### Notice No. KKD:14060901.bah

#### Public Notice Beginning Date: April 23, 2015

#### Public Notice Ending Date: May 26, 2015

#### National Pollutant Discharge Elimination System (NPDES) Permit Program

# PUBLIC NOTICE/FACT SHEET

of

# Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois EPA Division of Water Pollution Control Permit Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276 217/782-0610

Name and Address of Discharger:

Village of Huntley 10987 Main Street Huntley, Illinois 60142 Name and Address of Facility: Village of Huntley - East WWTP 11313 Dundee Road Huntley, Illinois 60142 (McHenry County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES Permit to discharge into the waters of the state and has prepared a draft Permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. All comments on the draft Permit and requests for hearing must be received by the IEPA by U.S. Mail, carrier mail or hand delivered by the Public Notice Ending Date. Interested persons are invited to submit written comments on the draft Permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the Permit applicant. The NPDES Permit and notice numbers must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft Permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft Permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final Permit is issued. For further information, please call Kaushal Desai at 217/782-0610.

The following water quality and effluent standards and limitations were applied to the discharge:

Title 35: Environmental Protection, Subtitle C: Water Pollution, Chapter I: Pollution Control Board and the Clean Water Act were applied in determining the applicable standards, limitations and conditions contained in the draft Permit.

The applicant is engaged in treating domestic and industrial wastewater for the Village of Huntley.

The length of the Permit is approximately 5 years.

The main discharge number is 001. The seven day once in ten year low flow (7Q10) of the receiving stream, Huntley Branch is 0 cfs.

The design average flow (DAF) for the facility is 1.8 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 4.5 MGD. Treatment consists of fine screens, oxidation ditches, secondary clarification, rapid sand filtration and ultraviolet disinfection.

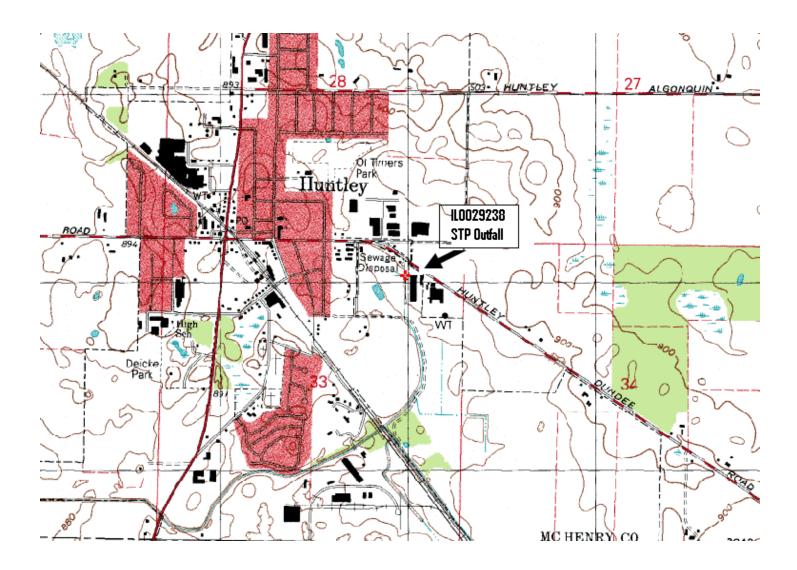
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This Reissued Permit does not increase the facility's DAF, DMF, concentration limits, and/or load limits.

Application is made for the existing discharge(s) which is located in McHenry County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

Discharge <u>Number</u>	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity <u>Rating</u>
001	Huntley Branch	42° 10' 00" North	88° 25' 00" West	General Use	Not Rated

To assist you further in identifying the location of the discharge(s) please see the attached map.



The stream segment(s) (Waterbody Segment PQIB-H-C1) receiving the discharge from outfall(s) 001 is on the 303(d) list of impaired waters.

The following parameters have been identified as the pollutants causing impairment:

Potential Causes	Uses Impaired
Alteration in stream-side or littoral vegetative cover (non-pollutant), sedimentation/siltation (non-pollutant), barium, chloride, copper, hexochlorobenzene, phosphorus (total), and zinc	Aquatic life

The next downstream segment (Waterbody Segment PQI-H-C3) is the South Branch Kishwaukee River. This segment is also on the 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

Potential Causes	Uses Impaired
Alteration in stream-side or littoral vegetative cover (non-pollutant), other flow regime alterations (non-pollutant) and phosphorus (total)	Aquatic life

The next downstream segment (Waterbody Segment PQI-H-C5) of the South Branch Kishwaukee River is also on the 303(d) list of impaired waters. The following parameters have been identified as the pollutants causing impairment:

Potential Causes	Uses Impaired
Aquatic Algae (non-pollutant), aquatic plants (macrophytes)(non-pollutant), chloride, copper, dissolved oxygen (non-pollutant), and phosphorus (total)	Fish consumption

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The discharge(s) from the facility is (are) proposed to be monitored and limited at all times as follows:

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 1.8 MGD (design maximum flow (DMF) of 4.5 MGD).

The effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			
Parameter	Monthly <u>Average</u>	Weekly <u>Average</u>	Daily <u>Maximum</u>	Monthly <u>Average</u>	Weekly <u>Average</u>	Daily <u>Maximum</u>	Regulation
CBOD <sub>5</sub> **	150 (375)		300 (751)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	180 (450)		360 (901)	12		24	35 IAC 304.120 40 CFR 133.102
рН	Shall be in th	e range of 6 t	o 9 Standard L	Jnits			35 IAC 304.125
Fecal Coliform Daily Maximum shall not e (May through October)			xceed 400 per	100 mL			35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen: April-May/SeptOct.	17 (41)	57 (143)	71 (176)	1.1	3.8	4.7	35 IAC 355 and 35 IAC 302
June-August	17 (41)	50 (124)	74 (184)	1.1	3.3	4.9	
NovFeb.	21 (53)		75 (188)	1.4		5.0	
March	21 (53)	57 (143)	71 (176)	1.4	3.8	4.7	
Total Phosphorus (as P)***	15 (38)			1.0			35 IAC 309.146
Total Nitrogen	Monitor only						35 IAC 309.146
Barium	30 (75)		60 (150)	2.0		4.0	35 IAC 304.124
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				N/A	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

\*Load Limits are calculated by using the formula: 8.34 x (Design Average and/or Maximum Flow in MGD) x (Applicable Concentration in mg/L).

\*\*BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105.

\*\*\*A compliance schedule to provide the facility additional time to comply with the phosphorus limit has been included in this draft permit. The existing permit did not include a phosphorus limit. Public Notice/Fact Sheet -- Page 5 -- NPDES Permit No. IL0029238

This draft Permit also contains the following requirements as special conditions:

- 1. Reopening of this Permit to include different final effluent limitations.
- 2. Operation of the facility by or under the supervision of a certified operator.
- 3. Submission of the operational data in a specified form and at a required frequency at any time during the effective term of this Permit.
- 4. More frequent monitoring requirement without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.
- 5. Prohibition against causing or contributing to violations of water quality standards.
- 6. Recording the monitoring results on Discharge Monitoring Report Forms using one such form for each outfall each month and submitting the forms to IEPA each month.
- 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
- 8. Effluent sampling point location.
- 9. Controlling the sources of infiltration and inflow into the sewer system.
- 10. A requirement to monitor and a limit of 0.05 mg/L for residual chlorine when it is used.
- 11. Seasonal fecal coliform limits.
- 12. Monitoring for arsenic, barium, cadmium, hexavalent chromium, total chromium, copper, weak acid dissociable cyanide, total cyanide, fluoride, dissolved iron, total iron, lead, manganese, mercury, nickel, oil, phenols, selenium, silver and zinc is required to be conducted semi-annually beginning 3 months from the effective date.
- 13. Submission of annual fiscal data.
- 14. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
- 15. The Permittee is required to perform biomonitoring tests in the 18<sup>th</sup>, 15<sup>th</sup>, 12<sup>th</sup> and 9<sup>th</sup> months prior to the expiration date of the permit, and to submit the results of such tests to the IEPA within one week of receiving the results from the laboratory.
- 16. Submission of phosphorus removal feasibility study.
- 17. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
- 18. Compliance schedule for meeting phosphorus limits.
- 19. Optimization of existing treatment facilities.
- 20. Capacity, Management, Operations and Maintenance (CMOM) requirements.

#### Illinois Environmental Protection Agency

# **Division of Water Pollution Control**

1021 North Grand Avenue East

## Post Office Box 19276

#### Springfield, Illinois 62794-9276

# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

#### Reissued (NPDES) Permit

**Expiration Date:** 

Name and Address of Permittee: Village of Huntley 10987 Main Street Huntley, Illinois 60142 Issue Date: Effective Date:

Facility Name and Address: Village of Huntley - East WWTP 11313 Dundee Road Huntley, Illinois 60142 (McHenry County)

Receiving Waters: Huntley Branch

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of the Ill. Adm. Code, Subtitle C, Chapter I, and the Clean Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the Permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Alan Keller, P.E. Manager, Permit Section Division of Water Pollution Control

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## NPDES Permit No. IL0029238

# Effluent Limitations, Monitoring, and Reporting

## FINAL

Discharge Number(s) and Name(s): 001 STP Outfall

Load limits computed based on a design average flow (DAF) of 1.8 MGD (design maximum flow (DMF) of 4.5 MGD).

From the effective date of this Permit until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

lines as follows.	LOAD LIMITS lbs/day DAF (DMF)*		CONCENTRATION LIMITS mg/L					
Parameter	Monthly <u>Average</u>	Weekly <u>Average</u>	Daily <u>Maximum</u>	Monthly <u>Average</u>	Weekly <u>Average</u>	<u>Daily</u> <u>Maximum</u>	Sample <u>Frequency</u>	Sample <u>Type</u>
Flow (MGD)							Continuous	
CBOD <sub>5</sub> ** <sup>1</sup>	150 (375)		300 (751)	10		20	3 Days/Week	Composite
Suspended Solids <sup>1</sup>	180 (450)		360 (901)	12		24	3 Days/Week	Composite
рН	Shall be in the	ne range of 6	to 9 Standard	Units			3 Days/Week	Grab
Fecal Coliform***	Daily Maxim (May throug		exceed 400 pe	er 100 mL			3 Days/Week	Grab
Chlorine Residual****						0.05	****	Grab
Ammonia Nitrogen: As (N) April-May/SeptOct.	17 (41)	57 (143)	71 (176)	1.1	3.8	4.7	3 Days/Week	Composite
June-August	17 (41)	50 (124)	74 (184)	1.1	3.3	4.9	3 Days/Week	Composite
NovFeb.	21 (53)		75 (188)	1.4		5.0	3 Days/Week	Composite
March	21 (53)	57 (143)	71 (176)	1.4	3.8	4.7	3 Days/Week	Composite
Total Phosphorus (as P)*****	15 (38)			1.0			1 Day/Week	Composite
Total Nitrogen	Monitor only						1 Day/Month	Composite
Barium	30 (75)		60 (150)	2.0		4.0	1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				N/A	6.0	5.0	3 Days/Week	Grab
August-February				5.5	4.0	3.5	3 Days/Week	Grab

\*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.

\*\*Carbonaceous BOD<sub>5</sub> (CBOD<sub>5</sub>) testing shall be in accordance with 40 CFR 136.

\*\*\*See Special Condition 11.

\*\*\*\*See Special Condition 10.

\*\*\*\*\* See Special Condition 18

Flow shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

Fecal Coliform shall be reported on the DMR as a daily maximum value.

pH shall be reported on the DMR as minimum and maximum value.

Chlorine Residual shall be reported on DMR as daily maximum value.

Dissolved oxygen shall be reported on the DMR as a minimum value.

Total Phosphorus shall be reported on the DMR as a monthly average and daily maximum value.

Total Nitrogen shall be reported on the DMR as a daily maximum value.

#### Effluent Limitations, Monitoring, and Reporting

#### FINAL

Discharge Number(s) and Name(s): 001 STP Outfall (Continued from previous page)

 $^{1}$ BOD<sub>5</sub> and Suspended Solids (85% removal required): In accordance with 40 CFR 133, the 30-day average percent removal shall not be less than 85 percent except as provided in Sections 133.103 and 133.105. The percent removal need not be reported to the IEPA on DMR's but influent and effluent data must be available, as required elsewhere in this Permit, for IEPA inspection and review. For measuring compliance with this requirement, 5 mg/L shall be added to the effluent CBOD<sub>5</sub> concentration to determine the effluent BOD<sub>5</sub> concentration.

Percent removal is a percentage expression of the removal efficiency across a treatment plant for a given pollutant parameter, as determined from the 30-day average values of the raw wastewater influent concentrations to the facility and the 30-day average values of the effluent pollutant concentrations for a given time period.

# Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency	Sample Type
Flow (MGD)	Continuous	
BOD <sub>5</sub>	3 Days/Week	Composite
Suspended Solids	3 Days/Week	Composite

Influent samples shall be taken at a point representative of the influent.

Flow (MGD) shall be reported on the Discharge Monitoring Report (DMR) as monthly average and daily maximum.

 $\mathsf{BOD}_5$  and Suspended Solids shall be reported on the DMR as a monthly average concentration.

### **Special Conditions**

<u>SPECIAL CONDITION 1</u>. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws and regulations. The IEPA will public notice the permit modification.

SPECIAL CONDITION 2. The use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

<u>SPECIAL CONDITION 3</u>. The IEPA may request in writing submittal of operational information in a specified form and at a required frequency at any time during the effective period of this Permit.

<u>SPECIAL CONDITION 4</u>. The IEPA may request more frequent monitoring by permit modification pursuant to 40 CFR § 122.63 and <u>Without Public Notice</u>.

<u>SPECIAL CONDITION 5</u>. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 III. Adm. Code 302.

<u>SPECIAL CONDITION 6.</u> The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/net-dmr/index.html.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 25th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using NetDMRs shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Attention: Compliance Assurance Section, Mail Code # 19 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

SPECIAL CONDITION 7. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

<u>SPECIAL CONDITION 8.</u> Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

<u>SPECIAL CONDITION 9.</u> This Permit may be modified to include requirements for the Permittee on a continuing basis to evaluate and detail its efforts to effectively control sources of infiltration and inflow into the sewer system and to submit reports to the IEPA if necessary.

<u>SPECIAL CONDITION 10</u>. For Discharge No. 001, any use of chlorine to control slime growths, odors or as an operational control, etc. shall not exceed the limit of 0.05 mg/L (daily maximum) total residual chlorine in the effluent. Sampling is required on a daily grab basis during the chlorination process. Reporting shall be submitted on the DMR's on a monthly basis.

<u>SPECIAL CONDITION 11</u>. Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

<u>SPECIAL CONDITION 12</u>. The Permittee shall conduct semi-annual monitoring of the effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

STORET	
CODE	PARAMETER
01002	Arsenic
01007	Barium
01027	Cadmium

070DET

Minimum reporting limit 0.05 mg/L 0.5 mg/L 0.001 mg/L

## **Special Conditions**

STORET		Minimum
CODE	PARAMETER	reporting limit
01032	Chromium (hexavalent) (grab)	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (grab)(available *** or amenable to chlorination)	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01045	Iron (total)	0.5 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/L*
01067	Nickel	0.005 mg/L
00556	Oil (hexane soluble or equivalent) (Grab Sample only)	5.0 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01092	Zinc	0.025 mg/L

Minimum reporting limits are defined as -(1) The minimum value below which data are documented as non-detects. (2) Three to ten times the method detection limit. (3) The minimum value of the calibration range.

All sample containers, preservatives, holding time, analyses, method detection limit determinations and quality assurance/quality control requirements shall be in accordance with 40 CFR 136.

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solid, suspended or dissolved, elemental or combined, including all oxidation states.

\*1.0 ng/L = 1 part per trillion.

\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E.

\*\*\*USEPA Method 0IA-1677.

The Permittee shall provide a report briefly describing the permittee's pretreatment activities and an updated listing of the Permittee's significant industrial users. The list should specify which categorical pretreatment standards, if any, are applicable to each Industrial User. Permittees who operate multiple plants may provide a single report. Such report shall be submitted within six (6) months of the effective date of this Permit to the following addresses:

U.S. Environmental Protection Agency	Illinois Environmental Protection Agency
Region 5	Division of Water Pollution Control
77 West Jackson Blvd.	Attention: Compliance Assurance Section, Mail Code #19
Chicago, Illinois 60604	1021 North Grand Avenue East
Attention: Water Enforcement and Compliance	Post Office Box 19276
Assurance Branch	Springfield, Illinois 62794-9276

<u>SPECIAL CONDITION 13</u>. During January of each year the Permittee shall submit annual fiscal data regarding sewerage system operations to the Illinois Environmental Protection Agency/Division of Water Pollution Control/Compliance Assurance Section. The Permittee may use any fiscal year period provided the period ends within twelve (12) months of the submission date.

Submission shall be on forms provided by IEPA titled "Fiscal Report Form For NPDES Permittees".

SPECIAL CONDITION 14. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

**Biomonitoring** 

- A. Acute Toxicity Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with <u>Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.)</u> <u>EPA/821-R-02-012.</u> Unless substitute tests are pre-approved; the following tests are required:
  - 1. Fish 96 hour static LC<sub>50</sub> Bioassay using fathead minnows (Pimephales promelas).

## **Special Conditions**

- 2. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using Ceriodaphnia.
- B. Testing Frequency The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. Samples must be collected in the 18th, 15th, 12th, and 9th month prior to the expiration date of this Permit.
- C. Reporting Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Reports are due to the IEPA no later than the 16th, 13th, 10th, and 7th month prior to the expiration date of this Permit.
- D. Toxicity Should a bioassay result in toxicity to >20% of organisms test in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatments, the Permittee shall immediately notify IEPA in writing of the test results.
- E. Toxicity Reduction Evaluation and Identification Should the biomonitoring program identify toxicity and result in notification by IEPA, the Permittee shall develop a plan for toxicity reduction evaluation and identification. The plan shall be developed and implemented in accordance with <u>Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants</u>, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days of notification of the permittee above or other such date as is received by letter from IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results and toxicity reduction evaluation, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants and additional whole effluent toxicity monitoring to confirm the results of the evaluation. Modifications under this condition shall follow public notice and opportunity for hearing.

<u>SPECIAL CONDITION 15</u>. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

Duty to Mitigate. The Permittee shall take all reasonable steps to minimize any sludge use or disposal in violation of this Permit.

Sludge monitoring must be conducted according to test procedures approved under 40 CFR 136 unless otherwise specified in 40 CFR 503, unless other test procedures have been specified in this Permit.

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal.

The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

If the Permittee monitors any pollutant more frequently than required by the Sludge Permit, the results of this monitoring shall be included in the reporting of data submitted to the IEPA.

The Permittee shall comply with existing federal regulations governing sewage sludge use or disposal and shall comply with all existing applicable regulations in any jurisdiction in which sewage sludge is actually used or disposed.

The Permittee shall comply with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish the standards for sewage sludge use or disposal even if the permit has not been modified to incorporate the requirement.

The Permittee shall ensure that the applicable requirements in 40 CFR Part 503 are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

# **Special Conditions**

Monitoring reports for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

Illinois Environmental Protection Agency Bureau of Water Compliance Assurance Section Mail Code #19 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

<u>SPECIAL CONDITION 16</u>. The Permittee shall, within eighteen (18) months of the effective date of this permit, prepare and submit to the Agency a feasibility study that identifies the method, timeframe, and costs of reducing phosphorus levels in its discharge to a level consistently meeting a potential future effluent limit of 0.5 mg/L and 0.1 mg/L. The study shall evaluate the construction and O & M costs of the application of these limits on a monthly, seasonal and annual average basis.

<u>SPECIAL CONDITION 17</u>. This Permit may be modified to include alternative or additional final effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) study or upon completion of an alternate water quality study.

<u>SPECIAL CONDITION 18</u>. A phosphorus limit of 1.0 mg/L (Monthly Average) shall become effective three and one-half (3 1/2) years from the effective date of this Permit.

In order for the Permittee to achieve the above limit, it will be necessary to modify existing treatment facilities to include phosphorus removal, reduce phosphorus sources or explore other ways to prevent discharges that exceed the limit. The Permittee must implement the following compliance measures consistent with the schedule below:

A.	Interim Report on Phosphorus Removal Feasibility Report	6 months from the effective date of this Permit
В.	Interim Report on Phosphorus Removal Feasibility Report	12 months from the effective date of this Permit
C.	Phosphorus Removal Feasibility Report Submitted	18 Months from the effective date of this Permit
D.	Plans and specifications submitted	24 months from the effective date of this Permit
E.	Progress Report on Construction	30 months from the effective date of this Permit
F.	Progress Report on Construction	36 months from the effective date of this Permit
G.	Achieve Monthly Concentration and Loading Effluent Limitations for Total Phosphorus	42 months from the effective date of this Permit

Compliance dates may be modified based on the results of the Phosphorus Removal Feasibility Report required by Special Condition 16 of this Permit. All modifications of this Permit must be in accordance with 40 CFR 122.62 or 40 CFR 122.63.

Reporting shall be submitted on the DMR's on a monthly basis.

## REPORTING

The Permittee shall submit progress reports for items A, B, C, D, E, F, and G of the compliance schedule indicating: a) the date the item was completed, or b) that the item was not completed, the reasons for non-completion and the anticipated completion date to the Agency Compliance Section.

<u>SPECIAL CONDITION 19</u>. The Permittee shall develop and submit to the Agency a Phosphorus Discharge Optimization Plan within eighteen (18) months of the effective date of this permit. The plan shall include a schedule for the implementation of these optimization measures. Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year. In developing the plan, the Permittee shall evaluate a range of measures for reducing phosphorus discharges from the treatment plant, including possible source reduction measures, operational improvements, and minor facility modifications that will optimize reductions in phosphorus discharges from the wastewater treatment facility. The Permittee's evaluation shall include, but not be limited to, an evaluation of the following optimization measures:

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# Special Conditions

# A. WWTF influent reduction measures.

- 1. Evaluate the phosphorus reduction potential of users.
- 2. Determine which sources have the greatest opportunity for reducing phosphorus (i.e., industrial, commercial, institutional, municipal and others).
  - a. Determine whether known sources (i.e., restaurant and food preparation) can adopt phosphorus minimization and water conservation plans.
  - b. Evaluate and implement local limits on influent sources of excessive phosphorus.
- B. WWTF effluent reduction measures.
  - 1. Reduce phosphorus discharges by optimizing existing treatment processes.
    - a. Adjust the solids retention time for nitrification, denitrification, or biological phosphorus removal.
    - b. Adjust aeration rates to reduce dissolved oxygen and promote simultaneous nitrification-denitrification.
    - c. Add baffles to existing units to improve microorganism conditions by creating divided anaerobic, anoxic, and aerobic zones.
    - d. Change aeration settings in plug flow basins by turning off air or mixers at the inlet side of the basin system.
    - e. Minimize impact on recycle streams by improving aeration within holding tanks.
    - f. Reconfigure flow through existing basins to enhance biological nutrient removal.
    - g. Increase volatile fatty acids for biological phosphorus removal.

<u>SPECIAL CONDITION 20</u>. The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement back-ups and ensuring that overflows or back-ups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. Overflows from sanitary sewers are expressly prohibited by III. Adm. Code 306.304. In order to accomplish these goals, the Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan which includes an Asset Management strategy within eighteen (18) months of the effective date of this Permit or review and revise any existing plan accordingly. The permittee shall modify the Plan to incorporate any comments that it receives from IEPA and shall implement the modified plan as soon as possible. The Permittee should work as appropriate, in consultation with affected authorities at the local, county, and/or state level to develop the plan components involving third party notification of overflow events. The Permittee may be required to construct additional sewage transport and/or treatment facilities in future permits or other enforceable documents should the implemented CMOM plan indicate that the Permittee's facilities are not capable of conveying and treating the flow for which they were designed.

The CMOM plan shall include the following elements:

A. Measures and Activities:

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- 1. A complete map and system inventory for the collection system owned and operated by the Permittee;
- 2. Organizational structure; budgeting; training of personnel; legal authorities; schedules for maintenance, sewer system cleaning, and preventative rehabilitation; checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
- 3. Documentation of unplanned maintenance;
- An assessment of the capacity of the collection and treatment system owned and operated by the Permittee at critical junctions and immediately upstream of locations where overflows and back-ups occur or are likely to occur; use flow monitoring as necessary;
- 5. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee;
- 6. Scheduled inspections and testing;
- 7. The Permittee shall develop and implement an Asset Management strategy to ensure the long-term sustainability of the collection system. Asset management shall be used to assist the Permittee in making decisions on when it is most appropriate to repair, replace or rehabilitate particular assets and develop long-term funding strategies; and
  - Asset management shall include but is not limited to the following elements:
    - a. Asset Inventory and State of the Asset;
      - b. Level of Service;
      - c. Critical Asset Identification;
      - d. Life Cycle Cost; and
      - e. Long-Term Funding Strategy.

## **Special Conditions**

# B. Design and Performance Provisions:

- 1. Monitor the effectiveness of CMOM;
- 2. Upgrade the elements of the CMOM plan as necessary; and
- 3. Maintain a summary of CMOM activities.

# C. Overflow Response Plan:

- 1. Know where overflows and back-ups within the facilities owned and operated by the Permittee occur;
- 2. Respond to each overflow or back-up to determine additional actions such as clean up; and
- 3. Locations where basement back-ups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow /infiltration, obstructions or other causes of overflows or back-ups as set forth in the System Evaluation Plan.
- D. System Evaluation Plan:
  - 1. Summary of existing SSO and Excessive I/I areas in the system and sources of contribution;
  - 2. Evaluate plans to reduce I/I and eliminate SSOs;
  - 3. Special provisions for Pump Stations and force mains and other unique system components; and
  - 4. Construction plans and schedules for correction.
- E. Reporting and Monitoring Requirements:
  - 1. Program for SSO detection and reporting; and
  - 2. Program for tracking and reporting basement back-ups, including general public complaints.
- F. Third Party Notice Plan:
  - 1. Describes how, under various overflow scenarios, the public, as well as other entities, would be notified of overflows within the Permittee's system that may endanger public health, safety or welfare;
  - 2. Identifies overflows within the Permittee's system that would be reported, giving consideration to various types of events including events with potential widespread impacts;
  - 3. Identifies who shall receive the notification;
  - 4. Identifies the specific information that would be reported including actions that will be taken to respond to the overflow;
  - 5. Includes a description of the lines of communication; and
  - 6. Includes the identities and contact information of responsible POTW officials and local, county, and/or state level officials.

For additional information concerning USEPA CMOM guidance and Asset Management please refer to the following web site addresses. <u>http://www.epa.gov/npdes/pubs/cmom\_guide\_for\_collection\_systems.pdf</u> and http://water.epa.gov/type/watersheds/wastewater/upload/guide\_smallsystems\_assetmanagement\_bestpractices.pdf