ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

August 18, 2010

Northern Moraine Wastewater Reclamation District	)	
Petitioner,	)	
v.	)	IEPA – 11-04
	)	(Provisional Variance-Water)
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY,	)	
Respondent.	)	

Re: Provisional Variance From Ammonia Nitrogen Effluent Limit Contained in NPDES Permit IL0031933

Dear Mr. Trotter:

The Illinois Environmental Protection Agency (Agency) has completed its technical review of the attached provisional variance request, dated August 13, 2010, and revised August 18, 2010 (Attachment A) submitted by Scott Trotter of Trotter and Associates, Inc. for the Northern Moraine Wastewater Reclamation District (District). The District needs a variance to make necessary repairs, caused by mechanical failure, to its wastewater treatment system.

Based on its review, the Agency GRANTS the District a provisional variance subject to the specific conditions set forth below.

Background

The District owns and operates a wastewater treatment facility in Island Lake, Illinois. The plant consists of an extended aeration activated sludge system, with preliminary and secondary treatment and aerobic digestion. The plant was last upgraded during 1998-1999, and currently consist of two mechanical screens, a raw sewage pumping station, an

oxidation ditch, two final clarifiers and a chlorine contact tank. Effluent is disinfected and dechlorinated prior to its release to the Fox River.

A piping failure in the interior ring of the facilities oxidation ditch has occurred. More specifically, a 14-inch valve and elbow connected to the return activated sludge line has failed and broken away from the 14" RAS line. The District immediately drained the interior of the basin and began emergency repairs. While making the repairs the District discovered other components needing immediate repair or replacement due to corrosion. The interior ring of the oxidation ditch represents 40% of the design capacity of the plant.

Relief Requested

The District seeks a provisional variance from the ammonia nitrogen limits required in NPDES permit IL0031933 of 1.5 mg/l monthly average and 2.5 mg/l daily maximum for the months of April through October. During the provisional variance period the facility is requesting a maximum ammonia limit of 12.0 mg/l.

Agency Determinations

The Agency has reviewed the requested provisional variance and has concluded the following:

1. Any environmental impact from the requested relief shall be closely monitored and the Agency shall be immediately notified of any adverse impacts.

2. No reasonable alternatives appear available;

3. No public water supplies should be affected;

4. No federal regulations will preclude the granting of this request; and

5. The District will face an arbitrary and unreasonable hardship if the request is not granted.

Conditions

The Agency hereby GRANTS the District a provisional variance from the ammonia nitrogen limits required in NPDES Permit IL0031933 subject to the following conditions:

A. The provisional variance shall begin on August 18, 2010, and shall end no later than September 26, 2010.

B. The District shall provide the best operation of its treatment plant to produce the best effluent possible at all times. At no times shall the ammonia nitrogen concentration exceed 12.0 mg/l.

C. The District shall closely monitor the Fox River, and immediately notify the Agency of any adverse environmental impacts as a result of this discharge.

D. The District shall notify Roger Callaway of the Agency by telephone at 217/782-9720 when the repairs specified in this provisional variance are completed and the facility returns to normal operation. Written confirmation shall be sent within five days to the following address:

Illinois Environmental Protection Agency
Bureau of Water - Water Pollution Control
Attention: Roger Callaway
1021 North Grand Avenue East, MC #19
Springfield, Illinois 62794-9276

E. The District shall sign a certificate of acceptance of this provisional variance and forward that certificate to Roger Callaway at the address indicated above within one day of the date of this order. The certification should take the following form:

I (We)_____, hereby accept and agree to be bound by all terms and conditions of the provisional variance granted by the Agency in _____dated _____.

_____
Petitioner

_____
Authorized Agent

_____
Title

_____
Date

The District shall continue to monitor all parameters and all comply with all other conditions specified in its NPDES Permit No. IL0031933.

Conclusion

The Agency grants this provisional variance in accordance with its authority contained in Sections 35(b), 36 (c), and 37(b) of the Illinois Environmental Protection Act (415 ILCS 5/35(b), 36(c), and 37(b) (2004). The decision to grant this provisional variance is not

intended to address compliance with any other applicable laws or regulations.

Sincerely,

John J. Kim
Chief Legal Counsel

cc: Marcia Willhite
Roger Callaway
Vera Herst

Attachment A

TROTTER and ASSOCIATES, INC.
ENGINEERS AND SURVEYORS

August 13, 2010
Revised August 18, 2010

Mr. Roger Callaway
Illinois Environmental Protection Agency
Division of Water Pollution Control
2200 Churchill Road
Springfield, Illinois 62706

Re: **Northern Moraine Wastewater Reclamation District**
Permit #IL0031933
Application for Provisional 45-Day Variance

Dear Mr. Callaway:

The Northern Moraine Wastewater Reclamation District is requesting a provisional 45-day variance with respect to effluent ammonia between August13th and September 26th. This request is the result of a piping failure in the interior ring of the oxidation ditch. A 14" valve and elbow which was connected to the Return Activated Sludge line failed and broke away from the 14" RAS line. The District has drained the basin and begun emergency repairs to this line.

During the investigation of the failure, it was noted that several other components installed during the last expansion in 1998 are of concern due to corrosion. The District has contracted with a firm to repair/ replace the components in order to mitigate the potential for additional failures. These repairs include replacement of uni-flanges connection with more robust flange adapters, reinforcement of pipe supports and replacement of gate pipe stands.

During these repairs, the District will continue to operate one ring of the oxidation ditch. The exterior ring represents 60% of the design capacity, while the interior ring represents 40% of the design capacity. Based on actual influent strength and flows, the exterior ring will be loaded at approximately 20 lb/1000 cubic feet. When work is being completed on the exterior ring the interior ring will be operational and will be loaded at approximately 30 lbs BOD / 1000 cubic feet. Therefore, the plant will not be able to maintain effluent standards during these repairs. We request that during this 45-day period the District's effluent ammonia limit be waived.

40W201 Wasco Road, Suite D • St. Charles, Illinois 60175 • Telephone 630.587.0470 • Facsimile 630.587.0475

Pursuant to Part 180.202 Procedures and Criteria for Reviewing Applications for Provisional Variances we offer the following explanations and answers.

1) A statement identifying the regulations, Board Order, or permit requirements from which the variance is requested;

Variance from Ammonia Limits as outlined in NPDES Permit # IL0031933

2) A description of the business or activity for which the variance is requested, including pertinent data on location, size, and the population and geographic area affected by the applicant's operations;

The Variance is requested for the replacement and repair of several valve and gate components in the oxidation ditch as outlined above.

3) The quantity and types of materials used in the process or activity for which the variance is requested, as appropriate;

Aeration Tank 1 (inner)

1. Reinstall existing 14" flanged 90 and plug valve using 14" Megaflange with stainless steel accessories and new 3" stainless steel pipe support with stainless anchors under elbow
2. Restrain existing 18" flanged pipe using split Megalug assembly and stainless steel hardware; remove and replace existing elbow support with new 3" stainless steel pipe support with stainless anchors
3. Remove and replace (2) existing 2 ½" bonnets on self-contained sluice gates; at this point we will figure labor-only
4. Remove (7) steel stem covers and replace with clear PVC (includes those on outer ring and in center well)
5. Replace existing hardware on drain line support and replace with stainless steel

Aeration Tank 2 (outer)

6. Remove and replace (2) existing 2 ½" bonnets on self-contained sluice gates; at this point we will figure labor-only
7. Remove and replace existing tee support at 14", 18" and 30" piping with new 3" stainless steel pipe support with stainless anchors (we should not need to restrain the lines, they are ALL tees)

4) The quantity, types and nature of materials or emissions to be discharged, deposited or emitted under the variance, and the identification of the receiving waterway or land, or the closest receiving Class A and Class B land use, as appropriate;

We anticipate discharging approximately 150 pounds of ammonia daily to Segment DT-22 of the Fox River due to the limited nitrification capacity of the treatment system while under repair.

5) The quantity and types of materials in drinking water exceeding the allowable content, or other pertinent facts concerning variances from the Board's public water supply regulations;

Not applicable

6) An assessment of any adverse environmental impacts which the variance may produce;

Increased Ammonia concentrations in the final effluent should not exceed water quality standards in the Fox River under present conditions. The District discharges approximately 1.2 MGD or 1.9 CFS with a pH of 7.56 and an ammonia concentration of 12 mg/l. In comparison, the mean flow in the Fox River in August based on Illinois State Water Survey data is 500 CFS. The average ammonia concentration in the Fox River is 0.1 mg/l and the average pH is 8.26 based on data collected by the Fox River Study Group.

Source	Flow (cfs)	pH	Temp. C	NH_3 Conc. (mg/l)	AS	CS
NMWRD	1.9	7.56	18.4	12 mg/l	18.1 mg/l	3.2 mg/l
Fox River	500	8.25	25	0.1 mg/l	5.2 mg/l	0.84 mg/l
Combined	502	8.25	25	0.14 mg/l	5.2 mg/l	0.84 mg/l

Formulas:

$$AS = \frac{0.411}{1+10^{7.204-pH}} + \frac{58.4}{1+10^{pH-7.204}}$$

$$CS = \left\{\frac{0.0577}{1+10^{7.688-pH}} + \frac{2.487}{1+10^{pH-7.688}}\right\}\left(1.45*10^{0.028*(25-T)}\right)$$

7) A statement explaining why compliance with the Act, regulations or Board Order imposes arbitrary and unreasonable hardship;

The repairs to be made are within the oxidation ditch. Part of the ditch must be drained in order to perform the work required. The remaining portion does not provide sufficient detention time to fully nitrify and maintain compliance.

8) A description of the proposed methods to achieve compliance with the Act, regulations or Board Order, and a timetable for achieving such compliance;

Once the repairs are complete, the process will be able to meet compliance.

9) A discussion of alternate methods of compliance and of the factors influencing the choice of applying for a provisional variance;

The two alternate method for maintaining compliance are to to install temporary treatment vessels or to perform break-point chlorination. Temporary vessels on this scale are not readily available. Breakpoint chlorination could result in a very high discharge of chlorine to receiving stream as it is difficult to control.

10) A statement of the period, not to exceed 45 days, for which the variance is requested;

We are requesting a 45-day variance beginning immediately.

11) A statement of whether the applicant has been granted any provisional variances within the calendar year, and the terms and duration of such variances;

No variances have been requested in the last calendar year.

12) A statement regarding the applicant's current permit status as related to the subject matter of the variance request;

The District's permit is in force and under normal conditions the District has maintained continuous compliance.

13) Any Board orders in effect regarding the applicant's activities and any matters currently before the Board in which the applicant is a party.

No, the District does not have any activities or matters before the Board at this time.

Please contact me at your earliest convenience to discuss this issue. My office number is (630) 587-0470 and my cell number is (630) 373-6137. Thank you.

Sincerely,

Trotter and Associates, Inc.

Scott Trotter, P.E.
Principal

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 – (217) 782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601 – (312) 814-6026

ROD R. BLAGOJEVICH, GOVERNOR DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

November 12, 2008

Northern Moraine Wastewater Reclamation District
420 Timber Trail
Post Office Box 240
Island Lake, Illinois 60042-0240

Re: Northern Moraine Wastewater Reclamation District WWTP
NPDES Permit No. IL0031933
Final Permit

Gentlemen:

Attached is the final NPDES Permit for your discharge. The Permit as issued covers discharge limitations, monitoring, and reporting requirements. Failure to meet any portion of the Permit could result in civil and/or criminal penalties. The Illinois Environmental Protection Agency is ready and willing to assist you in interpreting any of the conditions of the Permit as they relate specifically to your discharge.

The Agency has begun a program allowing the submittal of electronic Discharge Monitoring Reports (eDMRs) instead of paper Discharge Monitoring Reports (DMRs). If you are interested in eDMRs, more information can be found on the Agency website, http://epa.state.il.us/water/edmr/index.html. If your facility is not registered in the eDMR program, a supply of preprinted paper DMR Forms for your facility will be sent to you prior to the initiation of DMR reporting under the reissued permit. Additional information and instructions will accompany the preprinted DMRs upon their arrival.

The attached Permit is effective as of the date indicated on the first page of the Permit. Until the effective date of any re-issued Permit, the limitations and conditions of the previously-issued Permit remain in full effect. You have the right to appeal any condition of the Permit to the Illinois Pollution Control Board within a 35 day period following the issuance date.

Should you have questions concerning the Permit, please contact Francis Burba at the telephone number indicated above.

Sincerely,

Alan Keller

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

SAK:FRB:08042201.bah

Attachment: Final Permit

cc: Records
Compliance Assurance Section
Des Plaines Region
Trotter & Associates, Inc.
US EPA
CMAP

NPDES Permit No. IL0031933

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

MAJOR

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date: November 30, 2013

Issue Date: November 12, 2008
Effective Date: December 1, 2008

Name and Address of Permittee:

Northern Moraine Wastewater Reclamation District
420 Timber Trail
Post Office Box 240
Island Lake, Illinois 60042-0240

Facility Name and Address:

Northern Moraine Wastewater Reclamation District WWTP
420 Timber Trail
Island Lake, Illinois 60042
(McHenry County)

Receiving Waters: Fox 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 ian Water Act (CWA), the above-named Permittee is hereby authorized to discharge at the above location to the above-named receiving ream 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

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

SAK:FRB:08042201.bah

NPDES Permit No. IL0031933

Effluent Limitations, Monitoring, and Reporting

FINAL

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

Load limits computed based on a design average flow (DAF) of 2.0 MGD (design maximum flow (DMF) of 5.0 MGD).

Excess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its maximum practical flow.

From the effective date of this permit until the start of operation of the proposed 3.0 MGD STP or expiration date, whichever comes first, the effluent of the above discharge(s) shall be monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*			CONCENTRATION LIMITS MG/L				
Parameter	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum	Sample Frequency	Sample Type
Flow (MGD)							Continuous	
$CBOD_5$**	334 (834)	667 (1668)		20	40		1 day/week	Composite
Suspended Solids	417 (1043)	751 (1877)		25	45		1 day/week	Composite
pH	Shall be in the range of 6 to 9 Standard Units						1 day/week	Grab
Fecal Coliform***	The monthly geometric mean shall not exceed 200 per 100 mL						3 days/week	Grab
Chlorine Residual						0.05	3 days/week	Grab
Ammonia Nitrogen as (N)								
April thru Oct.	25 (63)		42 (104)	1.5		2.5	3 days/week	Composite
Nov. thru Feb.	62 (154)		85 (213)	3.7		5.1	3 days/week	Composite
March	25 (63)		63 (158)	1.5		3.8	3 days/week	Composite
				Monthly Average not less than	Weekly Average not less than	Daily Minimum		
Dissolved Oxygen								
March - July				----	6.0	5.0	3 days/week	Grab
August - February				5.5	4.0	3.5	3 days/week	Grab

*Load limits based on design maximum flow shall apply only when flow exceeds design average flow.
**Carbonaceous BOD_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
***No more than 10% of the samples during the month shall exceed 400 per 100 mL.

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 monthly geometric mean and as Daily Maximum.

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

Chlorine Residual shall be reported on DMR as daily maximum.

Dissolved oxygen shall be reported on DMR as minimum.

NPDES Permit No. IL0031933

Effluent Limitations, Monitoring, and Reporting

FINAL

)ischarge Number(s) and Name(s): 001 STP Outfall (Proposed Plant)

oad limits computed based on a design average flow (DAF) of 3.0 MGD (design maximum flow (DMF) of 6.0 MGD).

xcess flow facilities (if applicable) shall not be utilized until the main treatment facility is receiving its maximum practical flow.

rom the completion and start of operation of the proposed plant expansion until the expiration date, the effluent of the above discharge(s) shall e monitored and limited at all times as follows:

	LOAD LIMITS lbs/day DAF (DMF)*				CONCENTRATION LIMITS MG/L					
rameter	Annual Avg.	Monthly Avg	Weekly Avg	Daily Max	Annual Avg	Monthly Avg	Weekly Avg	Daily Max	Sample Frequency	Sample Type
w (MGD)									Continuous	
OD_5**	250 (500)	500 (1001)	1001 (2002)		10	20	40		3 days/week	Composite
spended Solids	300 (600)	626 (1251)	1126 (2252)		12	25	45		3 days/week	Composite
	Shall be in the range of 6 to 9 standard units								3 days/week	Grab
al Coliform****	The monthly geometric mean shall not exceed 200 per 100 mL								3 days/week	Grab
orine Residual								0.05	3 days/week	Grab
m[illegible] Nitrogen as (N)										
April thru Oct		38 (75)	63 (125)			1.5		2.5	3 days/week	Composite
Nov. thru Feb.		93 (185)	128 (255)			3.7		5.1	3 days/week	Composite
March		38 (75)	95 (190)			1.5		3.8	3 days/week	Composite
sphorus		25 (50)				1.0			3 days/week	Composite
l Nitrogen***	Monitoring Only								1 day/week	Composite

	Monthly Average not less than	Weekly Average not less than	Daily Min		
olved Oxygen					
rch - July	----	6.0	5.0	3 days/week	Grab
gust - February	5.5	4.0	3.5	3 days/week	Grab

l limits based on design maximum flow shall apply only when flow exceeds design average flow.
bonaceous BOD_5 ($CBOD_5$) testing shall be in accordance with 40 CFR 136.
tal Nitrogen concentration shall be reported on the DMR as monthly average for monitoring purpose only.
e Special Condition 14.
o more than 10% of the samples during the month shall exceed 400 per 100 mL.

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

Coliform shall be reported on the DMR as Daily Maximum.

all be reported on the DMR as a minimum and a maximum.

n esidual shall be reported on DMR as daily maximum.

lved oxygen shall be reported on DMR as minimum.

NPDES Permit No. IL0031933

Influent Monitoring, and Reporting

The influent to the plant shall be monitored as follows:

Parameter	Sample Frequency**	Sample Type
Flow (MGD)	Continuous	IRT*
BOD_5	1 day/week	Composite
Suspended Solids	1 day/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.

BOD_5 and Suspended Solids shall be reported on the DMR as a monthly average concentration.

*Indicating, Recording, Totalizing.

**When the proposed 3.0 MGD STP becomes operational, influent monitoring sample frequency shall be increased to 3 days/week.

NPDES Permit No. IL0031933

Special Conditions

SPECIAL CONDITION 1. This Permit may be modified to include different final effluent limitations or requirements which are consistent with applicable laws, regulations, or judicial orders. 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 § 122.63 and Without Public Notice in the event of operational, maintenance or other problems resulting in possible effluent deterioration.

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 at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 7. 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
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
34	Chromium (total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (grab) (weak acid dissociable)	5.0 ug/L
00720	Cyanide (grab not to exceed 24 hours) (total)	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) (using USEPA Method 1631 or equivalent)	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

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

*1.0 ng/L = 1 part per trillion.

SPECIAL CONDITION 8. The Permittee has undergone a Monitoring Reduction review and the influent and effluent sample frequency has been reduced for BOD, CBOD, Suspended Solids and pH due to sustained compliance. The IEPA will require that the influent and effluent sampling frequency for these parameters be increased to 3 days per week if effluent deterioration occurs due to increased wasteload, operational, maintenance or other problems. The increased monitoring will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA. This is only applicable for the existing 2.0 MGD STP.

NPDES Permit No. IL0031933

Special Conditions

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. 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. Except as noted here and in the IEPA document "Effluent Biomonitoring and Toxicity Assessment", testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fourth Ed.) EPA/600/4-90-027F. Unless substitute tests are pre-approved; the following tests are required:

   a. Fish - 96 hour static LC_{50} Bioassay using fathead minnows (Pimephales promelas).

   b. Invertebrate 48-hour static LC_{50} 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.

3. Reporting - Results shall be reported according to EPA/600/4-90/027F, 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.

Toxicity Reduction Evaluation - Should the results of the biomonitoring program identify toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed 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 for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the 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, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 11. For the duration of this Permit, the Permittee shall determine the quantity of sludge produced by the treatment facility in dry tons or gallons with average percent total solids analysis. The Permittee shall maintain adequate records of the quantities of sludge produced and have said records available for IEPA inspection. The Permittee shall submit to the IEPA, at a minimum, a semi-annual summary report of the quantities of sludge generated and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the IEPA by January 31 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

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

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

Planned Changes. The Permittee shall give notice to the IEPA on the semi-annual report of any changes in sludge use and disposal. The Permittee shall retain records of all sludge monitoring, and reports required by the Sludge Permit as referenced in Standard Condition 23 for a period of at least five (5) years from the date of this Permit.

NPDES Permit No. IL0031933

Special Conditions

ne 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.

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 12. 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 (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, http://www.epa.state.il.us/water/edmr/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 a eDMRs 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 13. 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
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 14. The Permittee shall operate facilities designed for nitrogen removal. Monitoring for Total Nitrogen is required to demonstrate that the plant is being operated within the design parameters. The Agency will evaluate the data collected and modify the permit if necessary in accordance with Special Condition 1 of the NPDES permit.

SPECIAL CONDITION 15. 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 Fox River Water Quality Study.

SPECIAL CONDITION 16. The provisions of 40 CFR 122.41(m) Bypass, and (n) Upset, are hereby incorporated into this Permit by reference.

Attachment H

Standard Conditions

Definitions

Act means the Illinois Environmental Protection Act, 415 ILCS 5 as Amended.

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L 92-500, as amended. 33 U.S.C. 1251 et seq.

NPDES (National Pollutant Discharge Elimination System) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318 and 405 of the Clean Water Act.

USEPA means the United States Environmental Protection Agency.

Daily Discharge means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurements, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

Maximum Daily Discharge Limitation (daily maximum) means the highest allowable daily discharge.

Average Monthly Discharge Limitation (30 day average) means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Discharge Limitation (7 day average) means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Aliquot means a sample of specified volume used to make up a total composite sample.

Grab Sample means an individual sample of at least 100 milliliters collected at a randomly-selected time over a period not exceeding 15 minutes.

24 Hour Composite Sample means a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

8 Hour Composite Sample means a combination of at least 3 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over an 8-hour period.

Flow Proportional Composite Sample means a combination of sample aliquots of at least 100 milliliters collected at periodic intervals such that either the time interval between each aliquot or the volume of each aliquot is proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot.

(1) **Duty to comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application. The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

(2) **Duty to reapply.** If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. If the permittee submits a proper application as required by the Agency no later than 180 days prior to the expiration date, this permit shall continue in full force and effect until the final Agency decision on the application has been made.

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

(4) **Duty to mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(5) **Proper operation and maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up, or auxiliary facilities, or similar systems only when necessary to achieve compliance with the conditions of the permit.

(6) **Permit actions.** This permit may be modified, revoked and reissued, or terminated for cause by the Agency pursuant to 40 CFR 122.62. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(7) **Property rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

(8) **Duty to provide information.** The permittee shall furnish to the Agency within a reasonable time, any information which the Agency may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with the permit. The permittee shall also furnish to the Agency, upon request, copies of records required to be kept by this permit.

(9) **Inspection and entry.** The permittee shall allow an authorized representative of the Agency, upon the presentation of credentials and other documents as may be required by law, to:

(a) Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

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

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

(d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance, or as otherwise authorized by the Act, any substances or parameters at any location.

(10) **Monitoring and records.**

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(b) The permittee shall retain records of all monitoring information, including all calibration and maintenance records, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of this permit, measurement, report or application. This period may be extended by request of the Agency at any time.

(c) Records of monitoring information shall include:

(1) The date, exact place, and time of sampling or measurements;

(2) The individual(s) who performed the sampling or measurements;

(3) The date(s) analyses were performed;

(4) The individual(s) who performed the analyses;

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

(11) **Signatory requirement.** All applications, reports or information submitted to the Agency shall be signed and certified.

(a) **Application.** All permit applications shall be signed as follows:

(1) **For a corporation:** by a principal executive officer of at least the level of vice president or a person or position having overall responsibility for environmental matters for the corporation;

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

(3) **For a municipality, State, Federal, or other public agency:** by either a principal executive officer or ranking elected official.

(b) **Reports.** All reports required by permits, or other information requested by the Agency shall be signed by a person described in paragraph (a) or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a); and

(2) The authorization specifies either an individual or a position responsible for the overall operation of the facility, from which the discharge originates, such as a plant manager, superintendent or person of equivalent responsibility; and

(3) The written authorization is submitted to the Agency.

because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.

(12) Reporting requirements.

(a) Planned changes. The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.

(b) Anticipated noncompliance. The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(c) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(d) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(1) Monitoring results must be reported on a Discharge Monitoring Report (DMR).

(2) If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.

(3) Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.

(e) Twenty-four hour reporting. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:

(1) Any unanticipated bypass which exceeds any effluent limitation in the permit;

(2) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.

The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

(f) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).

(g) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.

(13) Transfer of permits. A permit may be automatically transferred to a new permittee if:

(a) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;

(b) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and

(c) The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.

(14) All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:

(1) One hundred micrograms per liter (100 ug/l);

(2) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6 dinitrophenol; and one milligram per liter (1 mg/l) for antimony.

(3) Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.

(15) All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:

(a) Any new introduction of pollutants into that POTW from an indirect discharge which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and

(b) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

(c) For purposes of this paragraph, adequate notice shall include information on (i) the quality and quantity of effluent introduced into the POTW, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

(16) If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:

(a) User charges pursuant to Section 204(b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;

(b) Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and

(c) Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act.

(17) If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.

(18) Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.

(19) The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.

(20) The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed $10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both.

(21) The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(22) The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit shall, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

(23) Collected screening, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.

(24) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.

(25) The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.

(26) The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.

(Rev. 3-13-98)