

NPDES Permit No. IL0023248

Notice No. IL0023248-14.TTL

Public Notice Beginning Date: **August 11, 2014**

Public Notice Ending Date: **September 10, 2014**

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 Permittee:

City of Murphysboro
316 North 12th Street
Murphysboro, Illinois 62966

Name and Address of Facility:

City of Murphysboro-STP
2801 West Riverside Park Road
Murphysboro, Illinois 62966
(Jackson 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 Permittee. 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 Todd Lamm 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 City of Murphysboro.

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, Big Muddy is 55 cfs.

This renewed Permit includes limitations for the current facility, as well as the proposed expansion of the current treatment facility.

The design average flow (DAF) for the existing facility is 1.27 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 2.7 MGD. Currently, treatment consists of grit removal, excess flow treatment, grinding (comminutors), primary sedimentation (settling or clarifiers), trickling filtration, final sedimentation (settling), disinfection (chlorine), dechlorination, and discharge to surface water. Sludge treatment consists of aerobic digestion, sludge lagoons, and land application.

The design average flow (DAF) for the expanded facility is 2.8 million gallons per day (MGD) and the design maximum flow (DMF) for the facility is 7.0 MGD. Proposed treatment consists of influent screening, grit removal, extended aeration activated sludge, final sedimentation (settling), UV disinfection, and discharge to surface water. Sludge treatment consists of aerobic digestion, sludge dewatering, and land application.

This reissued Permit does increase the facility's DAF, DMF, concentration limits, and/or load limits.

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

<u>Discharge Number</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Big Muddy	37° 45' 30" North	89° 22' 0" 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, N-12, receiving the discharge from outfall 001 is on the Draft 2014 303(d) list of impaired waters.

<u>Uses Impaired</u>	<u>Potential Causes</u>
fish consumption	mercury
Aquatic life	Manganese, dissolved oxygen (non-pollutant), total suspended solids

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): STP Outfall 001

Load limits computed based on a design average flow (DAF) of 1.27 MGD (design maximum flow (DMF) of 2.7 MGD).

From the effective date of this Permit until attainment of operational level of the new treatment facilities, 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	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	
CBOD ₅	212 (450)	424 (901)		20	40		35 IAC 304.120 40 CFR 133.102
Suspended Solids	265 (563)	477 (1,013)		25	45		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: March-May, Sept, Oct.			145 (308)			13.7	35 IAC 355 and
June-August			159 (338)			15	35 IAC 302
November-February			107 (227)			10.1	
Phosphorus (as P)	Monitor Only						35 IAC 304.123
Total Nitrogen	Monitor Only						35 IAC 309.146
Mercury**							35 IAC 302.208
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				NA	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

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

**Mercury shall be limited to a 12 month rolling average of 12ng/l.

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

Discharge Number(s) and Name(s): Excess Flow Outfall 002

From the effective date of this Permit until attainment of operational level of the new treatment facilities, 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 ₅ *	30	45	40 CFR 133.102
Suspended Solids*	30	45	40 CFR 133.102
Fecal Coliform	Daily Maximum Shall Not Exceed 400 per 100 ML		35 IAC 304.121
pH	Shall be in the range of 6 to 9 Standard Units		35 IAC 304.125
Chlorine Residual	0.75		35 IAC 302.208
*The 30-day average percent removal shall not be less than 85 percent.			

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): STP Outfall 001

Load limits computed based on a design average flow (DAF) of 2.8 MGD (design maximum flow (DMF) of 7.0 MGD).

From attainment of operational level of the new treatment facilities until the expiration date of this Permit, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

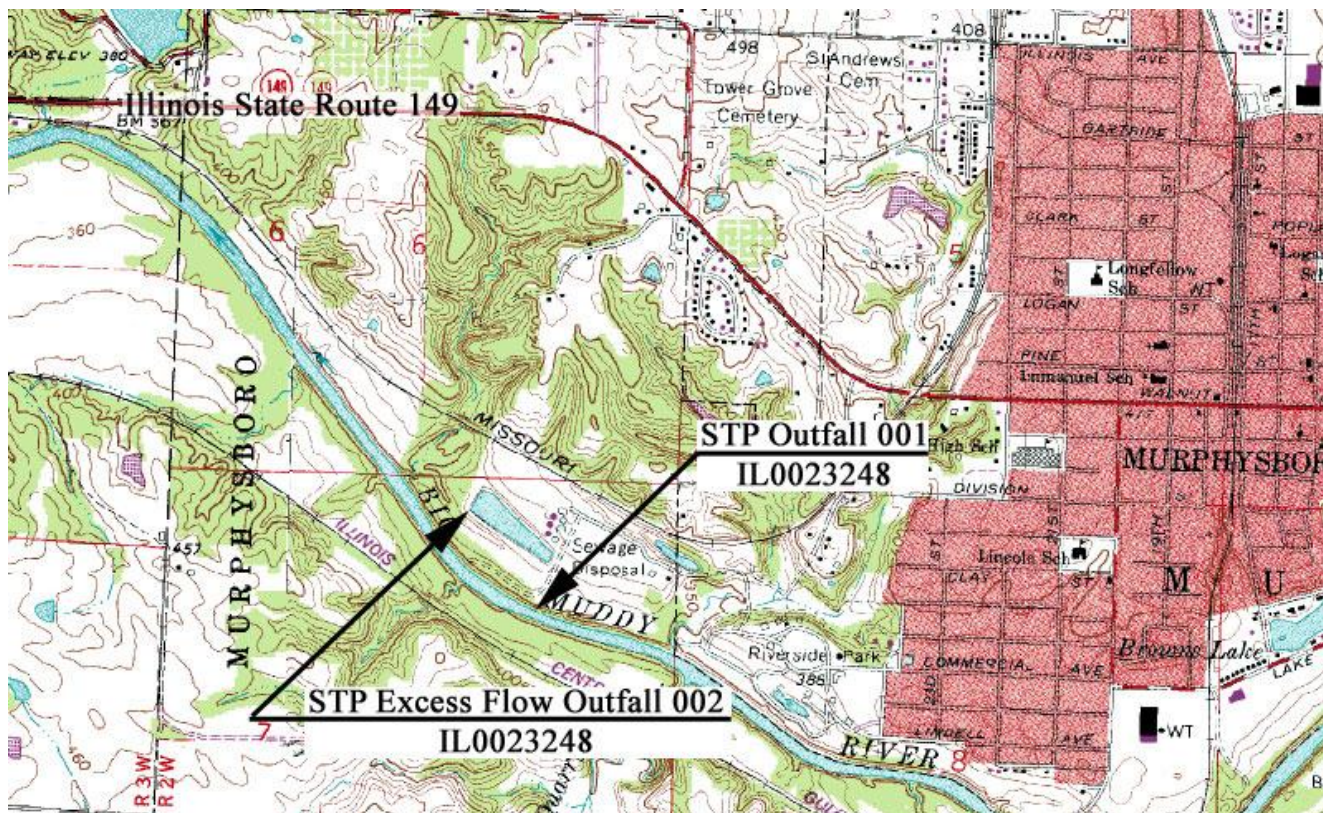
Parameter	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS mg/L			Regulation
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	
CBOD ₅	212 (584)	424 (1168)		10	20		35 IAC 304.120 40 CFR 133.102
Suspended Solids	265 (701)	477 (1,401)		12	24		35 IAC 304.120 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: March-May, Sept, Oct.	35 (88)	89 (222)	320 (800)	1.5	3.8	13.7	35 IAC 355 and
June-August	58 (146)	147 (368)	350 (876)	2.5	6.3	15	35 IAC 302
November-February	93 (234)	234 (584)	236 (590)	4	10	10.1	
Phosphorus (as P)	23 (58)			1.0			35 IAC 309.146
Total Nitrogen	Monitor Only						35 IAC 309.146
Mercury**							35 IAC 302.208
				Monthly Avg. not less than	Weekly Avg. not less than	Daily Minimum	
Dissolved Oxygen March-July				NA	6.0	5.0	35 IAC 302.206
August-February				5.5	4.0	3.5	

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

**Mercury shall be limited to a 12 month rolling average of 12ng/l.

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. Effluent sampling point location.
8. Provisions of 40 CFR Section 122.41 (m) & (n).
9. Controlling the sources of infiltration and inflow into the sewer system.
10. Seasonal fecal coliform limits.
11. 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.
12. Submission of annual fiscal data.
13. The Permittee is required to perform biomonitoring tests in the 18th, 15th, 12th and 9th 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.
14. At minimum of 85% removal of CBOD5 and suspended solids for Outfalls 001 & 002.
15. Submission of semi-annual reports indicating the quantities of sludge generated and disposed.
16. Reopening of this Permit to include revised effluent limitations based on a Total Maximum Daily Load (TMDL) or other water quality study.
17. Compliance Schedule for Ammonia and Phosphorus.
18. Notification of any operational deficiencies in nutrient removal.
19. Notification upon completion of expanded facilities.
20. Submission of Capacity, Management, Operations, and Maintenance (CMOM) plan.



Antidegradation Assessment for Murphysboro STP
NPDES Permit No. IL0023248 Jackson County

The subject facility has applied for an NPDES permit for a new treatment plant to treat largely domestic wastewater. The old plant is beyond its useful life and the decision was made to build a new plant. The DAF of the new plant will increase from the existing 1.27 MGD to 2.8 MGD. The proposed plant design will consist of an extended aeration, activated sludge process. In addition to the nutrient removal capabilities afforded by the new design, the new treatment plant will be able to achieve lower BOD, TSS and ammonia levels than does the existing plant. Another feature of the expansion will be the elimination of excess flow discharge. All excess flows that now bypass the existing plant will be given full treatment in the expanded plant.

Identification and Characterization of the Affected Water Body.

The Big Muddy River (segment code N-12) with a 7Q10 flow of 55 cfs at this location will continue to receive the effluent. The Big Muddy River is a General Use water and is listed on the draft 2012 Illinois Integrated Water Quality Report and 303(d) List as impaired for aquatic life and fish consumption uses. Causes given for aquatic life use impairment are total suspended solids, manganese and dissolved oxygen. The cause given for fish consumption use impairment is mercury. An early draft of the 2014 List gives identical impairment causes for these uses. The Big Muddy River 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* and is not given an integrity rating in that report. The Big Muddy River is not designated as an enhanced water pursuant to the dissolved oxygen water quality standard.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

The new facility's discharge to the Big Muddy River will not result in an increase in pollutant loading for any regulated pollutant parameters including CBOD, TSS and ammonia. CBOD and TSS load limits will remain the same in the permit for the new facility. Loads for CBOD and TSS will actually decrease given the fact that excess flows generated during storm events will no longer be allowed to bypass full treatment. Ammonia limits based on the water quality standards with no mixing provision will be included in the permit for the new plant and this will result in a decrease in ammonia loading. A phosphorus limit pursuant to 35 Ill. Adm. Code 304.123 will be included, resulting in a decrease in phosphorus loading to the river. The extended aeration, activated sludge design proposed for this treatment plant also has denitrification capabilities which will result in decreased loading of total nitrogen to the river. A mercury limit based on the human health water quality standard will be included in the permit for the new plant. Mercury loading to the river will be reduced from current levels as a result of this limit. Given that the new plant will consistently produce a high quality effluent, no adverse impacts are anticipated to the Big Muddy River.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards and that all existing uses of the receiving stream will be maintained. No increases in pollutant loading will result from the discharge of the expanded sewage treatment plant; therefore, no further antidegradation review is necessary under 35 Ill. Adm. Code 302.105. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

NPDES Permit No. IL0023248

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:

City of Murphysboro
316 North 12th Street
Murphysboro, Illinois 62966

Facility Name and Address:

City of Murphysboro-STP
2801 West Riverside Park Road
Murphysboro, Illinois 62966
(Jackson County)

Receiving Waters: Big Muddy River

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:TTL:IL0023248-14.TTL

NPDES Permit No. IL0023248

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 1.27 MGD (design maximum flow (DMF) of 2.7 MGD).

From the effective date of this Permit until attainment of operational level of the new treatment facilities, 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	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
CBOD ₅ **,**	212 (450)	424 (901)		20	40		3 Days/Week	Composite
Suspended Solids***	265 (563)	477 (1,013)		25	45		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: (as N)								
March-May, Sept, Oct.			159 (338)			15	3 Days/Week	Composite
June-August			145 (308)			13.7	3 Days/Week	Composite
November-February			107 (227)			10.1	3 Days/Week	Composite
Total Phosphorus (as P)	Monitor Only						1 Day/Month	Composite
Total Nitrogen	Monitor Only						1 Day/Month	Composite
Mercury‡	See Below†						1 Day/Month	Grab
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				NA	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 BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

*** The 30-day average percent removal shall not be less than 85 percent. See Special Condition 14.

****See Special Condition 10.

†Mercury shall be limited to a 12 month rolling average of 12ng/l. 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.

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 value.

NPDES Permit No. IL0023248

Effluent Limitations, Monitoring, and Reporting

FINAL

Discharge Number(s) and Name(s): Excess Flow Outfall 002

These flow facilities shall not be utilized until the main treatment facility is receiving its Design Maximum Flow (DMF)* (flow in excess of 2.7 MGD).

From the effective date of this Permit until attainment of operational level of the new treatment facilities, 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
BOD ₅ **	30	45	Daily When Discharging	Grab
Suspended Solids**	30	45	Daily When Discharging	Grab
Fecal Coliform***	Daily Maximum Shall not Exceed 400 per 100 mL		Daily When Discharging	Grab
pH	Shall be in the range of 6 to 9 Standard Units		Daily When Discharging	Grab
Chlorine Residual***	0.75		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 14.

*** The 30-day average percent removal shall not be less than 85 percent. See Special Condition 14.

***See Special Condition 10.

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.

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

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

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly and weekly average concentration.

Ammonia Nitrogen and Total Phosphorus shall be reported on the DMR as daily maximum.

NPDES Permit No. IL0023248

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 2.8 MGD (design maximum flow (DMF) of 7.0 MGD).

From attainment of operational level of the new treatment facilities until the expiration date of this Permit, 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	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum		
Flow (MGD)							Continuous	
CBOD ₅ **	212 (450)		467 (1168)	10		20	3 Days/Week	Composite
Suspended Solids	265 (563)		560 (1401)	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	***	Grab
Ammonia Nitrogen: (as N)								
March-May, Sept, Oct.	58 (146)	147 (368)	350 (876)	2.5	6.3	15	3 Days/Week	Composite
June-August	35 (88)	89 (222)	320 (800)	1.5	3.8	13.7	3 Days/Week	Composite
November-February	93 (234)	234 (584)	236 (590)	4	10	10.1	3 Days/Week	Composite
Total Phosphorus (as P)	23 (58)			1.0			3 Days/Week	Composite
Total Nitrogen****							1 Day/Month	Composite
Mercury‡	See Below†						1 Day/Month	Grab
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen March-July				NA	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 BOD₅ (CBOD₅) testing shall be in accordance with 40 CFR 136.

*** The 30-day average percent removal shall not be less than 85 percent. See Special Condition 14.

****See Special Condition 10.

*****See Special Condition 18.

†Mercury shall be limited to a 12 month rolling average of 12ng/l. 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.

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 value.

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

<u>Parameter</u>	<u>Sample Frequency</u>	<u>Sample Type</u>
Flow (MGD)	Continuous	
BOD ₅	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.

BOD₅ and Suspended Solids shall be reported on the DMR as a monthly average concentration.

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 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 Section 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: 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: 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.

SPECIAL CONDITION 8: The provisions of 40 CFR Section 122.41(m) & (n) are incorporated herein by reference.

SPECIAL CONDITION 9: 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 10: Fecal Coliform limits for Discharge Number 001 are effective May thru October. Sampling of Fecal Coliform is only required during this time period.

The total residual chlorine limit is applicable at all times. If the Permittee is chlorinating for any purpose during the months of November through April, sampling is required on a daily grab basis. Sampling frequency for the months of May through October shall be as indicated on effluent limitations, monitoring and reporting page of this Permit.

Fecal Coliform limits for Discharge Number 002 are effective through the year until Outfall 002 is eliminated.

Special Conditions

SPECIAL CONDITION 11: 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:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>Minimum reporting limit</u>
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
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, or (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. Where constituents are commonly measured as other than total, the phase is so indicated.

*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 OIA-1677.

SPECIAL CONDITION 12: 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 13: The Permittee shall conduct biomonitoring of the effluent from Discharge Number(s) 001.

Biomonitoring

1. 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:
 - a. Fish - 96 hour static LC₅₀ Bioassay using fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
2. 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.

Special Conditions

3. 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.
4. 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.
5. 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 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 14: Final conditions – For Discharge Nos. 001 & 002: The 30-day average percent removal for suspended solids and BOD5 shall not be less than 85%. Compliance with this limitation shall be assessed by comparing whether the arithmetic mean of the values for effluent samples collected in a period of one calendar month exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same time during the same period. If they do, then this limitation shall be deemed to have not been complied with. 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 CBODs concentration to determine the effluent BODs concentration.

SPECIAL CONDITION 15: 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 25 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.

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

SPECIAL CONDITION 16: 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.

SPECIAL CONDITION 17:

Schedule of Compliance with Final Effluent Limitations

Project Description: Construction of a new treatment plant for compliance with limitations for Ammonia and Mercury.

The Permittee shall achieve compliance with the final effluent limitations as specified in this Permit for Discharge Number(s) 001 by completion of the project described above in accordance with the following compliance schedule:

<u>ITEM</u>	<u>COMPLETION DATE</u>
Receive Construction Permit Approval	1 Month from the Effective Date of This Permit
Advertise for Bids	3 Months from the Effective Date of This Permit
Bid Opening	5 Months from the Effective Date of This Permit
Notice to Proceed	6 Months from the Effective Date of This Permit
Initiate Construction	9 Months from the Effective Date of This Permit
Complete Construction	2 Years, 9 Months from the Effective Date of This Permit
Obtain Operational Stability / Achieve Compliance	3 years from the Effective Date of This Permit

This Permit may be modified, with Public Notice, to include revised compliance dates set out in this Permit that are superseded or supplemented by compliance dates in judicial orders, Pollution Control Board orders or grant agreements. Prior to such permit modification, the revised dates in the appropriate orders or grant agreements shall govern the Permittee's compliance.

In addition, the IEPA may initiate a modification of the compliance schedule set out 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. Public Notice of such modification and opportunity for public hearing shall be provided.

Reporting

The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each numbered 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
Attention: Compliance Assurance Section, Mail Code #19
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Special Conditions

SPECIAL CONDITION 18: The Permittee shall notify the IEPA in writing of any operational deficiencies and corrective measures to be taken if the treatment plant exceeds the concentration values of 10 mg/l of Total Nitrogen in the effluent. Correspondence shall be directed to:

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

Illinois Environmental Protection Agency
Bureau of Water
Marion Field Office
2309 West Main Street, Suite 116
Marion, Illinois 62959

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

SPECIAL CONDITION 20: The Permittee shall work towards the goals of achieving no discharges from sanitary sewer overflows or basement backups and ensuring that overflows or backups, when they do occur do not cause or contribute to violations of applicable standards or cause impairment in any adjacent receiving water. In order to accomplish these goals, 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 should utilize the USEPA document "Guide for Evaluation Capacity, Management, Operation and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems." [EPA 305 – B – 05 – 002 (January 2005)] for guidance and develop a project implementation schedule. 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:

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 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.
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.

e. Reporting and Monitoring Requirements.

f. Third Party Notice Plan:

Special Conditions

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.