

NPDES Permit No. IL0080084
Notice No. MEL:15051301.docx

Public Notice Beginning Date: **September 30, 2015**

Public Notice and Post-Hearing Comment Period Ending Date: **December 9, 2015**

Public Hearing Date: **November 19, 2015**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft New NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

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

Name and Address of Discharger:

Cronus Chemicals
150 N. Michigan Ave., Suite 2800
Chicago, Illinois 60601

Name and Address of Facility:

Cronus Chemicals
785 East Highway 36
Tuscola, Illinois 61953
(Douglas County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a New NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet.

A public hearing on this draft permit will be held on November 19, 2015 at 6:30 p.m. in the North Ward Elementary School gymnasium, 1201 North Prairie Street, in Tuscola.

Interested persons are invited to submit written comments on the draft permit to the IEPA to:

Hearing Officer Dean Studer, Office of Community Relations

Re: Cronus Chemicals NPDES
Illinois Environmental Protection Agency
1021 North Grand Avenue East, P. O. Box 19276
Springfield, IL 62794-9276

Comments may also be e-mailed to epa.publichearingcom@iilinois.gov and must specify either "Cronus Chemicals NPDES" or "IL0080084" in the subject line. E-mail comments originating on third party systems or servers intended for submittal of multiple emails of the same or nearly the same content will not be accepted without prior approval from the hearing officer.

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.

Response to comments will be provided in a responsiveness summary which will be available at the time a final decision is made in this matter.

For further information on the draft permit, please call Mark E. Liska at 217/782-0610.

The applicant is engaged in the operation of an anhydrous ammonia plant which will produce 800,000 tons per year of anhydrous ammonia, the majority of which will be converted to 1.4 million tons of granular urea for use as agricultural fertilizer (SIC 2873). The discharge consists of 1.40 MGD of cooling tower blowdown, 0.13 MGD of reject and concentrate wastewater, 0.004 MGD of washdown

water, 0.12 MGD of filter backwash and regeneration water, and stormwater from outfall A01, 0.015 MGD of sanitary wastewater from outfall B01, and an intermittent discharge of stormwater runoff from outfall 002.

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

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Kaskaskia River	39° 47' 57" North	88° 22' 02" West	General Use	C
002	Drain Tile tributary to Scattering Fork Creek	39° 47' 35" North	88° 18' 54" West	General Use	Not Rated

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

The stream segment BER-01 receiving the discharge from outfall(s) 002 is not on the 2014 303 (d) list of impaired waters, and is not a biologically significant stream.

The stream segment O-13 receiving the discharge from outfall(s) 001 is on the 2014 303 (d) list of impaired waters, and is not a biologically significant stream.

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

<u>Pollutants</u>	<u>Potential Contributors</u>
Fish Consumption	PCBs

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

IAC = Illinois Administrative Code

PARAMETER	LOAD LIMITS lbs/day			CONCENTRATION LIMITS mg/L		
	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall: A01						
Flow						35 IAC 309.146
pH					6.0-9.0	35 IAC 304.125
BOD ₅	138	352	35 IAC 304.120(c)	10	20	35 IAC 304.120(c)
Total Suspended Solids	166	422	35 IAC 304.120(c)	12	24	35 IAC 304.120(c)
Oil and Grease	207	528	35 IAC 304.124	15	30	35 IAC 304.124
Iron	27	70	35 IAC 304.124	2	4	35 IAC 304.124
Organic Nitrogen (as N)	4,416	8,256	40 CFR 418.35(b)			
Ammonia (as N)						
Spring/Fall	25	98	35 IAC 302.212	1.8	7.1	35 IAC 302.212
Summer	21	136	35 IAC 302.212	1.5	9.8	35 IAC 302.212
Winter	55	102	35 IAC 302.212	4.0	7.4	35 IAC 302.212
Phosphorus	17			1		35 IAC 304.123
Total Nitrogen					Monitor Only	35 IAC 309.146
Chloride					Monitor Only	35 IAC 309.146
Sulfate					Monitor Only	35 IAC 309.146
Zinc					Monitor Only	35 IAC 309.146

PARAMETER	LOAD LIMITS lbs/day			CONCENTRATION LIMITS mg/L		
	30 DAY AVERAGE	DAF (DMF) DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall: B01						
Flow						35 IAC 309.146
pH					6.0-9.0	35 IAC 304.125
Total Suspended Solids	1.3	2.5	35 IAC 304.120(a)	10	20	35 IAC 304.120(c)
BOD ₅	1.5	3.0	35 IAC 304.120(a)	12	24	35 IAC 304.120(c)
Fecal Coliform					400 per 100	35 IAC 304.121(a)
Total Residual Chlorine		0.0063	40 CFR 125.3		0.05	40 CFR 125.3
Ammonia (as N)						
Spring/Fall	0.23	0.89	35 IAC 302.212	1.8	7.1	35 IAC 302.212
Summer	0.19	1.2	35 IAC 302.212	1.5	9.8	35 IAC 302.212
Winter	0.50	0.93	35 IAC 302.212	4.0	7.4	35 IAC 302.212

Outfall 001

Flow						35 IAC 309.146
Temperature				Standard		35 IAC 302.211

Outfall: 002

- See SWPPP for Stormwater Regulations

Load Limit Calculations:

Load limit calculations for the following pollutant parameters were based on an average flow of 1.66 MGD and a maximum flow of 2.11 MGD and using the formula of average or maximum flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): BOD₅, Total Suspended Solids, Oil and Grease, Iron, Phosphorus, and Ammonia (as N) for Outfall A01.

Load limit calculations for the following pollutant parameters were based on an average flow of 0.015 MGD and a maximum flow of 0.015 MGD and using the formula of average or maximum flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day): Total Suspended Solids, BOD₅, Ammonia (as N) and Total Residual Chlorine for Outfall B01.

Load limit calculations for the following pollutant parameters were based on Federal production based load limits. The following sample calculation shows the methodology utilized to determine production based load limitations:

For outfall A01, Organic Nitrogen (as N) Daily Maximum Load Limit = Effluent Limitation from 40 CFR 418.35(b) NSPS x Production Rate = 0.86 lb/1000 lb product x 4,800 tons/day x (2 (1000 lb unit)/ ton) = 8,256 lb/day = Organic Nitrogen (as N) Daily Maximum Load Limit at outfall A01.

The load limits appearing in the permit will be the more stringent of the State and Federal Guidelines.

The following explain the conditions of the proposed permit:

Special Conditions will require monthly DMR submission, explain BAC/BCT and SWPPP stormwater requirements, define temperature limits, explain total residual chlorine testing requirements, and explain semi-annual metals testing.

The wastewater from the facility will be treated as follows:

- Oil/water separator and flow equalization lagoons – General treatment and equalization of wastewater
- Aerobic/anaerobic basins – Treatment for nitrate, BOD₅, and ammonia
- Precipitation and settling – Treatment for zinc and other solids

Sand filtration – Treatment for phosphorus and general filtration

The 6.3 MGD of water required for manufacturing at this facility will be sourced from reclaimed water from the Urbana & Champaign Sanitary District (UCSD) owned Southwest Wastewater Treatment Plant. This source is economical, environmentally sustainable, and will allow the permittee to not impact the local water table.

Since the source of the water intake is from reclaimed water and not a water-of-the-state, the permittee is not subject to 316(b) regulations.

Antidegradation Assessment for Cronus Chemicals
NPDES Permit No. IL0080084 Douglas County

This facility is a new nitrogen fertilizer manufacturing plant. The main product of the plant will be pelletized urea. The plant will have a production capacity of 4,800 tons per day. Ammonia could also be produced for sale as a fertilizer to a lesser extent. The plant will have two wastewater outfalls. The industrial outfall (001) will consist of cooling water blowdown, water treatment reject water and concentrate, washdown water, filter backwash, and first flush storm water. The design average flow will be approximately 1.7 MGD plus 0.45 MGD first flush after a significant rain event. Cooling tower blowdown will constitute the majority (1.4 MGD) of the effluent although this amount will be reduced in winter when evaporative cooling will not be as great. The washdown water will contain very high concentrations of ammonia (1,000 mg/L) but will consist of only about 6,000 gallons per week generated during a weekly cleaning. This effluent will be stored in a tank so that it can be mixed at a constant rate into the industrial wastewater treatment plant.

The source water for the cooling tower and other plant needs will be treated effluent produced by the Urbana and Champaign Sanitary District SW Plant. An average of 6.3 MGD will be required. The effluent will be provided via a 20 mile long forcemain. Some water will continue to be discharged to the Kaskaskia River via Copper Slough by the Sanitary District. Cronus will store water in a lagoon on site to circumvent any shortfalls in treated effluent caused by drought. Tuscola potable water will be used as domestic water at the plant and will serve as back-up industrial water. The reclaimed water from the Sanitary District contains phosphorus, nitrates, ammonia, zinc and other substances in concentrations that meet water quality standards. Because the cooling tower will evaporate significant quantities of the water and thereby concentrate effluent constituents to levels that would not meet water quality standards, Cronus will treat all components of Outfall 001 in an advanced biological treatment plant. The treatment provided by Cronus will include biological denitrification with chemical addition to reduce phosphorus and zinc.

The other wastewater outfall (B01) will consist of treated sanitary wastewater generated by plant employees. An activated sludge package plant will be employed, which will meet BOD, TSS and ammonia limits typical for this type of facility. The discharge from the sanitary wastewater treatment plant will be sent to an effluent pipe that will also carry the industrial plant treated effluent to the Kaskaskia River. The DAF of Outfall B01 will be 0.007 MGD. An alternate plan for the sanitary wastewater is to send it via sewer to the Tuscola STP.

Information for this review was provided in a document entitled Cronus Chemical Urea and Ammonia Production Facility, NPDES Permit Application, April 2015 prepared by Clark Dietz, Inc., which included an Antidegradation Assessment within an attachment entitled Alternative Analysis for Wastewater Disposal from the Cronus Fertilizer Facility, Douglas County, Illinois, April 2015.

Identification and Characterization of the Affected Water Body.

The Kaskaskia River has a flow of 5.1 cfs upstream during critical 7Q10 low-flow conditions. However, with the reduction in flow from the Sanitary District to Copper Slough, the 7Q10 flow on the Kaskaskia River downstream from the confluence with Copper Slough to the point of the Cronus discharge is expected to be 0.9 cfs. The Kaskaskia River (segment O-13) is a General Use water. The Kaskaskia River is listed on the draft 2014 Illinois Integrated Water Quality Report and Section 303(d) List as an impaired water body for fish consumption use with the cause given as PCBs. Aquatic life and aesthetic quality uses are given as fully supported. The Kaskaskia 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* at this locality nor is it given an integrity rating. However, several miles upstream it is given an integrity rating of "C" in that report. The Kaskaskia River is not designated as an enhanced water at this location pursuant to the dissolved oxygen water quality standard.

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

Water obtained from the Sanitary District will contain the usual parameters found in treated municipal wastewater. These constituents will be concentrated in the cooling towers due to evaporation and then treated in the industrial wastewater treatment plant at Cronus. The load of these parameters was calculated for the Sanitary District effluent diversion and after treatment of the concentrated effluent. The following table presents the loads that the Kaskaskia River currently receives from the Sanitary District in 6.3 MGD of effluent discharge compared to the load that will be discharged to the Kaskaskia in the Cronus discharge.

Substance	Pounds per day (ppd) load in Sanitary District Effluent	Pounds per day load in Cronus Effluent	Increase or Decrease in ppd Loading
Nitrate	567	27	-540
Sulfate	3,870	5,970	2,100
Chloride	5,317	5,574	257
Zinc	1.69	0.34	-1.35
Ammonia	11.2	2.7	-8.5
Phosphorus	14.8	6.8	-8.0

The source of the increase in sulfate loading is the sulfuric acid used in the ion exchange water softening process for production of boiler water. The chloride increase is due to incidental additions by Cronus that are not significant in relation to the amount received in the Sanitary District effluent. No other substances are predicted to have an increase in load compared to what the Sanitary District is already adding to the receiving stream. Other substances, such as mercury, are also predicted to decrease in loading due to the additional treatment provided by Cronus.

Water treatment additive usage will be required in order to provide scale/corrosion inhibition, microbiological control, and water softening for the cooling water, reverse osmosis, and boiler systems. A review of the water treatment additives to be used in each system is provided below.

Cooling Water System

Sulfuric Acid (98%): The bulk product will be used to neutralize bicarbonate alkalinity. Sulfuric acid will disassociate into sulfate, but sulfate water quality standards will be attained in Outfall 001 effluent. Use of the product may alter the pH of the effluent, but pH limitations at Outfall 001 will assure that pH is maintained at levels that attain water quality standards. Use of sulfuric acid is approved.

Nalco 3DT394: The product is a dispersant composed of acrylic acid and an acrylic acid copolymer that will be applied at 5 mg/L into the cooling tower makeup water. The product will be applied at a non-toxic concentration (*Ceriodaphnia dubia* 48 hour LC50 = 947 mg/L) and any product residuals will be sent to the advanced biological treatment plant prior to discharge at Outfall 001. Use of the product at the proposed application rate is approved.

Nalco 3DT178: The product is a dispersant composed of tetrapotassium pyrophosphate (10-30%) that will be applied at 6.5 mg/L into the cooling tower makeup water. The product will be applied at a non-toxic concentration (*Daphnia magna* 48 hour EC50 for active ingredient = >100 mg/L) and any product residuals will be sent to the biological treatment plant prior to discharge at Outfall 001. Use of the product at the proposed application rate is approved.

Nalco 3DT129: The product is a zinc and phosphorus based corrosion inhibitor that will be applied at 6.5 mg/L into the cooling tower makeup water, a concentration that could potentially be toxic to aquatic life based on the product toxicity estimates (fathead minnow 96 hour LC50 = 3.5 mg/L). However, the advanced biological treatment plant at this facility will remove zinc (the primary toxicant) as well as phosphorus from Outfall 001 effluent, thereby removing any toxicity associated with these constituents. Use of the product at the proposed application rate is approved.

Nalco Purate: The product is a chlorine dioxide precursor composed of sodium chlorate and hydrogen peroxide, which will be used as a microbiocide in the cooling tower. The product will be applied at 34 mg/L but would be primarily consumed in the cooling tower upon interaction with organic material. Any residual chlorine exiting the cooling system would be consumed in the advanced biological treatment plant at this facility prior to outfall. Use of the product at the proposed application rate is approved.

Reverse Osmosis System

Nalco Permacare PC-7408: The product is an oxygen scavenger composed of sodium bisulfite that will be applied at 1 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Daphnia magna* 48 hour EC50 = 119 mg/L). Use of the product at the proposed application rate is approved.

Nalco Permatreat PC-191: The product is a phosphorus-based scale inhibitor that will be applied at 2 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Daphnia magna* 28 day NOEC = 25 mg/L). Use of the product at the proposed application rate is approved.

Nalco Permacleam PC-98: The product is an alkaline membrane cleaner composed of a proprietary alkyl sulfonate and tetrasodium EDTA that will be applied at approximately 0.1 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Ceriodaphnia dubia* 48 hour NOEC = 22 mg/L). Use of the product at the proposed application rate is approved.

Nalco Permacleam PC-40: The product is an oxidizing membrane cleaner composed of sodium carbonate peroxide (60-100%) that will be applied at approximately 0.02 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Ceriodaphnia dubia* 48

hour NOEC = 1.6 mg/L). Use of the product at the proposed application rate is approved.

Nalco Permacleen PC-87: The product is an acidic membrane cleaner composed of phosphoric acid (5-10%) that will be applied at approximately 0.08 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Ceriodaphnia dubia* 48 hour LC50 = 1,625 mg/L). Use of the product at the proposed application rate is approved.

Boiler System

Nalco BT-2600: The product is a boiler water conditioner composed of sodium hydroxide (1-5%) and trace amounts of phosphorus that will be applied at approximately 35 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Daphnia magna* 48 hour EC50 = 1,000 mg/L). Use of the product at the proposed application rate is approved.

Nalco Eliminox: The product is an oxygen scavenger composed of a proprietary modified amino compound (5-10%) that will be applied at approximately 8.9 mg/L, a concentration that is non-toxic based on the product toxicity estimates (*Daphnia magna* 48 hour LC50 = 96 mg/L). Use of the product at the proposed application rate is approved.

Nalco 1800: The product is corrosion inhibitor composed of cyclohexylamine (5-10%), monoethanolamine (10-30%), and methoxypropylamine (10-30%) that will be applied at approximately 13 mg/L, a concentration that is non-toxic based on the product toxicity estimates (Fathead minnow 96 LC50 = 194 mg/L). Use of the product at the proposed application rate is approved.

Given the treatment that follows cooling tower blowdown discharge, i.e., biological treatment with denitrification, temperature of the final effluent should reflect background conditions in the receiving stream and therefore temperature is not considered to have a load increase or require regulation.

Fate and Effect of Parameters Proposed for Increased Loading.

While sulfate, and to a lesser degree chloride, will have increased loads to the Kaskaskia River, water quality standards for these substances will be met at end-of-pipe. These substances will persist in the receiving stream except for small amounts removed by organisms as these are substances essential for life. No adverse impact to the receiving stream is anticipated.

Purpose and Anticipated Benefits of the Proposed Activity.

The nitrogen fertilizer, manufactured in the midst of a farming area, will reduce what is shipped from distant locations. This will save transportation and energy costs. Approximately 2,000 construction jobs and 175 permanent jobs will be created.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

The facility considered deep well disposal for the industrial wastewater. It was estimated that four wells would be required. An existing well is being used by Cabot, the neighboring chemical plant. Any new wells created on the Cronus property would interfere with the disposal field for the Cabot well. Deep well injection of effluent is not considered a necessary step when water quality standards are met within the effluent as is the case with Cronus. Deep well injection is therefore not necessary for the disposal of this effluent.

Evaporation of the effluent was considered. This alternative has an estimated cost of \$17 million per year in natural gas cost. Again, such drastic measures are not necessary when water quality standards will be met in an effluent and no adverse impacts to the receiving stream are anticipated.

The use of sulfuric acid in the ion exchange system was investigated since this is the largest increase in loading to the receiving stream from the plant. Hydrochloric acid could be used for this purpose, but that would sharply increase the loading of chloride. The water quality standard for chloride would not be met in the discharged effluent. The sulfate being discharged under the sulfuric acid plan is well within the water quality standard at end-of-pipe.

The sanitary wastewater (but not the industrial wastewater due to its large volume) from the facility could be treated by the City of Tuscola in one of their existing wastewater treatment plants. This would require a pipeline and lift station. Beyond the capital cost of the pipeline, there would be a continuing energy cost to operate the lift station. Treatment at the municipal plant would not result in more BOD, TSS or ammonia removal than would the on-site treatment plant accomplish and therefore loading to local streams would not be decreased.

None of the above alternatives are reasonable for this facility. The choice to utilize a municipal sewage treatment plant effluent as the plant water supply is in itself an alternative from the norm of using groundwater or potable municipal water for the industrial process. The discharged treated industrial effluent represents a relatively small increase in pollutant loading to the receiving stream because of this option.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities

The Illinois Department of Natural Resources was consulted for threatened and endangered species issues related to this proposed discharge via the EcoCat system on June 23, 2015. An immediate reply was received that terminates consultation as there are no threatened or endangered species known to exist in the project area or receiving stream.

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; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community by a large number of new jobs. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.



NPDES Permit No. IL0080084

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

New (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Discharger:

Cronus Chemicals
150 N. Michigan Ave., Suite 2800
Chicago, Illinois 60601

Name and Address of Facility:

Cronus Chemicals
785 East Highway 36
Tuscola, Illinois 61953
(Douglas County)

Discharge Number and Name:

A01 – Cooling Tower Blowdown, Reject and Concentrate,
Washdown Water, Filter Backwash and Regen, Stormwater
B01 – Treated Sanitary Wastewater
001 – Combined Outfall

Receiving Waters:

Internal Outfall

Internal Outfall
Kaskaskia River

002 – Stormwater Runoff

Drain Tile tributary to Scattering Fork Creek

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

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

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

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NPDES Permit No. IL0080084

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Outfall: A01 – Cooling Tower Blowdown (Discharge = 1.40 MGD)						
Reject and Concentrate (Discharge = 0.13 MGD)						
Washdown Water (Discharge = 0.004 MGD)						
Filter Backwash and Regen (Discharge = 0.12 MGD)						
Stormwater Runoff from Industrial Process Area (Intermittent Discharge, up to 0.45 MGD)*						
Total DAF = 1.66 MGD Total DMF = 2.11 MGD						
Flow	See Special Condition 1				Continuous	24-Hour Total
pH	See Special Condition 2				1/Week	Grab
BOD ₅	138	352	10	20	1/Week	Grab
Total Suspended Solids	166	422	12	24	1/Week	Composite
Oil and Grease	207	528	15	30	1/Month	Composite
Iron	27	70	2	4	1/Month	Grab
Organic Nitrogen (as N)	4,416	8,256			1/Month	Grab
Ammonia (as N)**						
Spring/Fall	25	98	1.8	7.1	1/Week	Composite
Summer	21	136	1.5	9.8	1/Week	Composite
Winter	55	102	4.0	7.4	1/Week	Composite
Phosphorus	17		1		1/Week	Composite
Total Nitrogen***				Monitor Only	1/Week	Composite
Chloride				Monitor Only	1/Month	Grab
Sulfate				Monitor Only	1/Month	Grab
Zinc				Monitor Only	1/Month	Grab

*See also Special Condition 9 for BAC/BCT for Stormwater.

**For Ammonia as Nitrogen, Spring/Fall is March-May and September-October; Summer is June-August; and Winter is November-February. Discharge from outfall A01 will also be subject to weekly average limits for Ammonia as Nitrogen. Weekly average limit for Spring/Fall is 4.5 mg/L (62 lb/day). Weekly average limit for Summer is 3.8 mg/L (53 lb/day). No weekly average limit applies for Winter.

*** See also Special Condition 13.

NPDES Permit No. IL0080084

Effluent Limitations and Monitoring

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

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Outfall B01: Treated Sanitary Waste (Discharge = 0.015 MGD)						
Flow	See Special Condition 1				Continuous	24-Hour Total
pH	See Special Condition 2				1/Week	Grab
Total Suspended Solids	1.3	2.5	10	20	1/Month	Composite
BOD ₅	1.5	3.0	12	24	1/Month	Grab
Fecal Coliform	See Special Condition 4				1/Month	Grab
Total Residual Chlorine***		0.0063		0.05	1/Month	Grab
Ammonia (as N)****						
Spring/Fall	0.23	0.89	1.8	7.1	1/Month	Composite
Summer	0.19	1.2	1.5	9.8	1/Month	Composite
Winter	0.50	0.93	4.0	7.4	1/Month	Composite

***See Special Condition 7 for testing procedures.

****For Ammonia as Nitrogen, Spring/Fall is March-May and September-October; Summer is June-August; and Winter is November-February. Discharge from outfall B01 will also be subject to weekly average limits for Ammonia as Nitrogen. Weekly average limit for Spring/Fall is 4.5 mg/L (0.56 lb/day). Weekly average limit for Summer is 3.8 mg/L (0.48 lb/day). No weekly average limit applies for Winter.

Outfall 001 – Combined Outfall of A01 and B01 (Total Discharge = 1.67 MGD)

Flow	See Special Condition 1	Continuous	Calculation
Temperature	See Special Condition 3	1/Week	Measure

Outfall 002 – Stormwater from Outside Industrial Area (Intermittent Discharge)

- See Special Condition 14 for SWPPP

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day and reported as a monthly average and a daily maximum on the monthly discharge monitoring report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0 and shall be reported as a daily maximum and a daily minimum.

SPECIAL CONDITION 3. This facility meets the allowed mixing criteria for thermal discharges pursuant to 35 IAC 302.102. No reasonable potential exists for the discharge to exceed thermal water quality standards. This determination is based on a design average flow of 1.67 MGD and a maximum effluent temperature 90°F. The permittee shall monitor the flow and temperature of the discharge prior to entry into the receiving water body. Monitoring results shall be reported on the monthly Discharge Monitoring Report. This permit may be modified to include formal temperature limitations should the results of the monitoring show that there is a reasonable potential to exceed a thermal water quality standard. Modification of this permit shall follow public notice and opportunity for comment.

SPECIAL CONDITION 4. The daily maximum fecal coliform count shall not exceed 400 cfu per 100 ml.

SPECIAL CONDITION 5. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

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 15th day (or following business day) of the following month, unless otherwise specified by the permitting authority.

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

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

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 7. All samples for Total Residual Chlorine shall be analyzed by an applicable method contained in 40 CFR 136, equivalent in accuracy to low-level amperometric titration. Any analytical variability of the method used shall be considered when determining the accuracy and precision of the results obtained.

SPECIAL CONDITION 8. 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. Samples for internal outfalls A01 and B01 shall be taken at a point prior to mixing with any other internal outfall.

SPECIAL CONDITION 9. The Agency has determined that, for Outfall 001, the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 10. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

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SPECIAL CONDITION 11. For the purpose of this permit, the discharge from outfall 001 is limited to cooling tower blowdown, reject and concentrate, washdown water, filter backwash and regen, treated sanitary wastewater, and stormwater, free from any other wastewater discharges. In the event that the permittee shall require the use of water treatment additives other than those previously approved of, the permittee must request a change in this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 12. The Permittee shall monitor the effluent from Outfall 001 for the following parameters on a twice per year basis. This Permit may be modified with public notice to establish effluent limitations if appropriate, based on information obtained through sampling. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on the DMR's to 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>
10197	Antimony	5.0 ug/L
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 (weak acid dissociable) (grab)	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24-hour holding time)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
01067	Nickel	0.005 mg/L
32730	Phenols (grab)	0.005 mg/L
01147	Selenium	0.005 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.

SPECIAL CONDITION 13. The Permittee shall notify the IEPA in writing of any operational or corrective measures to be taken if the treatment plant exceeds the concentration values of 8 mg/l of Total Nitrogen in the effluent in outfall A01 on an annual average basis. 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
Champaign Field Office
2125 South First Street
Champaign, IL 61820-7474

SPECIAL CONDITION 14.STORM WATER POLLUTION PREVENTION PLAN (SWPPP) for Outfall 002

A. A storm water pollution prevention plan shall be maintained by the permittee for the storm water associated with industrial activity at this facility. The plan shall identify potential sources of pollution which may be expected to affect the quality of storm water discharges associated with the industrial activity at the facility. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with industrial activity at the facility and to assure compliance with the terms and conditions of this permit. The permittee shall modify the plan if substantive changes are made or occur affecting compliance with this condition.

1. Waters not classified as impaired pursuant to Section 303(d) of the Clean Water Act.

Unless otherwise specified by federal regulation, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

2. Waters classified as impaired pursuant to Section 303(d) of the Clean Water Act

For any site which discharges directly to an impaired water identified in the Agency's 303(d) listing, and if any parameter in the subject discharge has been identified as the cause of impairment, the storm water pollution prevention plan shall be designed for

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a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations, the storm water pollution prevention plan shall adhere to a more restrictive design criteria.

- B. The operator or owner of the facility shall make a copy of the plan available to the Agency at any reasonable time upon request.
- Facilities which discharge to a municipal separate storm sewer system shall also make a copy available to the operator of the municipal system at any reasonable time upon request.
- C. The permittee may be notified by the Agency at any time that the plan does not meet the requirements of this condition. After such notification, the permittee shall make changes to the plan and shall submit a written certification that the requested changes have been made. Unless otherwise provided, the permittee shall have 30 days after such notification to make the changes.
- D. The discharger shall amend the plan whenever there is a change in construction, operation, or maintenance which may affect the discharge of significant quantities of pollutants to the waters of the State or if a facility inspection required by paragraph H of this condition indicates that an amendment is needed. The plan should also be amended if the discharger is in violation of any conditions of this permit, or has not achieved the general objective of controlling pollutants in storm water discharges. Amendments to the plan shall be made within 30 days of any proposed construction or operational changes at the facility, and shall be provided to the Agency for review upon request.
- E. The plan shall provide a description of potential sources which may be expected to add significant quantities of pollutants to storm water discharges, or which may result in non-storm water discharges from storm water outfalls at the facility. The plan shall include, at a minimum, the following items:
1. A topographic map extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies, wells (including injection wells), seepage pits, infiltration ponds, and the discharge points where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included on the site map if appropriate. Any map or portion of map may be withheld for security reasons.
 2. A site map showing:
 - i. The storm water conveyance and discharge structures;
 - ii. An outline of the storm water drainage areas for each storm water discharge point;
 - iii. Paved areas and buildings;
 - iv. Areas used for outdoor manufacturing, storage, or disposal of significant materials, including activities that generate significant quantities of dust or particulates.
 - v. Location of existing storm water structural control measures (dikes, coverings, detention facilities, etc.);
 - vi. Surface water locations and/or municipal storm drain locations
 - vii. Areas of existing and potential soil erosion;
 - viii. Vehicle service areas;
 - ix. Material loading, unloading, and access areas.
 - x. Areas under items iv and ix above may be withheld from the site for security reasons.
 3. A narrative description of the following:
 - i. The nature of the industrial activities conducted at the site, including a description of significant materials that are treated, stored or disposed of in a manner to allow exposure to storm water;
 - ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharges;
 - iii. Existing structural and non-structural control measures to reduce pollutants in storm water discharges;
 - iv. Industrial storm water discharge treatment facilities;
 - v. Methods of onsite storage and disposal of significant materials.

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4. A list of the types of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities. Also provide a list of any pollutant that is listed as impaired in the most recent 303(d) report.
 5. An estimate of the size of the facility in acres or square feet, and the percent of the facility that has impervious areas such as pavement or buildings.
 6. A summary of existing sampling data describing pollutants in storm water discharges.
- F. The plan shall describe the storm water management controls which will be implemented by the facility. The appropriate controls shall reflect identified existing and potential sources of pollutants at the facility. The description of the storm water management controls shall include:
1. Storm Water Pollution Prevention Personnel - Identification by job titles of the individuals who are responsible for developing, implementing, and revising the plan.
 2. Preventive Maintenance - Procedures for inspection and maintenance of storm water conveyance system devices such as oil/water separators, catch basins, etc., and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water.
 3. Good Housekeeping - Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.
 4. Spill Prevention and Response - Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, spill clean up equipment and procedures should be identified, as appropriate. Internal notification procedures for spills of significant materials should be established.
 5. Storm Water Management Practices - Storm water management practices are practices other than those which control the source of pollutants. They include measures such as installing oil and grit separators, diverting storm water into retention basins, etc. Based on assessment of the potential of various sources to contribute pollutants, measures to remove pollutants from storm water discharge shall be implemented. In developing the plan, the following management practices shall be considered:
 - i. Containment - Storage within berms or other secondary containment devices to prevent leaks and spills from entering storm water runoff. To the maximum extent practicable storm water discharged from any area where material handling equipment or activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water should not enter vegetated areas or surface waters or infiltrate into the soil unless adequate treatment is provided.
 - ii. Oil & Grease Separation - Oil/water separators, booms, skimmers or other methods to minimize oil contaminated storm water discharges.
 - iii. Debris & Sediment Control - Screens, booms, sediment ponds or other methods to reduce debris and sediment in storm water discharges.
 - iv. Waste Chemical Disposal - Waste chemicals such as antifreeze, degreasers and used oils shall be recycled or disposed of in an approved manner and in a way which prevents them from entering storm water discharges.
 - v. Storm Water Diversion - Storm water diversion away from materials manufacturing, storage and other areas of potential storm water contamination. Minimize the quantity of storm water entering areas where material handling equipment of activities, raw material, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water using green infrastructure techniques where practicable in the areas outside the exposure area, and otherwise divert storm water away from exposure area.
 - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.
 - vii. Storm Water Reduction - Install vegetation on roofs of buildings within adjacent to the exposure area to detain and evapotranspire runoff where precipitation falling on the roof is not exposed to contaminants, to minimize storm water runoff; capture storm water in devices that minimize the amount of storm water runoff and use this water as appropriate based on quality.
 6. Sediment and Erosion Prevention - The plan shall identify areas which due to topography, activities, or other factors, have a high

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potential for significant soil erosion. The plan shall describe measures to limit erosion.

7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and goals of the storm water pollution control plan. Training should address topics such as spill response, good housekeeping and material management practices. The plan shall identify periodic dates for such training.
 8. Inspection Procedures - Qualified plant personnel shall be identified to inspect designated equipment and plant areas. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded.
- G. Non-Storm Water Discharge - The plan shall include a certification that the discharge has been tested or evaluated for the presence of non-storm water discharge. The certification shall include a description of any test for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Any facility that is unable to provide this certification must describe the procedure of any test conducted for the presence of non-storm water discharges, the test results, potential sources of non-storm water discharges to the storm sewer, and why adequate tests for such storm sewers were not feasible.
- H. Quarterly Visual Observation of Discharges - The requirements and procedures of quarterly visual observations are applicable to all outfalls covered by this condition.
1. You must perform and document a quarterly visual observation of a storm water discharge associated with industrial activity from each outfall. The visual observation must be made during daylight hours. If no storm event resulted in runoff during daylight hours from the facility during a monitoring quarter, you are excused from the visual observations requirement for that quarter, provided you document in your records that no runoff occurred. You must sign and certify the document.
 2. Your visual observation must be made on samples collected as soon as practical, but not to exceed 1 hour or when the runoff or snow melt begins discharging from your facility. All samples must be collected from a storm event discharge that is greater than 0.1 inch in magnitude and that occurs at least 72 hours from the previously measureable (greater than 0.1 inch rainfall) storm event. The observation must document: color, odor, clarity, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution. If visual observations indicate any unnatural color, odor, turbidity, floatable material, oil sheen or other indicators of storm water pollution, the permittee shall obtain a sample and monitor for the parameter or the list of pollutants in Part E.4.
 3. You must maintain your visual observation reports onsite with the SWPPP. The report must include the observation date and time, inspection personnel, nature of the discharge (i.e., runoff or snow melt), visual quality of the storm water discharge (including observations of color, odor, floating solids, settled solids, suspended solids, foam, oil sheen, and other obvious indicators of storm water pollution), and probable sources of any observed storm water contamination.
 4. You may exercise a waiver of the visual observation requirement at a facility that is inactive or unstaffed, as long as there are no industrial materials or activities exposed to storm water. If you exercise this waiver, you must maintain a certification with your SWPPP stating that the site is inactive and unstaffed, and that there are no industrial materials or activities exposed to storm water.
 5. Representative Outfalls - If your facility has two or more outfalls that you believe discharge substantially identical effluents, based on similarities of the industrial activities, significant materials, size of drainage areas, and storm water management practices occurring within the drainage areas of the outfalls, you may conduct visual observations of the discharge at just one of the outfalls and report that the results also apply to the substantially identical outfall(s).
 6. The visual observation documentation shall be made available to the Agency and general public upon written request.
- I. The permittee shall conduct an annual facility inspection to verify that all elements of the plan, including the site map, potential pollutant sources, and structural and non-structural controls to reduce pollutants in industrial storm water discharges are accurate. Observations that require a response and the appropriate response to the observation shall be retained as part of the plan. Records documenting significant observations made during the site inspection shall be submitted to the Agency in accordance with the reporting requirements of this permit.
- J. This plan should briefly describe the appropriate elements of other program requirements, including Spill Prevention Control and Countermeasures (SPCC) plans required under Section 311 of the CWA and the regulations promulgated thereunder, and Best Management Programs under 40 CFR 125.100.
- K. The plan is considered a report that shall be available to the public at any reasonable time upon request.
- L. The plan shall include the signature and title of the person responsible for preparation of the plan and include the date of initial preparation and each amendment thereto.

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- M. Facilities which discharge storm water associated with industrial activity to municipal separate storm sewers may also be subject to additional requirement imposed by the operator of the municipal system

Construction Authorization

Authorization is hereby granted to construct treatment works and related equipment that may be required by the Storm Water Pollution Prevention Plan developed pursuant to this permit.

This Authorization is issued subject to the following condition(s).

- N. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.
- O. The issuance of this authorization (a) does not release the permittee from any liability for damage to persons or property caused by or resulting from the installation, maintenance or operation of the proposed facilities; (b) does not take into consideration the structural stability of any units or part of this project; and (c) does not release the permittee from compliance with other applicable statutes of the State of Illinois, or other applicable local law, regulations or ordinances.
- P. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
- Q. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of one acre or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

- R. The facility shall submit an electronic copy of the annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part I of this condition. The report shall also include documentation of any event (spill, treatment unit malfunction, etc.) which would require an inspection, results of the inspection, and any subsequent corrective maintenance activity. The report shall be completed and signed by the authorized facility employee(s) who conducted the inspection(s). The annual inspection report is considered a public document that shall be available at any reasonable time upon request.
- S. The annual report shall be due August 1.
- T. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.
- U. The permittee shall retain the annual inspection report on file at least 3 years. This period may be extended by request of the Illinois Environmental Protection Agency at any time.

Annual inspection reports shall be submitted to the following email and office addresses: epa.npdes.inspection@illinois.gov

Illinois Environmental Protection Agency
Bureau of Water
Compliance Assurance Section
Annual Inspection Report
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

- V. The permittee shall notify any regulated small municipal separate storm sewer owner (MS4 Community) that they maintain coverage under an individual NPDES permit. The permittee shall submit any SWPPP or any annual inspection to the MS4 community upon request by the MS4 community.

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 requirements.
- (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 and 40 CFR 122.63. 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 or USEPA (including an authorized contractor acting as a representative of the Agency or USEPA), 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. Records related to the permittee's sewage sludge use and disposal activities shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503). This period may be extended by request of the Agency or USEPA 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.
- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate 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.
- (d) **Certification.** Any person signing a document under paragraph (a) or (b) of this section shall make the following certification:

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

(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. Notice is required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source pursuant to 40 CFR 122.29 (b); or
 - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements pursuant to 40 CFR 122.42 (a)(1).
 - (3) The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- (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) **Transfers.** This permit is not transferable to any person except after notice to the Agency.
- (d) **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.

- (e) **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.
- (f) **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) Any upset which exceeds any effluent limitation in the permit.
- (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit or any pollutant which may endanger health or the environment.
The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24-hours.
- (g) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12) (d), (e), or (f), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12) (f).
- (h) **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) **Bypass.**
- (a) Definitions.
- (1) Bypass means the intentional diversion of waste streams from any portion of a treatment facility.
- (2) Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- (b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs (13)(c) and (13)(d).
- (c) Notice.
- (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten days before the date of the bypass.
- (2) Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in paragraph (12)(f) (24-hour notice).
- (d) Prohibition of bypass.
- (1) Bypass is prohibited, and the Agency may take enforcement action against a permittee for bypass, unless:
- (i) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (iii) The permittee submitted notices as required under paragraph (13)(c).
- (2) The Agency may approve an anticipated bypass, after considering its adverse effects, if the Agency determines that it will meet the three conditions listed above in paragraph (13)(d)(1).
- (14) **Upset.**
- (a) Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- (b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph (14)(c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- (c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
- (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
- (2) The permitted facility was at the time being properly operated; and
- (3) The permittee submitted notice of the upset as required in paragraph (12)(f)(2) (24-hour notice).
- (4) The permittee complied with any remedial measures required under paragraph (4).
- (d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

- (15) **Transfer of permits.** Permits may be transferred by modification or automatic transfer as described below:
- (a) Transfers by modification. Except as provided in paragraph (b), a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued pursuant to 40 CFR 122.62 (b) (2), or a minor modification made pursuant to 40 CFR 122.63 (d), to identify the new permittee and incorporate such other requirements as may be necessary under the Clean Water Act.
 - (b) Automatic transfers. As an alternative to transfers under paragraph (a), any NPDES permit may be automatically transferred to a new permittee if:
 - (1) The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;
 - (2) The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage and liability between the existing and new permittees; and
 - (3) 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.
- (16) 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
 - (4) The level established by the Agency in this permit.
 - (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.
- (17) 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.
- (18) 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.
- (19) 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.
- (20) 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.
- (21) 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.
- (22) 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 \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, 308, 318 or 405 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. Additional penalties for violating these sections of the Clean Water Act are identified in 40 CFR 122.41 (a)(2) and (3).
- (23) 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 this permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than 4 years, or both.
- (24) 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, 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.
- (25) 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.
- (26) In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.
- (27) 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 or any court with jurisdiction.
- (28) 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.