request. Public Notice of such a Hearing will be published in at least one newspaper in the geographical area of the discharge and sent to anyone submitting written comments and/or making such request and whose name is on the mailing list at least 30 days prior to the Hearing.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

August 18, 2023

VIA ELECTRONIC MAIL

The Honorable Jim Brainard, Mayor
City of Carmel
City Hall, One Civic Square
Carmel, Indiana 46032

Dear Mayor Brainard:

Re: Draft NPDES Permit No. IN0022497
City of Carmel Wastewater Treatment Plant
Hamilton County

Your application and supporting documents have been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is draft NPDES Permit No. IN0022497 which applies to the discharge from the City of Carmel Wastewater Treatment Plant.

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at https://www.in.gov/idem/public-notices/. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at https://www.in.gov/idem/resources/citizens-guide-to-idem/. A 30-day comment period is available to solicit input from interested parties, including the general public.

Please review this document carefully and become familiar with the proposed terms and conditions. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form. Questions concerning this draft permit may be addressed to Jay Hanko at 317/233-0704 or Jhanko@idem.IN.gov.

Sincerely,

Leigh Voss

Leigh Voss, Chief
Municipal NPDES Permits Section
Office of Water Quality

Enclosures
cc: John Duffy, Director of Utilities
Jordan Kleinsmith, Certified Operator

STATE OF INDIANA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

AUTHORIZATION TO DISCHARGE UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the "Clean Water Act") or (CWA), and IDEMs authority under IC 13-5, the Indiana Department of Environmental Management (IDEM) is issuing this permit to the

CITY OF CARMEL

hereinafter referred to as "the permittee." The permittee owns and/or operates the **City of Carmel Wastewater Treatment Plant**, a major municipal wastewater treatment plant located at 9609 Hazel Dell Parkway, Carmel, Indiana, Hamilton County. The permittee is hereby authorized to discharge from the outfalls identified in Part I of this permit to receiving waters named the West Fork of the White River in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the permit. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

Effective Date: _____.

Expiration Date: _____.

In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and application forms as are required by the Indiana Department of Environmental Management. The application shall be submitted to IDEM at least 180 days prior to the expiration date of this permit, unless a later date is allowed by the Commissioner in accordance with 327 IAC 5-3-2 and Part II.A.4 of this permit.

Issued on _____, for the Indiana Department of Environmental Management.

Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

TREATMENT FACILITY DESCRIPTION

The permittee currently operates a Class IV, 14 MGD conventional activated sludge type treatment facility consisting of:

Wastewater Treatment
An influent flow meter (1), followed by step-screening (3) and vortex grit removal (2), followed by solids sedimentation and grease skimming using primary clarifiers (8), followed by biological treatment using extended aeration (4 tanks with 3 passes per tank). The first pass in each tank is anoxic to implement Enhanced Biological Phosphorus Removal (EBPR). If the EBPR process is insufficient in removing total phosphorus to a ≤ 1.0 mg/l residual, the activated sludge is treated with a chemical phosphorus precipitant (either aluminum salts or rare earth metal salts). Then, the activated sludge is sent to secondary clarifiers (6) for solids sedimentation. Finally, the effluent is disinfected with a UV system (1) during disinfection season. The final effluent flow is metered before it is discharged into the White River via Outfall 001.

Biosolids Treatment
Primary sludge and waste activated sludge are pumped to a tank where they are constantly mixed. The mixed sludge is pumped to a gravity belt thickener (2) where it is mixed with polymer and dewatered. The thickened sludge is pumped to a mixing tank (1) and proceeds to the bio-pasteurization system (1). After pasteurization, the sludge is pumped to a primary anaerobic digester (2) and proceeds to a secondary anaerobic digester (2) for a total of approximately 45 days. After digestion, the sludge is pumped to a centrifuge (2) for dewatering. Dewatered sludge, or biosolids (~23% total solids), is stored in an open building or further dried in a solar drying building. All biosolids are beneficially reused.

Collection System
The collection system is comprised 100% separate sanitary sewers by design with one (1)Sanitary Sewer Overflow (SSO) outfall. The SSO location has been identified and prohibited in Attachment A of the permit.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee shall take samples and measurements at a location representative of each discharge to determine whether the effluent limitations have been met. Refer to Part I.B of this permit for additional monitoring and reporting requirements.

1. Beginning on the effective date of this permit, the permittee is authorized to discharge from Outfall 001, which is located at Latitude: 39° 55' 45" N, Longitude: 86° 04' 35" W. The discharge is subject to the following requirements:

TABLE 1

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	**Monthly Average**	**Weekly Average**	**Units**	**Monthly Average**	**Weekly Average**	**Units**	**Measurement Frequency**	**Sample Type**
Flow [1]	Report	----	MGD	----	----	----	Daily	24-Hr. Total
$CBOD_5$								
Summer [2]	1,900	2,800	lbs/day	16	24	mg/l	Daily	24-Hr. Comp.
Winter [3]	2,900	4,700	lbs/day	25	40	mg/l	Daily	24-Hr. Comp.
TSS								
Summer [2]	2,300	3,500	lbs/day	20	30	mg/l	Daily	24-Hr. Comp.
Winter [3]	3,500	5,300	lbs/day	30	45	mg/l	Daily	24-Hr. Comp.
Ammonia-nitrogen								
Summer [2]	180	260	lbs/day	1.5	2.25	mg/l	Daily	24-Hr. Comp.
Winter [3]	350	530	lbs/day	3.0	4.5	mg/l	Daily	24-Hr. Comp.
Total Phosphorus	Report	----	lbs/day	1.0	----	mg/l	Daily	24-Hr. Comp.
Nitrogen, Total (as N) [4]	Report	----	lbs/day	Report	----	mg/l	Monthly	24-Hr. Comp.

TABLE 2

	Quality or Concentration				Monitoring Requirements	
Parameter	**Daily Minimum**	**Monthly Average**	**Daily Maximum**	**Units**	**Measurement Frequency**	**Sample Type**
pH [5]	6.0	----	9.0	s.u.	Daily	Grab
Dissolved Oxygen [6]						
Summer [2]	5.0	----	----	mg/l	Daily	4 Grabs/24-Hrs.
Winter [3]	4.0	----	----	mg/l	Daily	4 Grabs/24-Hrs.
E.coli [7]	----	125 [8]	235 [9]	cfu/100 ml	Daily	Grab

[1] Effluent flow measurement is required per 327 IAC 5-2-13. The flow meter(s) shall be calibrated at least once every twelve months.

[2] Summer limitations apply from May 1 through November 30 of each year.

[3] Winter limitations apply from December 1 through April 30 of each year.

[4] Total Nitrogen shall be determined by testing Total Kjeldahl Nitrogen (TKN) and Nitrate + Nitrite and reporting the sum of the TKN and Nitrate + Nitrite results (reported as N). Nitrate + Nitrite can be analyzed together or separately. Monitoring for Total Nitrogen is required in the effluent only.

The following EPA methods are recommended for use in the analysis of TKN and Nitrate + Nitrite. Alternative approved 40 CFR 136 methods may be utilized.

Parameter	Method
TKN	350.1, 351.1, 351.2
Nitrate	300.0, 300.1, 352.1
Nitrite	300.1, 353.2
Nitrate + Nitrite	300.0, 300.1, 353.2

[5] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Report of Operation forms.

[6] The daily minimum concentration of dissolved oxygen in the effluent shall be reported as the arithmetic mean determined by summation of the four (4) daily grab sample results divided by the number of daily grab samples. These samples are to be collected over equal time intervals.

[7] The effluent shall be disinfected on a continuous basis such that violations of the applicable bacteriological limitations (*E. coli*) do not occur from April 1 through October 31, annually.

The *Escherichia coli* (*E. coli*) limitations apply from April 1 through October 31 annually.

[8] The monthly average *E. coli* value shall be calculated as a geometric mean. Per 327 IAC 5-10-6, the concentration of *E. coli* shall not exceed one hundred twenty-five (125) cfu or mpn per 100 milliliters as a geometric mean of the effluent samples taken in a calendar month. No samples may be excluded when calculating the monthly geometric mean.

[9] If less than ten samples are taken and analyzed for *E. coli* in a calendar month, no samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. However, when ten (10) or more samples are taken and analyzed for *E. coli* in a calendar month, not more than ten percent (10%) of those samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. When calculating ten percent, the result must not be rounded up. In reporting for compliance purposes on the Discharge Monitoring Report (DMR) form, the permittee shall record the highest non-excluded value for the daily maximum.

2. Minimum Narrative Limitations

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

a. including waters within the mixing zone, to contain substances, materials, floating debris, oil, scum attributable to municipal, industrial, agricultural, and other land use practices, or other discharges that do any of the following:

(1) will settle to form putrescent or otherwise objectionable deposits;

(2) are in amounts sufficient to be unsightly or deleterious;

(3) produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;

(4) are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;

(5) are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.

b. outside the mixing zone, to contain substances in concentrations that on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

B. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge flow and shall be taken at times which reflect the full range and concentration of effluent parameters normally expected to be present. Samples shall not be taken at times to avoid showing elevated levels of any parameters.

2. Data on Plant Operation

The raw influent and the wastewater from intermediate unit treatment processes, as well as the final effluent shall be sampled and analyzed for the pollutants and operational parameters specified by the applicable Monthly Report of Operation Form, as appropriate, in accordance with 327 IAC 5-2-13. Except where the permit specifically states otherwise, the sample frequency for the raw influent and intermediate unit treatment process shall be at a minimum the same frequency as that for the final effluent. The measurement frequencies specified in each of the tables in Part I.A. are the minimum frequencies required by this permit.

For publicly owned treatment works, the 30-day average percent removal for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$) and Total Suspended Solids shall not be less than 85 percent unless otherwise authorized by the permitting authority in accordance with 40 CFR Part 133.102, as incorporated by reference in 327 IAC 5-2-1.5. The permittee must monitor the influent and effluent $CBOD_5$ and TSS at least once per month and calculate the percent removal to ensure compliance with the required 85 percent removal. This information must be maintained on site and provided to this Office's staff upon request.

3. Reporting per Monitoring Period

The permittee shall submit accurate monitoring reports to the Indiana Department of Environmental Management containing results obtained during each monitoring period and shall be submitted no later than the 28th day of the month following each completed monitoring period. Each monitoring period report shall be submitted no less than annually and no more than monthly, as per parameter measurement frequency listed. These reports shall include, but not necessarily be limited to, the Discharge Monitoring Report (DMR) and the Monthly Report of Operation (MRO). All reports shall be submitted electronically by using the NetDMR application, upon registration, receipt of the NetDMR Subscriber Agreement, and IDEM approval of the proposed NetDMR Signatory. Access the NetDMR website (for initial registration and DMR/MMR submittal) via CDX at: https://cdx.epa.gov/. The Regional Administrator may request the permittee to submit monitoring reports to the Environmental Protection Agency if it is deemed necessary to assure compliance with the permit.

A calendar week will begin on Sunday and end on Saturday. Partial weeks consisting of four or more days at the end of any month will include the remaining days of the week, which occur in the following month in order to calculate a consecutive seven-day average. This value will be reported as a weekly average or seven-day average on the MRO for the month containing the partial week of four or more days. Partial calendar weeks consisting of less than four days at the end of any month will be carried forward to the succeeding month and reported as a weekly average or a seven-day average for the calendar week that ends with the first Saturday of that month.

4. Definitions

a. Calculation of Averages

Pursuant to 327 IAC 5-2-11(a)(5), the calculation of the average of discharge data shall be determined as follows: For all parameters except fecal coliform and *E. coli*, calculations that require averaging of sample analyses or measurements of daily discharges shall use an arithmetic mean unless

otherwise specified in this permit. For fecal coliform, the monthly average discharge and weekly average discharge, as concentrations, shall be calculated as a geometric mean. For *E. coli*, the monthly average discharge, as a concentration, shall be calculated as a geometric mean.

b. Terms

(1) "Monthly Average" -The monthly average discharge means the total mass or flow-weighted concentration of all daily discharges during a calendar month on which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar month. The monthly average discharge limitation is the highest allowable average monthly discharge for any calendar month.

(2) "Weekly Average" - The weekly average discharge means the total mass or flow weighted concentration of all daily discharges during any calendar week for which daily discharges are sampled or measured, divided by the number of daily discharges sampled and/or measured during such calendar week. The average weekly discharge limitation is the maximum allowable average weekly discharge for any calendar week.

(3) "Daily Maximum" - The daily maximum discharge limitation is the maximum allowable daily discharge for any calendar day. The "daily discharge" means the total mass of a pollutant discharged during the calendar day or, in the case of a pollutant limited in terms other than mass pursuant to 327 IAC 5-2-11(e), the average concentration or other measurement of the pollutant specified over the calendar day or any twenty-four hour period that represents the calendar day for purposes of sampling.

(4) "24-hour Composite" - A 24-hour composite sample consists of at least four (4) individual flow-proportioned samples of wastewater, taken by the grab sample method over equal time intervals during the period of operator attendance or by an automatic sampler, and which are combined prior to analysis. A flow proportioned composite sample shall be obtained by:

(a) recording the discharge flow rate at the time each individual sample is taken,

(b) adding together the discharge flow rates recorded from each individual sampling time to formulate the "total flow value,"

(c) dividing the discharge flow rate of each individual sampling time by the total flow value to determine its percentage of the total flow value, and

(d) multiplying the volume of the total composite sample by each individual sample's percentage to determine the volume of that individual sample which will be included in the total composite sample.

Alternatively, a 24-hour composite sample may be obtained by an automatic sampler on an equal time interval basis over a twenty-four hour period provided that a minimum of 24 samples are taken and combined prior to analysis. The samples do not need to be flow-proportioned if the permittee collects samples in this manner.

(5) $CBOD_5$: Five-day Carbonaceous Biochemical Oxygen Demand

(6) TSS: Total Suspended Solids

(7) *E. coli*: *Escherichia coli* bacteria

(8) The "Regional Administrator" is defined as the Region V Administrator, U.S. EPA, located at 77 West Jackson Boulevard, Chicago, Illinois 60604.

(9) The "Commissioner" is defined as the Commissioner of the Indiana Department of Environmental Management, located at the following address: 100 North Senate Avenue, Indianapolis, Indiana 46204-2251.

(10) Limit of Detection or LOD is defined as a measurement of the concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero (0) for a particular analytical method and sample matrix. The LOD is equivalent to the Method Detection Level or MDL.

(11) Limit of Quantitation or LOQ is defined as a measurement of the concentration of a contaminant obtained by using a specified laboratory procedure calibrated at a specified concentration above the method detection level. It is considered the lowest concentration at which a particular contaminant can be quantitatively measured using a specified laboratory procedure for monitoring of the contaminant. This term is also called the limit of quantification or quantification level.

(12) Method Detection Level or MDL is defined as the minimum concentration of an analyte (substance) that can be measured and reported with a ninety-nine percent (99%) confidence that the analyte concentration is greater than zero (0) as determined by the procedure set forth in 40 CFR Part 136, Appendix B. The method detection level or MDL is equivalent to the LOD.

5. Test Procedures

The analytical and sampling methods used shall conform to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. Different but equivalent methods are allowable if they receive the prior written approval of the Commissioner and the U.S. Environmental Protection Agency. When more than one test procedure is approved for the purposes of the NPDES program under 40 CFR 136 for the analysis of a pollutant or pollutant parameter, the test procedure must be sufficiently sensitive as defined at 40 CFR 122.21(e)(3) and 122.44(i)(1)(iv).

6. Recording Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record and maintain records of all monitoring information on activities under this permit, including the following information:

a. The exact place, date, and time of sampling or measurements;

b. The person(s) who performed the sampling or measurements;

c. The dates and times the analyses were performed;

d. The person(s) who performed the analyses;

e. The analytical techniques or methods used; and

f. The results of all required analyses and measurements.

7. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Monthly Discharge Monitoring Report and on the Monthly Report of Operation form. Such increased frequency shall also be indicated on these forms. Any such additional monitoring data which indicates a violation of a permit limitation shall be followed up by the permittee, whenever feasible, with a monitoring sample obtained and analyzed pursuant to approved analytical methods. The results of the follow-up sample shall be reported to the Commissioner in the Monthly Discharge Monitoring Report.

8. Records Retention

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation, shall be retained for a minimum of three (3) years. In cases where the original records are kept at another location, a copy of all such records shall be kept at the permitted facility. The three-year period shall be extended:

a. automatically during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or regarding promulgated effluent guidelines applicable to the permittee; or

b. as requested by the Regional Administrator or the Indiana Department of Environmental Management.

C. REOPENING CLAUSES

In addition to the reopening clause provisions cited at 327 IAC 5-2-16, the following reopening clauses are incorporated into this permit:

1. This permit may be modified or, alternately, revoked and reissued after public notice and opportunity for hearing to incorporate effluent limitations reflecting the results of a wasteload allocation if the Department of Environmental Management determines that such effluent limitations are needed to assure that State Water Quality Standards are met in the receiving stream.

2. This permit may be modified due to a change in sludge disposal standards pursuant to Section 405(d) of the Clean Water Act, if the standards when promulgated contain different conditions, are otherwise more stringent, or control pollutants not addressed by this permit.

3. This permit may be modified, or, alternately, revoked and reissued, to comply with any applicable effluent limitation or standard issued or approved under section 301(b)(2)(C), (D) and (E), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent limitation or standard so issued or approved:

a. contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

b. controls any pollutant not limited in the permit.

D. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

To adequately assess the effects of the effluent on aquatic life, the permittee is required by this section of the permit to conduct chronic Whole Effluent Toxicity (WET) testing. Part I.D.1. of this permit describes the testing procedures and Part I.D.2. describes the Toxicity Reduction Evaluation (TRE) which is only required if the effluent demonstrates toxicity in two (2) consecutive toxicity tests as described in Part I.D.1.f.

1. Whole Effluent Toxicity (WET) Tests

The permittee must conduct the series of aquatic toxicity tests described below to monitor the acute and chronic toxicity of the effluent discharged from Outfall 001.

If toxicity is demonstrated in two (2) consecutive toxicity tests as described in Part I.D.1.f., with any test species during the term of the permit, the permittee is required to conduct a TRE under Part I.D.2.

a. Toxicity Test Procedures and Data Analysis

(1) All test organisms, test procedures, and quality assurance criteria used must be in accordance with the Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms, Fourth Edition, Section 11, Fathead Minnow (*Pimephales promelas*) Larval Survival and Growth Test Method 1000.0, and Section 13, Daphnid (*Ceriodaphnia dubia*) Survival and Reproduction Test Method 1002.0, EPA 821-R-02-013, October 2002 (hereinafter "Chronic Toxicity Test Method"), or most recent update that conforms to the version of 40 CFR 136 incorporated by reference in 327 IAC 5. References to specific portions of the Chronic Toxicity Test Method contained in this Part I.D. are provided for informational purposes. If the Chronic Toxicity Test Method is updated, the corresponding provisions of that updated method would be applicable.

(2) Any circumstances not covered by the above methods, or that require deviation from the specified methods must first be approved by the IDEM Permits Branch.

(3) The determination of acute and chronic endpoints of toxicity (LC_{50}), NOEC, and IC_{25} values) must be made in accordance with the procedures in Section 9, "Chronic Toxicity Test Endpoints and Data Analysis" and the Data Analysis procedures as outlined in Section 11 for fathead minnow (Test Method 1000.0; see flowcharts in Figures 5, 6, and 9) and Section 13 for *Ceriodaphnia dubia* (Test Method 1002.0; see flowcharts in Figures

4 and 6) of the Chronic Toxicity Test Method. The IC_{25} value together with 95% confidence intervals calculated by the Linear Interpolation and Bootstrap Methods in Appendix M of the Chronic Toxicity Test Method must be determined in addition to the NOEC value.

b. Types of Whole Effluent Toxicity Tests

(1) The permittee must conduct a 3-brood (7-day) definitive static-renewal daphnid (*Ceriodaphnia dubia*) survival and reproduction toxicity test and a 7-day definitive static-renewal fathead minnow (*Pimephales promelas*) larval survival and growth toxicity test.

(2) All tests must be conducted using 24-hour composite samples of final effluent. Three effluent samples are to be collected on alternate days (e.g. collected on days one, three, and five). The first effluent sample will be used for test initiation and for test solution renewal on day 2. The second effluent sample will be used for test solution renewal on days 3 and 4. The third effluent sample will be used for test solution renewal on days 5, 6, and 7. If shipping problems are encountered with renewal samples after a test has been initiated, the most recently used sample may continue to be used for test renewal, if first approved by the IDEM Permits Branch, but for no longer than 72 hours after first use.

(3) The whole effluent dilution series for the definitive test must include a control and at least five effluent concentrations with a minimum dilution factor of 0.5. The effluent concentrations selected must include and, if practicable, bracket the effluent concentrations associated with the determinations of acute and chronic toxicity provided in Part I.D.1.f. Guidance on selecting effluent test concentrations is included in Section 8.10 of the Chronic Toxicity Test Method. The use of an alternate procedure for selecting test concentrations must first be approved by the IDEM Permits Branch.

(4) If, in any control, more than 10% of the test organisms die in the first 48 hours with a daphnid species or the first 96 hours with a fathead minnow, or more than 20% of the test organisms in 7 days, that test is considered invalid, and the toxicity tests must be repeated. In addition, if in the *Ceriodaphnia dubia* survival and reproduction test, the average number of young produced per surviving female in the control group is less than 15, or if 60% of surviving control females have less than three broods; and in the fathead minnow (*Pimephales promelas*) survival and growth test, if the mean dry weight of surviving fish in the control group is less than 0.25 mg, that test is considered invalid and must also be repeated. All other test conditions and test acceptability criteria for the fathead minnow (*Pimephales promelas*) and *Ceriodaphnia dubia* chronic

toxicity tests must be in accordance with the test requirements in Section 11 (Test Method 1000.0), Table 1 and Section 13 (Test Method 1002.0), Table 3, respectively, of the Chronic Toxicity Test Method.

c. Effluent Sample Collection and Chemical Analysis

(1) Whole effluent samples taken for the purposes of toxicity testing must be 24-hour composite samples collected at a point that is representative of the final effluent, but prior to discharge. Effluent sampling for the toxicity testing may be coordinated with other permit sampling requirements as appropriate to avoid duplication. First use of the whole effluent toxicity testing samples must not exceed 36 hours after termination of the 24-hour composite sample collection and must not be used for longer than 72 hours after first use.

(2) Chemical analysis must accompany each effluent sample taken for toxicity testing, including each sample taken for the repeat testing as outlined in Part I.D.1.f.3. The chemical analysis detailed in Part I.A.1. and Part I.A.2. must be conducted for the effluent sample in accordance with Part I.B.5. of this permit.

d. Toxicity Testing Frequency and duration

The toxicity tests must be conducted and submitted with every subsequent permit renewal application, in accordance with 327 IAC 5-2-3(h).

If a TRE is initiated during the term of the permit, after receiving notification under Part I.D.1.e., the Compliance Data Section will suspend the toxicity testing requirements above for the term of the TRE compliance schedule described in Part I.D.2. After successful completion of the TRE, the toxicity tests specified in Part I.D.1.b must be conducted once **every six (6) months**, as calculated from the first day of the first month following successful completion of the post-TRE toxicity tests [see Part I.D.2.c(4.)] for the remainder of the permit term.

e. Reporting

(1) Notifications of the failure of two (2) consecutive toxicity tests and the intent to begin the implementation of a TRE under Part I.D.1.f.(4) must be submitted in writing to the Compliance Data Section of IDEM's Office of Water Quality.

(2) Results of all toxicity tests, including invalid tests, must be reported to IDEM according to the general format and content recommended in the

Chronic Toxicity Test Method, Section 10, "Report Preparation and Test Review". However, only the results of valid toxicity tests are to be reported on the discharge monitoring report (DMR). The results of the toxicity tests and laboratory report are due by the earlier of 60 days after completion of the test or the 28th day of the month following the end of the period established in Part I.D.1.d.

(3) The full WET test laboratory report must be submitted to IDEM electronically as an attachment to an e-mail to the Compliance Data Section at wwreports@idem.IN.gov. The results must also be submitted via NetDMR.

(4) For quality control and ongoing laboratory performance, the laboratory report must include results from appropriate standard reference toxicant tests. This will consist of acute (LC_{50} values), if applicable and chronic (NOEC, LOEC, and IC_{25} values) endpoints of toxicity obtained from reference toxicant tests conducted within 30 days of the most current effluent toxicity tests and from similarly obtained historical reference toxicant data with mean values and appropriate ranges for each species tested for at least three months to one year. Toxicity test reports must also include copies of chain-of-custody records and laboratory raw data sheets.

(5) Statistical procedures used to analyze and interpret toxicity data (e.g. Fisher's Exact Test and Steel's Many-one Rank Test for 7-day survival of test organisms; tests of normality (e.g., Shapiro Wilk's Test) and homogeneity of variance (e.g., Bartlett's Test); appropriate parametric (e.g. Dunnett's Test) and non-parametric (e.g. Steel's Many-one Rank Test) significance tests and point estimates (IC_{25}) of effluent toxicity, etc.; together with graphical presentation of survival, growth, and reproduction of test organisms), including critical values, levels of significance, and 95% confidence intervals, must be described and included as part of the toxicity test laboratory report.

(6) For valid toxicity tests, the WET test laboratory report must include a summary table of the results for each species tested, as shown in the table presented below. This table will provide toxicity test results, reported in acute toxic units (TU_a) and chronic toxic units (TU_c) for evaluation under Part I.D.1.f. and reporting on the DMR.

Test Organism [1]	Test Type	Endpoint [2]	Units	Result	Compliance Limit [6]	Pass/ Fail [7]	Reporting
Ceriodaphnia dubia	3-brood (7-day) Definitive Static-Renewal Survival and Reproduction	48-hr. LC_{50}	%	Report			Laboratory Report
			TU_a	Report			
		NOEC Survival	%	Report			
			TU_c	Report			
		NOEC Reproduction	%	Report			
			TU_c	Report			
		IC_{25} Reproduction	%	Report			
			TU_c	Report			
		Toxicity (acute) [3]	TU_a	Report [5]	1.0	Report	Laboratory Report **and NetDMR** (Parameter Code 61425)
		Toxicity (chronic) [4]	TU_c	Report [5]	**1.2**	Report	Laboratory Report **and NetDMR** (Parameter Code 61426)
Pimephales promelas	7-day Definitive Static-Renewal Larval Survival and Growth	96-hr. LC_{50}	%	Report			Laboratory Report
			TU_a	Report			
		NOEC Survival	%	Report			
			TU_c	Report			
		NOEC Growth	%	Report			
			TU_c	Report			
		IC_{25} Growth	%	Report			
			TU_c	Report			
		Toxicity (acute) [3]	TU_a	Report [5]	1.0	Report	Laboratory Report **and NetDMR** (Parameter Code 61427)
		Toxicity (chronic) [4]	TU_c	Report [5]	**1.2**	Report	Laboratory Report **and NetDMR** (Parameter Code 61428)

[1] For the WET test laboratory report, eliminate from the table any species that was not tested.

[2] A separate acute test is not required. The endpoint of acute toxicity must be extrapolated from the chronic toxicity test.

[3] The toxicity (acute) endpoint for *Ceriodaphnia dubia* is the 48-hr. LC_{50} results reported in acute toxic units (TU_a). The toxicity (acute) endpoint for *Pimephales promelas* is the 96-hr. LC_{50} result reported in acute toxic units (TU_a).

[4] The toxicity (chronic) endpoint for *Ceriodaphnia dubia* is the higher of the NOEC Survival, NOEC Reproduction, and IC_{25} Reproduction values reported in chronic toxic units (TU_c).

[5] Report the values for acute and chronic endpoints of toxicity determined in [3] and [4] for the corresponding species. These values are the ones that need to be reported on the DMR.

[6] These values do not represent effluent limitations, but rather exceedance of these values results in a demonstration of toxicity that triggers additional action and reporting by the permittee.

[7] If the toxicity result (in TU_s) is less than or equal to the compliance limit, report "Pass". If the toxicity result (in TU_s) exceeds the compliance limit, report "Fail".

f. Demonstration of Toxicity

(1) Toxicity (acute) will be demonstrated if the effluent is observed to have exceeded **1.0** TU_a (acute toxic units) for *Ceriodaphnia dubia* in 48 hours or in 96 hours for *Pimephales promelas*. For this purpose, a separate acute toxicity test is not required. The results for the acute toxicity demonstration must be extrapolated from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.D.1.b.2., the effluent concentration associated with acute toxicity is 100%.

(2) Toxicity (chronic) will be demonstrated if the effluent is observed to have exceeded **1.2** TU_c (chronic toxic units) for *Ceriodaphnia* or *Pimephales promelas* from the chronic toxicity test. For the purpose of selecting test concentrations under Part I.D.1.b.2., the effluent concentration associated with chronic toxicity is 83%.

(3) If toxicity (acute) or toxicity (chronic) is demonstrated in any of the chronic toxicity tests specified above, a repeat chronic toxicity test using the procedures in Part I.D.1. of this permit and the same test species must be initiated within two (2) weeks of test failure. During the sampling for any repeat tests, the permittee must also collect and preserve sufficient

effluent samples for use in any Toxicity Identification Evaluation (TIE) and/or TRE, if necessary.

(4) If any two (2) consecutive chronic toxicity tests, including any and all repeat tests, demonstrate acute or chronic of toxicity, the permittee must notify the Compliance Data Section under Part I.D.1.e. within 30 days of the termination of the second test, and begin the implementation of TRE as described in Part I.D.2. After receiving notification from the permittee, The Compliance Data Section will suspend the whole effluent toxicity testing requirements in Part I.D.1. for the term of the TRE compliance schedule.

g. Definitions

(1) "Acute toxic unit" or "TU_a" is defined as $100/LC_{50}$ where the LC_{50} is expressed as a percent effluent in the test medium of an acute whole effluent toxicity (WET) test that is statistically or graphically estimated to be lethal to fifty percent (50%) of the test organism.

(2) "Chronic toxic unit" or "TU_c" is defined as 100/NOEC or $100/IC_{25}$, where the NOEC or IC_{25} are expressed as a percent effluent in the test medium.

(3) "Inhibition concentration 25" or "IC_{25}" means the toxicant (effluent) concentration that would cause a twenty-five percent (25%) reduction in a nonquantal biological measurement for the test population. For example, the IC_{25} is the concentration of toxicant (effluent) that would cause a twenty-five percent (25%) reduction in mean young per female or in growth for the test population.

(4) "No observed effect concentration" or "NOEC" is the highest concentration of toxicant (effluent) to which organisms are exposed in a full life cycle or partial life cycle (short term) test, that causes no observable adverse effects on the test organisms, that is, the highest concentration of toxicant (effluent) in which the values for the observed responses are not statistically significantly different from the controls.

2. <u>Toxicity Reduction Evaluation (TRE) Schedule</u>

The development and implementation of a TRE is only required if toxicity is demonstrated in two (2) consecutive tests as described in Part I.D.1.f.(4). The post-TRE toxicity testing requirements in Part I.D.2.c. must also be completed as part of the TRE compliance schedule.

Milestone Dates: See a. through e. below for more detail on the TRE milestone dates.

Requirement	Deadline
Development and Submittal of a TRE Plan	Within 90 days of the date of two (2) consecutive failed toxicity tests.
Initiate a TRE Study	Within 30 days of TRE Plan submittal
Submit TRE Progress Reports	Every 90 days beginning six (6) months from the date of two (2) consecutive failed toxicity tests.
Post-TRE Toxicity Testing Requirements	Immediately upon completion of the TRE, conduct three (3) consecutive months of toxicity tests with both test species; if no acute or chronic toxicity is shown with any test species, reduce toxicity tests to once **every six (6) months** for the remainder of the permit term. If post-TRE toxicity testing demonstrates toxicity, continue the TRE study.
Submit Final TRE Report	Within 90 days of successfully completing the TRE (including the post-TRE toxicity testing requirements), not to exceed three (3) years from the date that toxicity is initially demonstrated in (two (2) consecutive toxicity tests).

a. Development of TRE Plan

Within 90 days of the date of two (2) consecutive failed toxicity tests (i.e. the date of termination of the second test), the permittee must submit plans for an effluent TRE to the Compliance Data Section. The TRE plan must include appropriate measures to characterize the causative toxicants and reduce toxicity in the effluent discharge to levels that demonstrate no toxicity with any test species as described in Part I.D.1.f. Guidance on conducting effluent toxicity reduction evaluations is available from EPA and from the EPA publications listed below:

(1) Method for Aquatic Toxicity Identification Evaluations:

Phase I Toxicity Characterization Procedures, Second Edition (EPA/600/6-91/003), February 1991.

Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080), September 1993.

Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081), September 1993.

(2) Toxicity Identification Evaluation: Characterization of chronically Toxic Effluents, Phase I (EPA/600/6-91/005F), May 1992.

(3) Toxicity Reduction evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833B-99-002), August 1999.

(4) Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, U.S. EPA, March 27, 2001.

b. Conduct the TRE

Within 30 days after submittal of the TRE plan to the Compliance Data Section, the permittee must initiate the TRE consistent with the TRE plan.

c. Post-TRE Toxicity Testing Requirements

(1) After completing the TRE, the permittee must conduct monthly post-TRE toxicity tests with the two (2) test species Ceriodaphnia dubia and fathead minnow (Pimephales promelas) for a period of three (3) consecutive months.

(2) If the three (3) monthly tests demonstrate no toxicity with any test species as described in Part I.D.1.f., the TRE will be considered successful. Otherwise, the TRE study must be continued.

(3) The post-TRE toxicity tests must be conducted in accordance with the procedures in Part I.D.1. The results of these tests must be submitted as part of the final TRE Report required under Part I.D.2.d.

(4) After successful completion of the TRE, the permittee must resume the chronic toxicity tests required in Part I.D.1. The established starting date for the frequency in Part I.D.1.d. is the first day of the first month following successful completion of the post-TRE toxicity tests.

d. Reporting

(1) Progress reports must be submitted every 90 days to the Compliance Data Section beginning six (6) months from the date of two (2)

consecutive failed toxicity tests. Each TRE progress report must include a listing of proposed activities for the next quarter and a schedule to reduce toxicity in the effluent discharge to acceptable levels through control of the toxicant source or treatment of whole effluent.

(2) Within 90 days of successfully completing the TRE, including the three (3) consecutive monthly tests required as part of the post-TRE toxicity testing requirements under Part I.D.2.c., the permittee must submit to the Compliance Data Section a final TRE Report that includes a discussion of the TRE results, along with the starting date established under Part I.D.2.c.(4). for the continuation of the toxicity testing required in Part I.D.1.

e. Compliance Date

The permittee must complete items a., b., c., and d. from Part I.D.2. and reduce toxicity in the effluent discharge to acceptable levels as soon as possible, but <u>no later than three (3) years from the date that toxicity is initially demonstrated in two (2) consecutive toxicity tests (i.e. the date of the termination of the second test) as described in Part I.D.1.f.4</u>.

PART II

STANDARD CONDITIONS FOR NPDES PERMITS

A. GENERAL CONDITIONS

1. Duty to Comply

   The permittee shall comply with all terms and conditions of this permit in accordance with 327 IAC 5-2-8(1) and all other requirements of 327 IAC 5-2-8. Any permit noncompliance constitutes a violation of the Clean Water Act and IC 13 and is grounds for enforcement action or permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

   It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

2. Duty to Mitigate

   In accordance with 327 IAC 5-2-8(3), the permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit. During periods of noncompliance, the permittee shall conduct such accelerated or additional monitoring for the affected parameters, as appropriate or as requested by IDEM, to determine the nature and impact of the noncompliance.

3. Duty to Provide Information

   The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the facility that:

   a. could significantly change the nature of, or increase the quantity of, pollutants discharged; or

   b. the Commissioner may request to evaluate whether such cause exists.

   In accordance with 327 IAC 5-1-3(a)(5), the permittee must also provide any information reasonably requested by the Commissioner.

4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must obtain and submit a renewal of this permit in accordance with 327 IAC 5-3-2(a)(2). It is the permittee's responsibility to obtain and submit the application. In accordance with 327 IAC 5-2-3(c), the owner of the facility or operation from which a discharge of pollutants occurs is responsible for applying for and obtaining the NPDES permit, except where the facility or operation is operated by a person other than an employee of the owner in which case it is the operator's responsibility to apply for and obtain the permit. The application must be submitted at least 180 days before the expiration date of this permit. This deadline may be extended if:

a. permission is requested in writing before such deadline;

b. IDEM grants permission to submit the application after the deadline; and

c. the application is received no later than the permit expiration date.

As required under 327 IAC 5-2-3(g)(1) and (2), POTWs with design influent flows equal to or greater than one million (1,000,000) gallons per day and POTWs with an approved pretreatment program or that are required to develop a pretreatment program, will be required to provide the results of whole effluent toxicity testing as part of their NPDES renewal application.

5. Transfers

In accordance with 327 IAC 5-2-8(4)(D), this permit is nontransferable to any person except in accordance with 327 IAC 5-2-6(c). This permit may be transferred to another person by the permittee, without modification or revocation and reissuance being required under 327 IAC 5-2-16(c)(1) or 16(e)(4), if the following occurs:

a. the current permittee notified the Commissioner at least thirty (30) days in advance of the proposed transfer date.

b. a written agreement containing a specific date of transfer of permit responsibility and coverage between the current permittee and the transferee (including acknowledgment that the existing permittee is liable for violations up to that date, and the transferee is liable for violations from that date on) is submitted to the Commissioner.

c. the transferee certifies in writing to the Commissioner their intent to operate the facility without making such material and substantial alterations or additions to the facility as would significantly change the nature or quantities

of pollutants discharged and thus constitute cause for permit modification under 327 IAC 5-2-16(d). However, the Commissioner may allow a temporary transfer of the permit without permit modification for good cause, e.g., to enable the transferee to purge and empty the facility's treatment system prior to making alterations, despite the transferee's intent to make such material and substantial alterations or additions to the facility.

d. the Commissioner, within thirty (30) days, does not notify the current permittee and the transferee of the intent to modify, revoke and reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

The Commissioner may require modification or revocation and reissuance of the permit to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act or state law.

6. Permit Actions

In accordance with 327 IAC 5-2-16(b) and 327 IAC 5-2-8(4), this permit may be modified, revoked and reissued, or terminated for cause, including, but not limited to, the following:

a. Violation of any terms or conditions of this permit;

b. Failure of the permittee to disclose fully all relevant facts or misrepresentation of any relevant facts in the application, or during the permit issuance process; or

c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge controlled by the permittee (e.g., plant closure, termination of the discharge by connecting to a POTW, a change in state law or information indicating the discharge poses a substantial threat to human health or welfare).

Filing of either of the following items does not stay or suspend any permit condition: (1) a request by the permittee for a permit modification, revocation and reissuance, or termination, or (2) submittal of information specified in Part II.A.3 of the permit including planned changes or anticipated noncompliance.

The permittee shall submit any information that the permittee knows or has reason to believe would constitute cause for modification or revocation and reissuance of the permit at the earliest time such information becomes available, such as plans for physical alterations or additions to the permitted facility that:

1. could significantly change the nature of, or increase the quantity of, pollutants discharged; or

2. the commissioner may request to evaluate whether such cause exists.

7. Property Rights

Pursuant to 327 IAC 5-2-8(6) and 327 IAC 5-2-5(b), the issuance of this permit does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to persons or private property or an invasion of rights, any infringement of federal, state, or local laws or regulations. The issuance of the permit also does not preempt any duty to obtain any other state, or local assent required by law for the discharge or for the construction or operation of the facility from which a discharge is made.

8. Severability

In accordance with 327 IAC 1-1-3, the provisions of this permit are severable and, if any provision of this permit or the application of any provision of this permit to any person or circumstance is held invalid, the invalidity shall not affect any other provisions or applications of the permit which can be given effect without the invalid provision or application.

9. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 of the Clean Water Act.

10. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Clean Water Act or state law.

11. Penalties for Violation of Permit Conditions

Pursuant to IC 13-30-4, a person who violates any provision of this permit, the water pollution control laws; environmental management laws; or a rule or standard adopted by the Environmental Rules Board is liable for a civil penalty not to exceed twenty-five thousand dollars ($25,000) per day of any violation.

Pursuant to IC 13-30-5, a person who obstructs, delays, resists, prevents, or interferes with (1) the department; or (2) the department's personnel or

designated agent in the performance of an inspection or investigation performed under IC 13-14-2-2 commits a class C infraction.

Pursuant to IC 13-30-10-1.5(e), a person who willfully or negligently violates any NPDES permit condition or filing requirement, or any applicable standards or limitations of IC 13-18-3-2.4, IC 13-18-4-5, IC 13-18-12, IC 13-18-14, IC 13-18-15, or IC 13-18-16, commits a Class A misdemeanor.

Pursuant to IC 13-30-10-1.5(i), an offense under IC 13-30-10-1.5(e) is a Level 4 felony if the person knowingly commits the offense or knows that the commission of the offense places another person in imminent danger of death or serious bodily injury. An offense under IC 13-30-10-1.5(e) is a Level 3 felony if it results in serious bodily injury to any person, and a Level 2 felony if it results in death to any person.

Pursuant to IC 13-30-10-1.5(g), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-8 commits a Class B misdemeanor.

Pursuant to IC 13-30-10-1.5(h), a person who willfully or recklessly violates any applicable standards or limitations of IC 13-18-9, IC 13-18-10, or IC 13-18-10.5 commits a Class C misdemeanor.

Pursuant to IC 13-30-10-1, a person who knowingly or intentionally makes any false material statement, representation, or certification in any NPDES form, notice, or report commits a Class B misdemeanor.

12. Penalties for Tampering or Falsification

In accordance with 327 IAC 5-2-8(10), the permittee shall comply with monitoring, recording, and reporting requirements of this permit. The Clean Water Act, as well as IC 13-30-10-1, provides that any person who knowingly or intentionally (a) destroys, alters, conceals, or falsely certifies a record, (b) tampers with, falsifies, or renders inaccurate or inoperative a recording or monitoring device or method, including the data gathered from the device or method, or (c) makes a false material statement or representation in any label, manifest, record, report, or other document; all required to be maintained under the terms of a permit issued by the department commits a Class B misdemeanor.

13. Toxic Pollutants

If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Clean Water Act for a toxic pollutant injurious to human health, and that standard or prohibition is more stringent than any

limitation for such pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition in accordance with 327 IAC 5-2-8(5). Effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants injurious to human health are effective and must be complied with, if applicable to the permittee, within the time provided in the implementing regulations, even absent permit modification.

14. Operator Certification

The permittee shall have the wastewater treatment facilities under the responsible charge of an operator certified by the Commissioner in a classification corresponding to the classification of the wastewater treatment plant as required by IC 13-18-11-11 and 327 IAC 5-22. In order to operate a wastewater treatment plant, the operator shall have qualifications as established in 327 IAC 5-22-7. The permittee shall designate one (1) person as the certified operator with complete responsibility for the proper operations of the wastewater facility.

327 IAC 5-22-10.5(a) provides that a certified operator may be designated as being in responsible charge of more than one (1) wastewater treatment plant, if it can be shown that he will give adequate supervision to all units involved. Adequate supervision means that sufficient time is spent at the plant on a regular basis to assure that the certified operator is knowledgeable of the actual operations and that test reports and results are representative of the actual operations conditions. In accordance with 327 IAC 5-22-3(11), “responsible charge” means the person responsible for the overall daily operation, supervision, or management of a wastewater facility.

Pursuant to 327 IAC 5-22-10(4), the permittee shall notify IDEM when there is a change of the person serving as the certified operator in responsible charge of the wastewater treatment facility. The notification shall be made no later than thirty (30) days after a change in the operator.

15. Construction Permit

Except in accordance with 327 IAC 3, the permittee shall not construct, install, or modify any water pollution treatment/control facility as defined in 327 IAC 3-1-2(24). Upon completion of any construction, the permittee must notify the Compliance Data Section of the Office of Water Quality in writing.

16. Inspection and Entry

In accordance with 327 IAC 5-2-8(8), the permittee shall allow the Commissioner, or an authorized representative, (including an authorized contractor acting as a

representative of the Commissioner) upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the permittee's premises where a point source, regulated facility, or activity is located or conducted, or where records must be kept pursuant to the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of this permit;

c. Inspect at reasonable times any facilities, equipment or methods (including monitoring and control equipment), practices, or operations regulated or required pursuant to this permit; and

d. Sample or monitor at reasonable times, any discharge of pollutants or internal wastestreams for the purposes of evaluating compliance with the permit or as otherwise authorized.

17. New or Increased Discharge of Pollutants

This permit prohibits the permittee from undertaking any action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless one of the following is completed prior to the commencement of the action:

a. Information is submitted to the Commissioner demonstrating that the proposed new or increased discharges will not cause a significant lowering of water quality as defined under 327 IAC 2-1.3-2(50). Upon review of this information, the Commissioner may request additional information or may determine that the proposed increase is a significant lowering of water quality and require the submittal of an antidegradation demonstration.

b. An antidegradation demonstration is submitted to and approved by the Commissioner in accordance with 327 IAC 2-1.3-5 and 327 IAC 2-1.3-6.

B. MANAGEMENT REQUIREMENTS

1. Facility Operations, Maintenance, and Quality Control

a. In accordance with 327 IAC 5-2-8(9), the permittee shall at all times maintain in good working order and efficiently operate all facilities and systems (and related appurtenances, i.e., equipment used for measuring and determining compliance) for collection and treatment that are:

(1) installed or used by the permittee; and

(2) necessary for achieving compliance with the terms and conditions of the permit.

Neither 327 IAC 5-2-8(9), nor this provision, shall be construed to require the operation of installed treatment facilities that are unnecessary for achieving compliance with the terms and conditions of the permit. This provision also does not prohibit taking redundant treatment units off line, provided that the permittee is at all times: maintaining in good working order and efficiently operating all facilities and systems; providing best quality effluent; and achieving compliance with the terms and conditions of the permit.

b. The permittee shall operate the permitted facility in a manner which will minimize upsets and discharges of excessive pollutants. The permittee shall properly remove and dispose of excessive solids and sludges.

c. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance, and testing functions required to ensure compliance with the conditions of this permit.

d. Maintenance of all waste collection, control, treatment, and disposal facilities shall be conducted in a manner that complies with the bypass provisions set forth below.

e. Pursuant to 327 IAC 5-22-10(1), the permittee is responsible for providing adequate funding for and oversight of the wastewater treatment plant and collection system to ensure proper operation, maintenance, management, and supervision.

f. Any extensions to the sewer system must continue to be constructed on a separated basis. Plans and specifications, when required, for extension of the sanitary system must be submitted to the Facility Construction and Engineering Support Section, Office of Water Quality in accordance with 327 IAC 3-2-2. There shall also be an ongoing preventative maintenance program for the sanitary sewer system.

2. <u>Bypass of Treatment Facilities</u>

Pursuant to 327 IAC 5-2-8(12):

a. Terms as defined in 327 IAC 5-2-8(12)(A):

(1) “Bypass” means the intentional diversion of a waste stream from any portion of a treatment facility.

(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses, as defined above, are prohibited, and the Commissioner may take enforcement action against a permittee for bypass, unless:

(1) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, as defined above;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II.B.2.d; or

(4) The condition under Part II.B.2.f below is met.

c. Bypasses that result in death or acute injury or illness to animals or humans must be reported in accordance with the "Spill Response and Reporting Requirements" in 327 IAC 2-6.1, including calling 888/233-7745 as soon as possible, but within two (2) hours of discovery. However, under 327 IAC 2-6.1-3(1), when the constituents of the bypass are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

d. The permittee must provide the Commissioner with the following notice:

(1) If the permittee knows or should have known in advance of the need for a bypass (anticipated bypass), it shall submit prior written notice. If possible, such notice shall be provided at least ten (10) days before the date of the bypass for approval by the Commissioner.

(2) The permittee shall orally report an unanticipated bypass within 24 hours of becoming aware of the bypass event. The permittee must also provide a written report within five (5) days of the time the permittee becomes aware of the bypass event. **Note that electronic submission will be the only acceptable method after December 21, 2025**. The report must

contain a description of the noncompliance (i.e. the bypass) and its cause; the period of noncompliance, including exact dates and times; if the cause of noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent recurrence of the bypass event. If a complete email submittal is sent within 24 hours of the time that the permittee became aware of the unanticipated bypass event, then that report will satisfy both the oral and written reporting requirement.

e. The Commissioner may approve an anticipated bypass, after considering its adverse effects, if the Commissioner determines that it will meet the conditions listed above in Part II.B.2.b. The Commissioner may impose any conditions determined to be necessary to minimize any adverse effects.

f. The permittee may allow any bypass to occur that does not cause a violation of the effluent limitations in the permit, but only if it also is for essential maintenance to ensure efficient operation. These bypasses are not subject to the provisions of Part II.B.2.b., d and e of this permit.

3. Upset Conditions

Pursuant to 327 IAC 5-2-8(13):

a. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Paragraph c of this subsection, are met.

c. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, that:

(1) An upset occurred and the permittee has identified the specific cause(s) of the upset;

(2) The permitted facility was at the time being operated in compliance with proper operation and maintenance procedures;

(3) The permittee complied with any remedial measures required under "Duty to Mitigate", Part II.A.2; and

(4) The permittee submitted notice of the upset as required in the "Incident Reporting Requirements," Part II.C.3, or 327 IAC 2-6.1, whichever is applicable. However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

d. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof pursuant to 40 CFR 122.41(n)(4).

4. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed from or resulting from treatment or control of wastewaters shall be disposed of in a manner such as to prevent any pollutant from such materials from entering waters of the State and to be in compliance with all Indiana statutes and regulations relative to liquid and/or solid waste disposal.

a. Collected screenings, slurries, sludges, and other such pollutants shall be disposed of in accordance with provisions set forth in 329 IAC 10, 327 IAC 6.1, or another method approved by the Commissioner.

b. The permittee shall comply with existing federal regulations governing solids disposal, and with applicable provisions of 40 CFR Part 503, the federal sludge disposal regulation standards.

c. The permittee shall notify the Commissioner prior to any changes in sludge use or disposal practices.

d. The permittee shall maintain records to demonstrate its compliance with the above disposal requirements.

5. Power Failures

In accordance with 327 IAC 5-2-10 and 327 IAC 5-2-8(14) in order to maintain compliance with the effluent limitations and prohibitions of this permit, the permittee shall either:

a. provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit, or

b. shall halt, reduce or otherwise control all discharge in order to maintain compliance with the effluent limitations and conditions of this permit upon the reduction, loss, or failure of one or more of the primary sources of power to facilities utilized by the permittee to maintain compliance with the effluent limitations and conditions of this permit.

6. Unauthorized Discharge

Any overflow or release of sanitary wastewater from the wastewater treatment facilities or collection system that results in a discharge to waters of the state and is not specifically authorized by this permit is expressly prohibited. These discharges are subject to the reporting requirements in Part II.C.3 of this permit.

C. REPORTING REQUIREMENTS

1. Planned Changes in Facility or Discharge

Pursuant to 327 IAC 5-2-8(11)(F) and 5-2-16(d), the permittee shall give notice to the Commissioner as soon as possible of any planned alterations or additions to the facility (which includes any point source) that could significantly change the nature of, or increase the quantity of, pollutants discharged. Following such notice, the permit may be modified to revise existing pollutant limitations and/or to specify and limit any pollutants not previously limited. Material and substantial alterations or additions to the permittee's operation that were not covered in the permit (e.g., production changes, relocation or combination of discharge points, changes in the nature or mix of products produced) are also cause for modification of the permit. However, those alterations which constitute total replacement of the process or the production equipment causing the discharge converts it into a new source, which requires the submittal of a new NPDES application.

2. Monitoring Reports

Pursuant to 327 IAC 5-2-8(10), 327 IAC 5-2-13, and 327 IAC 5-2-15, monitoring results shall be reported at the intervals and in the form specified in "Data On Plant Operation", Part I.B.2.

3. Incident Reporting Requirements

Pursuant to 327 IAC 5-2-8(11) and 327 IAC 5-1-3, the permittee shall orally report to the Commissioner information on the following incidents within 24 hours from the time permittee becomes aware of such occurrence. If the incident meets the emergency criteria of item b (Part II.C.3.b) or 327 IAC 2-6.1, then the report shall be made as soon as possible, but within two (2) hours of discovery.

However, under 327 IAC 2-6.1-3(1), when the constituents of the discharge are regulated by this permit, and death or acute injury or illness to animals or humans does not occur, the reporting requirements of 327 IAC 2-6.1 do not apply.

a. Any unanticipated bypass which exceeds any effluent limitation in the permit;

b. Any emergency incident which may pose a significant danger to human health or the environment. Reports under this item shall be made as soon as the permittee becomes aware of the incident by calling 317/233-7745 (888/233-7745 toll free in Indiana). This number should only be called when reporting these emergency events;

c. Any upset (as defined in Part II.B.3 above) that exceeds any technology-based effluent limitations in the permit;

d. Any release, including basement backups, from the sanitary sewer system (including satellite sewer systems operated or maintained by the permittee) not specifically authorized by this permit. Reporting of known releases from private laterals not caused by a problem in the sewer system owned or operated by the permittee is not required under Part II.C.3, however, documentation of such events must be maintained by the permittee and available for review by IDEM staff; or

e. Any discharge from any outfall from which discharge is explicitly prohibited by this permit as well as any discharge from any other outfall or point not listed in this permit.

The permittee can make the oral reports by calling 317/232-8670 during regular business hours and asking for the Compliance Data Section, or by calling (317/233-7745) (888/233-7745 toll free in Indiana) during non-business hours. A written submission shall also be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain: a description of the event and its cause; the period of occurrence, including exact dates and times, and, if the event has not concluded, the anticipated time it is expected to continue; and steps taken or planned to reduce, mitigate and eliminate the event and steps taken or planned to prevent its recurrence. The Commissioner may waive the written report on a case-by-case basis if the oral report has been received within 24 hours. Alternatively, the permittee may submit a “Bypass Overflow/Incident Report” (State Form 48373) or a “Noncompliance Notification Report” (State Form 54215), whichever is appropriate to IDEM at wwreports@idem.IN.gov. If a complete submittal is sent within 24 hours of the time that the permittee became aware of the occurrence, then that report will satisfy both the oral and written reporting requirements.

4. Other Noncompliance

Pursuant to 327 IAC 5-2-8(11)(D), the permittee shall report any instance of noncompliance not reported under the "Incident Reporting Requirements" in Part II.C.3 at the time the pertinent Discharge Monitoring Report is submitted. The written submission shall contain: a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate and prevent the noncompliance.

5. Other Information

Pursuant to 327 IAC 5-2-8(11)(E), where the permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or in any report to the Commissioner, the permittee shall promptly submit such facts or corrected information to the Commissioner.

6. Signatory Requirements

Pursuant to 327 IAC 5-2-22 and 327 IAC 5 2 8(15):

a. All reports required by the permit and other information requested by the Commissioner shall be signed and certified by a person described below or by a duly authorized representative of that person:

(1) For a corporation: by a principal executive defined as a president, secretary, treasurer, any vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy-making functions for the corporation or the manager of one or more manufacturing, production, or operating facilities employing more than two hundred fifty (250) persons or having gross annual sales or expenditures exceeding twenty-five million dollars ($25,000,000) (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a federal, state, or local governmental body or any agency or political subdivision thereof: by either a principal executive officer or ranking elected official.

b. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The authorization is submitted to the Commissioner.

c. Electronic Signatures. If documents described in this section are submitted electronically by or on behalf of the NPDES-regulated facility, any person providing the electronic signature for such documents shall meet all relevant requirements of this section, and shall ensure that all of the relevant requirements of 40 CFR part 3 (including, in all cases, subpart D to part 3) (Cross-Media Electronic Reporting) and 40 CFR part 127 (NPDES Electronic Reporting Requirements) are met for that submission.

d. Certification. Any person signing a document identified under paragraphs a and b of this section, shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

7. Availability of Reports

Except for data determined to be confidential under 327 IAC 12.1, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Indiana Department of Environmental Management and the Regional Administrator. As required by the Clean Water Act, permit applications, permits, and effluent data shall not be considered confidential.

8. Penalties for Falsification of Reports

IC 13-30 and 327 IAC 5-2-8(15) provides that any person who knowingly makes any false statement, representation, or certification in any record or other

document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 180 days per violation, or by both.

9. Progress Reports

In accordance with 327 IAC 5-2-8(11)(A), reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than fourteen (14) days following each schedule date.

10. Advance Notice for Planned Changes

In accordance with 327 IAC 5-2-8(11)(B), the permittee shall give advance notice to IDEM of any planned changes in the permitted facility, any activity, or other circumstances that the permittee has reason to believe may result in noncompliance with permit requirements.

11. Additional Requirements for POTWs and/or Treatment Works Treating Domestic Sewage

a. All POTWs shall identify, in terms of character and volume of pollutants, any significant indirect discharges into the POTW which are subject to pretreatment standards under section 307(b) and 307 (c) of the CWA.

b. All POTWs must provide adequate notice to the Commissioner of the following:

(1) Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to section 301 or 306 of the CWA if it were directly discharging those pollutants.

(2) Any substantial change in the volume or character of pollutants being introduced into that POTW by any source where such change would render the source subject to pretreatment standards under section 307(b) or 307(c) of the CWA or would result in a modified application of such standards.

As used in this clause, “adequate notice” includes information on the quality and quantity of effluent introduced into the POTW, and any anticipated impact of the change on the quantity or quality of the effluent to be discharged from the POTW.

c. This permit incorporates any conditions imposed in grants made by the U.S. EPA and/or IDEM to a POTW pursuant to Sections 201 and 204 of the Clean Water Act, that are reasonably necessary for the achievement of effluent limitations required by Section 301 of the Clean Water Act.

d. This permit incorporates any requirements of Section 405 of the Clean Water Act governing the disposal of sewage sludge from POTWs or any other treatment works treating domestic sewage for any use for which rules have been established in accordance with any applicable rules.

e. POTWs must develop and submit to the Commissioner a POTW pretreatment program when required by 40 CFR 403 and 327 IAC 5-19-1, in order to assure compliance by industrial users of the POTW with applicable pretreatment standards established under Sections 307(b) and 307(c) of the Clean Water Act. The pretreatment program shall meet the criteria of 327 IAC 5-19-3 and, once approved, shall be incorporated into the POTW's NPDES permit.

12. Electronic Reporting

IDEM is currently developing the technology and infrastructure necessary to allow compliance with the EPA Phase 2 e-reporting requirements per 40 CFR 127.16 and to allow electronic reporting of applications, notices, plans, reports, and other information not covered by the federal e-reporting regulations.

IDEM will notify the permittee when IDEM's e-reporting system is ready for use for one or more applications, notices, plans, reports, or other information. This IDEM notice will identify the specific applications, notices, plans, reports, or other information that are to be submitted electronically and the permittee will be required to use the IDEM electronic reporting system to submit the identified application(s), notice(s), plan(s), report(s), or other information.

See Part I.B.3., Monthly Reporting, for the electronic reporting requirements for the monthly monitoring reports such as the Discharge Monitoring Report (DMR), Monthly Report of Operation (MRO) and Monthly Monitoring Report (MMR).

13. Trucked or Hauled Pollutants

The permittee shall prohibit the introduction of trucked or hauled pollutants into the treatment works, except under the following conditions:

a. The permittee has provided prior written permission to the person seeking to discharge the hauled or trucked pollutants into the treatment works;

b. The person seeking to discharge the hauled or trucked pollutants into the treatment works possesses a valid wastewater management permit and valid vehicle licenses, as required by IDEM;

c. The pollutants that are introduced are limited to domestic sanitary wastewaters;

(1) The introduction of trucked or hauled in industrial wastewaters into the treatment works is prohibited, unless the permittee receives approval per (2) and (3) below;

(2) Approval for accepting hauled industrial wastewater must be obtained from the appropriate approval authority, whether that is IDEM or EPA, prior to the acceptance of the industrial wastewater in accordance with Part II.A.3, Part II.C.1 and Part II.C.10 of this permit;

(3) Hauled wastewater permit conditions prohibit a POTW from accepting wastewater from CIUs (regardless of potential to significantly alter the nature or quantity of pollutants discharged as described in Part II.A.3) unless specifically authorized to do so by a federally approved pretreatment program.

d. The pollutants are introduced into the treatment works via a discharge point designated by the permittee.

14. <u>Hauled Waste Requirements</u>

In the event that the permittee allows the introduction of trucked or hauled pollutants under the conditions specified in item 13 above, the permittee shall:

a. Obtain and retain, for a minimum of forty-eight hours, samples that are representative of the hauled or trucked pollutants;

b. Analyze the samples obtained pursuant to item “a” above in the event that the permittee believes or has reason to believe that the hauled or trucked pollutants may be causing and/or contributing to pass-through and/or interference;

c. Maintain records, for each discharge of trucked or hauled pollutants into the treatment works, of the following:

(1) Name of the person discharging the trucked or hauled pollutants;

(2) Septage management permit number (if applicable) and BMV vehicle license plate number and expiration date;

(3) Origination, volume, and nature of the trucked or hauled pollutants;

(4) Date and time of the discharge;

(5) Any sampling conducted; and

(6) Analytical Results, if any.

D. ADDRESSES

1. Municipal NPDES Permits Section

Indiana Department of Environmental Management
Office of Water Quality – Rm 1255
Municipal NPDES Permits Section
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Municipal NPDES Permits Section:

a. NPDES permit applications (new, renewal or modifications) with fee

b. Preliminary Effluent Limits request letters

c. Comment letters pertaining to draft NPDES permits

d. NPDES permit transfer of ownership requests

e. NPDES permit termination requests

f. Notifications of substantial changes to a treatment facility, including new industrial sources

g. Combined Sewer Overflow (CSO) Operational Plans

h. CSO Long Term Control Plans (LTCP)

i. Stream Reach Characterization and Evaluation Reports (SRCER)

j. Streamlined Mercury Variance Annual Reports

2. Facility Construction and Engineering Support Section

   Indiana Department of Environmental Management
   Office of Water Quality – Rm 1255
   Facility Construction and Engineering Support Section
   100 N. Senate Avenue
   Indianapolis, Indiana 46204-2251

   The following correspondence shall be sent to the Facility Construction and Engineering Support Section:

   a. Construction permit applications with fee

3. Compliance Data Section

   Indiana Department of Environmental Management
   Office of Water Quality – Rm 1255
   Compliance Data Section
   100 N. Senate Avenue
   Indianapolis, Indiana 46204-2251

   The following correspondence shall be sent to the Compliance Data Section:

   a. Discharge Monitoring Reports (DMRs)

   b. Monthly Reports of Operation (MROs)

   c. Monthly Monitoring Reports (MMRs)

   d. CSO MROs

   e. Gauging station and flow meter calibration documentation

   f. Compliance schedule progress reports

   g. Completion of Construction notifications

   h. Whole Effluent Toxicity (WET) Testing reports

   i. Notification of two (2) consecutive failed WETTs and the intent to begin implementation of a TRE

   j. Notification of initiation of a TRE

   k. TRE plans and progress reports

l. TRE final report

m. Bypass/Overflow Reports

n. Anticipated Bypass/Overflow Reports

4. Pretreatment Group

Indiana Department of Environmental Management
Office of Water Quality – Rm 1255
Compliance Data Section – Pretreatment Group
100 N. Senate Avenue
Indianapolis, Indiana 46204-2251

The following correspondence shall be sent to the Pretreatment Group:

a. Organic Pollutant Monitoring Reports

b. Significant Industrial User (SIU) Quarterly Noncompliance Reports

c. Pretreatment Program Annual Reports

d. Sewer Use Ordinances

e. Enforcement Response Plans (ERP)

f. Sludge analytical results

PART III

NON-DELEGATED PRETREATMENT PROGRAM REQUIREMENTS

A. DEFINITIONS

The definitions contained in 327 IAC 5-17 are incorporated herein. Such definitions include, but are not limited to, the following:

1. Control Authority ("CA")

   "Control authority" means the commissioner of the Indiana Department of Environmental Management.

2. Industrial User

   "Industrial user" means an indirect discharger.

3. Indirect Discharger

   "Indirect discharger" means a nondomestic discharger introducing pollutants into a POTW, regardless of whether the discharger is within the governmental jurisdiction of the permittee.

4. Interference

   (a) "Interference" means a discharge that, alone or in conjunction with a discharge or discharges from other sources inhibits or disrupts the:

   (1) treatment processes or operations;

   (2) sludge processes; or

   (3) selected sludge:

   (A) use; or

   (B) disposal methods;

   of a POTW.

   (b) The inhibition or disruption under subsection (a) must:

   (1) cause a violation of a requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation; or

(2) prevent the use of the POTW's sewage sludge or its sludge disposal method selected in compliance with the following statutory provisions, regulations, or permits issued thereunder or more stringent state or local regulations:

(A) Section 405 of the Clean Water Act (33 U.S.C. 1345).

(B) The Solid Waste Disposal Act (SWDA) (42 U.S.C. 6901), including:

(i) Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA); and

(ii) the rules contained in a state sludge management plan prepared pursuant to Subtitle D of the SWDA (42 U.S.C. 6941).

(C) The Clean Air Act (42 U.S.C. 7401).

(D) The Toxic Substances Control Act (15 U.S.C. 2601).

5. Pass-through

"Pass through" means a discharge proceeding through a POTW into waters of the state in quantities or concentrations that, alone or in conjunction with a discharge or discharges from other sources, are a cause of a violation of any requirement of the POTW's NPDES permit, including an increase in the magnitude or duration of a violation.

6. Pretreatment requirements

"Pretreatment requirements" means any substantive or procedural requirement related to pretreatment, other than a pretreatment standard, imposed on an industrial user, including applicable local limits.

7. Pretreatment standards

"Pretreatment standards" means:

a. state pretreatment standards as established in 327 IAC 5-18-8;

b. pretreatment standards for prohibited discharges, as established in 327 IAC 5-18-2; and

c. national categorical pretreatment standards incorporated by reference in 327 IAC 5-18-10.

8. Publicly Owned Treatment Works ("POTW")

"Publicly Owned Treatment Works" means a treatment works owned by the State or a municipality, except that it does not include pipes, sewers or other conveyances not connected to a facility providing treatment. The term includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or compatible industrial wastes. The term also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. "POTW" also means the municipality that has jurisdiction over the indirect discharges to and the discharges from such treatment works.

9. Significant Industrial User ("SIU")

"Significant Industrial User" or "SIU" means the following:

a. Industrial users subject to categorical pretreatment standards under 327 IAC 5-18-10.

b. An industrial user that:

(1) discharges an average of twenty-five thousand (25,000) gallons per day or more of process wastewater (excluding sanitary, noncontact cooling and boiler blowdown wastewater) to the POTW;

(2) contributes a process wastestream that makes up five percent (5%) or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or

(3) is designated as a significant industrial user by the control authority on the basis that the industrial user has a reasonable potential to:

(A) adversely affect the POTW's operation;

(B) violate a pretreatment standard; or

(C) violate a requirement of 327 IAC 5-19-3.

c. The control authority may, on its own initiative or in response to a petition received from an industrial user or a POTW and in accordance with 327 IAC 5-19-3(6), determine that an industrial user is not a significant industrial user if it does not meet Part III.A.9.b.(3) of this permit.

B. PROGRAM DEVELOPMENT REQUIREMENTS

In accordance with 327 IAC 5-19-7, the permittee shall comply with the following pretreatment program requirements:

1. Within 30 days of the effective date of this permit, the permittee shall evaluate its sewer use ordinance to determine whether the following prohibitions, conditions, and requirements are included:

   a. A user of the POTW, whether or not the user is subject to national categorical standards or state, local, or any other national pretreatment standard or requirement, shall not allow the introduction of the following into the POTW:

      (1) A pollutant from any source of nondomestic wastewaters that could pass through or cause interference with the operation or performance of the POTW.

      (2) A pollutant that could create a fire or explosion hazard in the POTW, including waste streams with a closed cup flashpoint of less than one hundred forty (140) degrees Fahrenheit (sixty (60) degrees Celsius) using the test methods in 40 CFR 261.21.

      (3) A pollutant that could cause corrosive structural damage to the POTW, including a discharge with pH lower than five (5.0), unless the POTW is specifically designed to accommodate such a discharge.

      (4) A solid or viscous pollutant in an amount that could cause obstruction to the flow in a sewer or other interference with the operation of the POTW.

      (5) A pollutant, including an oxygen demanding pollutant (such as biochemical oxygen demand) released in a discharge at a flow rate or pollutant concentration that could cause interference in the POTW.

      (6) Heat in an amount that could:

         (A) inhibit biological activity in the POTW and result in interference or damage to the POTW; or

         (B) exceed forty (40) degrees Celsius or one hundred four (104) degrees Fahrenheit at the POTW treatment plant unless the commissioner, upon request of the POTW, approves alternate temperature limits.

      (7) Petroleum, oil, nonbiodegradable cutting oil, or products of mineral oil origin in an amount that could cause interference or pass through.

(8) A pollutant that could result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems.

(9) A trucked or hauled pollutant, except:

(A) with the permission of the POTW; and

(B) when introduced to the POTW at a discharge point designated by the POTW.

b. Specific limits on the prohibited substances listed in Part III.B.1.a above, such that the following are limited:

(1) a pollutant contributed by an industrial user that has caused or is likely to cause interference or pass through at the receiving POTW; and

(2) the recurrence of the contributed pollutant's affect on the POTW.

c. The legal authority to:

(1) develop and enforce specific limits on prohibited substances;

(2) enter the premises of any industrial user to conduct inspections, surveillance, record review, and/or monitoring, as necessary to determine compliance with the SUO and, if applicable, any effective industrial wastewater pretreatment permit;

(3) accept or deny any new or increased discharges from any indirect discharger;

(4) immediately halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of the public, the environment, and/or which threatens to interfere with the operation of the POTW;

(5) require compliance with all applicable pretreatment standards and requirements by indirect dischargers;

(6) Impose fees, if necessary, to offset the cost incurred by the permittee for administering the pretreatment program requirements established in Part III of this permit;

(7) Impose a fine of not more than $2,500 per day, per violation for a first violation nor more than $7,500 per day, per violation for subsequent violations, in accordance with IC 36-1-3-8(a)(10)(B).

2. Within 90 days of the effective date of this permit, the permittee shall submit to the IDEM Office of Water Quality Pretreatment Group, either:

   a. A copy of the existing SUO, highlighting where the requirements listed in Part III.B.1 are located, and a statement certifying that the evaluation required pursuant to Part III.B.1 was conducted and that the SUO contains the requirements listed in Part III.B.1; or

   b. A copy of the existing SUO, a statement certifying that the evaluation required pursuant to Part III.B.1 was conducted, a description of the requirements listed in Part III.B.1 that are not contained in the existing SUO, and proposed modifications to the SUO that will ensure that all requirements listed in Part III.B.1 are contained in the SUO.

3. In the event that proposed modifications to the SUO submitted pursuant to Part III.B.2.b of this permit are determined to be deficient by IDEM, the permittee shall, within 30 days of receipt of written notice of the deficiencies, correct the deficiencies and resubmit the proposed modifications to the SUO to IDEM.

4. The permittee shall adopt the proposed modifications to the SUO, as approved by IDEM, within 120 days of receipt of written approval by IDEM.

5. In accordance with 327 IAC 5-18-2(b), the permittee shall, in the event that proposed modifications to the SUO pertain to the development and enforcement of specific effluent limits, provide individual notice, in writing, to persons or groups that have requested to be notified and given an opportunity to comment about the development and enforcement of specific effluent limits.

6. The permittee shall provide sufficient resources and qualified personnel to implement the pretreatment program requirements contained in Part III of this permit.

7. The permittee shall submit any significant proposed program modifications to IDEM for approval. A significant modification shall include, but not be limited to, a change in the local limitations contained in the SUO or a change in the industrial survey.

C. PROGRAM IMPLEMENTATION REQUIREMENTS

1. The permittee shall implement and enforce its SUO.

2. Upon the effective date of this permit, the permittee shall implement a program of monitoring the discharge from all SIU's, in accordance with the following minimum requirements:

   a. The permittee shall, no less than twice per calendar year, measure the volume of flow and sample and analyze the discharge from each SIU for all parameters contained in the industrial wastewater pretreatment (IWP) permit issued to the SIU by the CA, with the exception of Total Toxic Organics (TTOs), which shall be sampled and analyzed no less than once per calendar year, if contained in the IWP permit.

   b. The permittee shall, for each parameter, including flow, utilize the sample type (e.g. 24-hour composite or grab) specified in the IWP permit issued by the CA.

   c. The permittee shall collect samples at the sample location specified in the IWP Permit issued by the CA.

   d. The permittee shall utilize the analytical methods contained in the IWP Permit issued by the CA.

   e. The permittee shall sample and analyze the discharge from any IU, including an SIU with an IWP permit issued by the CA, for any parameter, as necessary to:

      (1) achieve and/or maintain compliance with the requirements of this NPDES permit; and/or

      (2) determine compliance with the requirements of the permittee's SUO.

   f. The permittee shall, in accordance with Part III.C.4 of this permit, record and maintain all sampling and analytical data at the permitted facility.

3. Upon the effective date of this permit, the permittee shall implement a program of inspecting all SIU's, in accordance with the following minimum requirements:

   a. The permittee shall, no less than once annually, inspect each SIU.

   b. The permittee shall, during each inspection conducted pursuant to Part III.C.3.a, evaluate areas including, but not limited to, the following:

      (1) pretreatment system(s);

      (2) spill reporting and response procedures;

(3) sampling location; and

(4) disposal of sludge and other wastestreams not regulated by the IWP permit issued by the CA.

c. The permittee shall inspect any IU, including an IU with an IWP permit issued by the CA, as necessary to:

(1) achieve and/or maintain compliance with the requirements of this NPDES permit; and/or

(2) determine compliance with the requirements of the permittee's SUO.

d. The permittee shall, for each inspection conducted pursuant to Part III.C.3.a, complete a report, utilizing an inspection report form that is at least equivalent to the form that is available from the IDEM Pretreatment Group.

e. The permittee shall, in accordance with Part III.C.4 of this permit, maintain at the permitted facility, copies of all inspection reports.

4. The permittee shall establish a file for each SIU that includes, but is not necessarily limited to:

a. A copy of the IWP permit issued by the CA;

b. Information and data pertaining to and resulting from the sampling and analysis required pursuant to Part III.C.2 of this permit. Such information and data shall, for each sample or measurement taken, include, but not necessarily be limited to:

(1) the date, exact place and time of sampling or measurement;

(2) the name of the person(s) who performed the sampling or measurement;

(3) the sample type utilized;

(4) the date(s) and time(s) analyses were performed;

(5) the analytical techniques or methods used; and

(6) the results of such measurements and analyses.

c. Copies of all inspection reports required pursuant to Part III.C.3 of this permit and;

d. Copies of all documents (including correspondence and discharge monitoring reports) relating to the SIU and/or the IWP permit issued by the CA.

5. The permittee shall retain, at the wastewater treatment plant, all records required pursuant to Part III.C.4 of this permit, for a minimum of three (3) years and shall make such records available for inspection and copying by IDEM or the U.S. EPA in accordance with 327 IAC 5-16-5(d). This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the industrial user or the operation of the pretreatment program or when requested by IDEM or the U.S. EPA.

6. For permittee's with an existing IDEM approved, ERP, the permittee shall submit a statement certifying that the ERP contains the requirements in a-d below and the permittee is implementing the ERP as approved to the IDEM Office of Water Quality Pretreatment Group within 90 days of the effective date of this permit.

   The ERP shall contain, at the minimum, the following:

   a. Categories of noncompliance, including a category for noncompliance considered to be "significant noncompliance" pursuant to 327 IAC 5-17-24;

   b. A description of the types of violations included within each identified category of noncompliance;

   c. A narrative description of each enforcement response;

   d. An enforcement response guide which discusses the policies and criteria for evaluating violations and deciding the appropriate enforcement response.

   An ERP guidance document may be obtained from the IDEM Pretreatment Group.

7. In the event that the permittee is or should be aware of any activity or other circumstances, including wastewater treatment plant operational conditions, that the permittee has reason to believe may result in noncompliance with permit requirements, the permittee shall:

   a. Immediately upon becoming aware of the activity or other circumstances, take all reasonable steps to cease or eliminate the activity or other circumstances;

   b. Immediately upon becoming aware of the activity or other circumstances and continuing until such time as such activity or other circumstances cease or are eliminated, sample and analyze the wastewater entering the wastewater treatment plant, the wastewater from intermediate unit treatment processes, and the discharge from Outfall 001 for the pollutants identified in this NPDES

permit as well as any pollutants suspected of interfering with WWTP operation;

c. Immediately upon becoming aware of the activity or other circumstances, notify the Compliance Data Section of the Office of Water Quality.

d. Immediately upon becoming aware of the activity or other circumstances, notify industrial users;

e. Immediately upon becoming aware of the activity or other circumstances, halt or prevent any trucked or hauled pollutants from being introduced into the POTW; and

f. Immediately upon becoming aware of the activity or other circumstances, halt or prevent the discharge from any indirect discharger, including any SIU, that the permittee has reason to believe may cause or contribute to interference with POTW operations or noncompliance with permit requirements.

8. The permittee shall notify the Office of Water Quality's Compliance Data Section of any violation by any indirect discharger that constitutes "significant noncompliance" pursuant to 327 IAC 5-17-24, within ten days of becoming aware of the significant noncompliance. The permittee shall provide a copy of all correspondence between any indirect discharger and the permittee to the IDEM Pretreatment Group regarding the significant noncompliance.

9. The permittee shall conduct an industrial survey at a minimum frequency of once every two (2) years. The industrial survey shall consist of, but not be limited to, requiring all industrial users (IU's), discharging wastewater other than sanitary, non-contact cooling water, boiler blowdown, or compressor condensate, to complete and return the survey form attached to this permit. The permittee shall utilize the completed survey forms to identify changes in operations and/or volume and nature of the discharge from each IU. The permittee shall include copies of the completed survey forms, along with a written description of the identified changes in operations and/or volume and nature of the discharge from each IU, with the Annual Report required pursuant to Part III.C.12.

10. The permittee shall notify the IDEM Pretreatment Group of any IU proposing a new discharge of process wastewater to the POTW that meets any of the following conditions:

a. The industrial user is subject to categorical pretreatment standards under 327 IAC 5-18-10.

b. The industrial user:

(1) proposes to discharge an average of twenty-five thousand (25,000) gallons per day or more of process wastewater (excluding sanitary, noncontact cooling and boiler blowdown wastewater) to the POTW;

(2) would contribute a process wastestream that makes up five percent (5%) or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or,

(3) would have a reasonable potential to:

(A) adversely affect the POTW's operation;

(B) violate a pretreatment standard; or

(C) violate a requirement of 327 IAC 5-19-3.

The permittee shall not allow the proposed discharge until the industrial user obtains authorization from IDEM, and in the event that IDEM determines that a pretreatment permit or a pretreatment permit modification is necessary, the effective date of a pretreatment permit or pretreatment permit modification issued by IDEM.

11. The permittee shall sample and analyze the POTW's final sludge during the first and third calendar quarter or the second and fourth calendar quarter of each year for the following parameters: cadmium, copper, lead, mercury, molybdenum, nickel, and zinc. The permittee shall analyze the samples using 40 CFR 503, SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods."

    The permittee shall report the analytical results in mg/kg on a dry weight basis and shall report the results on the Non-Delegated Pretreatment Sludge Discharge Monitoring Report (DMR).

12. The permittee shall submit an annual report to the IDEM Pretreatment Group by April 1 of each year that includes:

    a. A summary of the results of the industrial user survey conducted by the permittee, including a description of changes in operations of and/or discharges from each IU.

    b. A copy of the completed industrial user survey forms.

    c. A summary of the compliance status of each IU for the prior calendar year;

d. A summary of the IU inspections conducted by the permittee during the prior calendar year, including a description of any deficiencies or violations found during the inspections;

e. A summary of the IU discharge monitoring conducted by the permittee during the prior calendar year, including analytical results that indicate a violation of an applicable IWP permit or the SUO;

f. A summary of enforcement activities conducted by the permittee during the prior calendar year;

g. An evaluation of the pretreatment program, including:

(1) Program effectiveness as measured by the impact of discharges from IUs on the operation/ performance of the POTW.

(2) The adequacy of the local SUO and local limits;

(3) The adequacy of resources, including personnel, training, equipment, and laboratory;

(4) The need for program modifications to improve program effectiveness.

13. The permittee shall prohibit the introduction of trucked or hauled pollutants into the POTW, except under the following conditions:

a. The permittee has provided prior written permission to the person seeking to discharge the hauled or trucked pollutants into the POTW;

b. The person seeking to discharge the hauled or trucked pollutants into the POTW possesses a valid wastewater management permit and valid vehicle licenses, as required by IDEM;

c. The pollutants are introduced into the POTW via a discharge point designated by the permittee.

14. In the event that the permittee allows the introduction of trucked or hauled pollutants under the conditions specified in item 13 above, the permittee shall:

a. Obtain and retain, for a minimum of forty-eight hours, samples that are representative of the hauled or trucked pollutants;

b. Analyze the samples obtained pursuant to item “a” above in the event that the permittee believes or has reason to believe that the hauled or trucked

pollutants may be causing and/or contributing to pass-through and/or interference;

c. Maintain records, for each discharge of trucked or hauled pollutants into the POTW, of the following:

(1) Name of the person discharging the trucked or hauled pollutants;

(2) Wastewater management permit number (if applicable) and vehicle license number and expiration date;

(3) Origination, volume, and nature of the trucked or hauled pollutants;

(4) Date and time of the discharge;

(5) Any sampling conducted;

(6) Analytical Results, if any.

ATTACHMENT A

Sanitary Sewer Overflows (SSOs)

Overflows in the sanitary sewer system or in a sanitary portion of a combined sewer system are expressly **prohibited** from discharging at any time. Should any release from the sanitary sewer system occur, the permittee is required to notify the Office of Water Quality within twenty-four (24) hours in accordance with the requirements in Part II.C.3 of this permit. The correspondence shall include the duration and cause of discharge as well as the remedial action taken to eliminate it. The overflow duration and estimated flow shall also be reported on the Monthly Report of Operation form. Additionally, monitoring requirements are included in Table 3 below.

The following SSO point has been identified as being present in the collection system:

SSO #	Location	Receiving Stream
002	Flow Equalization Basin located at North Road Latitude: 39° 59' 18" N Longitude: 86° 06' 27" W	Cool Creek

TABLE 3

	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
Parameter	Monthly Average	Weekly Average	Units	Monthly Average	Weekly Average	Units	Measurement Frequency	Sample Type
Flow [1]	---------- DISCHARGE PROHIBITED ----------					MGD	Daily during precipitation [1]	

[1] Permittee shall monitor discharges from each outfall listed above by visual or telemetric inspection of each listed outfall within 24 hours of receiving 0.25 inches of precipitation or greater within a 24-hour period as recorded at the nearest National Weather Service Reporting Station. Permittee shall maintain a record of each visual or telemetric inspection on-site for a period of five (5) years. Records of the visual or telemetric inspections shall be made available to IDEM and/or EPA staff upon request.

National Pollutant Discharge Elimination System

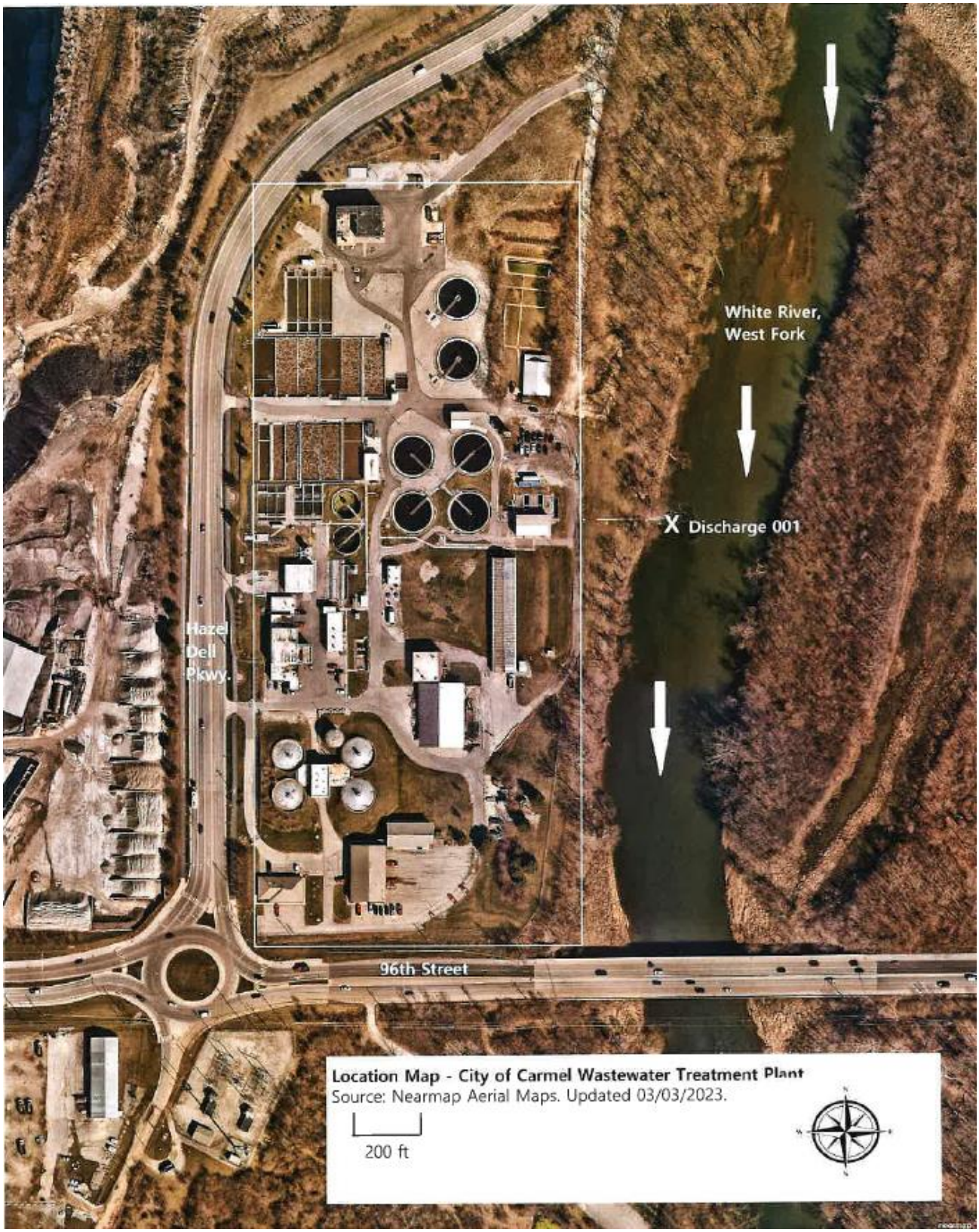
Fact Sheet for the
City of Carmel Wastewater Treatment Plant
Draft: July 2023
Final: TBD

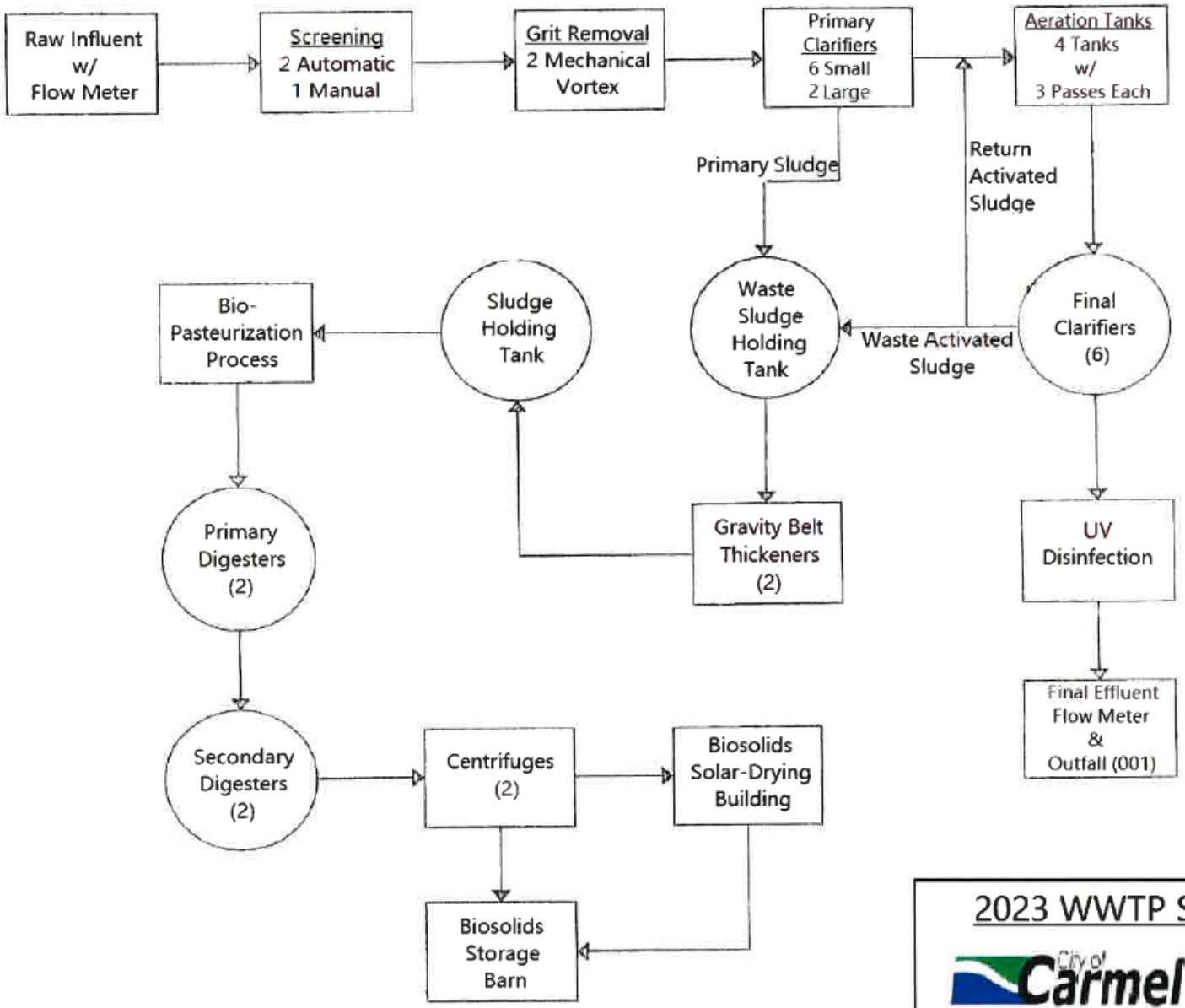
Indiana Department of Environmental Management

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Permittee:	The Honorable Jim Brainard, Mayor City of Carmel City Hall, One Civic Square Carmel, Indiana 46032 317/571-2401 jbrainard@carmel.in.gov
Existing Permit Information:	Permit Number: IN0022497 Expiration Date: November 30, 2023
Facility Contact:	Jordan Kleinsmith, Certified Operator 317/571-2634 jkleinsmith@carmel.in.gov
Facility Location:	9609 Hazel Dell Parkway Carmel, Indiana Hamilton County
Receiving Stream:	West Fork of the White River
GLI/Non-GLI:	Non-GLI
Proposed Permit Action:	Renewal
Date Application Received:	May 23, 2023
Facility Category:	NPDES Major Municipal
Permit Writer:	Jay Hanko 317/233-0704 Jhanko@idem.IN.gov

MAP OF OUTFALL





2023 WWTP Schematic

City of Carmel Utilities

Carmel Wastewater Treatment Plant

9609 Hazel Dell Parkway•Carmel, IN•46280

Outfall Location	Latitude:	39° 55' 45" N
	Longitude:	86° 04' 35" W

Background

This is the proposed renewal of the NPDES permit for the City of Carmel Wastewater Treatment Plant which was issued on August 16, 2018 and has an expiration date of November 30, 2023. The permittee submitted an application for renewal which was received on May 23, 2023.

The permittee currently operates a Class IV, 14 MGD conventional activated sludge type treatment facility consisting of:

Wastewater Treatment
An influent flow meter (1), followed by step-screening (3) and vortex grit removal (2), followed by solids sedimentation and grease skimming using primary clarifiers (8), followed by biological treatment using extended aeration (4) tanks with 3 passes per tank). The first pass in each tank is anoxic to implement Enhanced Biological Phosphorus Removal (EBPR). If the EBPR process is insufficient in removing total phosphorus to a $\leq$ 1.0 mg/l residual, the activated sludge is treated with a chemical phosphorus precipitant (either aluminum salts or rare earth metal salts). Then, the activated sludge is sent to secondary clarifiers (6) for solids sedimentation. Finally, the effluent is disinfected with a UV system (1) during disinfection season. The final effluent flow is metered before it is discharged into the White River via Outfall 001.

Biosolids Treatment
Primary sludge and waste activated sludge are pumped to a tank where they are constantly mixed. The mixed sludge is pumped to a gravity belt thickener (2) where it is mixed with polymer and dewatered. The thickened sludge is pumped to a mixing tank (1) and proceeds to the bio-pasteurization system (1). After pasteurization, the sludge is pumped to a primary anaerobic digester (2) and proceeds to a secondary anaerobic digester (2) for a total of approximately 45 days. After digestion, the sludge is pumped to a centrifuge (2) for dewatering. Dewatered sludge, or biosolids (~23% total solids), is stored in an open building or further dried in a solar drying building. All biosolids are beneficially reused.

Permit Revision & Construction History

The following construction permits were issued to Carmel Utilities during the permit term associated with the City of Carmel Wastewater Treatment Plant:

- SRF Project Permit Approval No. L-0549, October 31, 2018, 106th Street Pump Station Interceptor Improvements
- SRF Project Permit Approval No. L -0569, July 22, 2019, WWTP Expansion and Improvements
- Permit Approval No. L-0591, April 15, 2020, Chemical Phosphorus Removal

Additionally, the NPDES permit was modified May 25, 2022 to include improvements and process changes including the increasing the average design flow rating to 14.0 MGD, and biological and chemical phosphorus removal.

Collection System

The collection system is comprised of 100% separate sanitary sewers by design with one (1) Sanitary Sewer Overflow (SSO), Outfall 002.

SSO #	Location	Receiving Stream
002	Flow Equalization Basin located at North Road Latitude: 39° 59' 18" N Longitude: 86° 06' 27" W	Cool Creek

Additionally, please note that SSOs identified in the permit must be monitored in accordance with Table 3 of the permit. The permittee shall monitor discharges from each outfall listed above by visual or telemetric inspection of each listed outfall within 24 hours of receiving 0.25 inches of precipitation or greater within a 24-hour period as recorded at the nearest National Weather Service Reporting Station. Permittee shall maintain a record of each visual or telemetric inspection on-site for a period of five (5) years. Records of the visual or telemetric inspections shall be made available to IDEM and/or EPA staff upon request.

Spill Reporting Requirements

Reporting requirements associated with the Spill Reporting, Containment, and Response requirements of 327 IAC 2-6.1 are included in Part II.B.2.c. and Part II.C.3. of the NPDES permit. Spills from the permitted facility meeting the definition of a spill under 327 IAC 2-6.1-4(15), the applicability requirements of 327 IAC 2-6.1-1, and the Reportable Spills requirements of 327 IAC 2-6.1-5 (other than those meeting an exclusion under 327 IAC 2-6.1-3 or the criteria outlined below) are subject to the Reporting Responsibilities of 327 IAC 2-6.1-7.

It should be noted that the reporting requirements of 327 IAC 2-6.1 do not apply to those discharges or exceedances that are under the jurisdiction of an applicable permit when the substance in question is covered by the permit and death or acute injury or illness to animals or humans does not occur. In order for a discharge or exceedance to be under the jurisdiction of this NPDES permit, the substance in question (a) must have been discharged in the normal course of operation from an outfall listed in this permit, and (b) must have been discharged from an outfall for which the permittee has authorization to discharge that substance.

Solids Disposal

The permittee is required to dispose of its sludge in accordance with 329 IAC 10, 327 IAC 6.1, or 40 CFR Part 503. The permittee maintains a Biosolids Market and Distribution Permit INLA000216 for the disposal of solids as a Class B product, and INLA000730 for the disposal of solids as a Class A product.

Receiving Stream

The facility discharges to the West Fork of the White River via Outfall 001, which is located in watershed HUC-12 051202011003 and Assessment Unit INW01A3_01. The receiving water has a seven day, ten year low flow ($Q_{7,10}$) of 100 cubic feet per second (65 MGD) at the outfall location. This provides a dilution ratio of receiving stream flow to treated effluent of 4.6:1. There are no lakes or reservoirs within forty (40) miles downstream of the facility.

The receiving stream is designated for full body contact recreational use and shall be capable of supporting a well-balanced warm water aquatic community in accordance with 327 IAC 2-1.

The West Fork of the White River in Assessment Unit INW01A3_01 is included in the Indiana 2022 303(d) List of Impaired Waters for *E. coli* (4A), Nutrients (5A), and PCBs in fish tissue (5B). A Total Maximum Daily Load (TMDL) report, *The West Fork White River, Muncie to Hamilton-Marion County Line TMDL for E. coli Bacteria*, dated February 2, 2004 was approved on by U.S. EPA on April 9, 2007. This TMDL report addresses the *E. coli* bacteria impairment in the West Fork of the White River. The permit includes effluent limitations for *E. coli* and phosphorus. Currently, there are no known sources of PCBs that discharge to the treatment facility.

Industrial Contributions

Presently, there is no industrial flow to the wastewater treatment plant. This NPDES permit does not authorize the facility to accept industrial contributions until the permittee has provided the Indiana Department of Environmental Management with a characterization of the waste, including volume amounts, and this Office has determined whether effluent limitations are needed to ensure the State water quality standards are met in the receiving stream.

However, the permittee has requested to retain the Non-delegated Pretreatment Program Requirements included in Part III of the permit in the event an industrial user wishes to discharge to the City's treatment facility. All monitoring and reporting must continue in accordance with the requirements of Part III of the permit regardless of industrial contribution.

Antidegradation

Indiana's Antidegradation Standards and Implementation procedures are outlined in 327 IAC 2-1.3. The antidegradation standards established by 327 IAC 2-1.3-3 apply to all surface waters of the state. The permittee is prohibited from undertaking any deliberate action that would result in a new or increased discharge of a bioaccumulative chemical of concern (BCC) or a new or increased permit limit for a regulated pollutant that is not a BCC unless information is submitted to the commissioner demonstrating that the proposed new or increased discharge will not cause a significant lowering of water quality, or an antidegradation demonstration submitted and approved in accordance 327 IAC 2-1.3-5 and 2-1.3-6.

The NPDES permit does not propose to establish a new or increased loading of a regulated pollutant; therefore, the Antidegradation Implementation Procedures in 327 IAC 2-1.3-5 and 2-1.3-6 do not apply to the permitted discharge.

Effluent Limitations and Rationale

The effluent limitations proposed herein are based on Indiana Water Quality Standards, NPDES regulations, and Wasteload Allocation (WLA) analyses performed by this Office's Permits Branch staff on January 3, 1989 and March 10, 1997. These limits are in accordance with antibacksliding regulations specified in 327 IAC 5-2-10(a)(11)(A). Monitoring frequencies are based upon facility size and type.

For publicly owned treatment works, the 30-day average percent removal for Carbonaceous Biochemical Oxygen Demand (CBOD5) and Total Suspended Solids shall not be less than 85 percent in accordance with 40 CFR Part 133.102, as incorporated by reference in 327 IAC 5-2-1.5. The permittee must monitor the influent and effluent CBOD5 and TSS at least once per month and calculate the percent removal to ensure compliance with the required 85 percent removal. This information must be maintained on site and provided to this Office's staff upon request.

The final effluent parameters to be limited and/or monitored include: Flow, Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), Ammonia-nitrogen (NH_3-N), total phosphorus, total nitrogen, pH, Dissolved Oxygen (DO), and *Escherichia coli* (*E. coli)*.

Final Effluent Limitations

The summer monitoring period runs from May 1 through November 30 of each year and the winter monitoring period runs from December 1 through April 30 of each year. The disinfection season runs from April 1 through October 31 of each year.

The mass limits for $CBOD_5$, TSS, and ammonia-nitrogen are calculated by multiplying the average design flow (in MGD) by the corresponding concentration value and by 8.345.

Influent Monitoring

The raw influent and the wastewater from intermediate unit treatment processes, as well as the final effluent shall be sampled and analyzed for the pollutants and operational parameters specified by the applicable Monthly Report of Operation Form, as appropriate, in accordance with 327 IAC 5-2-13 and Part I.B.2 of the permit. Except where the permit specifically states otherwise, the sample frequency for the raw influent and intermediate unit treatment process shall be at a minimum the same frequency as that for the final effluent. The measurement frequencies specified in each of the tables in Part I.A. are the minimum frequencies required by the permit.

Flow

Flow is to be measured daily as a 24-hour total. Reporting of flow is required by 327 IAC 5-2-13.

$CBOD_5$

$CBOD_5$ is limited to 16 mg/l (1,900 lbs/day) as a monthly average and 24 mg/l (2,800 lbs/day) as a weekly average during the summer monitoring period. During the winter monitoring period, $CBOD_5$ is limited to 25 mg/l (2,900 lbs/day) as a monthly average and 40 mg/l (4,700 lbs/day) as a weekly average.

Monitoring is to be conducted daily by 24-hour composite sampling. The $CBOD_5$ summer concentration limitations included in this permit are water quality-based effluent limitations set in accordance with the WLA analysis performed by this Office's Permits Branch staff on January 3, 1989, and are the same as the concentration limitations found in the facility's previous permit. The $CBOD_5$ winter concentration limitations included in this permit are water quality-based effluent limitations set in accordance with the WLA analysis performed by this Office's Permits Branch staff on March 10, 1997, and are the same as the concentration limitations found in the facility's previous permit.

TSS

TSS is limited to 20 mg/l (2,300 lbs/day) as a monthly average and 30 mg/l (3,500 lbs/day) as a weekly average during the summer monitoring period. During the winter monitoring period, TSS is limited to 30 mg/l (3,500 lbs/day) as a monthly average and 45 mg/l (5,300 lbs/day) as a weekly average.

Monitoring is to be conducted daily by 24-hour composite sampling. The TSS concentration limitations included in this permit are calculated from the water-quality based effluent limitations for $CBOD_5$ set in accordance with the WLA analyse cited for the $CBOD_5$ limitations, and are the same as the concentration limitations found in the facility's previous permit.

Ammonia-nitrogen

Ammonia-nitrogen is limited to 1.5 mg/l (180 lbs/day) as a monthly average and 2.25 mg/l (260 lbs/day) as a weekly average during the summer monitoring period. During the winter monitoring period, ammonia-nitrogen is limited to 3.0 mg/l (350 lbs/day) as a monthly average and 4.5 mg/l (530 lbs/day) as a weekly average.

Monitoring is to be conducted daily by 24-hour composite sampling. The ammonia-nitrogen concentration limitations included in this permit are water quality-based effluent limitations set in accordance with the WLA analysis performed by this Office's Permits Branch staff on January 3, 1989, and are the same as the concentration limitations found in the facility's previous permit.

Total Phosphorus

Excessive phosphorus in the discharge from wastewater treatment plants can result in harmful algal blooms that negatively impact fish habitat, cause fish kills, lower dissolved oxygen, and pose public health concerns related to increased exposure to toxic microbes. The effects of nutrient pollution can be observed both in local waters as well as downstream waters. IDEM has calculated that sanitary wastewater treatment plants with average design flows greater than or equal to 1 MGD constitute a significant percentage of the total load of phosphorus discharged to Indiana's waterways from sanitary wastewater treatment plants.

Consistent with IDEM's current Nonrule policy (WATER-019-NPD) which applies phosphorus reduction requirements to POTWs with average design flows greater than or equal to 1 MGD, monitoring requirements and an effluent limitation for total phosphorus have been included in the permit renewal. Total phosphorus is limited to 1.0 mg/l as a monthly average. Monitoring is to be conducted daily by 24-hour composite sampling.

Total Nitrogen

Nutrient pollution is one of our Nation's top environmental challenges and considerations for addressing it continue to be a priority for IDEM. Nutrient pollution can lead to public health issues and impacts the economy and is of particular concern with regard to harmful algal blooms in the State of Indiana and harmful algal blooms and hypoxia problems in further downstream waters. Of particular concern in further downstream waters is the loadings of the nutrient nitrogen.

In response to the nutrient pollution concerns, the U.S. EPA released a memorandum on September 22, 2016 entitled "Renewed Call to Action to Reduce Nutrient Pollution and Support Incremental Actions to Protect Water Quality and Public Health", which can be found at the following web address: https://www.epa.gov/sites/production/files/2016-09/documents/renewed-call-nutrient-memo-2016.pdf. EPA recommends all major sanitary dischargers begin monitoring for total nitrogen. To begin the process of total nitrogen data

collection, IDEM is proposing that all major sanitary dischargers with average design flow ratings of 1.0 MGD or greater begin monitoring for total nitrogen.

The permit requires that total nitrogen be monitored and report at a minimum of one (1) time monthly. Both the concentration and associated loading values must be reported. Total nitrogen shall be determined by testing for Total Kjeldahl Nitrogen (TKN) and Nitrate + Nitrite Nitrogen and reporting the sum of the TKN and Nitrate + Nitrite results (reported as N). Nitrate + Nitrite can be analyzed together or separately.

pH

The pH limitations have been based on 40 CFR 133.102 which is cross-referenced in 327 IAC 5-5-3. To ensure conditions necessary for the maintenance of a well-balanced aquatic community, the pH of the final effluent must be between 6.0 and 9.0 standard units in accordance with provisions in 327 IAC 2-1-6(b)(2).

pH must be measured daily times weekly by grab sampling. These pH limitations are the same as the limitations found in the facility's previous permit.

Dissolved Oxygen

Dissolved oxygen shall not fall below 5.0 mg/l as a daily minimum average during the summer monitoring period. During the winter monitoring period, dissolved oxygen shall not fall below 4.0 mg/l as a daily minimum average.

These dissolved oxygen limitations are water quality-based effluent limitations set in accordance with the WLA analysis performed by this Office's Permits Branch staff on May 29, 2019, and are the same as the concentration limitations found in the facility's previous permit.

Dissolved oxygen measurements must be based on the average of four (4) grab samples taken within a 24-hr. period. This monitoring is to be conducted daily times weekly.

E. coli

The *E. coli* limitations and monitoring requirements apply from April 1 through October 31, annually. *E. coli* is limited to 125 count/100 ml as a monthly average, and 235 count/100 ml as a daily maximum. The monthly average *E. coli* value shall be calculated as a geometric mean. This monitoring is to be conducted daily by grab sampling. These *E. coli* limitations are set in accordance with regulations specified in 327 IAC 5-10-6.

Whole Effluent Toxicity Testing

The permittee submitted a Whole Effluent Toxicity Tests (WETT) with the renewal application as required in 327 IAC 5-2-3(g). The tests conducted April 24-28, 2023

indicated no toxicity for either species. The permittee shall conduct the WETT described in Part I.D. of the permit to monitor the toxicity of the discharge from Outfall 001. This toxicity testing is to be performed at the time of permit renewal.

Backsliding

None of the concentration limits included in this permit conflict with antibacksliding regulations found in 327 IAC 5-2-10(a)(11)(A), therefore, backsliding is not an issue.

Reopening Clauses

Three (3) reopening clauses were incorporated into the permit in Part I.C. One clause is to incorporate effluent limits from any further wasteload allocations performed; a second clause is to allow for changes in the sludge disposal standards; and a third clause is to incorporate any applicable effluent limitation or standard issued or approved under section 301(b)(2)(C), (D) and (E), 304(b)(2), and 307(a)(2) of the Clean Water Act.

Compliance Status

The permittee has no enforcement actions at the time of this permit preparation.

Expiration Date

A five-year NPDES permit is proposed.

Permit Processing/Public Comment

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at https://www.in.gov/idem/public-notices/. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at https://www.in.gov/idem/resources/citizens-guide-to-idem/. A 30-day comment period is available to solicit input from interested parties, including the public.