

NPDES Permit No. IL0046264  
Notice No. JMC:14052901jmc IL0046264

Public Notice Beginning Date: **March 19, 2015**

Public Notice Ending Date: **April 20, 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 New Lenox  
1 Veterans Parkway  
New Lenox, Illinois 60451

Name and Address of Facility:

Village of New Lenox - STP #2  
Sanford Avenue  
New Lenox, Illinois  
(Will 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 Jamie Cowles 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 wastewater for the Village of New Lenox - STP #2 service area.

The length of the Permit is approximately 5 years.

The main discharge number is B01. The seven day once in ten year low flow (7Q10) of the receiving stream, Jackson Branch, is 0 cfs.

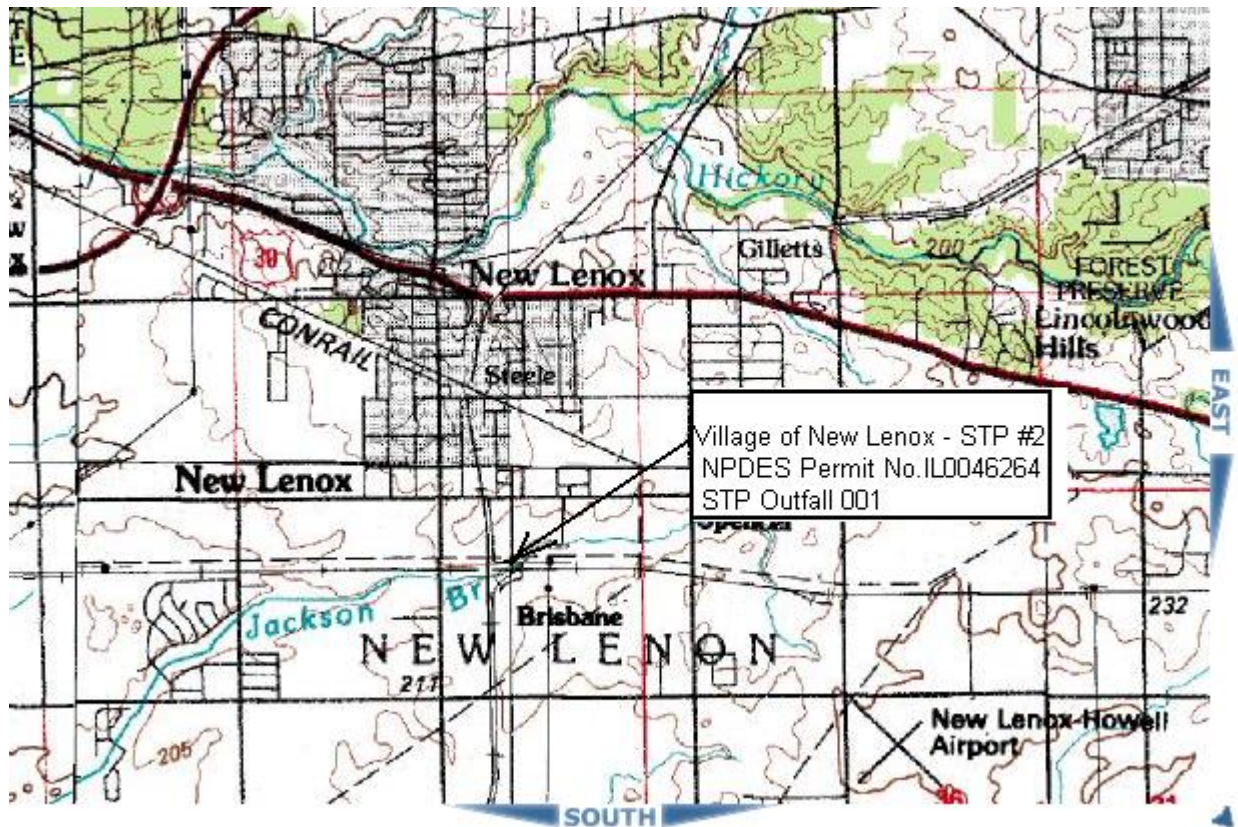
The design average flow (DAF) for the existing facility is 0.732 million gallons per day (MGD) and the design maximum flow (DMF) for the existing facility is 2.21 MGD. The design average flow (DAF) for the proposed facility is 1.5 million gallons per day (MGD) and the design maximum flow (DMF) for the proposed facility is 4.137 MGD. Treatment consists of screening, activated sludge, sedimentation, phosphorous reduction, sludge handling facilities, excess flow treatment, and UV disinfection. The proposed facility will also include disc filters and a polishing wetland.

This reissued NPDES Permit increases the facility's DAF, DMF, and load limits.

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

Discharge Number	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001 (combined flow)	Jackson Branch	41° 28' 46" North	86° 59' 50" West	General Use	"C"
A01 (excess flow)	Jackson Branch	41° 28' 46" North	86° 59' 50" West	General Use	"C"
B01 (internal flow)	Jackson Branch	41° 28' 46" North	86° 59' 50" West	General Use	"C"

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



The stream segment(s), Waterbody Segment GCB, 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
Aquatic plants (Macrophytes)(non-pollutant), changes in stream depth and velocity (non-pollutant), dissolved oxygen (non-pollutant), phosphorus, and zinc	Aquatic Life

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

Discharge Number(s) and Name(s): B01 STP Internal Outfall (Existing Facility)

Load limits computed based on a design average flow (DAF) of 0.732 MGD (design maximum flow (DMF) of 2.21 MGD).

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

Parameter:	LOAD LIMITS lbs/day* DAF (DMF)			CONCENTRATION LIMITS mg/L			Regulation
	Monthly Average		Daily Maximum	Monthly Average		Daily Maximum	
CBOD <sub>5</sub> **	61 (184)		122 (369)	10		20	35 IAC 304.120 40 CFR 133.102
Suspended Solids**	73 (221)		147 (442)	12		24	35 IAC 304.120 40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units						35 IAC 304.125
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208
Ammonia Nitrogen:							35 IAC 355 and 35 IAC 302
April-May/Sept.-Oct.	6.7 (20)		18 (53)	1.1		2.9	
June-August	6.7 (20)		18 (53)	1.1		2.9	
November-February	13 (41)		20 (61)	2.2		3.3	
March	9.2 (28)		29 (87)	1.5		4.7	
Total Phosphorus as (P)****	6.1 (18)			1.0			35 IAC 309.146
Total Nitrogen	Monitor Only						35 IAC 309.146
Temperature	Monitor Only						35 IAC 309.146
Zinc	Monitor Only						35 IAC 309.146
				Monthly Average not less than	Weekly Average not less than	Daily Minimum	
Dissolved Oxygen***** March-July August-February				N/A 5.5	6.0 4.0	5.0 3.5	35 IAC 302.206

\*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 fecal coliform effluent limit has been included in this draft Permit.

\*\*\*\* A compliance schedule to provide the facility additional time to comply with the phosphorus effluent limit has been included in this draft Permit.

\*\*\*\*\* A compliance schedule to provide the facility additional time to comply with the dissolved oxygen effluent limit has been included in this draft Permit.

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): B01 STP Internal Outfall (Proposed Facility)

Load limits computed based on a design average flow (DAF) of 1.5 MGD (design maximum flow (DMF) of 4.137 MGD).

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

Parameter:	LOAD LIMITS lbs/day*			CONCENTRATION LIMITS mg/L			Regulation	
	Annual Average	Monthly Average	Daily Maximum	Monthly Average		Daily Maximum		
CBOD <sub>5</sub> **	61 (184)	125 (345)	250 (690)	10		20	35 IAC 304.120 40 CFR 133.102	
Suspended Solids**	73 (221)	150 (414)	300 (828)	12		24	35 IAC 304.120 40 CFR 133.102	
pH	Shall be in the range of 6 to 9 Standard Units							35 IAC 304.125
Fecal Coliform	Daily Maximum shall not exceed 400 per 100 mL (May through October)							35 IAC 304.121
Chlorine Residual						0.05	35 IAC 302.208	
Ammonia Nitrogen:							35 IAC 355 and 35 IAC 302	
April-May/Sept.-Oct.	6.7 (20)	14 (38)	36 (100)	1.1		2.9		
June-August	6.7 (20)	14 (38)	36 (100)	1.1		2.9		
November-February	13 (41)	28 (76)	41 (114)	2.2		3.3		
March	9.2 (28)	19 (52)	59 (162)	1.5		4.7		
Total Phosphorus as (P)	6.1 (18)	6.3 (17)		0.5			35 IAC 309.146	
Total Nitrogen	Monitor Only						35 IAC 309.146	
Temperature	Monitor Only						35 IAC 309.146	
Zinc	Monitor Only						35 IAC 309.146	
				Monthly Average not less than	Weekly Average 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). Annual average load limits were computed based on design average flow (DAF) of 0.732 (design maximum flow (DMF) of 2.21 MGD).

\*\*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.

This Permit contains an authorization to treat and discharge excess flow as follows:

Discharge Number(s) and Name(s): A01 Excess Flow Outfall (Flow in excess of 2.21 MGD before treatment plant upgrade and flow in excess of 4.137 MGD after treatment plant upgrade.)

<u>Parameter</u>	<u>CONCENTRATION LIMITS (mg/L)</u>		<u>Regulation</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 ML		35 IAC 304.121
BOD <sub>5</sub>	Monitor Only		35 IAC 309.146
Suspended Solids	Monitor Only		35 IAC 309.146
Ammonia Nitrogen (as N)	Monitor Only		35 IAC 309.146
Total Phosphorus (as P)	Monitor Only		35 IAC 309.146

Discharge Number(s) and Name(s): 001 Combined Discharge from A01 and B01 Outfall

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

<u>Parameter</u>	<u>CONCENTRATION LIMITS (mg/L)</u>		<u>Regulation</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>	
BOD <sub>5</sub> *	30	45	40 CFR 133.102
Suspended Solids*	30	45	40 CFR 133.102
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 302.208
Ammonia Nitrogen (as N)	Monitor only		35 IAC 355 and 35 IAC 302
Total Phosphorus (as P)	Monitor only		35 IAC 309.146
Dissolved Oxygen	Monitor only		35 IAC 302.206
*The 30-day average percent removal shall not be less than 85 percent.			

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. Effluent sampling point location.

7. Controlling the sources of infiltration and inflow into the sewer system.
8. A compliance schedule (existing facility only) for Seasonal fecal coliform limits and a requirement to monitor a limit of 0.05 mg/L (Daily Maximum) total residual chlorine when it is used.
9. Submission of annual fiscal data.
10. Submission of semi annual reports indicating the quantities of sludge generated and disposed.
11. 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.
12. Effluent limitations pursuant to an approved Total Maximum Daily Load (TMDL) Study or an approved Des Plaines River Watershed Study.
13. A compliance schedule to meet Dissolved Oxygen Water Quality Effluent Standards.
14. Zinc monitoring.
15. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.
16. Compliance schedule for meeting phosphorus limits.
17. 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.
18. Capacity, Management, Operations, and Maintenance Plan.
19. Optimize existing treatment system.
20. Submission of phosphorus removal feasibility study.
21. Submission of Nutrient Implementation Plan.
22. Monitoring in the receiving stream upstream and downstream of the discharge.
23. Monitoring of the wastewater effluent for total phosphorus, dissolved oxygen, ammonia nitrogen, pH, and temperature once a month.
24. 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.
25. Reasonable potential analysis and mixing study plan.
26. Notify IEPA in writing once the treatment plant expansion has been completed.

### **Antidegradation Assessment**

The subject facility is proposing to expand their design average flow (DAF) from 0.732 MGD to 1.5 MGD in phase 1 and 2.25 MGD in phase 2. This antidegradation assessment will only consider phase 1. The current population is estimated to be 7,000 and it is projected to reach approximately 32,200 by the year 2024.

The majority of the wastewater flow is residential, with some commercial and institutional contribution.

The Village has committed to no additional loading, on an annual basis, for CBOD<sub>5</sub>, TSS, and ammonia.

The NPDES permit will have a permit limit of 0.5 mg/L for phosphorous. Therefore, loading of phosphorus to the receiving stream will be reduced. The expanded facility will remove total nitrogen; therefore, loading of nitrogen to the receiving stream will be reduced.

It is expected that effluent zinc concentrations will decline slightly from the Village growth, attributed to no galvanized piping being used in newer water supplies. The net effect is that lower stream zinc concentrations will be achieved as a result of this expansion.

Flows in excess of the 4.137 MGD will be directed through the excess flow facility. It is expected that the expansion will reduce the frequency of the use of the excess flow facilities based on the expanded DMF.

There is an area approximately 0.5 acres in size to the south of the existing plant that will be used for effluent polishing by directing flow through a constructed wetland prior to discharging to Jackson Creek. The flow to the wetland will be from the UV channel and completely treated. The area will be used during the warm times of the year when the plants can contribute to the polishing of the effluent. During the winter, the flow will be discharged directly into the creek.

In addition, the use of a constructed wetland for polishing the effluent prior to the discharge to Jackson Creek as well as reuse of the "grey water" for plant irrigation and future residential irrigation applications will reduce solids loading to the creek. The Village anticipates that approximately 250,000 gallons per year will be utilized for irrigation applications.

An updated Ecological Compliance Assessment Tool (EcoCaT) review was performed by the applicant on 10/21/2014. The consultation concluded the following results. The Illinois Natural Heritage Database contains no record of State-listed threatened or endangered species, Illinois Natural Area Inventory sites, dedicated Illinois Nature Preserves, or registered Land and Water Reserves in the vicinity of the project location.

The information in this antidegradation assessment came from the January 2012 facility plan by Huff & Huff, Inc. titled "New Lenox Plant #2, Facility Plan Update", February 2012 antidegradation assessment by Huff & Huff, Inc. titled "Antidegradation Assessment for the Village of New Lenox Wastewater Treatment Plant #2 Expansion", and water quality, biotic survey, and mussel survey titled "Jackson Branch Creek Existing Condition, Baseline Study Near WWTP No. 2" dated January 24, 2006 by V3 Companies, Ltd.

### **Identification and Characterization of the Affected Water Body.**

The subject facility discharges to Jackson Branch at a point where 0 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. Jackson Branch is classified as a General Use Water. Jackson Branch is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*; however, it is rated a "C" stream using IDNR's integrity rating system at this location. Jackson Branch, Waterbody Segment, GCB, is listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for aquatic life use with potential causes given as aquatic plants (Macrophytes) (non-pollutant), changes in stream depth and velocity patterns (non-pollutant), dissolved oxygen (non-pollutant), phosphorus, and zinc. This segment of the Jackson Branch is not subject to enhanced dissolved oxygen standards.

V3 Companies, Ltd (V3) conducted a water quality and biotic survey of the Jackson Branch Creek for the Village of New Lenox as it relates to the WWTP #2 in July 2005. There were 5 stations: station E is the effluent at the outfall, stations C1 and C2 were in the receiving stream downstream of the outfall, station A is in the receiving stream upstream of the outfall, and station D is located on a tributary of Jackson Branch.

Water quality analysis results indicated that Nitrate/Nitrite, dissolved phosphorus, and total phosphorus were higher at station E than any of the other 4 stations. However, BOD and total suspended solids were lowest at station E than any of the other 4 stations. All other water quality parameters demonstrated values that were comparable between the five sampling stations.

Habitat evaluations were conducted for Jackson Branch. Habitat assessment methodologies from USEPA and Ohio EPA were applied. The USEPA method resulted in a conclusion of marginal habitat at the upstream and two downstream stations. The furthest downstream station (C2) had slightly better habitat than the other two stations, but was still within the marginal category. The Ohio method categorized all three stations in the 'fair' category which is the third from the best category in this system. The authors cite agricultural impacts to stream habitat as a reason for the impaired habitat conditions.

Biological survey results found that the downstream stations exhibited slight impairment relative to the upstream station. This was demonstrated by the ratio of aquatic invertebrates in the scraper vs. filterer categories. The increased incidence of filterers downstream was interpreted as evidence of slight biological impairment, partially, at least, explained by substrate differences. MBI analysis found that the poorest quality of the macroinvertebrate community is found at the upstream station with improvement at each subsequent downstream station. However, MBI values from all three stations were relatively close indicating that impairment as measured by this method is approximately the same at all three stations and the effect of the effluent on the macroinvertebrate community is probably negligible. Comparisons to a previous Illinois EPA study from 1991 found that MBI conditions have worsened over the period between 1991 and 2005.

A mussel survey was also conducted. A total of 165 mussels of four species were found at Station C2 while only seven individuals of only one species and 13 individuals of only one species were found at Stations C1 and A, respectively. None of the species are state or federally listed as endangered or threatened. All species are typical of the small stream habitat present. The authors note that Station C2 had the best habitat for mussels which was essentially a result of less siltation. It is not explained why this difference does not show up in the habitat evaluations. The mussel survey provides valuable information on a group of organisms that are generally deemed to be sensitive to water quality and habitat problems. The survey will serve as a baseline to compare to future studies.

There was also a 2007 study performed by Huff & Huff, Inc. that included a fish, macroinvertebrate and mussel study and water quality data which is summarized in the antidegradation assessment. The mussel study was significantly different from the 2005 study and is summarized as follows:

The Huff & Huff study took place on September 21 and September 24, 2007 at the same five locations where fish samples were taken. Two hundred twenty-two (222) mussels from six species were collected within the portion of the Jackson Branch sampled during this survey. The H&H study produced five live slippershells (*Alasmidonta viridis*), an Illinois State Threatened species, at C-3 and one live slippershell at C-2. This species was not reported during the 2005 survey; however, a photo of a slippershell labeled "squawfoot" is included in that report suggesting this species may have been misidentified. No difference between upstream (A-1) and downstream (C-1) stations were observed, with a similar species composition and relative abundance between each station. Downstream of the outfall at C-1; however, there was a significant increase in cylindrical papershell (*Anodontoidea ferussacianus*) abundance, which can be attributed to pooled conditions with softer substrate.



NPDES Permit No. IL0046264

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:

Issue Date:

Effective Date:

Name and Address of Permittee:

Facility Name and Address:

Village of New Lenox  
1 Veterans Parkway  
New Lenox, Illinois 60451

Village of New Lenox - STP #2  
Sanford Avenue  
New Lenox, Illinois  
(Will County)

Receiving Waters: Jackson 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

SAK:JMC:14052901jmc IL0046264

NPDES Permit No. IL0046264

Special Conditions

NPDES Permit No. IL0046264

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (Existing Facility)

Load limits computed based on a design average flow (DAF) of 0.732 MGD (design maximum flow (DMF) of 2.21 MGD)

From the effective date of this Permit until the completion and start of operation of the proposed facility or expiration date whichever comes first, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L			Sample Frequency	Sample Type
	Monthly Average		Daily Maximum	Monthly Average		Daily Maximum		
Flow (MGD)							Continuous	
CBOD <sub>5</sub> ** <sup>(1)</sup>	61 (184)		122 (369)	10		20	2 Days/Week	Composite
Suspended Solids <sup>(1)</sup>	73 (221)		147 (442)	12		24	2 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						2 Days/Week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						2 Days/Week	Grab
Chlorine Residual***						0.05	2 Days/Week	Grab
Ammonia Nitrogen:								
April-May/Sept.-Oct.	6.7 (20)		18 (53)	1.1		2.9	2 Days/Week	Composite
June-August	6.7 (20)		18 (53)	1.1		2.9	2 Days/Week	Composite
November-February	13 (41)		20 (61)	2.2		3.3	2 Days/Week	Composite
March	9.2 (28)		29 (87)	1.5		4.7	2 Days/Week	Composite
Total Phosphorus as (P)****	6.1 (18)			1.0			1 Day/Week	Composite
Total Nitrogen	Monitor Only						1 Day/Month	Composite
Temperature	Monitor Only						1 Day/Month	Grab
Zinc <sup>(2)</sup>	Monitor Only						1 Day/Month	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen***** March - July August - February				N/A 5.5	6.0 4.0	5.0 3.5	2 Days/Week 2 Days/Week	Grab 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 8.

\*\*\*\*See Special Condition 16.

\*\*\*\*\*See Special Condition 13.

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (Existing Facility) (continued)

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

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

<sup>1</sup> 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 DMRs 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 or laboratory analysis for the determination of BOD<sub>5</sub> may be used.

<sup>2</sup> See Special Condition 14.

NPDES Permit No. IL0046264

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (Proposed Facility)

Load limits computed based on a design average flow (DAF) of 1.5 MGD (design maximum flow (DMF) of 4.137 MGD)

From the completion and start of operation of the proposed facility or until the expiration date, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L			Sample Frequency	Sample Type
	Annual Average	Monthly Average	Daily Maximum	Monthly Average		Daily Maximum		
Flow (MGD)							Continuous	
CBOD <sub>5</sub> ** <sup>(1)</sup>	61 (184)	125 (345)	250 (690)	10		20	3 Days/Week	Composite
Suspended Solids <sup>(1)</sup>	73 (221)	150 (414)	300 (828)	12		24	3 Days/Week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						3 Days/Week	Grab
Fecal Coliform***	Daily Maximum shall not exceed 400 per 100 mL (May through October)						3 Days/Week	Grab
Chlorine Residual***						0.05	3 Days/Week	Grab
Ammonia Nitrogen:								
April-May/Sept.-Oct.	6.7 (20)	14 (38)	36 (100)	1.1		2.9	3 Days/Week	Composite
June-August	6.7 (20)	14 (38)	36 (100)	1.1		2.9	3 Days/Week	Composite
November-February	13 (41)	28 (76)	41 (114)	2.2		3.3	3 Days/Week	Composite
March	9.2 (28)	19 (52)	59 (162)	1.5		4.7	3 Days/Week	Composite
Total Phosphorus as (P)	6.1 (18)	6.3 (17)		0.5			1 Day/Week	Composite
Total Nitrogen	Monitor Only						1 Day/Month	Composite
Temperature	Monitor Only						1 Day/Month	Grab
Zinc <sup>(2)</sup>	Monitor Only						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. Annual average load limits were computed based on design average flow (DAF) of 0.732 MGD (design maximum flow (DMF) of 2.21 MGD).

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

\*\*\*See Special Condition 8.

(continued on next page)

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Special Conditions

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): B01 STP Internal Outfall (Proposed Facility) (continued)

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

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

<sup>1</sup> 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 DMRs 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 or laboratory analysis for the determination of BOD<sub>5</sub> may be used.

<sup>2</sup> See Special Condition 14.

The rolling annual monthly average CBOD<sub>5</sub>, suspended solids, ammonia nitrogen and phosphorus values shall be computed monthly beginning 12 months after the effective date of the permit and shall include the previous 12 months of data. The rolling annual monthly average, monthly average, and daily maximum values for CBOD<sub>5</sub>, suspended solids, ammonia nitrogen and phosphorus shall be reported on the DMR. The rolling annual monthly average shall be calculated by adding the sum of the monitoring values from the previous 12 months of data expressed in milligrams/liter and divided by the number of samples collected.

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Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): A01 Excess Flow Outfall

These flow facilities shall not be utilized until the main treatment facility is receiving its design maximum flow\* (Flow in excess of 2.21 MGD before treatment plant upgrade and flow in excess of 4.137 MGD after treatment plant upgrade).

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:

<u>Parameter</u>	<u>CONCENTRATION LIMITS (mg/L)</u>		<u>Sample Frequency</u>	<u>Sample Type</u>
	<u>Monthly Average</u>	<u>Weekly Average</u>		
Total Flow (MG)			Daily When Discharging	Continuous
Fecal Coliform	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When Discharging	Grab
BOD <sub>5</sub>	Monitor Only		Daily When Discharging	Grab
Suspended Solids	Monitor Only		Daily When Discharging	Grab
Ammonia Nitrogen (as N)	Monitor Only		Daily When Discharging	Grab
Total Phosphorus (as P)	Monitor Only		Daily When Discharging	Grab

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally the Permittee shall comply with the provisions of Special Condition 15.

The duration of each A01 discharge and rainfall event (i.e., start and ending time) including rainfall intensity shall be provided in the comment section of the DMR.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

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

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a daily maximum value.

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

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

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FINAL

Discharge Number(s) and Name(s): 001 Combined Discharge from A01 and B01 Outfall\*

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:

Parameter	CONCENTRATION LIMITS (mg/L)		Sample Frequency	Sample Type
	Monthly Average	Weekly Average		
Total Flow (MG)			Daily When A01 is Discharging	Continuous
BOD <sub>5</sub> **	30	45	Daily When A01 is Discharging	Grab
Suspended Solids**	30	45	Daily When A01 is Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When A01 is Discharging	Grab
Chlorine Residual	0.75		Daily When A01 is Discharging	Grab
Ammonia Nitrogen (as N)***	Monitor only		Daily When A01 is Discharging	Grab
Total Phosphorus (as P)	Monitor only		Daily When A01 is Discharging	Grab
Dissolved Oxygen	Monitor only		Daily When A01 is Discharging	Grab

\*An explanation shall be provided in the comment section of the DMR should these facilities be used when the main treatment facility is not receiving Design Maximum Flow (DMF). The explanation shall identify the reasons the main facility is at a diminished treatment capacity. Additionally, the Permittee shall comply with the provisions of Special Condition 15.

\*\*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 DMRs 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 or laboratory analysis for the determination of BOD<sub>5</sub> may be used.

\*\*\*See Special Condition 25.

Total flow in million gallons shall be reported on the Discharge Monitoring Report (DMR) in the quantity maximum column.

Report the number of days of discharge in the comments section of the DMR.

Chlorine Residual shall be reported on the DMR as monthly average value.

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

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly and weekly average concentration.

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

A monthly average value for ammonia shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. A monthly average concentration shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. Ammonia Nitrogen shall also be reported on the DMR as a maximum value.

A monthly and weekly average value for Dissolved Oxygen (DO) shall be computed for each month that A01 discharges beginning one month after the effective date of the permit. The monthly and weekly average concentrations for 001 shall be determined by combining data collected from 001 and B01 (only B01 data from days when A01 is not discharging) for the reporting period. These monitoring results shall be submitted to the Agency on the DMR. DO shall also be reported on the DMR as a minimum value.

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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>	2 Days/Week and Daily when Outfall A01 is Discharging*	Composite
Suspended Solids	2 Days/Week and Daily when Outfall A01 is Discharging*	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.

BOD<sub>5</sub> and Suspended Solids shall be reported on the DMR as a monthly average concentration.

\*Upon completion of the 1.5 MGD plant expansion, influent monitoring shall be performed 3 Days/Week and Daily when Outfall A01 is Discharging.



Special Conditions

SPECIAL CONDITION 1. 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 2 operator. Upon completion of the 1.5 MGD plant expansion, the use or operation of this facility shall be by or under the supervision of a Certified Class 1 operator.

SPECIAL CONDITION 3. 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.

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

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

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements shall be taken:

- A. For Outfall Number B01: Samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be taken at a point representative of the flows from Outfall B01 but prior to entry into the receiving stream. On days when there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall B01 shall be representative of discharges from B01 and shall be taken at a point prior to admixture with discharges from Outfall A01.
- B. For Outfall Number A01: Samples for all effluent limitations and monitoring parameters applicable to Outfall A01 shall be taken at a point representative of the discharge from Outfall A01 and shall be taken at a point prior to admixture with discharges from Outfall B01.
- C. For Outfall Number 001: Samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be taken at a point representative of the discharge from Outfall 001 but prior to entry into the receiving stream and shall include all flow from Outfalls A01 and B01. On days when there are no discharges through Outfall A01, samples for discharges through Outfall 001 can be taken at the location of sampling for Outfall B01. When there are discharges from Outfall A01, samples for all effluent limitations and monitoring parameters applicable to Outfall 001 shall be representative of the discharge from Outfall 001 and shall be taken at a point after flows from Outfalls A01 and B01 are mixed.

SPECIAL CONDITION 7. 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.

SPECIAL CONDITION 8. Fecal Coliform limits for Discharge Number B01 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The Fecal Coliform limits and the total residual chlorine limit of 0.05 mg/L (Daily Maximum) on Page 2 of the Permit shall become effective twelve (12) months from the effective date of this Permit.

The Permittee shall construct the disinfection facilities in accordance with the following schedule:

- |    |  |  |
|----|--|--|
| A. | Plans and specifications submitted to IEPA | 3 month from effective date of this permit   |
| B. | Commence construction                      | 6 months from effective date of this permit  |
| C. | Complete construction                      | 11 months from effective date of this permit |
| D. | Obtain operational level                   | 12 months from effective date of this permit |

This Permit may be modified, with Public Notice, to include revised compliance dates.

The Permittee shall operate the disinfection facilities in a manner to ensure continuous compliance with the total residual chlorine limit, and not to the extent that will result in violations of other permitted effluent characteristics, or water quality standards.

Any use of chlorine to control slime growths or odors as an operational and maintenance control is also subject to a 0.05 mg/L (daily maximum) total residual chlorine limit 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.

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REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each lettered item in 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.

SPECIAL CONDITION 9. 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 10. 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 10 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 the 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.

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

SPECIAL CONDITION 11. 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.

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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  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 12. This Permit may be modified to include alternative or additional final effluent limitations pursuant to either an approved Total maximum Daily Load (TMDL) Study or an approved Des Plaines River Watershed Study.

SPECIAL CONDITION 13.

Project Description: Compliance with Dissolved Oxygen Water Quality Effluent Standards

Twelve (12) months from the effective date of this Permit the Dissolved Oxygen limits below shall become effective.

	Monthly Average not less than	Weekly Average not less than	Daily Minimum
Dissolved Oxygen			
March - July	N/A	6.0	5.0
August - February	5.5	4.0	3.5

The Permittee shall construct dissolved oxygen equipment in accordance with the following schedule:

- |                                       |  |
|---------------------------------------|--|
| A. Progress Report                    | 3 months from the effective date of this Permit  |
| B. Plans and specifications submitted | 6 months from the effective date of this Permit  |
| C. Progress Report                    | 11 months from the effective date of this Permit |
| D. Obtain Operational Level           | 12 months from the effective date of this Permit |

The IEPA may initiate a modification of the construction schedule set forth in this Permit at any time, to include other dates which are necessary to carry out the provisions of the Illinois Environmental Protection Act, the Federal Clean Water Act or regulations promulgated under those Acts or compliance dates which have been submitted in writing by the Permittee and approved by the IEPA. Public Notice of such modifications and opportunity for public hearing shall be provided consistent with 40 CFR § 122.63.

REPORTING

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each lettered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not completed. All reports shall be submitted to IEPA at the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Post Office box 19276  
Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

Special Conditions

SPECIAL CONDITION 14. Monitoring for Zinc is required to document the actual zinc effluent concentration. The Permittee shall monitor the effluent zinc concentration once/month. The monitoring shall be a composite sample and the results reported as a daily maximum on the Permittee's Discharge Monitoring Forms.

SPECIAL CONDITION 15. The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 16. A phosphorus limit of 1.0 mg/L (Monthly Average) for the existing facility shall become effective three (3) 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
B. Phosphorus Removal Feasibility Report submitted	12 months from the effective date of this Permit
C. Plans and specifications submitted	18 months from the effective date of this Permit
D. Progress Report on Construction	24 months from the effective date of this Permit
E. Complete Construction	30 months from the effective date of this Permit
F. Progress Report on Optimizing Treatment System	33 months from the effective date of this Permit
G. Achieve Annual Concentration and Loading Effluent Limitations for Total Phosphorus	36 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 20 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, 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.

SPECIAL CONDITION 17. The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) B01.

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 Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. 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*).
  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.

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- 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  $\geq$ 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 Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, 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.

SPECIAL CONDITION 18.

The Permittee shall develop, implement and submit to the IEPA a Capacity, Management, Operations, and Maintenance (CMOM) plan within twelve (12) months of the effective date of this Permit. The plan shall be consistent with the USEPA document "Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems" (305-B-05-002). 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. Overflows from sanitary sewers are expressly prohibited by Ill. Adm. Code 306.304. 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:
1. A complete map of the collection system owned and operated by the Permittee;
  2. Schedules, checklists, and mechanisms to ensure that preventative maintenance is performed on equipment owned and operated by the Permittee;
  3. 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 backups occur or are likely to occur; and
  4. Identification and prioritization of structural deficiencies in the system owned and operated by the Permittee.
- 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 within the facilities owned and operated by the Permittee occur;
  2. Respond to each overflow to determine additional actions such as clean up; and
  3. Locations where basement backups and/or sanitary sewer overflows occur shall be evaluated as soon as practicable for excessive inflow/infiltration, obstructions, or causes of overflows or back-ups as set forth in the System Evaluation Plan.
- D. System Evaluation Plan.
- E. Reporting and Monitoring Requirements.
- F. Project implementation Schedule.
- G. Third Party Notice Plan:

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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.

SPECIAL CONDITION 19. The Permittee shall optimize existing treatment facilities to include phosphorus removal, reduce phosphorus sources or explore other ways to prevent discharges that exceed the limit. An optimization study shall be submitted to the Agency within twelve (12) months of the effective date of this permit and identify interim measures that can be taken with existing equipment to reduce effluent phosphorus levels. The Permittee shall implement these interim measures within two (2) years of the effective date of this permit. Annual progress reports on the optimization of the existing treatment facilities shall be submitted to the Agency by March 31 of each year.

SPECIAL CONDITION 20. The Permittee shall, within twelve (12) months of the permit effective date, 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 meeting a potential future effluent standard of 0.5 mg/L. The study shall evaluate the costs of the application of these limits on a monthly, seasonal, and annual average basis.

SPECIAL CONDITION 21. The Permittee shall submit a Nutrient Implementation Plan (NIP) for Agency approval with the NPDES renewal application. The NIP must identify phosphorus input reductions by point source discharges, non-point source discharges and other measures necessary to remove dissolved oxygen and offensive condition impairments in the Des Plaines River watershed. The Permittee shall implement the recommendations of the plan that are applicable to said Permittee per the schedule approved by the Agency.

SPECIAL CONDITION 22. The Permittee shall conduct monthly water quality sampling in the receiving stream both upstream and downstream of the NPDES outfall for the following parameters: dissolved phosphorus, total phosphorus, total organic carbon, chlorophyll a, dissolved oxygen, total ammonia nitrogen, nitrate/nitrite, total kjeldahl nitrogen, pH, total suspended solids, volatile suspended solids and temperature. The results shall be submitted to the Agency by March 31 of each year.

SPECIAL CONDITION 23. The Permittee shall monitor the wastewater effluent for total phosphorus, dissolved oxygen, ammonia nitrogen, pH, and temperature at least once a month beginning on the effective date of this permit. The results shall be submitted on NetDMRs to the Agency unless otherwise specified by the Agency.

SPECIAL CONDITION 24. 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	Minimum reporting limit
01097	Antimony	0.07 mg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01012	Beryllium	0.005 mg/L
01027	Cadmium	0.001 mg/L
01032	Chromium (hex) (grab not to exceed 24 hours)*	0.01 mg/L
01034	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (available**** or amenable to chlorination)** (grab)	5.0 ug/L
00720	Cyanide (total) (grab)	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 (effluent 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

Special Conditions

01147	Selenium	0.005 mg/L
01077	Silver (total)	0.003 mg/L
01059	Thallium	0.3 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 times, 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.

\* Influent and effluent only

\*\*1 ng/L = 1 part per trillion. Use USEPA Method 01A-1617.

\*\*\*Utilize USEPA Method 1631E and the digestion procedure described in Section 11.1.1.2 of 1631E, other approved methods may be used for influent (composite) and sludge.

\*\*\*\*USEPA Method OIA-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  
Region 5  
77 West Jackson Blvd.  
Chicago, Illinois 60604  
Attention: Water Enforcement and Compliance Assurance Branch

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 25. The Agency shall consider all monitoring data submitted by the discharger in accordance with the monitoring requirements of this permit for all parameters, including but not limited to data pertaining to ammonia and dissolved oxygen for discharges from Discharge Number 001, to determine whether the discharges are at levels which cause, have the reasonable potential to cause or contribute to exceedances of water quality standards; and, if so, to develop appropriate water quality based effluent limitations. If the discharger wants the Agency to consider mixing when determining the need for and establishment of water quality based effluent limitations, the discharger shall submit a study plan on mixing to the Agency for the Agency's review and comment within two (2) months of the effective date of this Permit.

SPECIAL CONDITION 26. The Permittee shall notify the IEPA in writing once the treatment plant expansion has been completed. A letter stating the date that the expansion was completed shall be sent to the following address within fourteen (14) days of the expansion becoming operational:

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