

NPDES Permit No. IL0002861  
Notice No. MEL:14102301.docx

Public Notice Beginning Date: **February 23, 2015**

Public Notice Ending Date: **March 25, 2015**

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:

ExxonMobil Oil Corporation  
Post Office Box 874  
Joliet, Illinois 60434

Name and Address of Facility:

ExxonMobil Oil Corporation  
25915 S.E. Frontage Road  
Channahon, Illinois 60410  
(Will County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to reissue an 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 Mark E. Liska at 217/782-0610.

The applicant is engaged in the operation of a petroleum refinery (SIC 2911). The facility processes approximately 233,500 barrels of crude oil per stream day. Waste water originates from the use of Des Plaines River surface water and well water. The design average flow of the wastewater treatment plant is 4.32 MGD of treated process, sanitary wastewater and storm water runoff at outfall 001; 10.5 MGD of non-contact cooling water, boiler blowdown, condensate, zeolite water softening regeneration streams (brine, slow and fast rinses), and overflow of excess river/well water from utility makeup water system at outfall 002; an intermittent discharge of hydrostatic test water at internal outfall A03; intermittent discharge of stormwater runoff, well test water, and hydrostatic test water from tankage area and coke storage area at outfall 003; stormwater runoff from wharf area at outfalls 004 and 005; stormwater runoff from northeast secondary drainage area at outfall 006; stormwater runoff from east secondary drainage area at outfall 007; storm water runoff from interceptor basin overflow at outfall 008; and storm water runoff from north secondary drainage area at outfall 009; and stormwater runoff from northeast secondary drainage area at outfall 010.

Application is made for the existing discharges which are located in Will 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	Des Plaines River	41°25'20"	North	88°11'20"	West	Secondary Contact	C
002	Des Plaines River	41°25'20"	North	88°11'20"	West	Secondary Contact	C
003	Des Plaines River	41°25'20"	North	88°11'20"	West	Secondary Contact	C
004	Des Plaines River	41°25'16"	North	88°11'31"	West	Secondary Contact	C
005	Des Plaines River	41°25'22"	North	88°11'20"	West	Secondary Contact	C
006	Jackson Creek tributary to Des Plaines River	41°24'55"	North	88°10'20"	West	General Use	B
007	Jackson Creek tributary to Des Plaines River	41°24'27"	North	88°10'32"	West	General Use	B
008	Des Plaines River	41°25'26"	North	88°11'06"	West	Secondary Contact	C
009	Des Plaines River	41°25'23"	North	88°11'19"	West	Secondary Contact	C
010	Des Plaines River	41°25'10"	North	88°10'40"	West	Secondary Contact	C

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

The stream segment G-12 receiving the discharge from outfalls 001, 002, 003, 004, 005, 008, 009, and 010 is on the 2014 draft 303 (d) list of impaired waters. The stream segment receiving the discharge from outfalls 006 and 007 is not on the 303 (d) list of impaired waters. The receiving water has not been given an integrity rating or been 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>
Fish Consumption	Mercury, PCBs

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

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)						35 IAC 309.146
pH	Shall be in the range of 6 to 9 standard units					35 IAC 304.125
BOD <sub>5</sub>	584	1,435	35 IAC 304.120(b)	20	40	35 IAC 304.120(b)
Total Suspended Solids	730	1,793	35 IAC 304.120(b)	25	50	35 IAC 304.120(b)
COD	14,164	27,295	40 CFR 419.23	--	--	
Oil, Fats & Grease	438	1,076	35 IAC 304.124	15	30	35 IAC 304.124
Phenols	8.2	27	35 IAC 304.124	0.3	0.6	35 IAC 304.124
Chromium (Total)	9.7	28	40 CFR 419.23	1	2	35 IAC 304.124
Chromium (Hexavalent)	0.78	1.8	40 CFR 419.23	0.1	0.2	35 IAC 304.124
Sulfide	11	24	40 CFR 419.23	--	--	
NH <sub>3</sub> -N	108	252	35 IAC 304.122(b)	3	6	35 IAC 304.122(b)
Cyanide	2.9	7.2	35 IAC 304.124	0.1	0.2	35 IAC 304.124
Fluoride	438	1,076	35 IAC 304.124	15	30	35 IAC 304.124

\*All permit limits are regulated under 35 IAC 309.143(b).

Additional storm water credit for the following parameters shall be based on the quantity of storm flow taken through process treatment.

Pounds Per 1000 gallons of storm water flow\*

Parameter	Average	Maximum
COD	1.5	3.0
Chromium (Total)**	.0018	.005
Chromium (Hexavalent)**	.00023	.00052

Dry Weather Flow: The average flow from the wastewater treatment facility for the last three consecutive zero precipitation days. Previously collected storm water which is sent to process treatment during this period shall not be included in this computation.

\*Storm Water Flows: The storm water runoff treated in the wastewater treatment facility is that portion of flow greater than the dry weather flow. Measurement of previously collected contaminated storm water from tank dikes may also be used in computing storm water credit.

In computing monthly average permit limits to include storm water credit, the mass credit calculated above shall be averaged along with process mass limits over the 30 day period. Explanatory calculations and flow data shall be submitted together with Discharge Monitoring Reports.

\*\*The permittee shall not exceed the following load limits (lb/day) at any time:

Parameter	Average	Maximum
Chromium (Total)	32.94	80.56
Chromium (Hexavalent)	3.29	8.06

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PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Outfall: 002						
Flow (MGD)						35 IAC 309.146
pH	Shall be in the range of 6 to 9 Standard units					35 IAC 304.125
TOC				--	5 Net	40 CFR 419.23(e)
Outfall: 003						
Flow (MGD)						35 IAC 309.146
pH	Shall be in the range of 6 to 9 Standard units					35 IAC 304.125
Oil & Grease				--	15	40 CFR 419.24(e)(1)
TOC				--	110	40 CFR 419.23(f)(1)
Outfall: A01						
Temperature*					90 <sup>0</sup> F	40 CFR 125.3
* Temperature at outfall A01 shall be monitored, reported, and limited to 90 <sup>0</sup> F, whenever combined Outfall 001, 002, and 003 exceeds 90 <sup>0</sup> F.						
Outfall: A03						
Flow (MGD)						35 IAC 309.146
pH	Shall be in the range of 6 to 9 standard units					35 IAC 304.125
Total Suspended Solids				15	30	35 IAC 304.124
Oil & Grease				15	30	35 IAC 304.124
Iron (Total)				2	4	35 IAC 304.124
Phenols				0.3	0.6	35 IAC 304.124
Benzene				--	0.05	40 CFR 125.3
Total BETX				--	0.75	40 CFR 125.3

LOAD LIMITS lbs/day DAF (DMF)				CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Combined Outfalls 001, 002, and 003						
Total Dissolved Solids		385,000				35 IAC 303.445
Total Residual Chlorine*					0.05	40 CFR 125.3
Phosphorus (Total)				Monitor Only		35 IAC 309.146
Nitrogen (Total)				Monitor Only		35 IAC 309.146
Mercury				Monitor Only		35 IAC 309.146
Sulfate				Monitor Only		35 IAC 309.146
Chloride				Monitor Only		35 IAC 309.146
*Monitoring for total residual chlorine must be done when chlorine is used during zebra mussel control (outfall 002) or for well water testing (outfall 003) resulting in a discharge.						
Outfalls: 004, 005 and 008						
Flow (MGD)						35 IAC 309.146 (a)(3)
pH	Shall be in the range of 6 to 9 standard units					35 IAC 304.125 (a)
Oil & Grease				--	15	40 CFR 419.24(e)(1)
TOC				--	110	40 CFR 419.23 (f)(1)
Outfalls: 006, 007, 009 and 010						
A Storm Water Pollution Prevention Plan (SWPPP) applies to outfalls 006, 007, 009, and 010.						

Flow is monitored and reported at outfalls 001 - 005, and 008.

Load Limit Calculations:

- A. Load limit calculations for ammonia at outfall 001 were based on a design average flow of 4.32 MGD and the design maximum flow of 5.04 MGD and using the formula of peak average flow (MGD) X concentration limit (6 mg/L) X 8.34 = the daily load limit (lbs/day).
- B. For BOD<sub>5</sub>, total suspended solids, oil & grease, fluoride, cyanide, chromium (hexavalent), chromium (total) and phenols, the existing effluent limits were utilized.
- C. Production based load limits for COD and sulfide were calculated at Outfall 001 by multiplying the average production by the effluent limit contained in 40 CFR 419. Production figures utilized in these calculations for the following subcategories are as follows:

Subcategory

Production Rate

Subpart B - Cracking

233,730 barrels of crude oil per stream day

COD and Sulfide were limited using Federal production based load limits. The following sample calculation shows the methodology utilized to determine production based load limitations:

The BPT load limits (40 CFR 419.22) were determined using the size factor, process factor and average production, as well as the BPT effluent limitations factor in lbs/1,000 barrels. The BPT load limits (lbs/day) for COD are as follows:

30-Day Average for COD:

$$(38.4 \text{ lbs/1,000 bbl}) \times (233,730 \text{ bbl/day}) \times (1.41) \times (1.29) = 16,325 \text{ lbs/day}$$

Daily Maximum for COD:

$$(74 \text{ lbs/1,000 bbl}) \times (233,730 \text{ bbl/day}) \times (1.41) \times (1.29) = 31,460 \text{ lbs/day}$$

The size factor used to determine the BPT load limits is based on the total barrels of feedstock per stream day. The process factor was determined based on the process configuration, which was determined based on the average production (bbl/day) for the various refinery processes. The BAT load limits (40 CFR 419.23) were determined using the average production (bbl/day) for the various refinery processes and the BAT effluent limitation factor. The average production for the refinery processes is as follows: Crude - 581,150 bbl/day; Cracking and Coking – 292,070 bbl/day, Asphalt - 8,590 bbl/day, and Reforming and Alkylation – 42,660 bbl/day. The following sample calculation for chromium (total) shows the methodology utilized to determine the BAT production based load limits:

30 - Day Average for Chromium (Total):

$$(581.150) \times (0.004) + (292.07) \times (0.041) + (8.59) \times (0.022) + (42.660) \times (0.037) = 16.1 \text{ lbs/day}$$

Daily Maximum for Chromium (Total):

$$(581.150) \times (0.011) + (292.07) \times (0.119) + (8.59) \times (0.064) + (42.660) \times (0.107) = 46.3 \text{ lbs/day}$$

The BAT effluent limitation factors used in the above calculation are in lbs/1000 bbl. The average production figures used in the above calculation are in 1,000 bbl/day. The crude processes include crude distillation, desalting and vacuum distillation. The cracking and coking processes include fluid catalytic cracking, delayed coking, and hydrotreating. The catalytic reforming processes contribute to the production in the reforming and alkylation subcategory.

The state load limits, BPT load limits and BAT limits and BAT load limits were compared, and the most stringent load limits are in the permit for each parameter.

Additional storm water credit (pounds per 1,000 gallons of storm water flow) for the following parameters is based on the quantity of storm water flow taken through the process treatment: COD, Chromium (total) and Chromium (hexavalent).

The BOD<sub>5</sub>, TSS, COD, Oil & Grease, Phenols, Sulfide, Cyanide, Fluoride, and Chromium (total) and Chromium (Hexavalent) load limits appearing in the permit are effluent limits from the prior permit, which are more stringent than the State and Federal Guidelines presented above. There is no rise in any load limit from the previous permit.

The table below summarizes the limits for Outfall 001.

Permittee has agreed to use lower of previous and newly calculated load limits.									
<b>Limits used are in bold.</b>									
	Previous		Calculated		Load Limit		Conc. Limits		Conc. Limit
	Load Limits		Load Limits		Regulation		Regulation		Regulation
BOD5	<b>584</b>	<b>1,435</b>	721	1,681	304.120(b)	20	40	304.120(b)	
TSS	<b>730</b>	<b>1,793</b>	901	2,102	304.120(b)	25	50	304.120(b)	
COD	<b>14,164</b>	<b>27,295</b>	16,325	31,460	40 CFR 419.23	--	--		
Oil & Grease	<b>438</b>	<b>1,076</b>	540	1,261	304.124	15	30	304.124	
Phenols	<b>8.2</b>	<b>27</b>	14	57	40 CFR 419.23	0.3	0.6	304.124	
Cr-total	<b>10</b>	<b>28</b>	16	46	40 CFR 419.23	1	2	304.124	
Cr-hex	<b>0.78</b>	<b>1.80</b>	1.3	3.0	40 CFR 419.23	0.1	0.2	304.124	
Sulfide	<b>11</b>	<b>24</b>	12	28	40 CFR 419.23	--	--		
Ammonia	<b>108</b>	<b>252</b>	<b>108</b>	<b>252</b>	304.122(b)	3	6	304.122(b)	
Cyanide	<b>2.9</b>	<b>7.2</b>	4	8.4	304.124	0.1	0.2	304.124	
Fluoride	<b>438</b>	<b>1,076</b>	<b>438</b>	<b>1,076</b>	304.124	15	30	304.124	

The following explain the conditions of the proposed permit:

The use and operation of the wastewater treatment facilities shall be under the supervision of a certified Class K operator.

The permit requires the permittee to conduct biomonitoring of the effluent from the combined outfall in the form of acute toxicity testing on fish and invertebrate, and accordance with an Agency-approved plan to be submitted within 90 days of permit issuance.

The provisions in 40 CFR 122.41 (m & n) are applicable to this permit.

The permittee is required to determine the quantity of sludge produced by the wastewater treatment facility and sent offsite for disposal, maintain adequate records of these quantities, and submit to the Agency semi-annual reports (at a minimum) of the quantities of sludge generated and disposed of and the specified disposal method(s), and include sludge monitoring.

The following zebra mussel control program is authorized by this permit for chlorination/dechlorination: chlorine or chlorine compounds may be applied on an intermittent or continuous basis; the discharge at outfall 002 must be dechlorinated; monitoring for total residual chlorine shall be done at a point where outfalls 001, 002 and 003 are combined but prior to entry into the receiving waters, and the discharge limit of the combined flows as monitored at this point shall not exceed 0.05 mg/L total residual chlorine as a daily maximum; dechlorination chemical(s) must be applied at a rate sufficient to provide complete dechlorination without excess dechlorination, and the dechlorination system shall be operated when chlorination is occurring; and total residual chlorine shall be monitored by grab sampling when intermittent and/or continuous chlorination is done.

A Storm Water Pollution Prevention Plan (SWPPP) applies to storm water runoff from outfalls 006, 007, 009, and 010. The effluent limitations in this permit constitute BAT/BCT for treated storm water (outfalls 001, 003, 004, 005 and 008). Runoff from the coke storage area may overflow into outfall 003 when its flow exceeds the design capacity of coke storage area containment system or in the event of a failure or malfunction of the sump pump system. Intentional diversion of some or all of the coke storage area runoff to outfall 003 will be allowed only when needed during heavy rains to prevent an overflow of oily wastewater at the wastewater treatment plant, providing that no permit discharge limits are exceeded at outfall 003.

Outfall A03 is an internal outfall associated with the discharge of hydrostatic test water from integrity testing of piping, pipeline, or tank(s). The Permittee shall conduct biomonitoring of the effluent discharge at the combined outfall of 001, 002 and 003 as required in the Permit.

In the previous permit, the permittee was required to conduct a thermal model in order to make sure that the general use water quality limit for temperature was met in the Des Plaines River at the I-55 bridge where the stream classification changed from Secondary Contact to General Use. The permittee conducted the thermal model in a timely manner. This model was reviewed by the Agency and was found to be satisfactory. The model showed that the discharges from the facility meet the temperature limits at the I-55 bridge.

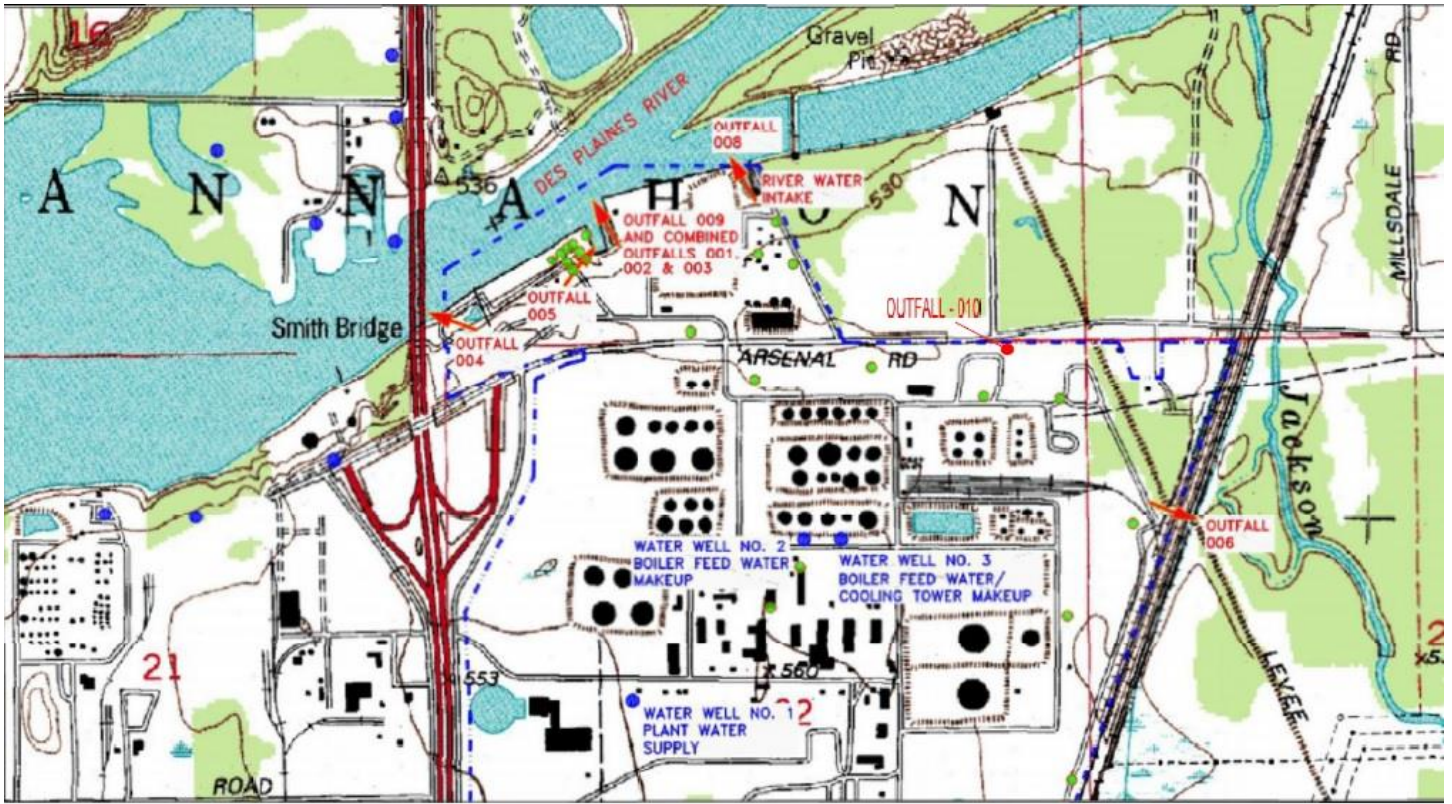
The facility takes in water from the Des Plaines River. The intake structure consists of an approximately 150 foot intake channel that is approximately 60 feet wide. The structure consists of two concrete bays that are approximately 10 feet wide by 16 feet deep. The intake is equipped with bar screens and a 0.5-inch screen is affixed to the intake. There are two 6,650 GPM intake pumps in each bay. The intake structure pumps in water with an average and maximum velocity of 0.16 and 0.33 feet per second, respectively. The permittee reported 2011 average and maximum velocities of 0.18 and 0.23 feet per second, respectively.

The Agency has conducted a Best Treatment Available (BTA) analysis for the cooling water intake structure and has found that the structure meets the requirements under section 316(b) of the Clean Water Act (CWA) for existing manufacturing and industrial facilities that are designed which withdraw more than 2 MGD of water from waters of the United States and use at least 25 percent of the water they withdraw exclusively for cooling purposes which was amended on August 15, 2014.

The structure meets the BTA standard for Impingement Mortality for Existing Units at Existing Facilities (Section IV. A. of the new rule) by operating a cooling water intake structure that has a maximum through-screen design intake velocity of 0.5 fps (option 2 of the new rule).

The structure conditionally meets the BTA standard for Entrainment for Existing Units at Existing Facilities (Section IV. B. of the new rule) by operating at a low flow velocity with 0.5-inch screen (the rule requires a BTA analysis on a site-specific basis). Further Impingement and Entrainment requirements are detailed in Special Condition 32.

Water used for processes is pumped from onsite wells. This intake is not subject to 316(b) regulations.





NPDES Permit IL0002861

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

P.O. 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:

Facility Name and Address:

ExxonMobil Oil Corporation  
Post Office Box 874  
Joliet, Illinois 60434

ExxonMobil Oil Corporation  
25915 S.E. Frontage Road  
Channahon, Illinois 60410  
(Will County)

Discharge Number and Name:

Receiving Waters

001 -- Treated Process, Sanitary and Storm Water  
002 -- Non-Contact Cooling Water, Boiler Blowdown, Zeolite Water  
Softening Regeneration Streams (Brine, Slow and Fast Rinses),  
Condensate, Potable Water, Fire Water, and Overflow of Excess  
River/well Water from Utility Makeup Water Systems  
003 -- Storm Water Runoff and Hydrostatic Test Water from Tankage Area  
and Coke Storage Area, Well Test Water, and Emergency  
Once-Through Cooling Water  
A01 -- Purge Treatment Unit Wastewater - Wet Gas Scrubber Wastewater  
A03 -- Hydrostatic Test Water  
004 -- Storm Water Runoff from Wharf Area  
005 -- Storm Water Runoff from Wharf Area  
006 -- Storm Water Runoff from Northeast Secondary Drainage Area  
007 -- Storm Water Runoff from East Secondary Drainage Area  
008 -- Storm Water Runoff from Interceptor Basin Overflow  
009 -- Storm Water Runoff from North Secondary Drainage Area  
010 -- Storm Water Runoff from Northeast Secondary Drainage Area

Des Plaines River  
Des Plaines River  
Des Plaines River  
Internal Outfall  
Internal Outfall  
Des Plaines River  
Des Plaines River  
Jackson Creek tributary to Des Plaines River  
Jackson Creek tributary to Des Plaines River  
Des Plaines River  
Des Plaines River  
Des Plaines 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 IL0002861

## Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVG.	DAILY MAX.	30 DAY AVG.	DAILY MAX.		
Flow (MGD)	See Special Condition 20				Daily	Continuous
pH	See Special Condition 1				1/Week	Grab
BOD <sub>5</sub>	584	1,435	20	40	2/Month	24 hr Composite
Total Suspended Solids	730	1,793	25	50	2/Week	24 hr Composite
COD***	14,164	27,295			2/Month	24 hr Composite
Oils, Fats and Grease	438	1,076	15	30	1/Week	24 hr Composite*
Phenols	8.2	27	0.3	0.6	1/Month	24 hr Composite
Chromium (Total)	9.7**	28**	1.0	2.0	2/Month	24 hr Composite
Chromium (Hexavalent)	0.78**	1.8**	0.1	0.2	2/Month	24 hr Composite
Sulfide	11	24			1/Month	24 hr Composite
NH <sub>3</sub> -N	108	252	3.0	6.0	2/Week	24 hr Composite
Cyanide	2.9	7.2	0.1	0.2	1/Month	24 hr Composite
Fluoride	438	1,076	15	30	1/Month	24 hr Composite

\*See Special Condition 4.

\*\*See Special Conditions 10, and 28.

\*\*\*See Special Conditions 10.

\*\*\*\*See Special Conditions 7, 13, and 19.

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\*\*\*\* - Treated Process, Sanitary, and Storm Water (DAF = 4.32 MGD, DMF = 5.04 MGD)

NPDES Permit IL0002861

Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVG.	DAILY MAX.	30 DAY AVG.	DAILY MAX.		

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): 002\* - Non-Contact Cooling Water and Boiler Blowdown (Discharge = 10.476 MGD)

Flow (MGD)	See Special Condition 20			Daily	Continuous
pH	See Special Condition 1			1/Week	Grab
TOC	See Special Condition 5		'5' Net	1/Month	24 hr Composite

\* See Special Condition 8.

Outfall: 003\*\* Storm Water Runoff (Intermittent Discharge)  
Hydrostatic Test Water from Tankage Area and Coke Storage Area (Intermittent Discharge)  
Well Test Water (Intermittent Discharge)

				If Discharge Occurs	
Flow (MGD)	See Special Condition 20			Daily	Continuous
pH*	See Special Condition 1			2/Month*	Grab
Oil & Grease*			15	2/Month*	Grab
TOC*			110	2/Month*	Grab

\*The discharge must be sampled daily in the subsequent 48 hours of discharge after the West Storm Basin receives flow from the coke sedimentation basin. See Special Conditions 21 and 22.

\*\*See Special Conditions 19, 21, 22, and 23.

## NPDES Permit IL0002861

## Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVG.	DAILY MAX.	30 DAY AVG.	DAILY MAX.		

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: A03\*\*\* - Hydrostatic Test Water through Outfall 003 (Intermittent Discharge)

Flow (MGD)	See Special Condition 20				1/Event*	Estimate
pH	See Special Condition 1				1/Event*	Grab
Total Suspended Solids			15	30	1/Event*	Grab
Oil & Grease			15	30	1/Event*	Grab
Iron (Total)			2	4	1/Event*	Grab
Benzene			--	0.05	1/Event*	Grab
Total BETX**			--	0.75	1/Event*	Grab
Phenols			0.3	0.6	1/Event*	Grab

\*Monitor each event prior to discharging to Outfall 003. An event is defined as the hydrostatic test water discharge associated from a tank, piping, or pipeline integrity testing activity.

\*\*See Special Condition 24.

\*\*\*See Special Conditions 25, 26 and 27.

Combined Outfalls 001, 002, and 003

Temperature	See Special Conditions 2, 3 and 6		Daily	Continuous		
Total Dissolved Solids	385,000				2/Month*	24 hr Composite
Total Residual Chlorine	See Special Conditions 18 and 31		0.05		1/Event	Grab
Phosphorus (Total)			Monitor Only		1/Month	24 hr Composite
Nitrogen (Total)			Monitor Only		1/Month	24 hr Composite
Mercury**			Monitor Only		1/Month	Grab
Sulfate			Monitor Only		1/Month	24 hr Composite
Chloride			Monitor Only		1/Month	24 hr Composite

\* Sampling shall take place only during the months of November through April. No sampling is required during the remaining months.

\*\*Mercury must be monitored using USEPA method 1631E using the heated digestion option in Section 11.1.1.2. Prior to analysis for mercury, digest the sample using the option in 1631E of heating samples at 50°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.

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Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVG.	DAILY MAX.	30 DAY AVG.	DAILY MAX.		

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: A01 - Purge Treatment Unit Wastewater - contains Wet Gas Scrubber Wastewater

Temperature	90 <sup>0</sup> F*	Daily	Continuous
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\* Temperature on internal outfall A01 from the purge treatment unit shall be monitored, reported, and limited to 90<sup>0</sup> F only when the combined outfall 001, 002, and 003 daily average temperature exceeds 90<sup>0</sup> F.

Outfalls: 004\* and 005\* - Storm Water Runoff from Wharf Area (Intermittent Discharge)  
008\* - Storm Water Runoff from Interceptor Basin Overflow - (Intermittent Discharge)

		If Discharge Occurs	
Flow (MGD)	See Special Condition 20	Daily	Estimate
pH	See Special Condition 1	2/Month	Grab
Oil & Grease	15	2/Month	Grab
TOC	110	2/Month	Grab

\*See Special Conditions 9 and 19 for BAT/BCT rules.

Outfalls: 006\*\* - Storm Water Runoff from Northeast Secondary Drainage Area (Intermittent Discharge)  
007\*\* - Storm Water Runoff from East Secondary Drainage Area (Intermittent Discharge)  
009\*\* - Storm Water Runoff from North Secondary Drainage Area (Intermittent Discharge)  
010\*\* - Storm Water Runoff from Northeast Secondary Drainage Area (Intermittent Discharge)

\*\*See Special Conditions 9 and 17 for SWPPP.

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Special Conditions

SPECIAL CONDITION 1. The pH shall be in the range 6.0 to 9.0 standard units and shall be reported as a daily minimum and a daily maximum.

SPECIAL CONDITION 2. The receiving waters are designated as Secondary Contact and Indigenous Aquatic Life Waters by 35 Ill. Adm. Code 302.408. These waters shall meet the following standard:

Temperatures shall not exceed 93<sup>0</sup> (34<sup>0</sup>) more than 5% of the time, or 100° F (37.8<sup>0</sup>C) at any time at the edge of the allowed mixing which is defined by 35 Ill. Adm. Code 302.102.

SPECIAL CONDITION 3. Temperature shall be measured at a point downstream of where outfalls 001, 002 and 003 are combined and reported as a daily maximum.

SPECIAL CONDITION 4. The composites for oil, fats, and greases shall consist of sample aliquots of approximately equal volume, a minimum of 100 milliliters, collected at regular time intervals over a 24-hour period (3 aliquots total). A single sample formed by combining all the aliquots, and the solvent rinse of the container, would then be analyzed. The results of the single analysis is then reported for oil, fats, and grease.

SPECIAL CONDITION 5. Permittee shall monitor influent and effluent TOC. Net TOC discharged shall not exceed 5 mg/l. Negative net TOC values shall be reported as zero.

SPECIAL CONDITION 6. Samples taken in compliance with the effluent monitoring requirements for outfall 001, 002 and 003 shall be taken at a point representative of discharge but prior to mixing with each of the other streams.

SPECIAL CONDITION 7. For the purpose of this permit, the discharge from outfall 001 is limited solely to treated process, utility, service, hydrostatic test, well water, sanitary, and storm water free from any other wastewater.

SPECIAL CONDITION 8. For the purpose of this permit, the discharge from outfall 002 is limited to non-contact cooling water, softener regeneration stream, boiler blowdown, condensate, potable water, fire water, and overflow of excess river/well water from utility makeup water system, free from process and other wastewater discharges. In the event that the permittee shall require the use of water treatment additives other than those generic categories or chemical groupings previously approved by this Agency for use with softener regeneration stream, boiler blowdown, or non-contact cooling water that would be discharged to outfall 002, the permittee must notify this Agency in writing in accordance with the Standard Conditions -- Attachment H, number (8).

SPECIAL CONDITION 9. For the purpose of this permit, the discharge from outfalls 004, 005, 006, 007, 008, 009, and 010 are limited to storm water, including construction activities, groundwater seepage, condensate, well water, and fire water, free from process and other wastewater discharges.

SPECIAL CONDITION 10. The discharge credit, if necessary, for contaminated storm water from non-process and process area storm water runoff, as applied to discharge 001, shall be as follows:

Additional storm water credit for the following parameters shall be based on the quantity of storm flow taken through process treatment.

Pounds Per 1000 gallons of storm water flow\*

Parameter	Average	Maximum
COD	1.5	3.0
Chromium (Total)**	.0018	.005
Chromium (Hexavalent)**	.00023	.00052

Dry Weather Flow: The average flow from the wastewater treatment facility for the last three consecutive zero precipitation days. Previously collected storm water which is sent to process treatment during this period shall not be included in this computation.

\*Storm Water Flows: The storm water runoff treated in the wastewater treatment facility is that portion of flow greater than the dry weather flow. Measurement of previously collected contaminated storm water from tank dikes may also be used in computing storm water credit.

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Special Conditions

In computing monthly average permit limits to include storm water credit, the mass credit calculated above shall be averaged along with process mass limits over the 30 day period. Explanatory calculations and flow data shall be submitted together with Discharge Monitoring Reports.

\*\*The permittee shall not exceed the following load limits (lbs/day) from outfall 001 at any time:

Parameter	Average	Maximum
Chromium (Total)	32.94	80.56
Chromium (Hexavalent)	3.29	8.06

SPECIAL CONDITION 11. 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 15<sup>th</sup> 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 12. 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, after public notice and opportunity for hearing, in accordance with the more stringent standard or prohibition. In addition to newly promulgated effluent standards or limitations, if new information is received by this Agency that was not available at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance, the Agency shall revise or modify the permit, after public notice and opportunity for hearing, to address the new information.

SPECIAL CONDITION 13. The Permittee shall conduct biomonitoring using effluent collected at a point downstream of where Outfalls 001, 002, and 003 are combined but prior to entry into the receiving water.

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 LC<sub>50</sub> Bioassay using fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.
2. Test Requirements - The above test shall be conducted annually using 24-hour composite samples unless otherwise authorized by the IEPA. Effluent samples must be analyzed for ammonia, chloride, and TDS, given that these parameters may be associated with acute toxicity.



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Special Conditions

3. Reporting - Results shall be reported according to EPA/821-R-02-012, Section 12, Report Preparation, and shall be submitted to IEPA, Bureau of Water, Compliance Assurance Section within one week of receipt from the laboratory. Results from ammonia, chloride, TDS analyses, as well as any other parameter believed to contribute to effluent toxicity, must be included in the bioassay report.
4. Toxicity – Should a bioassay result in acute toxicity to  $\geq 50\%$  of test organisms and the effluent is found to contain non-toxic amounts of ammonia, chloride, and TDS, 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.
5. Toxicity Identification and Reduction Evaluation - Should any of the additional bioassays result in toxicity to  $\geq 50\%$  of organisms and the effluent is found to contain non-toxic amounts of ammonia, chloride, and TDS, 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. The Bypass and Upset provisions in 40 CFR 122.41(m) and 40 CFR 122.41(n) are applicable to this permit.

SPECIAL CONDITION 15. The use and operation of the wastewater treatment facilities shall be under the supervision of a certified Class K operator.

SPECIAL CONDITION 16. For the duration of this permit, the permittee shall submit to the Agency an annual summary report of the quantities of sludge produced by the wastewater treatment facility and disposed of, in units of dry tons or gallons (average total percent solids) by different disposal methods including but not limited to application on farmland, application on reclamation land, landfilling, public distribution, dedicated land disposal, sod farms, storage lagoons or any other specified disposal method. Said reports shall be submitted to the Agency by January 31 of each year.

The annual report for sludge shall be reported on the form titled "Sludge Management Reports" to the following address:

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

Special Conditions

SPECIAL CONDITION 17.

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 discharge from outfalls 006, 007, 009, and 010. 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 10-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 10-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

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- 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, 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.

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Special Conditions

- 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.
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.
- 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 after a discharge begins. The sampler will record the time of sampling and when the rainfall event began. When monitoring for a discharge from snow melt, the sampler will record when the air temperature exceeded freezing. 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.

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Special Conditions

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.
- 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.

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Special Conditions

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

SPECIAL CONDITION 18.

ZEBRA MUSSEL CONTROL PROGRAM FOR OUTFALL 002

The following control program is authorized by this permit, in accordance with the conditions and limitations below.

A. Chlorination/Dechlorination

1. Chlorine or chlorine compounds may be applied on an intermittent or continuous basis.
2. The discharge of Outfall 002 shall be dechlorinated.
3. The discharge limit of the combined flows as monitored under A.6 of this Special Condition shall not exceed 0.05 mg/l total residual chlorine as a daily maximum.
4. Dechlorination chemical(s) shall be applied at a rate sufficient to provide complete dechlorination; excess application should be avoided to the extent practicable. The dechlorination system shall be interlocked or otherwise controlled to operate whenever chlorination is occurring.
5. For continuous chlorination programs, or intermittent chlorination more frequent than once per week, shall be monitored on a weekly basis for total residual chlorine. For intermittent chlorination once per week or less frequently, each chlorine application shall be monitored. Monitoring shall be by a grab sample at the time of maximum chlorine application.
6. Monitoring for total residual chlorine shall be done at a point downstream where outfalls 001, 002 and 003 are combined but prior to entry into the receiving waters.

- B. 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 19. 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 (Outfalls 001, 003, 004, 005 and 008) 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.

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Special Conditions

SPECIAL CONDITION 20. Flow shall be reported from outfalls 001, 002, and 003 as a monthly average and daily maximum. Flows shall be reported from outfalls A03, 004, 005, and 008 as a monthly average. All flows shall be reported in million gallons per day on the DMR form.

When continuous flow measurement is required, the measurements will be collected at the sample point location or at an equivalent representative flow location. During periods of maintenance of flow monitoring equipment and/or periods of malfunctioning flow monitoring equipment, a combination of upstream flow meters and/or engineering estimates may be used to calculate an estimate of flow representative of the discharge at effected outfalls. If the use of calculated (estimated) flows is necessary, the Permittee shall indicate on the monthly DMR dates for which calculated (estimated) flows were used.

SPECIAL CONDITION 21. Runoff from the coke storage area may overflow into outfall 003 when its flow exceeds the design capacity of the coke storage area containment system in the event of a failure or malfunction of the sump pump system. Intentional diversion of some or all of the coke storage area runoff to outfall 003 is allowed only when needed during heavy rains to prevent overflow of oily wastewater at the wastewater treatment plant, provided that no permit discharge limits are exceeded at outfall 003.

SPECIAL CONDITION 22. The Permittee shall indicate on the monthly DMR's the date(s) in which the of coke storage area runoff flowed to outfall 003. The permit may be modified as a result of these analyses to include more frequent sampling for the required parameters, and include sampling requirements for additional parameters along with the appropriate sampling frequencies. Modifications under this Special Condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 23. For the purpose of this permit, outfall 003 is limited to stormwater associated with refinery operations and construction activities, utility water, fire water (main flushing, hydrant testing, relief valves, and emergency once-through cooling water), service (river) water, condensate, groundwater seepage, well water, and hydrostatic test water, free from other wastewater discharges.

SPECIAL CONDITION 24. For the purpose of this permit, total BETX is defined as the arithmetic sum of Benzene, Ethylbenzene, Toluene, and Xylene(s). Xylenes shall include ortho-, meta-, and para-xylenes. Xylene shall be analyzed using EPA method 602 or 624, or any other method with prior approval by IEPA. When calculating the arithmetic sum with a mix of data points above and below the Method Detection Level (MDL), the data points below the MDL shall be treated as zero.

SPECIAL CONDITION 25. The Permittee shall notify the IEPA Des Plaines Regional Office at (847-294-4000) at least 24 hours prior to commencing any discharge of hydrostatic test water from tanks that formerly contained petroleum products to Outfall 003 (see Attachment H). This notification shall include:

- A. Total volume of water to be discharged and estimated average discharge flow rate for the event. The permittee shall calculate the flow for each discharge event by dividing the total discharge volume by the number of days over which the discharge is expected to occur. This flow shall be reported as the daily maximum flow.
- B. The piping, pipeline or tank(s) from which water to be discharged originates.
- C. Most recent product(s) stored in the piping, pipeline or tank(s).
- D. Analytical results of wastewater for outfall A03 parameters prior to discharge. The monitoring location shall be established for each discharge event and be located where representative samples of the piping, pipeline or tank (s) contents can be obtained prior to discharge. For parameters for which both monthly average and daily maximum limits are specified, the permittee may take multiple samples of the discharge event to demonstrate compliance with the monthly average limit.

Upon notification, discharge from outfall A03 may commence if wastewater analysis meets effluent limits. If wastewater analysis does not meet permitted effluent limits, the water shall be routed to outfall 001 or treatment will be required before discharge to outfall 003. Construction of permanent treatment facilities which may be necessary to meet the requirements of this permit may not be started until a construction permit is issued by the Agency. This does not include the use of temporary portable treatment facilities.

This analysis shall be included on discharge monitoring reports.

SPECIAL CONDITION 26. Prior to performing any hydrostatic testing subject to Special Condition 25, the permittee shall empty the piping, pipeline, or tank(s) of any product and clean the piping, pipeline, or tank(s).

SPECIAL CONDITION 27. The monitoring/reporting requirements and limitations for the Benzene and total BETX parameters are applicable when the discharges result from hydrostatic testing of piping, pipeline, or tank(s) that had contained products that contain the BETX parameters and are subject to Special Condition 25.

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**SPECIAL CONDITION 28.** On any day when monitoring is required, if the analysis for Total Chromium indicates levels less than the discharge limitations for Hexavalent Chromium, then the analysis for Hexavalent Chromium will not be required (compliance with the discharge limitations for Hexavalent Chromium will be demonstrated for that monitoring event by the results for Total Chromium). If, during any monitoring event, the results for Total Chromium indicate levels greater than the discharge limitations for Hexavalent Chromium, then the analysis for Hexavalent Chromium shall be required using the same sample which was analyzed for Total Chromium. If it is not possible to perform the analysis for Hexavalent Chromium using the same sample which was analyzed for Total Chromium, then another sample shall be immediately collected and analyzed for both Total and Hexavalent Chromium.

**SPECIAL CONDITION 29.** The Permittee shall monitor and report concentrations (in mg/l) of the following listed parameters twice per year in the months of January and July at the combined outfall. The sample shall be a 24-hour effluent composite except as otherwise specifically provided below and the results shall be submitted on the monthly DMR's to IEPA. The parameters to be sampled are:

<u>STORET</u> <u>CODE</u>	<u>PARAMETER</u>	<u>Minimum</u> <u>detection limit</u>
01002	Arsenic	0.001 mg/l
01007	Barium	0.5 mg/l
01027	Cadmium	0.003 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
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
01067	Nickel	0.005 mg/l
01147	Selenium	0.075 mg/l
01077	Silver (total)	0.003 mg/l
01087	Vanadium	0.008 mg/l
01092	Zinc	0.50 mg/>

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 30.** Total Residual Chlorine shall be monitored, reported, and limited to 0.05 mg/l whenever well test water is discharged through outfall 003 and when chlorine is used in the well testing activity. Monitoring should be performed a minimum of one time per well test event. An event is defined as the well test water discharge associated from a well water testing activity.

**SPECIAL CONDITION 31.** Appropriate use of diversions designed as part of the wastewater treatment system to manage flows in the primary section of the wastewater treatment plant do not constitute a bypass provided that the water is routed through the biological treatment plant, treated, and discharged in accordance with permit discharge limitations.

**SPECIAL CONDITION 32.** Cooling Water Intake Structure. Based on available information, the Agency has determined that the operation of the cooling water intake structure meets the equivalent of Best Technology Available (BTA) in accordance with the Best Professional Judgment provisions of 40 CFR 125.3 and 40 CFR 125.90(b), based on information available at the time of permit reissuance.

However, the Permittee shall comply with the requirements of the Cooling Water Intake Structure Existing Facilities Rule as found at 40 CFR 122 and 125. Any application materials and submissions required for compliance with the Existing Facilities Rule, shall be submitted to the Agency no later than 4 years from the effective date of this permit.

If for any reason, the Cooling Water Intake Structure Existing Facilities Rule is stayed or remanded by the courts, the Permittee shall comply with the requirements below. The information required below is necessary to further evaluate cooling water intake structure operations based on the most up to date information.

A. The permittee shall submit the following information/studies within 4 years of the effective date of the permit:

1. Source Water Physical Data to include:

a. A narrative description and scaled drawings showing the physical configuration of all source water bodies used by the facility including aerial dimensions, depths, salinity and temperature regimes;



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b. Identification and characterization of the source waterbody's hydrological and geomorphological features, as well as the methods used to conduct any physical studies to determine the intake's area of influence and the results of such studies; and

c. Location maps.

2. Source Waterbody Flow Information

The permittee shall provide the annual mean flow of the waterbody, any supporting documentation and engineering calculations to support the analysis of whether the design intake flow is greater than five percent of the mean annual flow of the river or stream for purposes of determining applicable performance standards. Representative historical data (from a period of time up to 10 years) shall be used, if available.

3. Taxonomic identification of all life stages of fish and shellfish and any species protected under Federal, State, or Tribal law (including threatened or endangered species) that are in the vicinity of the cooling water intake structure(s) and are susceptible to impingement and entrainment;

4. A characterization of all life stages of fish and shellfish, and any species protected under Federal, or State law, including a description of the abundance and temporal and spatial characteristics in the vicinity of the cooling water intake structure(s). These can include historical data that are representative of the current operation of the facility and of biological conditions at the site.

B. The permittee shall comply with the following requirements:

1. At all times properly operate and maintain the intake equipment as demonstrated in the application material supporting the BTA determination.

2. Inform IEPA of any proposed changes to the cooling water intake structure or proposed changes to operations at the facility that affect impingement mortality and/or entrainment.

3. Debris collected on intake screens is prohibited from being discharged back to the canal. Debris does not include living fish or other living aquatic organisms.

C. All required reports shall be submitted to the Industrial Unit, Permit Section and Compliance Assurance Section at the address in Special Condition 32.

This special condition does not relieve the permittee of the responsibility of complying with any other laws, regulations, or judicial orders issued pursuant to Section 316(b) of the Clean Water Act.

Public Notice of Draft Reissued Permit

Public Notice Number :MEL:14102301.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 (herein Agency) that a draft reissued National Pollutant Discharge Elimination System (NPDES) Permit Number IL0002861 has been issued under 40 CFR 124.6(d) for ExxonMobil Oil Corporation, Post Office Box 874, Joliet, Illinois 60434 for discharge into the Des Plaines River from the ExxonMobil Oil Corporation, 25915 S.E. Frontage Road, Channahon, Illinois 60410 (Will County). The applicant operates an existing petroleum refinery that processes approximately 247,730 barrels of crude oil per stream day. Plant operation results in an average discharge of 4.32 MGD of treated process and sanitary wastewater and stormwater runoff at Outfall 001, 10.476 MGD of non-contact cooling water and boiler blowdown at Outfall 002, an intermittent discharge of stormwater and hydrostatic test water at outfall 003, and an intermittent discharge of stormwater runoff at Outfalls 004-010.

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. 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 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 a 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.

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