

NPDES Permit No. IL0001724  
Notice No. 14050601bwc.docx

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

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

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 Permittee:

American Nickeloid Company  
2900 West Main Street  
Peru, Illinois 61354

Name and Address of Facility:

American Nickeloid Company  
2900 West Main Street  
Peru, Illinois 61354  
(LaSalle County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named Permittee. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. 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 Brian W. Cox at 217/782-0610.

The applicant is engaged in electroplating, metal finishing and coil coating (SIC 3471 and 3479). Waste water is generated by various plant operations such as water treatment, boiler operations, and plant processes. Plant operation results in an average discharge of 0.022 MGD of process wastewater, softener wastewater, laboratory wastewater, boiler blowdown, reverse osmosis reject and stormwater from outfall 001, and intermittent discharges of stormwater from outfalls 002 and 003.

All of the facility's cooling water originates from on-site groundwater wells.

The following modifications are proposed:

Water quality-based effluent limits (WQBEL) have been added to Outfall 001 for the following parameters: arsenic, hexavalent chromium, copper, lead, nickel, zinc, and ammonia.

Whole effluent toxicity (WET) testing requirements have been modified within the special conditions of the permit.

A condition has been added requiring that modeling or field studies be conducted for the purpose of demonstrating the availability of a mixing zone and zone of initial dilution (ZID).

A compliance schedule has been added to the permit in order to meet the new water quality based effluent limits for arsenic, hexavalent chromium, copper, lead, nickel, zinc, ammonia, and WET limits.

Phosphorus and Total Nitrogen monitoring have been added to Outfall 001, in an effort to gather data to be utilized in the Agency's nutrient management efforts.

The requirements associated with the storm water pollution prevention plan have been changed to reflect the Agency's current recommendations and requirements.

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

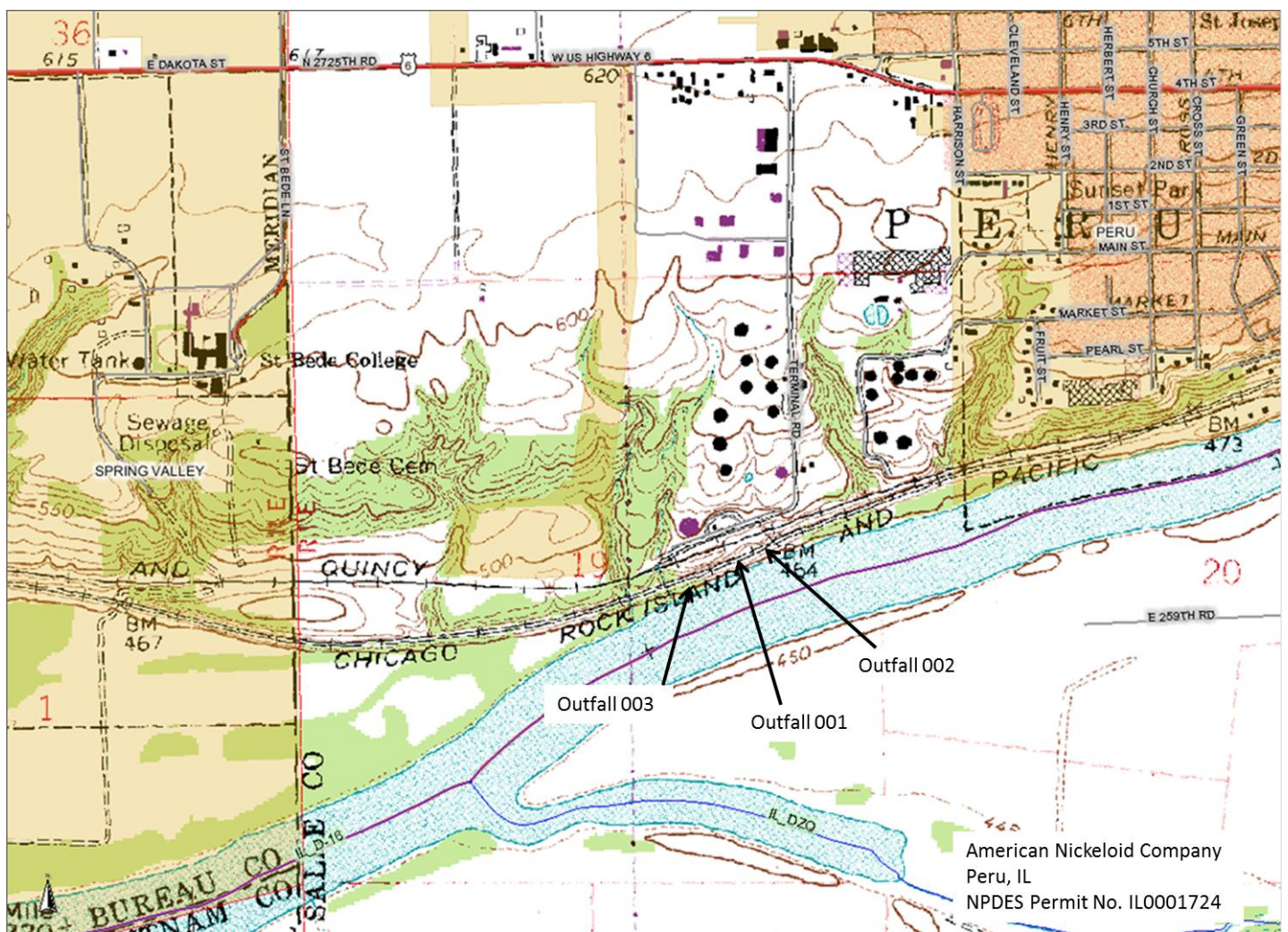
Outfall	Receiving Stream	Latitude	Longitude	Stream Classification	Integrity Rating
001	Illinois River	41° 19' 20" North	89° 08' 42" West	General Use	Not Rated
002	Illinois River	41° 19' 20" North	89° 08' 36" West	General Use	Not Rated
003	Illinois River	41° 19' 20" North	89° 08' 53" West	General Use	Not Rated

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

The stream segment, IL\_D-16, receiving the discharges from outfall(s) 001, 002, and 003 is on the 2014 303(d) list of impaired waters and was not listed as a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

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

Designated Use	Impairment(s)
Fish Consumption	Polychlorinated biphenyls and mercury



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

Outfall: A01

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/L		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)				Monitor Only		
pH				Shall be within range 7.5-10 s.u.		40 CFR 465
Total Suspended Solids	5.8	12	40 CFR 122.44(l)	15	30	35 IAC 304.124
Oil and Grease	3.7	6.5	40 CFR 122.44(l)	15	30	35 IAC 304.124
Aluminum	0.089	0.22	40 CFR 465			
Arsenic	0.12	0.25	35 IAC 304.124	0.25	0.50	35 IAC 304.124
Cadmium (Total)	0.0056	0.015	40 CFR 433	0.15	0.30	35 IAC 304.124
Chromium (Hexavalent)	0.046	0.14	35 IAC 304.124	0.10	0.30	35 IAC 304.124
Chromium (Total)	0.053	0.10	40 CFR 433 & 40 CFR 465	1.0	2.0	35 IAC 304.124
Total Cyanide	0.026	0.054	40 CFR 433 & 40 CFR 465	0.1	0.2	35 IAC 304.124
Copper (Total)	0.076	0.13	40 CFR 433 & 40 CFR 465	0.5	1.0	35 IAC 304.124
Iron (Total)	0.044	0.088	40 CFR 465	2.0	4.0	35 IAC 304.124
Lead (Total)	0.0093	0.015	40 CFR 433	0.20	0.40	35 IAC 304.124
Nickel (Total)	0.052	0.086	40 CFR 433	1.0	2.0	35 IAC 304.124
Silver (Total)	0.0052	0.0093	40 CFR 433	0.1	0.2	35 IAC 304.124
Zinc (Total)	0.089	0.19	40 CFR 433 & 40 CFR 465	1.0	2.0	35 IAC 304.124
Total Toxic Organics		0.046	40 CFR 433		2.13	40 CFR 433

Outfall: 001

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/L		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Flow (MGD)				Monitor Only		
pH				Shall be within range 6.0 –10.0 s.u.		35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.120
Iron (Total)				2.0	4.0	35 IAC 304.124
Arsenic					0.36	35 IAC 302.208
Hexavalent Chromium					0.016	35 IAC 302.208
Copper					0.043	35 IAC 302.208
Lead					0.314	35 IAC 302.208
Nickel					0.182	35 IAC 302.208
Zinc					0.269	35 IAC 302.208
Ammonia (as N)						
Spring/Fall					4.2	35 IAC 355
Summer					4.7	35 IAC 355
Winter					5.4	35 IAC 355
Total Phosphorus				Monitor Only		
Total Nitrogen				Monitor Only		

Outfall(s): 002 and 003

The permittee is required to maintain a storm water pollution prevention plan (SWPPP) which incorporates best management practices (BMPs) in order to minimize stormwater runoff and to minimize contamination of stormwater runoff.

## Load Limit Calculations:

- A. Load limit calculations for the following pollutant parameters were based on an average process water flow of 0.0595 MGD and using the formula of average (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 465. Production figures utilized in these calculations for the following subcategories are as follows:

Subcategory

Subpart A - Steel Basis Material

Subpart B - Galvanized Basis Material

Subpart C - Aluminum Basis Material

Mass limitations were developed by evaluating process and non-process wastewaters and appropriate limitations as found in 40 CFR 465 - Coil Coating, 40 CFR 433 - Metal Finishing, and state effluent standards at 35 Ill. Adm. Code Section 304. Mass limits for process waters were calculated using federal categorical standards when applicable, and mass limits for non-process wastewaters were calculated using state effluent standards when applicable. The mass limits were again calculated using state effluent standards for the entire flow. These two sets of numbers were compared with the more stringent of the two being the appropriate limit. If an existing limit was more stringent, and appropriate, this limit remained in the permit to prevent backsliding.

The following explain the conditions of the proposed permit:

The special conditions of the permit serve the purpose of clarifying monitoring requirements, monitoring location, DMR submission, treatment plant operator certification requirements, Storm Water Pollution Prevention Plan (SWPPP) requirements, include WET testing requirements, provide a compliance schedule for various parameters, and include a monitoring requirement for the following parameters: Arsenic, Barium, Cadmium, Chromium (hexavalent), Chromium (total), Copper, Cyanide (available or amenable to chlorination), Cyanide (total) , Fluoride, Iron (total), Iron (Dissolved), Lead, Manganese, Mercury, Nickel, Oil (hexane soluble or equivalent), Phenols, Selenium, Silver (total), and Zinc.

### Public Notice of Draft Permit

Public Notice Number 14050601bwc.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, Post Office Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0001724 has been prepared under 40 CFR 124.6(d) for American Nickeloid Company, 2900 W. Main Street, Peru, Illinois for discharge into the Illinois River from the American Nickeloid Company, 2900 W. Main Street, Peru, Illinois (LaSalle County). The applicant operates an existing electroplating, coil coating, and metal finishing plant (SIC 3471 and 3479). Plant operations include plating, polishing, anodizing, coating, laminating and painting, and result in an average discharge of 0.022 MGD of process water, softener wastewater, boiler blowdown, laboratory wastewater, reverse osmosis reject, and stormwater runoff from Outfall 001, and intermittent discharges of stormwater runoff from outfalls 002 and 003.

The application, draft permit and other documents are available for inspection and may be copied at the Agency between 9:30 A.M. and 3:30 P.M. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit, stating their name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to these issues in the hearing. Such requests must be received by the Agency not later than 30 days from the date of this publication.

If written comments and/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 30 days before any public hearing.

NPDES Permit No. IL0001724

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:

American Nickeloid Company  
2900 West Main Street  
Peru, Illinois 61354

Facility Name and Address:

American Nickeloid Company  
2900 West Main Street  
Peru, Illinois 61354  
(LaSalle County)

Discharge Number and Name:

Outfall 001 – Reverse Osmosis Reject and Discharges from  
Internal Outfall A01  
Outfall A01 - Process Wastewater, Boiler Blowdown, Softener  
Wastewater, Laboratory Wastewater, and  
Stormwater Runoff  
Outfall 002 - Stormwater  
Outfall 003 - Stormwater

Receiving Waters:

Illinois River  
Illinois River via Outfall 001  
Illinois River  
Illinois River

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



## NPDES Permit No. IL0001724

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(s): A01 – Process Wastewater, Boiler Blowdown, Softener Wastewater, Laboratory Wastewater, and Stormwater Runoff\*  
(DAF = 0.01 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				Daily	Continuous
pH	See Special Condition 2				2/Week	Grab
Total Suspended Solids	5.8	12	15	30	1/Week	Composite
Oil and Grease	3.7	6.5	15	30	1/Week	Grab
Aluminum	0.089	0.22			2/Week	Composite
Arsenic	0.12	0.25	0.25	0.50	1/Month	Composite
Cadmium (Total)	0.0056	0.015	0.15	0.30	1/Month	Composite
Chromium (Hexavalent)	0.046	0.14	0.10	0.30	2/Week	Composite
Chromium (Total)	0.053	0.10	1.0	2.0	1/Week	Composite
Total Cyanide	0.026	0.054	0.1	0.2	2/Week	Composite
Copper (Total)	0.076	0.13	0.5	1.0	1/Week	Composite
Iron (Total)	0.044	0.088	2.0	4.0	2/Week	Composite
Lead (Total)	0.0093	0.015	0.20	0.40	1/Week	Composite
Nickel (Total)	0.052	0.086	1.0	2.0	1/Week	Composite
Silver (Total)	0.0052	0.0093	0.1	0.2	1/Week	Composite
Zinc (Total)	0.089	0.19	1.0	2.0	1/Month	Composite
Total Toxic Organics**		0.046		2.13	See Special Condition 10	

\*See Special Condition 3.

\*\* See Special Condition 9,10, and 11.

## NPDES Permit No. IL0001724

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(s): 001 – Reverse Osmosis Reject and Discharges from Internal Outfall A01  
(DAF - 0.022 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				Daily	Continuous
pH	See Special Condition 2				2/Week	Grab
Total Suspended Solids			15	30	2/Week	Grab
Iron (Total)			2.0	4.0	2/Week	Grab
Arsenic				0.36*	1/Month	Composite
Hexavalent Chromium				0.016*	1/Month	Grab
Copper				0.043*	1/Month	Composite
Lead				0.314*	1/Month	Composite
Nickel				0.182*	1/Month	Composite
Zinc				0.269*	1/Month	Composite
Ammonia (as N)						
Spring/Fall**				4.2*	1/Month	Composite
Summer***				4.7*	1/Month	Composite
Winter****				5.4*	1/Month	Composite
Total Phosphorus			Monitor Only		2/Year	Grab
Total Nitrogen			Monitor Only		2/Year	Grab

\*See Special Condition 19.

\*\* Spring/Fall consists of March – May and September – October

\*\*\* Summer consists of June – August

\*\*\*\* Winter consists of November – February

Outfall(s): 002, and 003 – Stormwater \*  
(DAF = Intermittent)

\*See Special Condition 20 for Storm Water Pollution Prevention Plan (SWPPP) requirements.

NPDES Permit No. IL0001724

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 on the Discharge Monitoring Report. The monthly average shall consist of the summation of the daily flows divided by the number of days the facility discharged during that month.

SPECIAL CONDITION 2. The pH shall be in the range 7.5 to 10.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. The Agency has determined that the effluent limitations in this permit constitute BAT for storm water discharging via outfall 001 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 4. 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 5. The effluent, alone or in combination with other sources, shall not cause a violation of any applicable water quality standard outlined in 35 Ill. Adm. Code 302.

SPECIAL CONDITION 6. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) Forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee may choose to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/net-dmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 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 7. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge but prior to entry into the receiving stream. For Outfall 001, this means sampling shall be conducted at point after all waste streams have been commingled but prior to entry into the Illinois River. For Outfall A01, this means sampling shall be conducted within the discharge cistern or after the discharge cistern but prior to commingling with the reverse osmosis reject waste stream.

SPECIAL CONDITION 8. The permittee shall continue its toxic organic pollution management plan, which consists of the following:

All of the solvents, paints, lacquers, adhesives and coatings shall be handled carefully due to their flammability and toxicity. All coatings shall be stored in separate buildings away from the main factory, which are designed specifically for solvent and paint storage. The coatings shall be pumped and/or transported to the point to application as needed. Clean-up solvents shall be stored in a 500 gallon, double walled, above-ground storage tank and only small amounts shall be used at a time.

Special Conditions

The residual from coating drums and spent solvents shall be drained and collected in DOT approved hazardous waste drums. The waste drums shall be labeled with "Hazardous Waste" and "Flammable Liquid", DOT approved labels. An outside contractor shall remove the waste drums for distillation or incineration.

To ensure that toxic organics do not spill or leak into the wastewater treatment system, the solvents, coatings and organic wastes shall be stored and handled away from gutters, sewers or waste treatment units. Coating areas shall be enclosed so that spills cannot escape to a gutter or sewer. Spills shall be absorbed with dry solids or rags and placed in drums for proper disposal.

SPECIAL CONDITION 9. Total toxic organics (TTO) shall be defined as the summation of all quantifiable values greater than 0.01 milligrams per liter for the toxic organics listed in 40 CFR 433.11(e). In addition to reporting TTO, permittee shall also report the identity and concentration of the individual compounds comprising the TTO value. The TTO limitation is a guideline based limitation and is not an authorization to discharge toxic organic compounds at levels which cause or may cause water quality violations. The discharge of organic compounds at levels which cause or may cause water quality violations is prohibited.

SPECIAL CONDITION 10. TTO shall be monitored 1/quarter by at least two grab samples for volatile pollutants and a 24-hour composite sample for the acid and base-neutral fractions. Sampling shall be performed on a normal production day while solvents are in use in the plant. The permittee may make the following certification statement in lieu of monitoring for TTO:

Based on my inquiry of the person or persons directly responsible for managing compliance with the permit limitation for total toxic organic (TTO), I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last discharge monitoring report. I further certify that this facility is implementing the toxic organic pollutant management plan submitted to the Illinois EPA.

This statement is to be included as a comment on the Discharge Monitoring Report if the certification alternative is chosen.

SPECIAL CONDITION 11. After review of the results of the TTO monitoring program and the toxic organic pollutant management plan, the Illinois EPA may modify this permit to include effluent limitations for specific toxic organic pollutants, or to continue or modify the monitoring program as appropriate.

SPECIAL CONDITION 12. The use or operation of this facility shall be by or under the supervision of a Certified Class K operator.

SPECIAL CONDITION 13. The Permittee shall conduct biomonitoring of the effluent from Outfall 001 in accordance with the following requirements.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least one trophic level 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 test is required:
  - a. Invertebrate 48-hour static LC<sub>50</sub> Bioassay with *Ceriodaphnia* using 100%, 50%, 25%, 12.5%, 6.25% and 3.1% effluent dilution series
2. Testing Frequency - The above test shall be conducted annually using 24-hour composite samples unless otherwise authorized by the IEPA. If 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 – Pending the completion of a mixing zone and zone of initial dilution (ZID) demonstration, mixing for whole effluent toxicity may be granted providing effluent does not exceed 1.0 Toxic Units outside of the ZID and that toxicity only occurs in response to high ammonia, copper, nickel, zinc or any other regulated parameter that has been granted mixing. Should a bioassay result in greater than 1.0 Toxic Units outside of the ZID, or in the absence of a mixing zone and ZID demonstration 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 greater than 1.0 Toxic Units outside of the ZID, or in the absence of a mixing zone and ZID demonstration should greater than 1.0 Toxic Units exist in the 100% effluent treatment, the Permittee may wish to contact the IEPA to request the discontinuance of further sampling at which time the IEPA may require the Permittee to begin the toxicity

## NPDES Permit No. IL0001724

Special Conditions

reduction evaluation and identification as outlined below.

5. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to  $\geq 50\%$  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 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. Modeling or field studies may be used to demonstrate the availability of a mixing zone and ZID. The purpose of these optional studies is to define the dilution ratios present during 7Q10 low receiving stream flow conditions. Any report submitted to the IEPA should show effluent concentrations at various distances downstream of the effluent outfall, sufficient to demonstrate the areas of the mixing zone and ZID, during the observed or modeled low flow condition. The mixing regulations of Title 35 Ill. Adm. Code 302.102 will then be used to determine if the conditions necessary for the Agency to grant a mixing zone and ZID are present. If the permittee intends to pursue this option, a study plan outlining the methodologies proposed to be used must be submitted for IEPA approval. The IEPA will review the submitted sample data and may reopen and modify this Permit to eliminate or include revised effluent limitations based on the results of the collected data.

SPECIAL CONDITION 15. For the purpose of this permit, the discharge from outfall 001 is limited to reverse osmosis reject, boiler blowdown, laboratory wastewater, softener wastewater, process waters, and stormwater, free from other wastewater discharges. The discharges from Outfalls 002 and 003 are limited to storm water, free from process and other wastewater discharges. In the event the permittee shall require the use of water treatment additives other than those previously approved by this Agency, or if the permittee increases the feed rate or quantity of the additives used beyond what has previously been approved by this Agency, the permittee shall request a modification of this permit in accordance with the Standard Conditions – Attachment H.

SPECIAL CONDITION 16. Semi-annual sampling shall be conducted once between the months of January – June and once between the months of July – December, with the results being submitted with the July and January DMRs respectively.

SPECIAL CONDITION 17. No effluent shall contain settleable solids, floating debris, visible oil, grease, scum or sludge solids. Color, odor and turbidity must be reduced to below obvious levels.

SPECIAL CONDITION 18. The Permittee shall conduct semi-annual monitoring of the Outfall 001 effluent and report concentrations (in mg/l) of the following listed parameters. Monitoring shall begin three (3) months from the effective date of this permit. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on Discharge Monitoring Report Forms to IEPA unless otherwise specified by the IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET</u> <u>CODE</u>	<u>PARAMETER</u>	<u>Minimum</u> <u>reporting limit</u>
01007	Barium	0.5 mg/L
01027	Cadmium	0.001 mg/L
01034	Chromium (total)	0.05 mg/L
00718	Cyanide (grab (available *** or amenable to chlorination))	5.0 ug/L
00720	Cyanide (total) (grab not to exceed 24 hours)	5.0 ug/L
00951	Fluoride	0.1 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01055	Manganese	0.5 mg/L
71900	Mercury (grab)**	1.0 ng/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

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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.

\*\*\*USEPA Method OIA-1677.

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An arsenic limit of 0.36 mg/L (Daily Maximum), a hexavalent chromium limit of 0.016 mg/L (Daily Maximum), a copper limit of 0.043 mg/L (Daily Maximum), a lead limit of 0.314 mg/L (Daily Maximum), a nickel limit of 0.182 mg/L (Daily Maximum), a zinc limit of 0.269 mg/L (Daily Maximum), and ammonia (as N) limits of 4.2 mg/L (Daily Maximum Spring/Fall), 4.7 mg/L (Daily Maximum Summer) and 5.4 mg/L (Daily Maximum Winter) for discharge number(s) Outfall 001 shall become effective three years from the effective date of this Permit. Arsenic, hexavalent chromium, copper, lead, nickel, zinc, and ammonia (as N) shall be monitored until the above mentioned limits become effective. Reporting shall be submitted on the DMR's on a monthly basis.

In order for the Permittee to achieve the above limit, it will be necessary to demonstrate the availability of a zone of initial dilution (ZID) and a mixing zone as stated in Special Condition 14 which may include the installation of a new discharge structure to allow for rapid mixing in accordance with the following schedule:

	Task Description	Completion Date
1.	Submit interim report to Illinois EPA including progress on the development of a modeling work plan and the data gap analysis for Illinois River 7Q10 data at approximately river mile 221.3.	3 months after the effective date of the permit.
2.	Assessment of endangered critical areas (e.g. drinking water supplies, recreational areas, breeding grounds, areas with sensitive biota)	5 months after the effective date of the permit.
3.	Submit to Illinois EPA a modeling work plan consisting of the following: a. A definition of modeling objectives b. A description of water quality model to be used c. Specific attributes, characteristics, and limitations of the water quality model d. Identification of all input parameters, constants, assumed values, and expected outputs e. Identification of input data to be used f. Configuration of water quality model g. Procedures and protocols for performance of sensitivity analysis h. Procedure for calibrating the water quality model i. Procedures to verify the water quality model's calibration j. An expeditious schedule for development and utilization of the water quality model	6 months after the effective date of the permit.
4.	Run water quality model for mixing zone	8 months after the effective date of the permit.
5.	Complete and submit to Illinois EPA report of water quality modeling run and results and include one of the following. a. If modeling indicates that mixing is adequate and no physical modifications are necessary, then the report should include a request for the Agency to approve the defined mixing zone and ZID; or b. If modeling does not indicate that mixing is adequate, then include a statement identifying the proposed solution to come into compliance with the permit limits e.g. construct a new discharge structure that will allow for adequate mixing or eliminate the direct discharge of process wastewater.	10 months after the effective date of the permit.
6.	Submit to the Illinois EPA Plans and specifications for the proposed modifications and apply for any necessary construction permits, permit modifications, and/or certifications (i.e. Certifications of Section 401 of the Clean Water Act)	16 months from the effective date of this Permit
7.	Arrange financing	19 months from the effective date of this Permit
8.	Commence construction	20 months from the effective date of this Permit

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9.	Interim Report regarding status of construction	26 months from the effective date of this Permit
10.	Complete construction	34 months from the effective date of this Permit
11.	Obtain operational level	36 months from the effective date of this Permit

Compliance dates set out in this Permit may be superseded or supplemented by compliance dates in judicial orders, Pollution Control Board orders. This Permit may be modified, with Public Notice, to include such revised compliance dates.

The Permittee shall operate the treatment facilities in a manner to ensure continuous compliance with the arsenic, hexavalent chromium, copper, lead, nickel, zinc, and ammonia (as N) limits, and not to the extent that will result in violations of other permitted effluent characteristics, or water quality standards.

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The Permittee shall submit a report no later than fourteen (14) days following the completion dates indicated for each numbered item in the compliance schedule, indicating, a) the date the item was completed, or b) that the item was not complete, the reasons for non-completion and the anticipated completion date.

SPECIAL CONDITION 20.STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

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 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

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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.
  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,



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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 cleanup 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 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.

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- 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 for 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 there under, 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.
- 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

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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 there under.
- 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).

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- 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 first report shall contain information gathered during the one year time period beginning with the effective date of coverage under this permit and shall be submitted no later than 60 days after this one year period has expired. Each subsequent report shall contain the previous year's information and shall be submitted no later than one year after the previous year's report was due.
- 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 mailed to the following address:

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.