

NPDES Permit No. IL0026069
Notice No. JAR:12040201.ajo

Public Notice Beginning Date: **December 7, 2012**

Public Notice Ending Date: **January 7, 2013**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued 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:

AKZO Nobel Surface Chemistry LLC
8005 North Tabler Road
Morris, Illinois 60450

Name and Address of Facility:

AKZO Nobel Surface Chemistry LLC
8005 North Tabler Road
Morris, Illinois 60450
(Grundy County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

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

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

The applicant is engaged in the manufacture of nitrogen derivatives (long-chain aliphatic amines) from fatty acids for use in fabric softener, highway chemicals, mineral processing, and fuel additives (SIC 2869). Waste water is generated from cleaning reactor vessels and equipment for the amine, nitrile, splitter and arquad process units, sanitary (sinks, toilets, etc...), purging the boilers and cooling towers to maintain correct water chemistry, regenerating the water softener, steam system condensate, amine, nitrile, splitter and arquad process unit condensate, environmental system condensate and precipitation which contacts the site.

Plant operation results in an average discharge of 0.299 MGD of process, sanitary, cooling tower blowdown, condensate, and stormwater from outfall 001 and 0.242 MGD of cooling tower blowdown, boiler blowdown, softener regenerant, and stormwater from outfall 002. Sanitary is treated using extended aeration and chlorination prior to entering the main biological treatment and is then either spray irrigated (Spring, Summer, and Fall) or collected in settling and aeration basins (winter). All other wastewaters are sent directly to the main biological treatment system and then to the 65-acre spray field. Water is collected from the sprayfield using an underdrain and then discharged via outfall 001. During winter operations water is held in the lagoons until spray irrigation can resume in the spring.

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

Outfall	Receiving Stream	Latitude		Longitude		Stream Classification	Biological Stream Characterization
001	Aux Sable Creek	41E 24' 10"	North	88E 20' 40"	West	General Use	B
002	Aux Sable Creek	41E 24' 12"	North	88E 20' 01"	West	General Use	B

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

The stream segment DW-01 receiving the discharge from outfalls 001 and 002 is on the draft 2010 Illinois Integrated Water Quality Report and Section 303(d) List. The receiving water is not listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*. The impaired designated uses and pollutants causing impairment are tabulated below:

<u>Designated Uses</u>	<u>Pollutants Causing Impairment</u>
Primary Contact	Fecal Coliform

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

Outfall: 001 Process, Sanitary, Cooling Tower Blowdown, Condensate, and Stormwater (DAF = 0.299 MGD)

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION		REGULATION
	DAF (DMF)			LIMITS mg/l		
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)						
Temperature						35 IAC 302.211
Oil and Grease				15	30	35 IAC 304.124
Total Residual Chlorine					0.05	35 IAC 302.208
Fecal Coliform						35 IAC 302.209
Acenaphthene	0.03	0.07	40 CFR 414.91			
Acenaphthylene	0.03	0.07	40 CFR 414.91			
Acrylonitrile	0.12	0.29	40 CFR 414.91			
Anthracene	0.03	0.07	40 CFR 414.91			
Benzene	0.05	0.16	40 CFR 414.91			
Benzo(a)anthracene	0.03	0.07	40 CFR 414.91			
3,4-Benzofluoranthene	0.03	0.07	40 CFR 414.91			
Benzo(k)fluoranthene	0.03	0.07	40 CFR 414.91			
Benzo(a)pyrene	0.03	0.07	40 CFR 414.91			
Bis(2-ethylhexyl)phthalate	0.13	0.34	40 CFR 414.91			
Carbon Tetrachloride	0.02	0.05	40 CFR 414.91			
Chlorobenzene	0.02	0.03	40 CFR 414.91			

Chloroethane	0.13	0.32	40 CFR 414.91			
Chloroform	0.03	0.06	40 CFR 414.91			
2-Chlorophenol	0.04	0.12	40 CFR 414.91			
Chrysene	0.03	0.07	40 CFR 414.91			
Di-n-butyl phthalate	0.03	0.07	40 CFR 414.91			
1,2-Dichlorobenzene	0.09	0.20	40 CFR 414.91			
1,3-Dichlorobenzene	0.04	0.05	40 CFR 414.91			
1,4-Dichlorobenzene	0.02	0.03	40 CFR 414.91			
1,1-Dichloroethane	0.03	0.07	40 CFR 414.91			
1,2- Dichloroethane	0.08	0.26	40 CFR 414.91			
1,1-Dichloroethylene	0.02	0.03	40 CFR 414.91			
1,2-trans- Dichloroethylene	0.03	0.07	40 CFR 414.91			
2,4-Dichlorophenol	0.05	0.14	40 CFR 414.91			
1,2-Dichloropropane	0.19	0.28	40 CFR 414.91			
1,3-Dichloropropylene	0.04	0.05	40 CFR 414.91			
Diethyl phthalate	0.10	0.25	40 CFR 414.91			
2,4-Dimethylphenol	0.02	0.04	40 CFR 414.91			
Dimethyl phthalate	0.02	0.06	40 CFR 414.91			
4,6-Dinitro-o-cresol	0.09	0.34	40 CFR 414.91			
2,4-Dinitrophenol	0.09	0.15	40 CFR 414.91			
2,4-Dinitrotoluene	0.14	0.35	40 CFR 414.91			
2,6-Dinitrotoluene	0.31	0.78	40 CFR 414.91			
Ethylbenzene	0.04	0.13	40 CFR 414.91			
Fluoranthene	0.03	0.08	40 CFR 414.91			
Fluorene	0.03	0.07	40 CFR 414.91			
Hexachlorobenzene	0.02	0.03	40 CFR 414.91			
Hexachlorobutadiene	0.02	0.06	40 CFR 414.91			
Hexachloroethane	0.03	0.07	40 CFR 414.91			
Methyl Chloride	0.10	0.23	40 CFR 414.91			
Methylene Chloride	0.05	0.11	40 CFR 414.91			
Naphthalene	0.03	0.07	40 CFR 414.91			

Nitrobenzene	0.03	0.08	40 CFR 414.91			
2-Nitrophenol	0.05	0.08	40 CFR 414.91			
4-Nitrophenol	0.09	0.15	40 CFR 414.91			
Phenanthrene	0.03	0.07	40 CFR 414.91			
Phenol	0.02	0.03	40 CFR 414.91		0.1	40CFR122.44(l)
Pyrene	0.03	0.08	40 CFR 414.91			
Tetrachloroethylene	0.03	0.07	40 CFR 414.91			
Toluene	0.03	0.10	40 CFR 414.91			
Chromium	1.2	2.4	35 IAC 309.143	1.0	2.0	35 IAC 304.124
Copper	0.6	1.2	35 IAC 309.143		0.06	40CFR122.44(l)
Cyanide	0.12	0.24	35 IAC 309.143	0.1	0.2	35 IAC 304.124
Lead	0.24	0.48	40 CFR 414.91	0.2	0.4	35 IAC 304.124
Zinc	1.2	2.4	35 IAC 309.143	1.0	2.0	35 IAC 304.124
1,2,4-Trichlorobenzene	0.08	0.17	40 CFR 414.91			
1,1,1-Trichloroethane	0.03	0.07	40 CFR 414.91			
1,1,2-Trichloroethane	0.03	0.07	40 CFR 414.91			
Trichloroethylene	0.03	0.07	40 CFR 414.91			
Vinyl Chloride	0.13	0.32	40 CFR 414.91			
Ammonia				Weekly Avg.	Monthly Avg.	Daily Max
Mar – May/Sep-Oct				4.3	1.5	5.6
Jun-Aug				3.8	1.4	7.1
Nov-Feb					2.9	6.0
Stream Flow in Aux Sable Creek (cfs)						
When Stream Flow in Aux Sable Creek is greater than 3.34 cfs						
pH						35 IAC 304.125
BOD ₅				30	60	35IAC304.120(a)
Total Suspended Solids				30	60	35IAC304.120(a)
Nickel	0.10	0.81	35 IAC 309.143	0.041	0.324	35IAC309.157(d)
When Stream Flow in Aux Sable Creek is less than or equal to 3.34 cfs						
pH						35 IAC 302.204
BOD ₅				10	20	35IAC304.120(c)
Total Suspended Solids				12	24	35IAC304.120(c)
Nickel	0.05	0.81	35 IAC 309.143	0.02	0.324	35IAC309.157(d)

Outfall: 002 Cooling Tower Blowdown, Boiler Blowdown, Softener Regenerant, and Stormwater (DAF = 0.242 MGD)						
Flow (MGD)						
pH						35 IAC 302.204
Temperature						35 IAC 302.212
Boron					2.0	IPCB AS 93-8
Copper				1.0	2.0	35 IAC 304.124

Load Limit Calculations:

- A. Load limit calculations for the following pollutant parameters limited at outfall 001 were based on a design average flow of 0.145 and using the formula of design average flow (MGD) X concentration limit (mg/l) X 8.34 = the average or maximum load limit (lbs/day).
- B. Production based load limits were calculated by multiplying the average production by the effluent limit contained in 40 CFR 414.91. Production figures utilized in these calculations for the following subcategories are as follows:

<u>Subcategory</u>	<u>Production Rate</u>
Subpart I - Direct Discharge Point Sources That Use End-of-Pipe Biological Treatment	0.145 MGD of Process Wastewater

The following sample calculation shows the methodology utilized to determine production based load limitations:

Acenaphthene Daily Maximum Load Limit = Concentration given in 40 CFR 414.91 x Flow x Unit Conversion Factor = 59 µg/L x (1 mg / 1000 µg) x 0.145 MGD x 8.34 = 0.071 rounded to 0.07 lbs/day

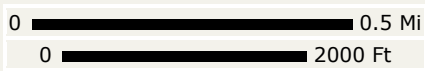
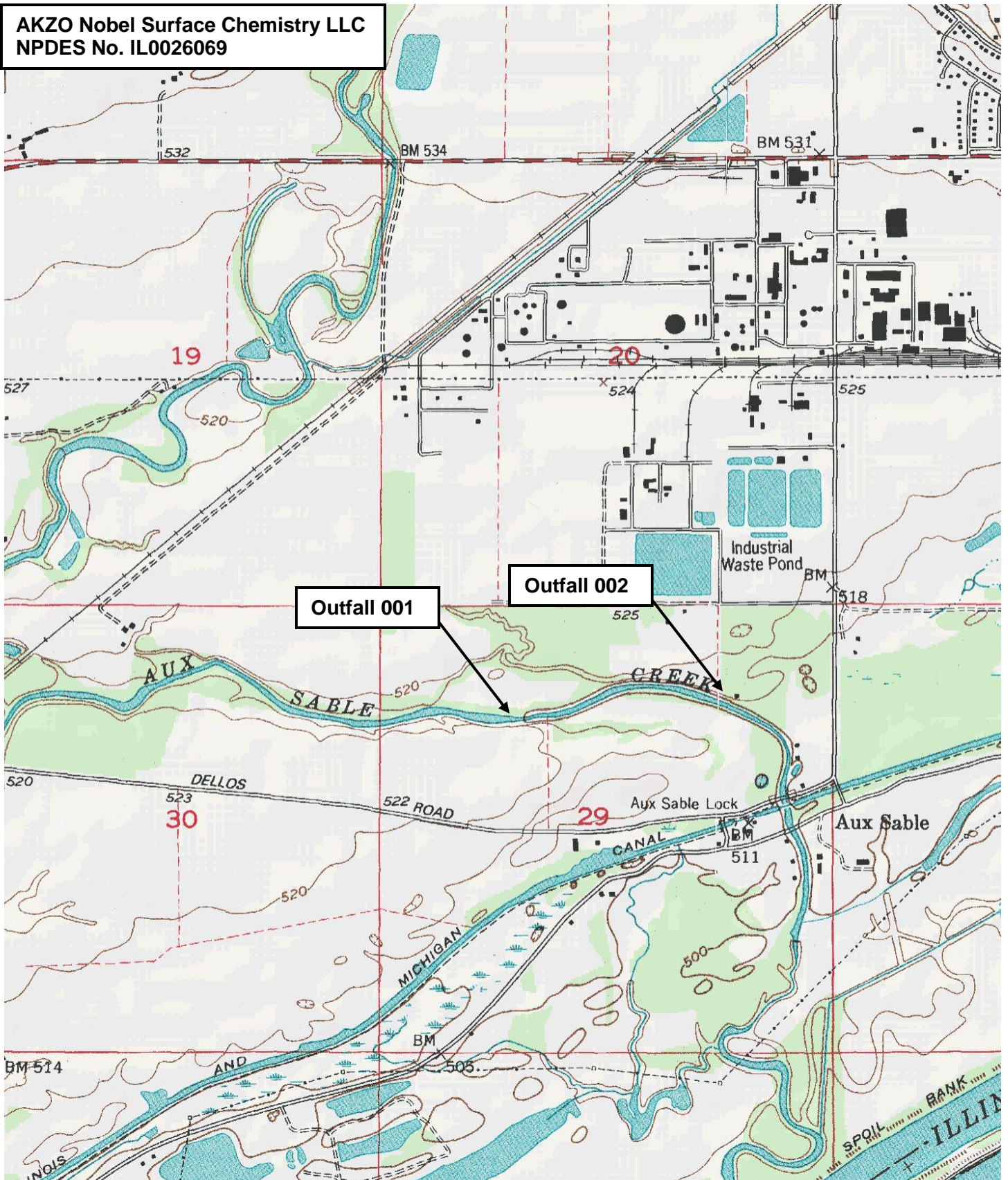
Acenaphthene Monthly Average Load Limit = Concentration Given in 40 CFR 414.91 x Flow x Unit Conversion Factor = 22 µg /L x (1 mg / 1000 µg) x 0.145 MGD x 8.34 = 0.027 rounded to 0.03 lbs/day

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:

The special conditions clarify flow reporting, pH, monitoring location, discharge monitoring reports, re-opening of the permit, biomonitoring and treatment system operator requirements.

AKZO Nobel Surface Chemistry LLC
NPDES No. IL0026069



NPDES Permit No. IL0026069

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

AKZO Nobel Surface Chemistry LLC
8005 North Tabler Road
Morris, Illinois 60450

Facility Name and Address:

AKZO Nobel Surface Chemistry LLC
8005 North Tabler Road
Morris, Illinois 60450
(Grundy County)

Discharge Number and Name:	Receiving Waters:
001 Process, Sanitary, Cooling Tower Blowdown, Condensate, and Stormwater	Aux Sable Creek
002 Cooling Tower Blowdown, Boiler Blowdown, Softener Regenerant, and Stormwater	Aux Sable 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

SAK:JAR:12040201 ajo

NPDES Permit No. IL0026069

Effluent Limitations and Monitoring

1. From the effective 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:

Outfall: 001 Process, Sanitary, Cooling Tower Blowdown, Condensate, and Stormwater (DAF = 0.299 MGD)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	See Special Condition 1				1/Week	
Temperature	See Special Condition 3				1/Week	Single Reading
Oil and Grease			15	30	1/Week	Grab
Total Residual Chlorine	See Special Condition 8			0.05	1/Week When Chlorinating	Grab
Fecal Coliform	See Special Condition 9				1/Week	Grab
Acenaphthene	0.03	0.07			2/Year	Grab
Acenaphthylene	0.03	0.07			2/Year	Grab
Acrylonitrile	0.12	0.29			2/Year	Grab
Anthracene	0.03	0.07			2/Year	Grab
Benzene	0.05	0.16			2/Year	Grab
Benzo(a)anthracene	0.03	0.07			2/Year	Grab
3,4-Benzofluoranthene	0.03	0.07			2/Year	Grab
Benzo(k)fluoranthene	0.03	0.07			2/Year	Grab
Benzo(a)pyrene	0.03	0.07			2/Year	Grab
Bis(2-ethylhexyl)phthalate	0.13	0.34			2/Year	Grab
Carbon Tetrachloride	0.02	0.05			2/Year	Grab
Chlorobenzene	0.02	0.03			2/Year	Grab
Chloroethane	0.13	0.32			2/Year	Grab
Chloroform	0.03	0.06			2/Year	Grab
2-Chlorophenol	0.04	0.12			2/Year	Grab
Chrysene	0.03	0.07			2/Year	Grab
Di-n-butyl phthalate	0.03	0.07			2/Year	Grab
1,2-Dichlorobenzene	0.09	0.20			2/Year	Grab

1,3-Dichlorobenzene	0.04	0.05			2/Year	Grab
1,4-Dichlorobenzene	0.02	0.03			2/Year	Grab
1,1-Dichloroethane	0.03	0.07			2/Year	Grab
1,2- Dichloroethane	0.08	0.26			2/Year	Grab
1,1-Dichloroethylene	0.02	0.03			2/Year	Grab
1,2-trans- Dichloroethylene	0.03	0.07			2/Year	Grab
2,4-Dichlorophenol	0.05	0.14			2/Year	Grab
1,2-Dichloropropane	0.19	0.28			2/Year	Grab
1,3-Dichloropropylene	0.04	0.05			2/Year	Grab
Diethyl phthalate	0.10	0.25			2/Year	Grab
2,4-Dimethylphenol	0.02	0.04			2/Year	Grab
Dimethyl phthalate	0.02	0.06			2/Year	Grab
4,6-Dinitro-o-cresol	0.09	0.34			2/Year	Grab
2,4-Dinitrophenol	0.09	0.15			2/Year	Grab
2,4-Dinitrotoluene	0.14	0.35			2/Year	Grab
2,6-Dinitrotoluene	0.31	0.78			2/Year	Grab
Ethylbenzene	0.04	0.13			2/Year	Grab
Fluoranthene	0.03	0.08			2/Year	Grab
Fluorene	0.03	0.07			2/Year	Grab
Hexachlorobenzene	0.02	0.03			2/Year	Grab
Hexachlorobutadiene	0.02	0.06			2/Year	Grab
Hexachloroethane	0.03	0.07			2/Year	Grab
Methyl Chloride	0.10	0.23			2/Year	Grab
Methylene Chloride	0.05	0.11			2/Year	Grab
Naphthalene	0.03	0.07			2/Year	Grab
Nitrobenzene	0.03	0.08			2/Year	Grab
2-Nitrophenol	0.05	0.08			2/Year	Grab
4-Nitrophenol	0.09	0.15			2/Year	Grab
Phenanthrene	0.03	0.07			2/Year	Grab
Phenol	0.02	0.03		0.1	2/Year	Grab

Pyrene	0.03	0.08				2/Year	Grab
Tetrachloroethylene	0.03	0.07				2/Year	Grab
Toluene	0.03	0.10				2/Year	Grab
Chromium	1.2	2.4	1.0		2.0	4/Year	Composite
Copper	0.6	1.2			0.06	4/Year	Composite
Cyanide	0.12	0.24	0.1		0.2	4/Year	Composite
Lead	0.24	0.48	0.2		0.4	4/Year	Composite
Zinc	1.2	2.4	1.0		2.0	4/Year	Composite
1,2,4-Trichlorobenzene	0.08	0.17				2/Year	Grab
1,1,1-Trichloroethane	0.03	0.07				2/Year	Grab
1,1,2-Trichloroethane	0.03	0.07				2/Year	Grab
Trichloroethylene	0.03	0.07				2/Year	Grab
Vinyl Chloride	0.13	0.32				2/Year	Grab
Ammonia			Weekly Avg.	Monthly Avg.	Daily Max		
Mar – May/Sep-Oct			4.3	1.5	5.6	1/Week	Grab
Jun-Aug			3.8	1.4	7.1		
Nov-Feb				2.9	6.0		
Stream Flow in Aux Sable Creek (cfs)	See Special Condition 12					1/Week	
When Stream Flow in Aux Sable Creek is greater than 3.34 cfs							
pH	See Special Condition 2					1/Week	Grab
BOD ₅			30		60	1/Week	Composite
Total Suspended Solids			30		60	1/Week	Composite
Nickel	0.10	0.81	0.041		0.324	4/Year	Composite
When Stream Flow in Aux Sable Creek is less than or equal to 3.34 cfs							
pH	See Special Condition 2					1/Week	Grab
BOD ₅			10		20	1/Week	Composite
Total Suspended Solids			12		24	1/Week	Composite
Nickel	0.05	0.81	0.02		0.324	4/Year	Composite

2/Year samples shall be submitted with the June and December DMR's.

4/Year samples shall be submitted with the March, June, September, and December DMR's.

NPDES Permit No. IL0026069

Effluent Limitations and Monitoring

1. From the effective 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:

Outfall: 002 Cooling Tower Blowdown, Boiler Blowdown, Softener Regenerant, and Stormwater (DAF = 0.242 MGD)

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
Flow (MGD)	See Special Condition 1				1/Month	
pH	See Special Condition 2				1/Month	Grab
Temperature	See Special Condition 3				1/Month	Single Reading
Boron				2.0	1/Month	Grab
Copper			0.5	1.0	1/Month	Grab

Special Conditions

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day (MGD) and reported as a monthly average and a daily maximum value on the monthly Discharge Monitoring Report.

SPECIAL CONDITION 2. At all times the pH of the discharge from outfall 002 shall be in the range of 6.5 to 9.0. The pH of the discharge from outfall 001 shall be in the range of 6.5 to 9.0 during those times when the stream flow in Aux Sable Creek is less than or equal to 3.34 cfs. During those times the stream flow in Aux Sable Creek is greater than 3.34 cfs the pH of the discharge from outfall 001 shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. This facility is not allowed any mixing with the receiving stream in order to meet applicable water quality thermal limitations. Therefore, discharge of wastewater from this facility must meet the following thermal limitations prior to discharge into the receiving stream.

- A. The discharge must not exceed the maximum limits in the following table during more than one percent of the hours in the 12 month period ending with any month. Moreover, at no time shall the water temperature of the discharge exceed the maximum limits in the following table by more than 1.7° C (3° F).

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>
EF	60	60	60	90	90	90	90	90	90	90	90	60
EC	16	16	16	32	32	32	32	32	32	32	32	16

- B. In addition, the discharge shall not cause abnormal temperature changes that may adversely affect aquatic life unless caused by natural conditions.
- C. The discharge shall not cause the maximum temperature rise above natural temperatures to exceed 2.8° C (5° F).
- D. The monthly maximum value shall be reported on the DMR form.

SPECIAL CONDITION 4. 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 5. 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 15th day of the following month, unless otherwise specified by the permitting authority.

Permittees not using 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
 1021 North Grand Avenue East
 Post Office Box 19276
 Springfield, Illinois 62794-9276

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 6. 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 7. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

Special Conditions

SPECIAL CONDITION 8. All samples for total residual chlorine (TRC) 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 9. The daily maximum fecal coliform count shall not exceed 200 per 100 ml.

SPECIAL CONDITION 10. The Agency has determined that 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 11. In the event that the permittee must request a change in the use of water treatment additives, the permittee must request a change in this permit in accordance with Standard Conditions - - Attachment H.

SPECIAL CONDITION 12. The permittee shall calculate stream flow in Aux Sable Creek upstream of outfalls 001 and 002, but at a point representative of the stream flow providing dilution to outfalls 001 and 002. Stream flows shall be calculated using United States Geological Survey methods for extrapolating stream flow from stream depth and velocity measurements. A stream depth measurement shall be taken five days per week and used to calculate stream flow for each day, except when weather conditions make access to the station unsafe, in which case daily stream flow value is the last calculated stream flow volume for the purposes of determining applicable limits. To determine applicable limits for weekend discharges the permittee shall utilize the lowest calculated stream flow value for the five days preceding that weekend. A weekly log shall be kept noting any changes in stream bed, or other conditions, which may affect the measurements used to establish stream flow to depth correlation. In June and October, and at other times when changes in stream conditions such as algae growth, fallen logs or other obstructions dictate, the stream depth to stream flow correlation curve shall be recalibrated and adjusted as necessary. The daily calculated stream flow value shall be used to determine the applicable limits as directed on page two of this permit.

SPECIAL CONDITION 13. The Permittee shall conduct biomonitoring of the effluent from Outfalls 001 and 002.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two trophic levels of aquatic species (fish, invertebrate) representative of the aquatic community of the receiving stream. Testing must be consistent with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (Fifth Ed.) EPA/821-R-02-012. Unless substitute tests are pre-approved; the following tests are required:
 - a. Fish - 96 hour static LC₅₀ Bioassay using fathead minnows (*Pimephales promelas*).
 - b. Invertebrate 48-hour static LC₅₀ Bioassay using *Ceriodaphnia*.
2. Testing Frequency - The above tests shall be conducted using 24-hour composite samples unless otherwise authorized by the IEPA. One round of testing on each outfall shall be conducted within six months from the effective date of reissuance, and one round shall be conducted between the third and fourth year of the permit. When possible, bioassay sample collection should coincide with sample collection for metals analysis or other parameters that may contribute to effluent toxicity.
3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory.
4. Toxicity – Should a bioassay result in toxicity to >20% of organisms tested in the 100% effluent treatment, the IEPA may require, upon notification, six (6) additional rounds of monthly testing on the affected organism(s) to be initiated within 30 days of the toxic bioassay. Results shall be submitted to IEPA within one (1) week of becoming available to the Permittee. Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatments, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification and reduction evaluation process as outlined below.
5. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to ≥50% of organisms tested in the 100% effluent treatment, the Permittee must contact the IEPA within one (1) day of the results becoming available to the Permittee and begin the toxicity identification evaluation process in accordance with Methods for Aquatic Toxicity

Special Conditions

Identification Evaluations, EPA/600/6-91/003. The IEPA may also require, upon notification, that the Permittee prepare a plan for toxicity reduction evaluation to be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, which 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 14. The Permittee shall monitor the effluent from outfall 001 for the following parameters on a semi-annual 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 to the address in special condition 5 in June and December. 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
01034	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)**	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.

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