

COPY

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

RECEIVED  
CLERK'S OFFICE

NOV 06 2009

STATE OF ILLINOIS  
Pollution Control Board

EXXONMOBIL OIL CORPORATION, )  
)  
Petitioner, )  
)  
v. )  
)  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY, )  
)  
Respondent. )

PCB 10-30  
(NPDES Permit Appeal)

NOTICE OF FILING

TO: Mr. John T. Therriault  
Assistant Clerk  
Illinois Pollution Control Board  
James R. Thompson Center  
100 West Randolph, Suite 11-500  
Chicago, Illinois 60601  
**(VIA CERTIFIED MAIL  
RETURN RECEIPT REQUESTED)**

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board an original and nine copies of an **ENTRY OF APPEARANCE OF KATHERINE D. HODGE, ENTRY OF APPEARANCE OF LAUREN C. LURKINS, PETITION FOR REVIEW OF AGENCY NPDES PERMIT DECISION and MOTION TO STAY THE EFFECTIVENESS OF CONTESTED PERMIT CONDITIONS**, copies of which are herewith served upon you.

Respectfully submitted,

EXXONMOBIL OIL CORPORATION,  
Petitioner,

By: Kath D. Hodge  
One of Its Attorneys

DATE: November 4, 2009

Katherine D. Hodge  
Lauren C. Lurkins  
HODGE DWYER & DRIVER  
3150 Roland Avenue  
Post Office Box 5776  
Springfield, Illinois 62705  
(217) 523-4900

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PCB 10-30  
(NPDES Permit Appeal)

**ENTRY OF APPEARANCE OF KATHERINE D. HODGE**

NOW COMES Katherine D. Hodge, of the law firm HODGE DWYER &  
DRIVER, and hereby enters her appearance in this matter on behalf of ExxonMobil Oil  
Corporation.

Respectfully submitted,

By: Kath D. Hodge  
Katherine D. Hodge

DATE: November 4, 2009

Katherine D. Hodge  
HODGE DWYER & DRIVER  
3150 Roland Avenue  
Post Office Box 5776  
Springfield, Illinois 62705  
(217) 523-4900

MOBO:027/Fil/EOA KDH

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PCB 10-30  
(NPDES Permit Appeal)

**ENTRY OF APPEARANCE OF LAUREN C. LURKINS**

NOW COMES Lauren C. Lurkins, of the law firm HODGE DWYER &  
DRIVER, and hereby enters her appearance in this matter on behalf of ExxonMobil Oil  
Corporation.

Respectfully submitted,

By:   
Lauren C. Lurkins

DATE: November 4, 2009

Lauren C. Lurkins  
HODGE DWYER & DRIVER  
3150 Roland Avenue  
Post Office Box 5776  
Springfield, Illinois 62705  
(217) 523-4900

MOBO:027/Fil/EOA LCL

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PCB 10-30  
(NPDES Permit Appeal)

**PETITION FOR REVIEW OF  
AGENCY NPDES PERMIT DECISION**

NOW COMES Petitioner, ExxonMobil Oil Corporation ("ExxonMobil"), by and through its attorneys, HODGE DWYER & DRIVER, and, pursuant to Section 40(a) of the Illinois Environmental Protection Act, 415 ILCS 5/40(a), and Part 105 of Title 35 of the Illinois Administrative Code, 35 Ill. Admin. Code 105, hereby petitions the Illinois Pollution Control Board ("Board") for review of certain conditions of the final National Pollutant Discharge Elimination System ("NPDES") permit that was reissued to ExxonMobil on September 30, 2009 (NPDES Permit No. IL0002861) (hereinafter "Final NPDES Permit"), by the Illinois Environmental Protection Agency ("Agency"). This Petition for Review of Agency NPDES Permit Decision ("Petition") is based upon the fact that certain conditions of the Final NPDES Permit are not necessary to accomplish the purposes of the Illinois Environmental Protection Act ("Act") and Board regulations, or are otherwise arbitrary and capricious.

1. ExxonMobil owns and operates a petroleum refinery located at I-55 and Arsenal Road in Channahon Township in unincorporated Will County, Illinois

("Refinery"). The Refinery discharges to the Des Plaines River and the Jackson Creek tributary to the Des Plaines River.

2. On December 2, 2002, ExxonMobil timely filed a renewal application for its NPDES permit, which was previously issued on June 8, 1998, and modified on September 12, 2001. Over the course of the following several years, the Agency made available various draft NPDES permits, and ExxonMobil supplemented its renewal application with additional information and submitted written comments to the Agency regarding the draft NPDES permits.

3. The Agency reissued the Final NPDES Permit on September 30, 2009, a copy of which is attached hereto as Exhibit A. The Final NPDES Permit was effective on October 1, 2009.

4. The Final NPDES Permit contains load and concentration limitations for ammonia nitrogen ("NH<sub>3</sub>-N") for the Refinery's Outfall 001. Exhibit A at 2. Discharge from Outfall 001 consists of treated process, utility, service, hydrostatic test, well water, sanitary and storm water. The NH<sub>3</sub>-N load limitations for Outfall 001 include a thirty (30) day average limitation of 108 pounds per day ("lbs/day") and a daily maximum of 252 lbs/day. *Id.* The NH<sub>3</sub>-N concentration limitations for Outfall 001 include a thirty (30) day average limitation of 3.0 milligrams per liter ("mg/l") and a daily maximum of 6.0 mg/l. *Id.*

5. In developing the NH<sub>3</sub>-N load and concentration limitations for Outfall 001, both in the public notice draft NPDES permit, which the Agency issued on June 9, 2009 (hereinafter "Public Notice Draft NPDES Permit"), and the Final NPDES Permit,

the Agency relied upon 35 Ill. Admin. Code § 304.122(b) and 35 Ill. Admin. Code § 304.104(a)(2).

6. Section 304.122(b), regarding “Total Ammonia Nitrogen,” states as follows:

Sources discharging to any of the above waters and whose untreated waste load cannot be computed on a population equivalent basis comparable to that used for municipal waste treatment plants and whose total ammonia nitrogen as N discharge exceeds 45.4 kg/day (100 pounds per day) shall not discharge an effluent of more than 3.0 mg/L of total ammonia nitrogen as N.

35 Ill. Admin. Code § 304.122(b). (Emphasis added.)

7. Section 304.104(a)(2) , regarding “Averaging,” states as follows:
- a) Except as otherwise specifically provided, proof of violation of the numerical standards of this Part shall be on the basis of one or more of the following averaging rules:

\* \* \*

- 2) No daily composite shall exceed two times the prescribed numerical standard.

35 Ill. Admin. Code § 304.104(a)(2).

8. As noted above, the Agency issued the Public Notice Draft NPDES Permit on June 9, 2009, with a public notice period lasting until July 9, 2009. A copy of the Public Notice Draft NPDES Permit is attached hereto as Exhibit B. The Public Notice Draft NPDES Permit included the load and concentration limitations for NH<sub>3</sub>-N that were included in the Final NPDES Permit, as noted above; however, the Public Notice Draft Permit also included an asterisked note, which provided the Agency’s apparent

interpretation of the underlying regulatory provisions for these limitations, as follows:

\* \* The monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge loading exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen.

Exhibit B at 3.

9. However, the asterisked note was deleted from the Final NPDES Permit. See Exhibit A at 2. As a result of the deletion, the NH<sub>3</sub>-N concentrations limitations are now in effect at all times, and not just during the periods of time when ExxonMobil's monthly average discharge loading exceeds 100 lbs/day of NH<sub>3</sub>-N, or when the daily maximum discharge load exceeds 200 lbs/day of NH<sub>3</sub>-N.

10. The Agency's interpretation of Section 304.122(b), as set forth in the Public Notice Draft NPDES Permit, was correct. ExxonMobil's agreement with the Agency's initial interpretation of Section 304.122(b), as described in the Public Notice Draft NPDES Permit, was documented in both of ExxonMobil's comments regarding the various versions of draft NPDES permits. ExxonMobil's January 28, 2009 comment letter to the Agency is attached hereto as Exhibit C, and ExxonMobil's September 16, 2009 comment letter to the Agency is attached hereto as Exhibit D.

11. ExxonMobil specifically addressed the NH<sub>3</sub>-N issue in its September 16, 2009 comment letter to the Agency. See Exhibit D at 4-5.

12. On September 30, 2009, in a letter responding to comments filed by Prairie Rivers Network and the Illinois Chapter of the Sierra Club, the Agency indicated

the following with regard to NH<sub>3</sub>-N:

The permit has been modified to require that the 30-day average and daily maximum concentration limits of 3 mg/L and 6 mg/L, respectively, be applicable at all times, whether below or above the 100 lb threshold, pursuant to 35 Ill. Adm. Code 304.122(b).

Letter from A. Keller of the Agency to K. Knowles of Prairie Rivers Network, regarding ExxonMobil Oil Corporation – Joliet Refinery, 30-Day Public Notice Comments, NPDES Permit No. IL0002861 at 2 (September 30, 2009), attached to the copy of the Final NPDES Permit (Exhibit A) received by ExxonMobil from the Agency.

13. Therefore, although the Agency had included the asterisked note in the Public Notice Draft NPDES Permit, it chose to delete the asterisked note from the Final NPDES Permit, which action results in an improper interpretation and application of Section 304.122(b). In omitting such a limiting discussion from the Final NPDES Permit, the Agency is requiring compliance with the concentration limit of 3.0 mg/l of “total ammonia nitrogen as N” at Outfall 001 at all times, and not just when the total discharge exceeds 100 lbs/day of “total ammonia nitrogen as N,” as specified in Section 304.122(b). Such a change in the Final NPDES Permit is not authorized by regulation or supported by the record here, and thus, is improper.

14. ExxonMobil respectfully requests the Board to direct the Agency to include in the Final NPDES Permit the asterisked note regarding the NH<sub>3</sub>-N limitations at Outfall 001, as included in the Public Notice Draft NPDES Permit.

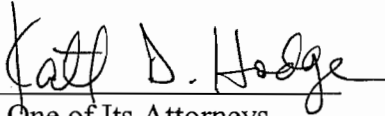
WHEREFORE, Petitioner, ExxonMobil Oil Corporation, respectfully requests that the Illinois Pollution Control Board grant review of the Final NPDES Permit reissued



by the Agency; find that the certain conditions of the Final NPDES Permit discussed in this Petition are not necessary to accomplish the purposes of the Act and Board regulations, or are otherwise arbitrary and capricious; and remand the decision to the Agency to reissue the NPDES permit consistent with the concerns addressed in this Petition.

Respectfully submitted,

EXXONMOBIL OIL CORPORATION,  
Petitioner,

By:   
One of Its Attorneys

DATE: November 4, 2009

Katherine D. Hodge  
Lauren C. Lurkins  
HODGE DWYER & DRIVER  
3150 Roland Avenue  
Post Office Box 5776  
Springfield, Illinois 62705  
(217) 523-4900

MOBO:027/Filings/Petition for Review

**EXHIBIT**

**A**

**FINAL NPDES PERMIT**



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2829  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

September 30, 2009

ExxonMobil Oil Corporation  
Post Office Box 874  
Joliet, Illinois 60434

Re: ExxonMobil Oil Corporation  
NPDES Permit No. IL0002861  
Final Permit

Gentlemen:

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

Outfall A01 now lists wet gas scrubber wastewater as an effluent. Special Condition 30 of the draft permit has been removed and the other conditions renumbered. The permittee shall meet 3.0/6.0 concentration limits for ammonia at all times. Special Condition 32 lists mercury as a grab sample.

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

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

Should you have questions concerning the Permit, please contact Mark E. Liska at the telephone number indicated above.

Sincerely,

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

SAK:MEL:06082502.bah

Attachment: Final Permit

cc: Records  
Compliance Assurance Section  
Des Plaines Region  
USEPA  
CMAP  
Gina Hamlin

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: September 30, 2014

Issue Date: September 30, 2009

Effective Date: October 1, 2009

Name and Address of Permittee:

ExxonMobil Oil Corporation  
Post Office Box 874  
Joliet, Illinois 60434

Facility Name and Address:

ExxonMobil Oil Corporation  
I-55 and Arsenal Road  
Channahon, Illinois 60410  
(Will County)

Discharge Number and Name:


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

Receiving Waters

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

SAK:MEL:06092502.bah

Page 2

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> ****	564	1,435	20	40	2/Month	24 hr Composite
TSS****	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	262	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, 28, and 31.

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

\*\*\*\*See Special Condition 28.

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

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## NPDES Permit IL0002861

## Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	lbs/day		LIMITS mg/l			
	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 Slowdown (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 6.

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

\*Monitor daily when stormwater from the coke storage area is part of the discharge. See Special Conditions 21 and 22.

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

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## 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: 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 SETX**			-	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, 6, and 30				Daily	Continuous
Total Dissolved Solids		385,000			2/Month*	24 hr Composite
Total Residual Chlorine	See Special Conditions 18 and 33			0.05		Grab
Zinc	See Special Condition 30				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.

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

Temperature		90° F*			Daily	Continuous
-------------	--	--------	--	--	-------	------------

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

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## 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:

Outfalls: 004\* and 005\* - Storm Water Runoff from Wharf Area (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

Outfall: 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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NPDES Permit IL0002881

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° (34°) more than 5% of the time, or 100 F (37.6°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 leak 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

Page 7

NPDES Permit IL0002861

Special Conditions

## 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 (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/feddmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day (or following business day) of the following month, unless otherwise specified by the permitting authority.

Permittees not using 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 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. Biomonitoring shall be measured at a point downstream of where outfalls 001, 002, and 003 are combined but prior to entry into the receiving waters. The Permittee shall prepare a preliminary plan for biomonitoring of the effluent at the combined outfall and submit the plan to IEPA for review and approval within ninety (90) days of the effective date of this Permit. The Permittee shall begin biomonitoring of the effluent discharge at the combined outfall within ninety (90) days after approval of the biomonitoring plan or other such date as contained in the IEPA's notification letter.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two (2) 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. Results shall be reported in accordance with Section 12 of the above document. Unless substitute tests are pre-approved, the following tests are required:

- a. Fish - 96 hour static or static renewal LC<sub>50</sub> Bioassay using 1- to 14-day old fathead minnows (*Pimephales promelas*).
- b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Coriodaphnia*.

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2. **Testing Frequency** - The above tests shall be conducted on a monthly basis for six (6) months within ninety (90) days following approval of the biomonitoring plan or other such date as contained in the IEPA's notification (approval) letter. Tests shall be performed using 24-hour composite effluent samples unless otherwise authorized by the IEPA. Results shall be submitted as a laboratory report (separate from the DMR) to IEPA within one (1) week of becoming available to the Permittee.

Should the results of two (2) months of sampling indicate acute toxicity for each month which is estimated to result in acute toxicity within the receiving system, 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 reduction evaluation and identification as outlined below.

3. **Toxicity Assessment** - Should the review of the results of the biomonitoring program identify acute toxicity to a degree estimated to result in in-stream acute toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 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 determine the quantity of sludge produced by the wastewater treatment facility and disposed offsite in dry tons or gallons with average percent total solids analysis. The permittee shall maintain adequate records of the quantities of sludge produced and have said records available for Agency inspection. The permittee shall submit to the Agency, at a minimum, a semi-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 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

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

Planned Changes. The permittee shall give notice to the Agency on the semi-annual report of any changes in sludge use and disposal.

Monitoring reports 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

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- 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.
- B. The owner or operator of the facility shall make a copy of the plan available to the Agency 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 G 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 the shortest reasonable period of time, 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.
  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.
  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;

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- 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.
  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;
    - 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;
    - vi. Covered Storage or Manufacturing Areas - Covered fueling operations, materials manufacturing and storage areas to prevent contact with storm water.

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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 and describe measures to limit erosion.
  7. Employee Training - Employee training programs shall inform personnel at all levels of responsibility of the components and basis 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. 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.
- H. 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.
- I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.
- J. 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.

Construction Authorization

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

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

1. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.
2. 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.
3. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
4. 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

- L. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. 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).

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M. 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 80 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.

N. 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 62784-9276

O. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

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.

SPECIAL CONDITION 20. Flow shall be reported from outfalls 001, 002, and 003 as a monthly average and daily maximum. Flows shall

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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 affected 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 city 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 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. The Permittee has undergone a monitoring reduction review and the effluent sample frequency for BOD<sub>5</sub>, COD, Sulfide, Chromium (Total), Chromium (Hexavalent) Cyanide and Fluoride at outfall 001 has been reduced due to sustained compliance. The IEPA will require that effluent sample frequency for these parameters be increased to the frequency of 2/week if effluent deterioration occurs due to increased wastewater, operational, maintenance or other problems. The increased monitoring frequency will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

SPECIAL CONDITION 29. The Permittee shall prepare a plan for development of a thermal model taking into account upstream flow and temperature of the Des Plaines River, effluent flow, and temperature and any other factors that established models such as CORMIX require. The purpose of the model will be to predict downstream river temperatures at points up to and including the I-55 bridge under all conditions of temperature and flow likely to occur. This plan shall be submitted to this Agency within 90 days of the effective date of this permit.

SPECIAL CONDITION 30. Zinc shall be monitored on a monthly basis and shall be reported as daily maximum. The STORET Code and minimum detection level are 01092 and 0.050 mg/L, respectively. The permit may be modified to include zinc limits and include the appropriate monitoring frequency for that parameter. Modifications under this Special Condition shall follow Public Notice and opportunity for hearing.

SPECIAL CONDITION 31. 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 32. 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 CODE</u>	<u>PARAMETER</u>	<u>Minimum detection limit</u>
01002	Arsenic	0.091 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
01049	Iron (Dissolved)	0.5 mg/l
01051	Lead	0.05 mg/l
01055	Manganese	0.5 mg/l
70900	Mercury (using EPA Method 1631E or equivalent)(grab)	1.0 ng/l*
01067	Nickel	0.005 mg/l
01147	Selenium	0.075 mg/l
01077	Silver (total)	0.003 mg/l
01087	Vanadium	0.005 mg/l

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

\*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 60°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.

1.0 ng/l = 1 part per trillion

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SPECIAL CONDITION 33. 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.

Attachment H

Standard Conditions

Definitions

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

Agency means the Illinois Environmental Protection Agency.

Board means the Illinois Pollution Control Board.

Clean Water Act (formerly referred to as the Federal Water Pollution Control Act) means Pub. L. 95-500, as amended, 33 U.S.C. 1251 et seq.

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

USEPA means the United States Environmental Protection Agency.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(10) Monitoring and records.

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

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

(c) Records of monitoring information shall include:

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

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

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

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

(5) The analytical techniques or methods used; and

(6) The results of such analyses.

(d) Monitoring must be conducted according to test procedures approved under 40 CFR Part 135, unless other test procedures have been specified in this permit. Where no test procedure under 40 CFR Part 136 has been approved, the permittee must submit to the Agency a test method for approval. The permittee shall calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to ensure accuracy of measurements.

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

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

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

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

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

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

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

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

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

- (c) **Changes of Authorization.** If an authorization under (b) is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of (b) must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (12) **Reporting requirements.**
- (a) **Planned changes.** The permittee shall give notice to the Agency as soon as possible of any planned physical alterations or additions to the permitted facility.
- (b) **Anticipated noncompliance.** The permittee shall give advance notice to the Agency of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.
- (d) **Monitoring reports.** Monitoring results shall be reported at the intervals specified elsewhere in this permit.
- (1) **Monitoring results must be reported on a Discharge Monitoring Report (DMR).**
- (2) **If the permittee monitors any pollutant more frequently than required by the permit, using test procedures approved under 40 CFR 136 or as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR.**
- (3) **Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Agency in the permit.**
- (e) **Twenty-four hour reporting.** The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and time; and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours:
- (1) **Any unanticipated bypass, which exceeds any effluent limitation in the permit;**
- (2) **Violation of a maximum daily discharge limitation for any of the pollutants listed by the Agency in the permit to be reported within 24 hours.**
- The Agency may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- (f) **Other noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs (12)(c), (d), or (e), at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (12)(e).
- (g) **Other information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Agency, it shall promptly submit such facts or information.
- (13) **Transfer of permits.** A permit may be automatically transferred to a new permittee if:
- (a) **The current permittee notifies the Agency at least 30 days in advance of the proposed transfer date;**
- (b) **The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees; and**
- (c) **The Agency does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement.**
- (14) **All manufacturing, commercial, mining, and silvicultural dischargers must notify the Agency as soon as they know or have reason to believe:**
- (a) **That any activity has occurred or will occur which would result in the discharge of any toxic pollutant identified under Section 307 of the Clean Water Act which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:**
- (1) **One hundred micrograms per liter (100 ug/l);**
- (2) **Two hundred micrograms per liter (200 ug/l) for acetoin and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;**
- (3) **Five (5) times the maximum concentration value reported for that pollutant in the NPDES permit application; or**
- (4) **The level established by the Agency in this permit.**
- (b) **That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which was not reported in the NPDES permit application.**
- (15) **All Publicly Owned Treatment Works (POTWs) must provide adequate notice to the Agency of the following:**
- (a) **Any new introduction of pollutants into that POTW from an indirect discharge, which would be subject to Sections 301 or 306 of the Clean Water Act if it were directly discharging those pollutants; and**
- (b) **Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.**
- (c) **For purposes of this paragraph, adequate notice shall include information on (1) the quality and quantity of effluent introduced into the POTW, and (2) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.**
- (16) **If the permit is issued to a publicly owned or publicly regulated treatment works, the permittee shall require any industrial user of such treatment works to comply with federal requirements concerning:**
- (a) **User charges pursuant to Section 204(b) of the Clean Water Act, and applicable regulations appearing in 40 CFR 35;**
- (b) **Toxic pollutant effluent standards and pretreatment standards pursuant to Section 307 of the Clean Water Act; and**
- (c) **Inspection, monitoring and entry pursuant to Section 308 of the Clean Water Act**
- (17) **If an applicable standard or limitation is promulgated under Section 301(b)(2)(C) and (D), 304(b)(2), or 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit, or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked, and reissued to conform to that effluent standard or limitation.**
- (18) **Any authorization to construct issued to the permittee pursuant to 35 Ill. Adm. Code 309.154 is hereby incorporated by reference as a condition of this permit.**
- (19) **The permittee shall not make any false statement, representation or certification in any application, record, report, plan or other document submitted to the Agency or the USEPA, or required to be maintained under this permit.**
- (20) **The Clean Water Act provides that any person who violates a permit condition implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$10,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing Sections 301, 302, 306, 307, or 308 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both.**
- (21) **The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.**
- (22) **The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit shall, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.**
- (23) **Collected screening, slimes, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into waters of the State. The proper authorization for such disposal shall be obtained from the Agency and is incorporated as part hereof by reference.**
- (24) **In case of conflict between these standard conditions and any other condition(s) included in this permit, the other condition(s) shall govern.**
- (25) **The permittee shall comply with, in addition to the requirements of the permit, all applicable provisions of 35 Ill. Adm. Code, Subtitle C, Subtitle D, Subtitle E, and all applicable orders of the Board.**
- (26) **The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit is held invalid, the remaining provisions of this permit shall continue in full force and effect.**
- {Rev. 3-13-88}



## ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois 62794-9276 • (217) 782-2629  
James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 • (312) 814-6026

PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-0610

September 30, 2009  
Kim A. Knowles  
Prairie Rivers Network  
1902 Fox Drive, Suite G  
Champaign, Illinois 61820

Re: ExxonMobil Oil Corporation – Joliet Refinery  
30-Day Public Notice Comments  
NPDES Permit No. IL0002861

Ms. Knowles:

Thank you for your interest in the ExxonMobil Oil Corporation -- Joliet Refinery draft NPDES permit. In reference to your comment letter during the 30-day public notice period, the IEPA has the following response:

Internal outfall A01 was renamed "Purge Treatment Unit Wastewater - Wet Gas Scrubber Wastewater" to more clearly identify the outfall.

1. There is no additional thermal loading to the receiving stream from the discharge of wet gas scrubber effluent because this stream will be cooled below 90° F (the maximum limit set in the permit at internal outfall A01) at all times prior to entering the wastewater treatment plant. During the fall, winter, and spring, the effluent will be used to heat the aeration basins which require heat in order to maximize their nitrification efficiency. During the summer, the effluent will be cooled with a heat exchanger using non-contact cooling water.
2. The wet gas scrubber effluent at outfall A01 is limited to 90° F at all times prior to discharging to the wastewater treatment plant. This is equivalent to the general use standard.
3. The thermal modeling plan pursuant to Special Condition 30 (now 29) is a new requirement. The purpose of the model will be to predict downstream river temperatures at points up to and including the I-55 bridge under all conditions of temperature and flow likely to occur.
4. The addition of scrubber wastewater for this facility does not include crude-oil processing modifications that allow wastewater contact with petroleum products. The wet gas scrubber effluent only comes in contact with flue gases to scrub out sulfur dioxide. As such, there is no chloride or dissolved metals component in the new wet gas scrubber effluent.

This discharge is to the Des Plaines River, where the Secondary Contact and Indigenous Aquatic Life Standards apply. Therefore, there are no water quality standards applicable for sulfate or chloride. Sulfate and chloride regulated through the TDS site-specific water quality standard applicable to this portion of the receiving stream.

Page 2

The site-specific water quality standard (R06-24) changed the TDS water quality standard from 1,500 mg/L for the Secondary Contact and Indigenous Aquatic Life Use Waters and 1,000 mg/L for the General Use Waters to 1,686 mg/L. Since the approval of the site-specific water quality standard, the IPCB removed the TDS water quality standard for the General Use Waters.

The load limit of 385,000 pounds/day at the combined outfall is protective of the water quality standard in the receiving stream of 1,686 mg/L for all flow conditions. The loading of TDS in the ExxonMobil effluent is relatively constant, whereas the flow is variable depending on dilution from cooling water which does not contain a TDS component (cooling water is once-through only and TDS is not concentrated, as in other refineries). Alternatives for reducing loadings of TDS and sulfate were discussed and approved by the IPCB in R06-24.

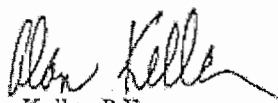
The permittee must test for metals twice per year pursuant to Special Condition 32.

5. The previous permit did not have the biomonitoring plan requirement of Special Condition 13. Instead, a special condition was present requiring one round of acute whole effluent toxicity testing utilizing two species to be conducted just prior to permit renewal. These tests were conducted on October 12, 2002. Illinois EPA reviewed these test results along with recent whole effluent toxicity results generated by the Agency in a July 8, 2003 memorandum. Acute toxicity was present to *Ceriodaphnia* at an LC<sub>50</sub> of as low as 35.36% effluent. Acute toxicity was present to fathead minnow at an LC50 as low as 63.73% effluent. The memorandum recommended that the renewed permit include a biomonitoring plan that required six months of monitoring along with a clause to conditionally require a toxicity reduction evaluation. This recommendation appears in the permit as Special Condition 13. Given the addition of the wet gas scrubber and recent treatment plant upgrades, the six month biomonitoring requirement will assess a different effluent than was monitored in the past. If toxicity is present, it will be identified as to source substances and an evaluation will be made regarding the need for additional permit limits.

6. The permit has been modified to require that the 30-day average and daily maximum concentration limits of 3 mg/L and 6 mg/L, respectively, be applicable at all times, whether below or above the 100 lb threshold, pursuant to 35 Ill. Adm. Code 304.122(b).

Should you have any questions or comments regarding the above, please contact Mark E. Liska of my staff at the indicated telephone number and address.

Sincerely,

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

cc: Records

Exxon Mobil

**EXHIBIT**

**B**

**PUBLIC NOTICE  
DRAFT NPDES PERMIT**

NPDES Permit No. IL0002861  
Notice No. MEL:06082502.bah  
Public Notice Beginning Date: **June 9, 2009**

Public Notice Ending Date: **July 9, 2009**

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  
I-55 and Arsenal 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.

The following modification is proposed: Outfall 001 will receive a discharge of 0.37 MGD DAF of wastewater from a newly installed wet gas scrubber via internal outfall A01. Outfall 010, an existing stormwater discharge, has been added to the permit. Internal Outfall A03 has been added for hydrostatic discharge testing.



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 receiving the discharge from outfalls 001, 002, 003, 004, 005, 008, 009, and 010 is on the 2006 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 following parameters have been identified as the pollutants causing impairment:

Pollutants	Potential Contributors
DDT, Mercury, Other Flow Regime Alterations, PCBs, Sedimentation/Siltation, Total Suspended Solids, Phosphorus (Total)	Contaminated Sediments, Impacts from Hydrostructure/Flow Regulation/Modification, Municipal Point Sources, Urban Runoff/Storm Sewers, Source Unknown

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(a)(3)
pH	Shall be in the range of 6 to 9 standard units					35 IAC 304.125(a)
BOD <sub>5</sub>	584	1,435	35 IAC 304.120(b) 35 IAC 304.104(a)(2)	20	40	35 IAC 304.120(b) 35 IAC 304.104(a)(2)
Total Suspended Solids	730	1,793	35 IAC 304.120(b) 35 IAC 304.104(a)(2)	25	50	35 IAC 304.120(b) 35 IAC 304.104(a)(2)
COD	14,164	27,295	40 CFR 419.23	--	--	
Oil, Fats & Grease	438	1,076	35 IAC 304.124(a) 35 IAC 304.104(a)(2)	15	30	35 IAC 304.124(a) 35 IAC 304.104(a)(2)
Phenols	8.2	27	35 IAC 304.124(b) 35 IAC 304.104(a)(2)	0.3	0.6	35 IAC 304.124(b) 35 IAC 304.104(a)(2)
Chromium (Total)	9.7	28	40 CFR 419.23	1	2	35 IAC 304.124(b) 35 IAC 304.104(a)(2)
Chromium (Hexavalent)	0.78	1.8	40 CFR 419.23	0.1	0.2	35 IAC 304.124(b) 35 IAC 304.104(a)(2)
Sulfide	11	24	40 CFR 419.23	--	--	
NH <sub>3</sub> -N**	108	252	35 IAC 304.122(b) 35 IAC 304.104(a)(2)	3	6	35 IAC 304.122(b) 35 IAC 304.104(a)(2)
Cyanide	2.9	7.2	35 IAC 304.124(a) 35 IAC 304.104(a)(2)	0.1	0.2	35 IAC 304.124(a) 35 IAC 304.104(a)(2)
Fluoride	438	1,076	35 IAC 304.124(a) 35 IAC 304.104(a)(2)	15	30	35 IAC 304.124(a) 35 IAC 304.104(a)(2)

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

\*\*The monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge loading exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen.

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

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(a)(3)
pH	Shall be in the range of 6 to 9 Standard units					35 IAC 304.125(a)
TOC				--	5 Net	40 CFR 419.23(e)
Outfall: 003						
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)
PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
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(a)(3)
pH	Shall be in the range of 6 to 9 standard units					35 IAC 304.125(a)
Total Suspended Solids				15	30	35 IAC 304.124(a)
Oil & Grease				15	30	35 IAC 304.124(a)

Iron (Total)				2	4	35 IAC 304.124(a)
Phenols				0.3	0.6	35 IAC 304.124(a)
Benzene				--	0.05	40 CFR 125.3
Total BETX				--	0.75	40 CFR 125.3
Combined Outfalls 001, 002, and 003						
Temperature				Standard		35 IAC 302.408
Total Dissolved Solids		385,000				IPCB R06-24 35 IAC 303.445
Total Residual Chlorine*					0.05	40 CFR 125.3 CWA 402(a)(1)
Zinc (total)					Monitor Only	35 IAC 309.146(a)(5)
*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 and 005						
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)
	LOAD LIMITS lbs/day DAF (DMF)			CONCENTRATION LIMITS mg/l		
PARAMETER	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION	30 DAY AVERAGE	DAILY MAXIMUM	REGULATION
Outfall: 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:

<u>Subcategory</u>	<u>Production Rate</u>
Subpart B - Cracking	233,500 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:  
 $(38.4 \text{ lbs/1,000 bbl}) \times (233,500 \text{ bbl/day}) \times (1.41) \times (1.29) = 16,309 \text{ lbs/day}$

Daily Maximum for COD:  
 $(74 \text{ lbs/1,000 bbl}) \times (233,500 \text{ bbl/day}) \times (1.41) \times (1.29) = 31,429 \text{ lbs/day}$

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 - 585,200 bbl/day; Cracking and Coking - 307,800 bbl/day, Asphalt - 14,200 bbl/day, and Reforming and Alkylation - 48,900 bbl/day. The following sample calculation for chromium (total) shows the methodology utilized to determine the BAT production based load limits:

$$30 - \text{Day Average for Chromium (Total):} \\ (585.2) \times (0.004) + (307.8) \times (0.041) + (14.2) \times (0.022) \times (48.9) \times (0.037) = 17.08 \text{ lbs/day}$$

$$\text{Daily Maximum for Chromium (Total):} \\ (585.2) \times (0.01) + (307.8) \times (0.119) + (14.2) \times (0.064) + (48.9) \times (0.107) = 49.21 \text{ lbs/day}$$

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

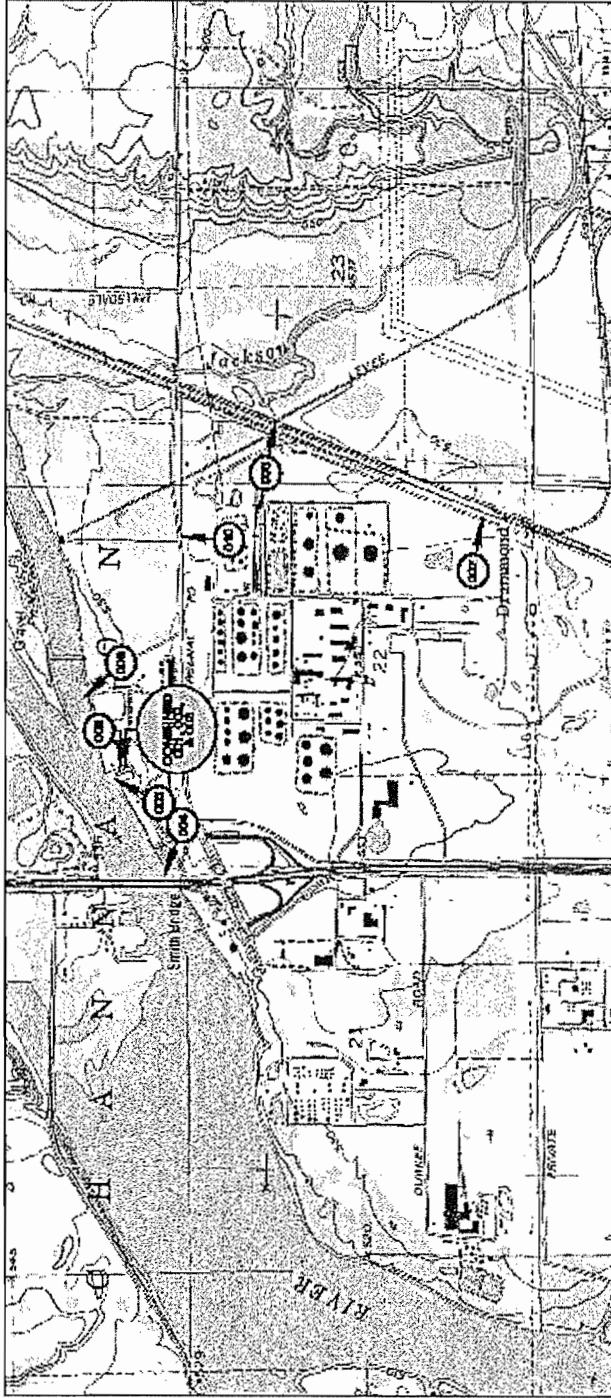
Additional storm water credit (pounds per 1,000 gallons of storm water flow) for the following parameters is based on the quantity of storm water flow taken through the process treatment: COD, Chromium (total) and Chromium (hexavalent).

The BOD5, 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. There is a very slight rise in the load limit for phenols, chromium (total), and sulfide due to a more consistent use of significant figures and rounding.

The table below summarizes the limits for Outfall 001.

**Limits used are in bold.**

	Previous Load Limits		Calculated Load Limits		Load Limit Regulation		Conc. Limits		Conc. Limit Regulation	
	Load Limits	584	1,435	721	1,681	304.120(b)	304.120(b)	20	40	304.120(b)
BOD5	<b>584</b>	<b>1,435</b>	721	1,681	304.120(b)	304.120(b)	20	40	304.120(b)	
TSS	<b>730</b>	<b>1,793</b>	901	2,102	304.120(b)	304.120(b)	25	50	304.120(b)	
COD	<b>14,164</b>	<b>27,295</b>	16,309	31,429	40 CFR 419.23	40 CFR 419.23	--	--	304.120(b)	
Oil & Grease	<b>438</b>	<b>1,076</b>	540	1,261	304.124	304.124	15	30	304.124	
Phenols	<b>8.2</b>	<b>27</b>	11	25	304.124	304.124	0.3	0.6	304.124	
Cr-total	<b>10</b>	<b>28</b>	17	49	40 CFR 419.23	40 CFR 419.23	1	2	304.124	
Cr-hex	<b>0.78</b>	<b>1.77</b>	1.4	3.1	40 CFR 419.23	40 CFR 419.23	0.1	0.2	304.124	
Sulfide	<b>11</b>	<b>24</b>	12	28	40 CFR 419.23	40 CFR 419.23	--	--	304.124	
Ammonia	262	825	<b>108</b>	<b>252</b>	304.122(b)	304.122(b)	3	6	304.122(b)	
Cyanide	<b>2.9</b>	<b>7.2</b>	4	8.4	304.124	304.124	0.1	0.2	304.124	
Fluoride	<b>438</b>	<b>1,076</b>	540	1,261	304.124	304.124	15	30	304.124	



 - OUTFALL LOCATION

OUTFALL LOCATION MAP  
NPDES #IL0002861  
EXXONMOBIL OIL  
JOLIET REFINERY



TOPO SOURCE: UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY  
CHAINAHOH, ILLINOIS QUADRANGLE  
CADFILE: EXXONMOBIL\_OUTFALLS

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. Discharge credits, if necessary, for contaminated storm water from non-process and process area storm water runoff, are applied to the discharge at outfall 001 as indicated in the special condition on storm water credits: additional storm water credit for the indicated parameters is based on the quantity of storm flow taken through process treatment (pounds per 1,000 gallons of storm water flow); the permittee shall not exceed the load limits specified in the Special Condition on storm water credits for the indicated parameters at any time. The permittee is required to monitor the influent and effluent TOC for outfall 002. 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. The permittee will be required to indicate on the monthly DMR's the date(s) in which the coke storage area runoff flowed to outfall 003; and the permit may be modified as a result of the required analyses (following public notice and opportunity for hearing) to include more frequent sampling for the required parameters at outfall 003, and include sampling requirements for additional parameters along with the appropriate sampling frequencies. The Permittee will be required to notify the IEPA Des Plaines Regional Office prior to commencing any discharge of hydrostatic test water to outfall A03. Outfall A03 is an internal outfall associated with the discharge of hydrostatic test water from integrity testing of piping, pipeline, or tank(s). The Agency has conducted a monitoring reduction review and the effluent sample frequency for BOD<sub>5</sub>, COD, chromium (total), chromium (hexavalent), sulfide, cyanide and fluoride at outfall 001 will be reduced due to sustained compliance; the permit will be modified (Without Public Notice) to increase the monitoring frequency for these parameters if effluent deterioration occurs. The Permittee shall conduct biomonitoring of the effluent discharge at the combined outfall of 001, 002 and 003 as required in the Permit.

An antidegradation assessment is attached.



Antidegradation Assessment for ExxonMobil Oil Refinery  
NPDES Permit No. IL0002861 Will County

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The subject facility has applied for an NPDES permit that includes a new air emission system wastewater discharge. The new wastewater involves an increase in sulfate due to the air emission system's function of removing sulfur dioxide. The sulfate increases the total dissolved solids concentration of the effluent and in order to comply with water quality standards, ExxonMobil petitioned the Illinois Pollution Control Board (IPCB) for site-specific relief from the then existing total dissolved solids (TDS) water quality standard in the General Use portion of the Des Plaines River as well as the still extant TDS water quality standard in the segment of the Secondary Contact and Indigenous Aquatic Life Use that initially receives the discharge. This rulemaking (R06-24) was adopted by the IPCB on February 15, 2007. Information pertaining to this rulemaking may be viewed at <http://www.ipcb.state.il.us/documents/dsweb/Get/Document-56266/>. The IPCB site-specific rule was approved by the U.S. Environmental Protection Agency (USEPA) on October 30, 2008. The IPCB site-specific rule addresses all of the provisions in the antidegradation standard in that rulemaking. ExxonMobil recapped these issues in a document dated April 28, 2008, Supplement to National Pollutant Discharge Elimination System Permit Renewal Application for ExxonMobil Oil Corporation - Joliet Refinery Permit #IL0002861. The new air emission controls result in approximately 0.252 MGD of additional wastewater effluent. The system removes NOx from the air emissions as well as sulfur dioxide. However, because of improvements at the wastewater treatment plant, ammonia in the air scrubber wastewater will not cause an increase over existing loadings in the discharged effluent.

#### **Identification and Characterization of the Affected Water Body.**

The Des Plaines River (segment G-01) has a 7Q10 flow of 1503 cfs and is a Secondary Contact and Indigenous Aquatic Life Use water at the point of discharge. The river becomes a General Use water at the I-55 bridge a short distance downstream. The Des Plaines River is listed on the Illinois Integrated Water Quality Report and Section 303(d) List - 2006 as impaired for aquatic life and fish consumption uses. Causes of aquatic life use impairment are given as DDT, PCBs, total phosphorus, total suspended solids, sedimentation/siltation and other flow alterations (non-pollutant). Causes of fish consumption use impairment are given as PCBs and mercury. The partially approved 2008 303(d) List is identical. The River is not listed as a biologically significant stream in the 2008 Illinois Department of Natural Resources Publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor is it given an integrity rating. The Des Plaines River is designated as an enhanced water pursuant to the dissolved oxygen water quality standard. The IDNR WIRT system does not list any state threatened or endangered aquatic species as residing in the receiving stream.

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

Sodium sulfate is the only substance that will have an increase in loading. The water quality standard for sulfate in General Use waters will be met. The increase in sodium sulfate loading will create the need for a TDS limit in the permit that will address the site-specific standard recently put into place at this location by the IPCB at 35 IAC 303.445. No adverse impact to aquatic life is predicted using sulfate toxicity thresholds to aquatic life.

#### **Fate and Effect of Parameters Proposed for Increased Loading.**

Sulfate will remain in solution except for small amounts removed from the water for biological processes by aquatic life. Since the water quality standard for sulfate is met, downstream waters will not show adverse impacts from sulfate.

#### **Purpose and Anticipated Benefits of the Proposed Activity.**

ExxonMobil entered into an agreement with the State of Illinois and USEPA to remove sulfur dioxide and NOx from its air emissions. See *In the United States District Court for the Northern District of Illinois, United States of America et al v. Exxon Mobile Corporation*, lodged December 13, 2005, which is available at <http://www.epa.gov/compliance/resources/cases/civil/caa/exxonmobil05caa.html>. The manner of removal of these substances was dictated in the agreement and this involved transfer of the sulfur in the air emissions to water. The local air quality will benefit from this transfer. ExxonMobil states that it will spend \$410 million in environmental improvements related to the air emissions reductions.

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

Some of the sulfur captured from the air emissions is converted to hydrogen sulfide and is removed as useful byproduct. The remaining sulfur is converted to sodium sulfate and is discharged to the river. NOx in the air emissions will result in some ammonia entering the wastewater; however, ExxonMobil upgraded the ammonia removal capabilities of the wastewater treatment plant and will no longer seek adjusted standards for ammonia. A decrease in NPDES Permit allowed ammonia loading to the river will therefore occur.

Alternatives to the treatment methodology chosen were presented during the IPCB site-specific standards rulemaking. The IPCB and the IEPA staff reviewing these alternatives agreed that the chosen plan results in treatment that is technically feasible and economically reasonable. No other alternatives were found to be more appropriate and therefore the IPCB granted the site-specific water quality

standard based on the information in the record in that proceeding.

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

The Illinois Department of Natural Resources was consulted regarding threatened and endangered species issues via the EcoCAT system on February 18, 2009. It was immediately determined that no threatened or endangered species reside in the receiving stream and consultation was terminated. Previously, USEPA consulted with US Fish & Wildlife Service after the IPCB adopted the site-specific state standard under the federal Endangered Species Act. The October 30, 2008 approval letter from USEPA Region 5 mentions that US Fish & Wildlife Service concluded that no effect on listed species or critical habitat was likely.

**Agency Conclusion.**

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by improving air quality. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

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  
I-55 and Arsenal Road  
Channahon, Illinois 60410  
(Will County)

Discharge Number and Name:

Receiving Waters

001 -- Treated Process, Sanitary and Storm Water

Des Plaines River

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 Exces  
River/well Water from Utility Makeup Water Systems

Des Plaines River

003 -- Storm Water Runoff and Hydrostatic Test Water from Tankage Area  
and Coke Storage Area, Well Test Water, and Emergency Once-Through  
Cooling Water

Des Plaines River

A01 -- Purge Treatment Unit Wastewater

Internal Outfall

A03 -- Hydrostatic Test Water

Internal Outfall

004 -- Storm Water Runoff from Wharf Area

Des Plaines River

005 -- Storm Water Runoff from Wharf Area

Des Plaines River

006 -- Storm Water Runoff from Northeast Secondary Drainage Area

Jackson Creek tributary to Des Plaines River

007 -- Storm Water Runoff from East Secondary Drainage Area

Jackson Creek tributary to Des Plaines River

008 -- Storm Water Runoff from Interceptor Basin Overflow

Des Plaines River

009 -- Storm Water Runoff from North Secondary Drainage Area

Des Plaines River

010 -- Storm Water Runoff from Northeast Secondary Drainage Area

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

SAK:MEL:06082502.bah

## 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
TSS****	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, 29, and 32.

\*\*\*See Special Conditions 10 and 29.

\*\*\*\*See Special Condition 29.

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

\*\*\*\*\*Ammonia (as N) shall be reported in mg/l as a monthly average and daily maximum concentration and in lbs/day as a monthly average and daily maximum load. The monthly average effluent concentration limit for this parameter is 3 mg/l and the daily maximum effluent concentration limit for this parameter is 6 mg/l; and the monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen. See Special Condition 28.

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

\*Monitor daily when stormwater from the coke storage area is part of the discharge. See Special Conditions 21 and 22.

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

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: 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, 6, and 30				Daily	Continuous
Total Dissolved Solids		385,000			2/Month*	24 hr Composite
Total Residual Chlorine	See Special Conditions 18 and 34			0.05		Grab
Zinc	See Special Condition 31			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.

Outfall: A01 - Purge Treatment Unit 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)

					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

Outfall: 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.

NPDES Permit IL0002861

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<sup>E</sup>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.

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.



## NPDES Permit IL0002861

Special Conditions

\*\*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 (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day (or following business 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 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. Biomonitoring shall be measured at a point downstream of where outfalls 001, 002, and 003 are combined but prior to entry into the receiving waters. The Permittee shall prepare a preliminary plan for biomonitoring of the effluent at the combined outfall and submit the plan to IEPA for review and approval within ninety (90) days of the effective date of this Permit. The Permittee shall begin biomonitoring of the effluent discharge at the combined outfall within ninety (90) days after approval of the biomonitoring plan or other such date as contained in the IEPA's notification letter.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two (2) 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. Results shall be reported in accordance with Section 12 of the above document. Unless substitute tests are pre-approved; the following tests are required:
  - a. Fish - 96 hour static or static renewal LC<sub>50</sub> Bioassay using 1- to 14-day old fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.
2. Testing Frequency - The above tests shall be conducted on a monthly basis for six (6) months within ninety (90) days following approval of the biomonitoring plan or other such date as contained in the IEPA's notification (approval) letter. Tests shall be performed using 24-hour composite effluent samples unless otherwise authorized by the IEPA. Results shall be submitted as a laboratory report (separate from the DMR) to IEPA within one (1) week of becoming available to the Permittee.

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Should the results of two (2) months of sampling indicate acute toxicity for each month which is estimated to result in acute toxicity within the receiving system, 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 reduction evaluation and identification as outlined below.

3. Toxicity Assessment - Should the review of the results of the biomonitoring program identify acute toxicity to a degree estimated to result in in-stream acute toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 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 determine the quantity of sludge produced by the wastewater treatment facility and disposed offsite in dry tons or gallons with average percent total solids analysis. The permittee shall maintain adequate records of the quantities of sludge produced and have said records available for Agency inspection. The permittee shall submit to the Agency, at a minimum, a semi-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 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

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

Planned Changes. The permittee shall give notice to the Agency on the semi-annual report of any changes in sludge use and disposal.

Monitoring reports 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 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. 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.
- B. The owner or operator of the facility shall make a copy of the plan available to the Agency 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

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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 G 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 the shortest reasonable period of time, 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.
  - 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.
  - 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.
  - 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.

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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;
    - 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;
    - 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 and 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. 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.
- H. 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.
- I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.
- J. 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.

Construction Authorization

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

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

- 1. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.
- 2. 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.
- 3. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
- 4. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of five acres or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

- L. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. 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).
- M. 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.
- N. 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

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- O. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

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.

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.

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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 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.

SPECIAL CONDITION 28. In addition, the Permittee shall submit a summary page attached to each discharge monitoring if the monthly average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum load exceeds 200 lbs/day of ammonia-nitrogen. The summary page shall include the date(s) for which the monthly average effluent NH<sub>3</sub>-N load of 100 lbs/day is exceeded, and the date(s) for which the daily maximum effluent NH<sub>3</sub>-N load of 200 lbs/day is exceeded, and the monthly average and daily maximum effluent NH<sub>3</sub>-N concentration and load for each occurrence. This summary page shall be submitted along with the monthly discharge monitoring reports to the IEPA at the address listed in Special Condition 11.

SPECIAL CONDITION 29. The Permittee has undergone a monitoring reduction review and the effluent sample frequency for BOD<sub>5</sub>, COD, Sulfide, Chromium (Total), Chromium (Hexavalent) Cyanide and Fluoride at outfall 001 has been reduced due to sustained compliance. The IEPA will require that effluent sample frequency for these parameters be increased to the frequency of 2/week if effluent deterioration occurs due to increased wasteload, operational, maintenance or other problems. The increase monitoring frequency will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

SPECIAL CONDITION 30. The Permittee shall prepare a plan for development of a thermal model taking into account upstream flow and

## NPDES Permit IL0002861

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temperature of the Des Plaines River, effluent flow, and temperature and any other factors that established models such as CORMIX require. The purpose of the model will be to predict downstream river temperatures at points up to and including the I-55 bridge under all conditions of temperature and flow likely to occur. This plan shall be submitted to this Agency within 90 days of the effective date of this permit.

SPECIAL CONDITION 31. Zinc shall be monitored on a monthly basis and shall be reported as daily maximum. The STORET Code and minimum detection level are 01092 and 0.050 mg/L, respectively. The permit may be modified to include zinc limits and include the appropriate monitoring frequency for that parameter. Modifications under this Special Condition shall follow Public Notice and opportunity for hearing.

SPECIAL CONDITION 32. 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 33. 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 DMRs to IEPA. The parameters to be sampled are:

<u>STORET _CODE</u>	<u>PARAMETER</u>	<u>Minimum 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
70900	Mercury (using EPA Method 1631 or equivalent)	1.0 ng/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

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.

\*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.

1.0 ng/l = 1 part per trillion

SPECIAL CONDITION 34. 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.



Public Notice of Draft Reissued Permit

Public Notice Number :MEL:06082502.bah 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, I-55 and Arsenal Road, Channahon, Illinois 60410 (Will County). The applicant operates an existing petroleum refinery that processes approximately 247,700 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.

SAK:MEL\06082502.BAH

**EXHIBIT**

**C**

**EXXONMOBIL'S  
JANUARY 28, 2009 COMMENT LETTER**

ExxonMobil  
Refining & Supply Company  
Joliet Refinery  
P.O. Box 874  
Joliet, Illinois 60434-0874

**ExxonMobil**  
*Refining & Supply*

**VIA CERTIFIED MAIL**

January 28, 2009

Mr. Darin E. LeCrone  
Acting Manager, Industrial Unit, Permit Section  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Springfield, IL 62702

**Re: 15-Day Draft Comments**  
**NPDES Permit Renewal NPDES Permit No. IL0002861**

Dear Mr. LeCrone:

I write on behalf of ExxonMobil Oil Corporation's Joliet Refinery (ExxonMobil), located near Joliet, Illinois.

This letter and the attachment serve to provide ExxonMobil's comments on draft renewal NPDES Permit Number IL0002861 and the corresponding permit Fact Sheet provided by the Illinois Environmental Protection Agency (IEPA) on December 4, 2008. We greatly appreciate IEPA's willingness to meet with us on January 20th to answer questions regarding the draft permit. The attachment is a redlined version of the 15-day draft that captures ExxonMobil's requested changes to the Fact Sheet and NPDES permit, most of which were specifically discussed at the January 20th meeting.

As discussed at the meeting, it is more appropriate for zinc and mercury monitoring to be on the Combined Outfall 001, 002 and 003 (Page 5 of the Fact Sheet) rather than on Outfall 001 (Page 3 of the Fact Sheet). In the fact sheet and permit, ExxonMobil requests that the monitoring requirements be transferred to the Combined Outfall. Accordingly, we request revisions to Special Condition 33 to reflect the Combined Outfall. Also discussed at the meeting, zinc monitoring in Special Condition 33 (twice per year) is redundant to the monitoring required in Special Condition 31 (monthly), so ExxonMobil requests removal of zinc from the list of parameters in Special Condition 33.

On Page 1 of the Fact Sheet, ExxonMobil requests that well test water is represented in the description of outfall 003 rather than internal outfall A03, which applies to hydrostatic test water. ExxonMobil requests that the total residual chlorine (TRC) sampling associated with well test water is applied at Combined Outfall 001, 002 and 003 in lieu of internal outfall A03. To clarify the specific TRC monitoring requirements, ExxonMobil requests the addition of Special Condition 34 with reference to this new condition under the Combined Outfall TRC effluent limitations and monitoring (Page 4 of the permit).

On Page 6 of the Fact Sheet, the Daily Maximum example calculation for COD should read 31,429 lbs/day rather than 32,429 lbs/day. This value is consistent with the permit engineer review notes dated 9/4/08 (see the table on page 8 of the notes).

Page 2  
15-Day Draft Comments  
NPDES Permit Renewal NPDES Permit No. IL0002861

On Page 7 of the Fact Sheet, ExxonMobil requests clarification that existing load limits for COD, sulfide, total chromium and hexavalent chromium are retained. Additionally, we propose the addition of a table of all load limits like the one included on page 8 of the permit engineer review notes dated 9/4/08.

On Page 7 of the Fact Sheet, ExxonMobil requests that the biomonitoring language is revised to be consistent with the permit language. More specifically, we request that the language is consistent with the timing specified in the permit and that the testing will be conducted in accordance with an IEPA-approved monitoring plan.

On Page 8 of the Fact Sheet, ExxonMobil requests that references to requirements for compliance with 35 IAC §304.214 are removed, as this site-specific ammonia standard has expired, was not renewed, and is no longer in effect.

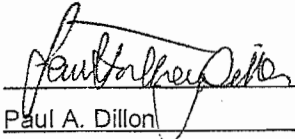
On Page 7 of the Fact Sheet, ExxonMobil requests no reduction in TSS sample frequency for Outfall 001 at this time. This should also be reflected in Special Condition 29 on Page 13 of the permit. In addition, for Outfall 001 (Page 2 of the permit), TSS sample frequency should be revised to read "2/Week".

ExxonMobil requests that "steam condensate" in Standard Conditions 9 and 23 is revised to read "condensate," to reflect not only condensate from steam traps, but also condensate from air conditioners and atmospheric moisture on piping and tanks that occurs at various locations in the refinery. ExxonMobil also requests that the description in Special Condition 8 for Outfall 002 includes "condensate".

A final recommendation that is not included in the attached redline document. ExxonMobil suggests that IEPA consider redesignating "Combined Outfall 001, 002 and 003" as "Outfall 100" for purposes of reporting. Currently the DMR reads as "COM", which, based on ExxonMobil's experience, is not a conventional outfall designation.

Please contact Brad Sims at (815) 521-7041, if there are any questions regarding the comments and requested changes provided in this submittal. As discussed, ExxonMobil would appreciate the opportunity for a quick review of the revised draft permit prior to public notice. We look forward to working with IEPA to finalize this permit.

Very truly yours,

Signature:   
Name: Paul A. Dillon  
Officials Title: Process Manager  
Telephone No.: (815) 521-5571  
Date Signed: 1/28/09

Attach.  
WBS/mzf

**ATTACHMENT**

**REDLINE OF DRAFT NPDES PERMIT #IL0002861**

NPDES Permit No. IL0002861  
Notice No. MEL:06082502.bah  
Public Notice Beginning Date:

Public Notice Ending Date:

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  
I-55 and Arsenal 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 ~~and well 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.

The following modification is proposed: Outfall 001 will receive a discharge of 0.37 MGD DAF of wastewater from a newly installed wet gas scrubber via internal outfall A01. Outfall 010, an existing stormwater discharge, has been added to the permit. Internal Outfall A03 has been added for hydrostatic discharge testing, ~~either through Outfall 001 or 003.~~

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 receiving the discharge from outfalls 001, 002, 003, 004, 005, 008, 009, and 010 is on the 2006 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 following parameters have been identified as the pollutants causing impairment:

Pollutants	Potential Contributors
DDT, Mercury, Other Flow Regime Alterations, PCBs, Sedimentation/Siltation, Total Suspended Solids, Phosphorus (Total)	Contaminated Sediments, Impacts from Hydrostructure/Flow Regulation/Modification, Municipal Point Sources, Urban Runoff/Storm Sewers, Source Unknown

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

Outfall: 001

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
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)
BOD <sub>5</sub>	584	1,435	35 IAC 304.120(b) 35 IAC 304.104(a)(2) 35 IAC 304.120(b) 35 IAC 304.104(a)(2)	20	40	35 IAC 304.120(b) 35 IAC 304.104(a)(2)
Total Suspended Solids	730	1,793		25	50	35 IAC 304.120(b) 35 IAC 304.104(a)(2)
COD	14,464 <del>164</del>	27,295	40 CFR 419.23 35 IAC 304.124(a)	--	--	35 IAC 304.124(a)
Oil, Fats & Grease	438	1,076	35 IAC 304.104(a)(2) 35 IAC 304.124(b)	15	30	35 IAC 304.104(a)(2) 35 IAC 304.124(b)
Phenols	8.2	27	35 IAC 304.104(a)(2)	0.3	0.6	35 IAC 304.104(a)(2) 35 IAC 304.124(b)
Chromium (Total)	9.7	28	40 CFR 419.23	1	2	35 IAC 304.104(a)(2) 35 IAC 304.124(b)
Chromium (Hexavalent)	0.78	1.8	40 CFR 419.23	0.1	0.2	35 IAC 304.104(a)(2)
Sulfide	11	24	40 CFR 419.23 35 IAC 304.122(b)	--	--	35 IAC 304.122(b)
NH <sub>3</sub> -N**	108	252	35 IAC 304.104(a)(2) 35 IAC 304.124(a)	3	6	35 IAC 304.104(a)(2) 35 IAC 304.124(a)
Cyanide	2.9	7.2	35 IAC 304.104(a)(2) 35 IAC 304.124(a)	0.1	0.2	35 IAC 304.104(a)(2) 35 IAC 304.124(a)
Fluoride	438	1,076	35 IAC 304.124(a) 35 IAC 304.104(a)(2)	15	30	35 IAC 304.104(a)(2)
Mercury				Monitor Only		35 IAC 309.146(a)(5)
Zinc				Monitor Only		35 IAC 309.146(a)(5)

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

\*\*The monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge loading exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen.

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

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION		REGULATION
	DAF (DMF)			LIMITS mg/l		
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Outfall: 002						
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)
TOC				--	5 Net	40 CFR 419.23(e)
Outfall: 003						
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)

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	DAF (DMF)			30 DAY AVERAGE	DAILY MAXIMUM	
	30 DAY AVERAGE	DAILY MAXIMUM				
Outfall: A01						
Temperature*					90° F	40 CFR 125.3
* Temperature at outfall A01 shall be monitored, reported, and limited to 90° F, whenever combined Outfall 001, 002, and 003 exceeds 90° F.						
Outfall: A03						
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)
Total Suspended Solids				15	30	35 IAC 304.124(a)
Oil & Grease				15	30	35 IAC 304.124(a)
Iron (Total)				2	4	35 IAC 304.124(a)
Phenols				0.3	0.6	35 IAC 304.124(a)
Benzene				--	0.05	40 CFR 125.3
Total BETX				--	0.75	40 CFR 125.3
Combined Outfalls 001, 002, and 003						
Temperature					Standard	35 IAC 302.408 IPCB R06-24
Total Dissolved Solids		385,000				35 IAC 303.445
Total Residual Chlorine*					0.05	40 CFR 125.3 CWA 402(a)(1)
Mercury					Monitor Only	35 IAC 309.146(a)(5)
Zinc (total)					Monitor Only	35 IAC 309.146(a)(5)
Zinc (dissolved)					Monitor Only	35 IAC 309.146(a)(5)
*Monitoring for total residual chlorine must be done at a point downstream where outfalls 001, 002 and 003 are combined but prior to entry into the receiving waters; and the discharge limit of the combined flows at this sampling point shall not exceed 0.05 mg/L total residual chlorine as a daily maximum when chlorine is used during zebra mussel control (outfall 002) or for well water testing (outfall 003) resulting in a discharge.						
Outfalls: 004 and 005						
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)

PARAMETER	LOAD LIMITS lbs/day			REGULATION	CONCENTRATION LIMITS mg/l		
	DAF (DMF)		REGULATION		LIMITS mg/l		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM			30 DAY AVERAGE	DAILY MAXIMUM	
TOC	--				110	40 CFR 419.23 (f)(1)	

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION LIMITS mg/l		REGULATION
	DAF (DMF)					
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
Outfall: 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 maximum 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:

<u>Subcategory</u>	<u>Production Rate</u>
Subpart B - Cracking	233,500 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:  
 $(38.4 \text{ lbs/1,000 bbl}) \times (233,500 \text{ bbl/day}) \times (1.41) \times (1.29) = 16,309 \text{ lbs/day}$

Daily Maximum for COD:  
 $(74 \text{ lbs/1,000 bbl}) \times (233,500 \text{ bbl/day}) \times (1.41) \times (1.29) = 321,429 \text{ lbs/day}$

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 - 585,200 bbl/day; Cracking and Coking - 307,800 bbl/day, Asphalt -14,200 bbl/day, and Reforming and Alkylation - 48,900 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):  
 $(585.2) \times (0.004) + (307.8) \times (0.041) + (14.2) \times (0.022) \times (48.9) \times (0.037) = 17.08 \text{ lbs/day}$

Daily Maximum for Chromium (Total):  
 $(585.2) \times (0.01) + (307.8) \times (0.119) + (14.2) \times (0.064) + (48.9) \times (0.107) = 49.21 \text{ lbs/day}$

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 will bear existing effluent limits from the prior permit, which are the more stringent of than the State and Federal Guidelines presented above or existing effluent limits.

The table below summarizes the limits for Outfall 001, with the bold load limits being used in the permit.

PARAMETER	PREVIOUS LOAD LIMITS		CALCULATED LOAD LIMITS CONCENTRATION LIMITS REGULATION		
	<u>30 Day Avg. Lbs/day</u>	<u>Daily Max. Lbs/day</u>	<u>30 Day Avg. Lbs/day</u>	<u>Daily Max. Lbs/day</u>	REGULATION
BOD <sub>5</sub>	<b>584</b>	<b>1,435</b>	721	1,681	35 IAC 304.120(b)
Total Suspended Solids	<b>730</b>	<b>1,793</b>	901	2,102	35 IAC 304.120(b)
COD	<b>14,164</b>	<b>27,295</b>	16,309	31,429	40 CFR 419.23
Oil, Fats & Grease	<b>438</b>	<b>1,076</b>	540	1,261	35 IAC 304.124
Phenols	<b>8.2</b>	<b>27</b>	11	25	35 IAC 304.124
Chromium (Total)	<b>10</b>	<b>28</b>	17	49	40 CFR 419.23
Chromium (Hexavalent)	<b>0.78</b>	<b>1.77</b>	1.4	3.1	40 CFR 419.23
Sulfide	<b>11</b>	<b>24</b>	12	28	40 CFR 419.23
Ammonia	263	825	<b>108</b>	<b>252</b>	35 IAC 304.122(b)
Cyanide	<b>2.9</b>	<b>7.2</b>	4	8.4	35 IAC 304.124
Fluoride	<b>438</b>	<b>1,076</b>	540	1,261	35 IAC 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 combined outfalls 001, 002 and 003, no earlier than one (1) year prior to the permit expiration date, in the form of acute toxicity testing on fish and invertebrate, and to submit the results with the permit renewal application in 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 permit requires the Permittee to monitor the nitrogen concentration of its oil feedstocks. The permittee is required to comply with all provisions of IPCB R97-28 (35 IAC 304.214) dated January 22, 1998, which expires on December 31, 2007. Discharge credits, if necessary, for contaminated storm water from non-process and process area storm water runoff, are applied to the discharge at outfall 001 as indicated in the special condition on storm water credits: additional storm water credit for the indicated parameters is based on the quantity of storm flow taken through process treatment (pounds per 1,000 gallons of storm water flow); the permittee shall not exceed the load limits specified in the Special Condition on storm water credits for the indicated parameters at any time. The permittee is required to monitor the influent and effluent TOC for outfall 002. The following zebra mussel control program is authorized by this permit

Public Notice/Fact Sheet -- Page 9 -- NPDES Permit No. IL0002861

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. The permittee will be required to indicate on the monthly DMR's the date(s) in which the coke storage area runoff flowed to outfall 003; and the permit may be modified as a result of the required analyses (following public notice and opportunity for hearing) to include more frequent sampling for the required parameters at outfall 003, and include sampling requirements for additional parameters along with the appropriate sampling frequencies. The Permittee will be required to notify the IEPA Des Plaines Regional Office prior to commencing any discharge of hydrostatic test water to outfall A03. Outfall A03 is an internal outfall associated with the discharge of hydrostatic test water from integrity testing of piping, pipeline, or tank(s). The Agency has conducted a monitoring reduction review and the effluent sample frequency for BOD<sub>5</sub>, TSS, COD, chromium (total), chromium (hexavalent), sulfide, cyanide and fluoride at outfall 001 will be reduced due to sustained compliance; the permit will be modified (Without Public Notice) to increase the monitoring frequency for these parameters if effluent deterioration occurs. The Permittee shall conduct biomonitoring of the effluent discharge at the combined outfall of 001, 002 and 003 as required in the Permit.

An antidegradation assessment is attached.

Antidegradation Assessment for ExxonMobil Oil Corporation - Joliet Refinery  
NPDES Permit No. IL0002861 Will County

Illinois Pollution Control Board Docket R06-24 was created for purposes of ExxonMobil obtaining site-specific relief for TDS and the record of that proceeding contains numerous details concerning the reasons behind the need for the increased loading of sulfate and TDS to the Des Plaines River. The adopted rule establishes a water quality standard of 1686 mg/L TDS for the Des Plaines River from the ExxonMobil outfall to the confluence of the Kankakee River. Allowed mixing for TDS is now available to ExxonMobil. Antidegradation consideration was given during the Board rulemaking. The Board weighed the needs of the refinery to comply with a consent decree with USEPA regarding air emissions with water quality concerns and decided that the increases in loading of sulfates and TDS were necessary. By adoption of the new standard, the Board found that the provisions of the antidegradation standard are satisfied by this new discharge.

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:

ExxonMobil Oil Corporation  
Post Office Box 874  
Joliet, Illinois 60434

Facility Name and Address:

ExxonMobil Oil Corporation  
I-55 and Arsenal 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), 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  
A03 -- ~~Hydrostatic Test Water and Well 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



SAK:MEL:06082502.bah

## NPDES Permit IL0002861

## Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	lbs/day		LIMITS mg/l			
	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): 001\*\*\*\*\* - Treated Process, Sanitary, and Storm Water (DAF = 4.32 MGD, DMF = 5.04 MGD)

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
TSS****	730	1,793	25	50	1/2/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
Mercury					1/Year	24 hr Composite
Zinc	See Special Condition 31				1/Month	24 hr Composite

\*See Special Condition 4.

\*\*See Special Conditions 10, 29, and 32.

\*\*\*See Special Conditions 10 and 29.

\*\*\*\*See Special Condition 29.

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

\*\*\*\*\*Ammonia (as N) shall be reported in mg/l as a monthly average and daily maximum concentration and in lbs/day as a monthly average and daily maximum load. The monthly average effluent concentration limit for this parameter is 3 mg/l and the daily maximum effluent concentration limit for this parameter is 6 mg/l; and the monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen. See Special Condition 28.

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Effluent Limitations and Monitoring

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	lbs/day		LIMITS mg/l			
	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	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)

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
Total Residual Chlorine		0.05	1/Event***	Grab

\*Monitor daily when stormwater from the coke storage area is part of the discharge. See Special Conditions 21 and 22.

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

\*\*\* Total Residual Chlorine shall be monitored, reported, and limited to 0.05 mg/l whenever well test water is discharged through outfall 003. Monitoring should be performed once per test event.

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

Outfall: A03\*\*\* - Hydrostatic Test Water and Well 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.

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	lbs/day		LIMITS mg/l			
	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:

Combined Outfalls 001, 002, and 003

Temperature	See Special Conditions 2, 3, 6, and 30		Daily	Continuous
Total Dissolved Solids	385,000		2/Month*	24 hr Composite
Total Residual Chlorine	See Special Conditions 18 and 34	0.05		Grab
Zinc (Total)	See Special Condition 31		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.

Outfall: A01 - Purge Treatment Unit 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 maximum temperature exceeds 90<sup>0</sup> F.

Outfalls: 004\*\*\* and 005\*\*\* - Storm Water Runoff from Wharf Area (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

Outfall: 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 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>o</sup> (34<sup>o</sup>) more than 5% of the time, or 100 F (37.8<sup>o</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, 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, steam-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.

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.

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

Parameter	Average	Maximum
Chromium (Total)	37.40	63.75
Chromium (Hexavalent)	2.38	5.10

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 (eDMRs) instead of mailing paper DMRs to the IEPA. More information, including registration information for the eDMR program, can be obtained on the IEPA website, <http://www.epa.state.il.us/water/edmr/index.html>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 15th day of the following month, unless otherwise specified by the permitting authority.

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

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

Attention: Compliance Assurance Section, Mail Code # 19

SPECIAL CONDITION 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. Biomonitoring shall be measured at a point downstream of where outfalls 001, 002, and 003 are combined but prior to entry into the receiving waters. The Permittee shall prepare a preliminary plan for biomonitoring of the effluent at the combined outfall and submit the plan to IEPA for review and approval within ninety (90) days of the effective date of this Permit. The Permittee shall begin biomonitoring of the effluent discharge at the combined outfall within ninety (90) days after approval of the biomonitoring plan or other such date as contained in the IEPA's notification letter.

Biomonitoring

1. Acute Toxicity - Standard definitive acute toxicity tests shall be run on at least two (2) 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. Results shall be reported in accordance with Section 12 of the above document. Unless substitute tests are pre-approved; the following tests are required:
  - a. Fish - 96 hour static or static renewal LC<sub>50</sub> Bioassay using 1- to 14-day old fathead minnows (*Pimephales promelas*).
  - b. Invertebrate 48-hour static LC<sub>50</sub> Bioassay using *Ceriodaphnia*.

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2. Testing Frequency - The above tests shall be conducted on a monthly basis for six (6) months within ninety (90) days following approval of the biomonitoring plan or other such date as contained in the IEPA's notification (approval) letter. Tests shall be performed using 24-hour composite effluent samples unless otherwise authorized by the IEPA. Results shall be submitted as a laboratory report (separate from the DMR) to IEPA within one (1) week of becoming available to the Permittee.

Should the results of two (2) months of sampling indicate acute toxicity for each month which is estimated to result in acute toxicity within the receiving system, 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 reduction evaluation and identification as outlined below.

3. Toxicity Assessment - Should the review of the results of the biomonitoring program identify acute toxicity to a degree estimated to result in in-stream acute toxicity, the IEPA may require that the Permittee prepare a plan for toxicity reduction evaluation and identification. This plan shall be developed in accordance with Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants, EPA/833B-99/002, and shall include an evaluation to determine which chemicals have a potential for being discharged in the plant wastewater, a monitoring program to determine their presence or absence and to identify other compounds which are not being removed by treatment, and other measures as appropriate. The Permittee shall submit to the IEPA its plan for toxicity reduction evaluation within ninety (90) days following notification by the IEPA. The Permittee shall implement the plan within ninety (90) days or other such date as contained in a notification letter received from the IEPA.

The IEPA may modify this Permit during its term to incorporate additional requirements or limitations based on the results of the biomonitoring. In addition, after review of the monitoring results, the IEPA may modify this Permit to include numerical limitations for specific toxic pollutants. Modifications under this condition shall follow public notice and opportunity for hearing.

SPECIAL CONDITION 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 determine the quantity of sludge produced by the wastewater treatment facility and disposed offsite in dry tons or gallons with average percent total solids analysis. The permittee shall maintain adequate records of the quantities of sludge produced and have said records available for Agency inspection. The permittee shall submit to the Agency, at a minimum, a semi-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 and July 31 of each year reporting the preceding January thru June and July thru December interval of sludge disposal operations.

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

Planned Changes. The permittee shall give notice to the Agency on the semi-annual report of any changes in sludge use and disposal.

Monitoring reports 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



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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. 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.
- B. The owner or operator of the facility shall make a copy of the plan available to the Agency 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 G 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 the shortest reasonable period of time, 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.
  - 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.
  - 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;

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- 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.
  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;
    - 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;

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- 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 and 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. 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.
- H. 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.
- I. The plan is considered a report that shall be available to the public under Section 308(b) of the CWA. The permittee may claim portions of the plan as confidential business information, including any portion describing facility security measures.
- J. 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.

Construction Authorization

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

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

- 1. If any statement or representation is found to be incorrect, this authorization may be revoked and the permittee there upon waives all rights thereunder.
- 2. 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.
- 3. Plans and specifications of all treatment equipment being included as part of the stormwater management practice shall be included in the SWPPP.
- 4. Construction activities which result from treatment equipment installation, including clearing, grading and excavation activities which result in the disturbance of five acres or more of land area, are not covered by this authorization. The permittee shall contact the IEPA regarding the required permit(s).

REPORTING

- L. The facility shall submit an annual inspection report to the Illinois Environmental Protection Agency. The report shall include results of the annual facility inspection which is required by Part G of the Storm Water Pollution Prevention Plan of this permit. The report

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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).

- M. 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.
- N. 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

- O. If the facility performs inspections more frequently than required by this permit, the results shall be included as additional information in the annual report.

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

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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 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.

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, ~~steam~~-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 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 ~~filtration~~-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.

SPECIAL CONDITION 28. In addition, the Permittee shall submit a summary page attached to each discharge monitoring if the monthly

NPDES Permit IL0002861

Special Conditions

average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum load exceeds 200 lbs/day of ammonia-nitrogen. The summary page shall include the date(s) for which the monthly average effluent NH<sub>3</sub>-N load of 100 lbs/day is exceeded, and the date(s) for which the daily maximum effluent NH<sub>3</sub>-N load of 200 lbs/day is exceeded, and the monthly average and daily maximum effluent NH<sub>3</sub>-N concentration and load for each occurrence. This summary page shall be submitted along with the monthly discharge monitoring reports to the IEPA at the address listed in Special Condition 11.

SPECIAL CONDITION 29. The Permittee has undergone a monitoring reduction review and the effluent sample frequency for BOD<sub>5</sub>, TSS, COD, Sulfide, Chromium (Total), Chromium (Hexavalent) Cyanide and Fluoride at outfall 001 has been reduced due to sustained compliance. The IEPA will require that effluent sample frequency for these parameters be increased to the frequency of 2/week if effluent deterioration occurs due to increased wasteload, operational, maintenance or other problems. The increase monitoring frequency will be required Without Public Notice when a permit modification is received by the Permittee from the IEPA.

SPECIAL CONDITION 30. The Permittee shall prepare a plan for development of a thermal model taking into account upstream flow and temperature of the Des Plaines River, effluent flow, and temperature and any other factors that established models such as CORMIX require. The purpose of the model will be to predict downstream river temperatures at points up to and including the I-55 bridge under all conditions of temperature and flow likely to occur. This plan shall be submitted to this Agency within 90 days of the effective date of this permit.

SPECIAL CONDITION 31. Zinc shall be monitored on a monthly basis and shall be reported as daily maximum. The STORET Code and minimum detection level are 01092 and 0.050 mg/l, respectively. The permit may be modified to include zinc limits and include the appropriate monitoring frequency for that parameter. Modifications under this Special Condition shall follow Public Notice and opportunity for hearing.

SPECIAL CONDITION 32. 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 33. 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 combined outfalls 001, 002 and 003. 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:

STORET CODE	PARAMETER	Minimum detection limit
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
71900	Mercury (grab) (using EPA Method 1631 or equivalent)	1.0 ng/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	0.050 mg/l

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

NPDES Permit IL0002861

Special Conditions

1.0 ng/l = 1 part per trillion

SPECIAL CONDITION 34. 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.

**EXHIBIT**

**D**

**EXXONMOBIL'S  
SEPTEMBER 16, 2009 COMMENT LETTER**



**ExxonMobil**  
**Refining & Supply Company**  
Joliet Refinery  
P.O. Box 874  
Joliet, Illinois 60434-0874

**ExxonMobil**  
*Refining & Supply*

**VIA CERTIFIED MAIL**

September 16, 2009

Mr. Alan Keller, P.E.  
Manager, Permit Section  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
1021 North Grand Avenue East  
Springfield, IL 62702

**Re: NPDES Permit Renewal, Permit No. IL0002861**

Dear Mr. Keller:

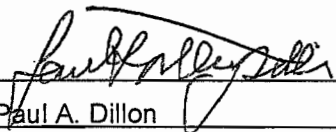
I write on behalf of ExxonMobil Oil Corporation's Joliet Refinery (ExxonMobil), located near Joliet, Illinois.

Over the past month, ExxonMobil has met with the Illinois Environmental Protection Agency (IEPA) to discuss a few items as IEPA finalizes ExxonMobil's NPDES permit renewal. As discussed at the most recent meeting, held on September 1, 2009, ExxonMobil has supplemental information to share with IEPA for the purpose of addressing these final items in advance of permit issuance. The supplemental information is provided in the attached document.

Please contact Brad Sims at (815) 521-7041, if there are any questions regarding this supplemental information. As always, ExxonMobil is prepared to meet with the Agency to discuss any of the items. We look forward to working with IEPA to finalize this permit.

Very truly yours,

Signature:

  
\_\_\_\_\_

Name:

Paul A. Dillon  
\_\_\_\_\_

Officials Title:

Process Manager  
\_\_\_\_\_

Telephone No.:

(815) 521-7207  
\_\_\_\_\_

Date Signed:

9/16/09  
\_\_\_\_\_

Attach.

WBS/mzf

**EXXONMOBIL OIL CORPORATION'S SUPPLEMENTAL INFORMATION  
IN SUPPORT OF NPDES PERMIT CHANGE  
(PERMIT NO. IL0002861)**

1. Thermal Considerations

As described in ExxonMobil Oil Corporation's (ExxonMobil) April 28, 2008 submittal, "Supplement to National Pollutant Discharge Elimination System Permit Renewal Application for ExxonMobil Oil Corporation," ExxonMobil has upgraded and improved the refinery's wastewater treatment plant (WWTP) to treat the new discharge source from the wet gas scrubber (WGS). The purge stream from the WGS is routed to a new pretreatment unit called the "Purge Treatment Unit" (PTU) for the removal of suspended solids and seasonal cooling (described further below). The PTU discharges to the WWTP via Internal Outfall A01. The biological treatment portion of the WWTP was also upgraded to improve ammonia nitrogen and suspended solids removal. The hydraulic retention time (HRT) and total clarifier surface area are each increased by 50% with the addition of a new integrated biological system (IBS).<sup>1</sup> See Exhibit 1: NSR Consent Decree Additions to FCC and WWTP.

According to the scientific literature, "[o]f all operational factors affecting nitrification, temperature has the most significant influence on the growth of nitrifying bacteria and, consequently, the rate of nitrification."<sup>2</sup> The growth rate of nitrifying bacteria increases approximately 10% per degree Celsius up to 30°C (86°F). Optimum temperatures published for nitrification in activated sludge processes range from 28°C to 35°C (82°F to 95°F).

The optimal influent temperature for ExxonMobil's existing (the "base case") and upgraded biological treatment (aeration basins) is 90°F to 95°F. During cooler ambient conditions, the refinery injects steam into the influent water to the aeration basin in order to maintain optimal temperature in the unit. During these cooler periods, the additional WGS/PTU wastewater provides additional heat to the aeration basins and reduces the necessary steam load. As a result of the steam use reductions, there is no net temperature impact at the aeration basin from the WGS/PTU source. In addition, with 50% additional holding time in the aeration basin and clarifiers, there is additional time and surface area provided for the wastewater to be incrementally cooled by ambient air prior to discharge. As a result, there should be a net decrease in WWTP discharge temperature from the base case.

During warmer ambient conditions, the steam injection is unnecessary to maintain the optimal nitrification temperature. Under these conditions, the WGS/PTU wastewater increases the temperature of the aeration basins. Identical to the cooler conditions (as discussed in the previous paragraph), there is additional time and surface area provided in the aeration basins and clarifiers for the wastewater to be incrementally cooled by ambient air prior to discharge. As a result, there should be little or no increase in WWTP discharge temperature from the base case. Nevertheless, to address any potential temperature increase, ExxonMobil agreed to install a heat exchanger at the PTU.<sup>3</sup> This heat exchanger is designed to maintain a maximum daily WGS/PTU discharge temperature of 90°F or less, and is to be operated whenever the refinery's combined outfall (001, 002, and 003) exceeds 90°F. With the WGS/PTU discharge cooled, the temperature is at the desired temperature for nitrification and results in no increase in temperature at the aeration basin and beyond.

As a result, with the addition of the WGS/PTU heat exchanger, there is no increase in the WWTP discharge temperature from the base case under not only cool ambient conditions, but all conditions.

<sup>1</sup> See Water Pollution Control Permit No. 2007-EN-2703, issued to ExxonMobil on March 19, 2007, for construction/modification of the WWTP for the addition of a PTU and an IBS.

<sup>2</sup> Gerardi, Michael H., "Nitrification and Denitrification in the Activated Sludge Process", John Wiley and Sons, copyright 2002.

<sup>3</sup> See Mark E. Liska Permit Reviewer Notes (March 14, 2007); see also ExxonMobil Construction Permit Application, Purge Treatment Unit & Integrated Biological System Information (December 4, 2006).

Specifically, in order to ensure that the WGS/PTU discharge temperature is controlled and limited, the draft National Pollutant Discharge Elimination System (NPDES) permit includes a new internal outfall, Outfall A01, which is the discharge from the WGS/PTU.<sup>4</sup> This warm-season temperature limitation is similar to the language found in the Citgo Lemont refinery permit, as referenced in the Prairie Rivers Network (PRN) letter of July 9, 2009. ExxonMobil suspects that it was unclear to PRN that the PTU pretreats the WGS discharge, and that the temperature limit included in the draft permit for internal outfall A01 (PTU) is already the equivalent of the limit they were suggesting.

Regarding the inquiry on prior thermal modeling, ExxonMobil's current NPDES permit has no requirements for thermal modeling. Thermal modeling requirements have been added in the proposed permit at Special Condition 30.

## 2. Sulfates, Chlorides and Other Dissolved Metals

This NPDES permit incorporates the addition of the WGS to ExxonMobil's refinery, as well as improvements to the WWTP for the purpose of treating the WGS purge source and does not address modification(s) associated with a refinery expansion. For some other Illinois refineries, the additional chlorides and metals loads addressed in their recent NPDES permits were attributed to modifications associated with crude-oil processing, and not attributed solely to the addition of WGS units required for air pollution control. As described in ExxonMobil's April 28, 2008 submittal, "Supplement to National Pollutant Discharge Elimination System Permit Renewal Application for ExxonMobil Oil Corporation," the purge water from the WGS is unlike wastewater that results from normal refining operations, as it makes contact with combustion flue gases to scrub out sulfur dioxide, rather than making contact with petroleum. As such, the WGS is not a measurable source of chlorides and dissolved metals. Therefore, ExxonMobil believes neither chlorides nor metals are expected to increase in the discharge as a result of the NPDES permit change. See also Exhibit 1.

Regarding total dissolved solids (TDS), the site specific TDS Water Quality Standard applicable to ExxonMobil, 35 Illinois Administrative Code (IAC) § 303.445, is addressed in the NPDES permit by the TDS load limit on Combined Outfall (001, 002, and 003). In fact, the mass TDS effluent limit was derived to assure that the TDS Water Quality Standard of 1,686 milligrams per liter (mg/L) will be achieved under low-flow conditions and elevated TDS concentrations upstream in the river.

The additional TDS load is comprised of the sodium sulfates in the wastewater discharge from the new WGS. As such, sulfates were addressed in the site specific TDS Water Quality Standard, for which Illinois Pollution Control Board (Board) and the Agency determined there was no reasonable potential to exceed the Water Quality Standard.<sup>5</sup>

<sup>4</sup> See Mark E. Liska, Permit Reviewer Notes (September 4, 2008).

<sup>5</sup> See In the Matter of: Revisions to Water Quality Standards for Total Dissolved Solids in the Lower Des Plaines River ExxonMobil Oil Corporation: Proposed 35 Ill. Adm. Code 303.455, R06-24; see also Mark E. Liska, Permit Reviewer Notes (September 4, 2008); see also Bob Mosher Memorandum, ExxonMobil – Joliet Refinery Water Quality Based Effluent Limit Evaluation (February 28, 2007).

### 3. Biomonitoring

Biomonitoring of Outfall 001 was required under Special Condition 13 of the most recent NPDES permit, which was issued June 6, 1998. This condition required ExxonMobil to conduct acute toxicity testing at Outfall 001 within one year of permit expiration (permit expiration date was May 31, 2003) and include the results with the permit renewal application.

In July 2003, the Agency reviewed ExxonMobil's toxicity test results and made the following recommendations:

*A biomonitoring plan shall be developed by the facility and submitted to the Agency. Acute definitive biomonitoring for both Ceriodaphnia and fathead minnow should be conducted monthly for six months following issuance of the permit. If the results indicate toxicity, the Agency may require a plan for toxicity reduction evaluation (TRE) and identification of toxicants. A clause in the Special Condition requiring biomonitoring should provide for TREs if the Agency decides they are necessary.<sup>6</sup>*

ExxonMobil testing showed no toxicity for all samples and dilutions, except that the sampling on Outfall 001 showed toxicity for *C. dubia* at zero dilution.

On February 28, 2007, the Agency stated the following with regard to the recommendations in its July 8, 2003 memorandum:

*These recommendations are still valid, however, given the changes proposed at the wastewater treatment plant, the modified permit should not require this testing until the improvements are made and operation of the wastewater treatment system has normalized.<sup>7</sup>*

The purpose of whole effluent toxicity is to evaluate the toxicity of the actual effluent discharged to the river, which in ExxonMobil's case is a single combined outfall that includes Outfall 001, Outfall 002 (once through cooling water), and Outfall 003 (storm water). The draft NPDES permit would require biomonitoring on the combined outfall, which is appropriate. In addition, ExxonMobil has expanded its biological treatment capabilities and the sulfates have increased. Therefore, ExxonMobil believes the previous biomonitoring is not indicative of the current conditions.

As such, in the proposed permit (see Special Condition 13), ExxonMobil is to submit a plan for biomonitoring of the Combined Outfall (001, 002, and 003) within 90 days of permit issuance. Upon Agency review and approval, ExxonMobil is to begin a monthly testing program with expedited submittal of results and mechanisms to initiate a toxicity assessment.

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<sup>6</sup> See Alyson Grady Memorandum, Standards Unit Review of Biomonitoring Test Results (July 8, 2003).

<sup>7</sup> See Bob Mosher Memorandum, ExxonMobil – Joliet Refinery Water Quality Based Effluent Limit Evaluation (February 28, 2007).

4. Ammonia Nitrogen

The proposed draft permit includes the following conditions for ammonia:

PARAMETER	LOAD LIMITS		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	lbs/day		LIMITS mg/l			
	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): 001\*\*\*\*\* - Treated Process, Sanitary, and Storm Water (DAF = 4.32 MGD, DMF = 5.04 MGD)

.....

NH <sub>3</sub> -N*****	108	252	3.0	6.0	2/Week	24 hr Composite
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.....

\*\*\*\*\*Ammonia (as N) shall be reported in mg/l as a monthly average and daily maximum concentration and in lbs/day as a monthly average and daily maximum load. The monthly average effluent concentration limit for this parameter is 3 mg/l and the daily maximum effluent concentration limit for this parameter is 6 mg/l; and the monthly average effluent concentration limit for ammonia (as N) is applicable only when the monthly average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum effluent concentration limit for ammonia (as N) is applicable only when the daily maximum discharge load exceeds 200 lbs/day of ammonia-nitrogen. See Special Condition 28.

.....

SPECIAL CONDITION 28. In addition, the Permittee shall submit a summary page attached to each discharge monitoring if the monthly average discharge load exceeds 100 lbs/day of ammonia-nitrogen, and the daily maximum load exceeds 200 lbs/day of ammonia-nitrogen. The summary page shall include the date(s) for which the monthly average effluent NH<sub>3</sub>-N load of 100 lbs/day is exceeded, and the date(s) for which the daily maximum effluent NH<sub>3</sub>-N load of 200 lbs/day is exceeded, and the monthly average and daily maximum effluent NH<sub>3</sub>-N concentration and load for each occurrence. This summary page shall be submitted along with the monthly discharge monitoring reports to the IEPA at the address listed in Special Condition 11.

The federal regulations at 40 CFR § 122.44(d) require water quality based effluent limits for pollutants which have a reasonable potential to cause, or contribute to an excursion above any State Water Quality Standard or narrative criteria. There is no reasonable potential to cause, or contribute to an ammonia water quality excursion, as has been determined in previous site specific matters.

Under the current permit, ExxonMobil has been subject to a site specific ammonia standard, with effluent limits of 9 mg/L (30-day average) and 23 mg/L (daily maximum). The loads associated with this standard were 262 and 825 pounds per day (lb/day), respectively. Under these higher load conditions, the Agency's historical analysis has been that ammonia standards will not be exceeded by this discharge.<sup>8</sup> The proposed load limits are reduced significantly (about 60%) from the historical load limits, down to 109 lb/day (30-day average) and 252 lb/day (daily minimum).

<sup>8</sup> See Bob Mosher Memorandum, ExxonMobil Oil Refinery Antidegradation Assessment (December 18, 2003).

As to the derivation of an alternative technology-based effluent limit, there are federal technology based (categorical effluent) limits for ammonia for petroleum refineries, and these are significantly more liberal than the effluent limits established by the Board at 35 Ill. Admin. Code § 304.122(b).

With respect to the interpretation of 35 IAC § 304.122(b) and its application in NPDES permits, the permit conditions in the draft NPDES permit for ExxonMobil are consistent with the historical approach taken by the Agency (e.g., BF Goodrich/Noveon<sup>9</sup>), and by the Board (e.g., Citgo<sup>10</sup>).

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<sup>9</sup> The NPDES permit issued on December 28, 1990, to BF Goodrich Corporation (BF Goodrich), included the following as Special Condition 4:

*The permittee shall monitor ammonia as N and report the lb/day discharged. If the 30 day average exceeds 100 lbs/d then the effluent concentration shall not exceed 3 mg/l on a 30 day average basis. If the daily maximum exceeds 200 lbs/day then the effluent concentration shall not exceed 6 mg/l on a daily basis.*

During the subsequent appeal of the BF Goodrich NPDES permit before the Board, the subject facility of which, at the time of the appeal, was owned by Noveon, Inc. (Noveon Permit Appeal), the Agency discussed its interpretation of 35 Ill. Admin. Code § 304.122(b) and Special Condition 4, and stated as follows:

*Special Condition 4 provides that if monitoring demonstrates a 30-day average ammonia loading in Noveon's effluent greater than 100 lbs/d, Petitioner is required to comply with a 30-day average ammonia concentration of 3 milligrams per liter ("mg/l"). If the daily maximum loading of ammonia exceeds 200 lbs/day, Petitioner is limited to a daily maximum concentration of 6 mg/l. This Special Condition is based on the effluent limitations contained in 35 Ill. Adm. Code 304.122. . . .*

Respondent's Prehearing Memorandum, Noveon, Inc. f/k/a BF Goodrich Corporation, (Henry Facility) v. Illinois Environmental Protection Agency, PCB 91-17 at 5 (February 4, 2004).

Also in the Noveon Permit Appeal, the Agency, in its Post-Hearing Memorandum, relied on the Board's discussion of Section 304.122(b) from its March 30, 1978 Opinion in In the Matter of: Proposed Final Amendment to Chapter 3, Water Pollution Regulations: Rule 402.1, an Exception to Rule 402 for Certain Ammonia Nitrogen Sources, R77-6, and stated as follows:

*One explanation given by the Board for including the additional language is found in another rulemaking opinion's discussion of the addition of the current 304.122(b) to Rule 406: "This amendment did nothing more than provide an additional clarification of the definition of a source subject to the effluent limitations of Rule 406; for either case, the threshold applicability of the rule is established by a discharge of 100 pounds per day of ammonia nitrogen, however calculated." In the Matter of: Proposed Final Amendment to Chapter 3, Water Pollution Regulations: Rule 402.1, An Exception to Rule 402 for Certain Ammonia Nitrogen Sources, R77-6 (March 30, 1978), slip. op. at 5.*

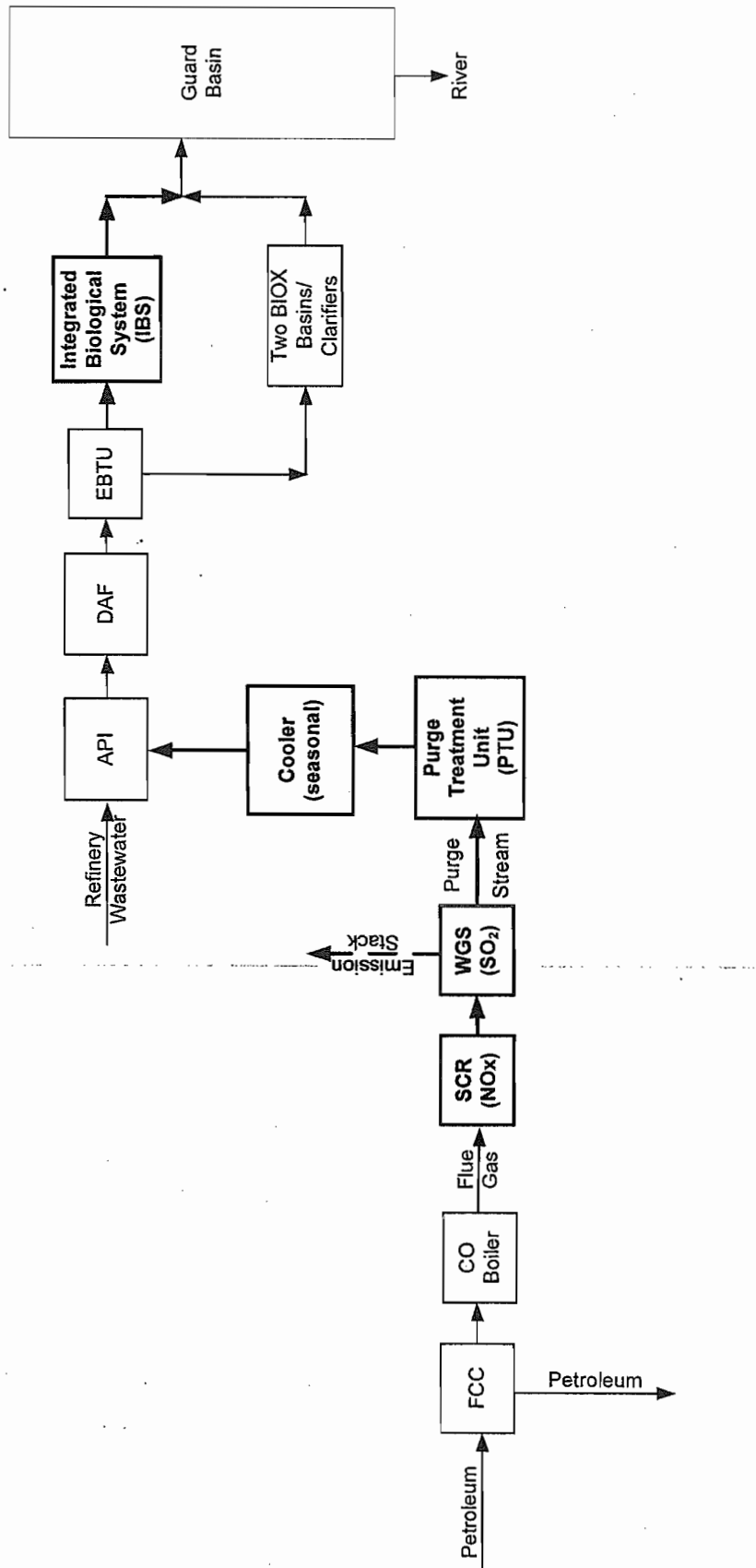
Respondent's Post-Hearing Memorandum, Noveon, Inc. f/k/a BF Goodrich Corporation, (Henry Facility) v. Illinois Environmental Protection Agency, PCB 91-17 at 18 (May 27, 2004).

<sup>10</sup> In the Matter of: Petition of Citgo Petroleum Corporation and PDV Midwest Refining, L.L.C. for An Adjusted Standard for Ammonia Nitrogen Discharge Levels, AS No. 08-8. The Board's Order stated as follows:

(c) *The Refinery must also meet a monthly average limitation for ammonia nitrogen of 6.93 mg/L whenever the monthly average discharge exceeds 100 lbs per day and a daily maximum limit of 10.61 mg/L whenever the daily discharge exceeds 200 pounds of ammonia;*

Board Opinion and Order, In the Matter of: Petition of Citgo Petroleum Corporation and PDV Midwest Refining, L.L.C. For An Adjusted Standard for Ammonia Nitrogen Discharge Levels, AS No. 08-8, at 67 (December 18, 2008). (Emphasis added.)

Exhibit 1  
NSR Consent Decree Additions to FCC and WWTP



**BOLD/BLUE Text** = new equipment for pollution control purposes  
Standard Text = existing equipment

NOV 06 2009

STATE OF ILLINOIS  
Pollution Control Board

EXXONMOBIL OIL CORPORATION, )  
)  
Petitioner, )  
)  
v. )  
)  
ILLINOIS ENVIRONMENTAL )  
PROTECTION AGENCY, )  
)  
Respondent. )

PCB 10-30  
(NPDES Permit Appeal)

**MOTION TO STAY THE  
EFFECTIVENESS OF CONTESTED PERMIT CONDITIONS**

NOW COMES Petitioner, ExxonMobil Oil Corporation ("ExxonMobil"), by and through its attorneys, HODGE DWYER & DRIVER, and, pursuant to Section 10-65(b) of the Illinois Administrative Procedure Act ("APA"), 5 ILCS 100/10-65(b), and the Illinois Pollution Control Board's ("Board") authority to grant discretionary stays of permit conditions, *see, e.g., Community Landfill Co. and City of Morris v. Illinois EPA*, PCB Nos. 01-48 and 01-49 (Ill.Pol.Control.Bd. Oct. 19, 2000), hereby moves the Board to stay the effectiveness of the contested conditions of the final National Pollutant Discharge Elimination System ("NPDES") permit (hereinafter "Final NPDES Permit") at issue in this matter.

In support of this Motion, ExxonMobil states as follows:

1. On September 30, 2009, the Illinois Environmental Protection Agency ("Agency") reissued the Final NPDES Permit (NPDES Permit No. IL0002861) to ExxonMobil, which interpreted the applicability of certain conditions in a way that is not required by the Illinois Environmental Protection Act or regulations promulgated thereunder.



2. Today, ExxonMobil filed simultaneously with this Motion a timely Petition for Review of Agency NPDES Permit Decision, with regard to such permit conditions.

3. The Board may grant a stay of contested permit conditions where a petitioner has requested such a stay. *See, e.g., Midwest Generation, LLC, Will County Generating Station v. Illinois EPA*, PCB No. 06-156 (Ill.Pol.Control.Bd. July 20, 2006) (granting a request for a partial stay of construction permit conditions); *North Shore Sanitary District v. Illinois EPA*, PCB No. 03-146 (Ill.Pol.Control.Bd. Mar. 20, 2003) (granting Petitioner's Motion to Stay Condition 1 pending the outcome of the appeal); and *Hartford Working Group v. Illinois EPA*, PCB No. 05-74 (Ill.Pol.Control.Bd. Nov. 18, 2004) (granting Petitioner's Motion to Stay Effectiveness of Special Condition 2.0 until the Board takes final action in the appeal).

4. Most recently, the Board granted a motion to stay the effectiveness of the provisions and conditions appealed in an NPDES permit in the matter of *Citgo Petroleum Corporation v. Illinois EPA*, PCB No. 07-10 (Ill.Pol.Control.Bd. Sept. 21, 2006). In the *Citgo* matter, Citgo was appealing the reissuance of an NPDES permit on the grounds that certain specified conditions in the reissued NPDES permit were unnecessary and contained requirements that either were not applicable or were inconsistent with other requirements already applicable to Citgo's refinery. *Id.* at 1. Citgo sought a stay of the effectiveness of only the provisions and conditions appealed in the permit, and did not seek a stay of the remaining permit conditions. *Id.* at 1-2. Citgo contended that the Board had granted discretionary stays in the past based on a consideration of the following standards:

(1) a certain and clearly ascertainable right needs protection; (2) irreparable injury will occur without the injunction; (3) no adequate remedy at law exists; and (4) there is a probability of success on the merits. *See* Mot. at 2; citing *Nielsen & Bainbridge, L.L.C. v. IEPA*, PCB 03-98 (Feb. 6, 2003); *Saint-Gobain Containers, Inc. v. IEPA*, PCB 04-47 (Nov. 6, 2003).

*Citgo Petroleum Corporation v. Illinois EPA*, PCB No. 07-10 at 2 (Ill.Pol.Control.Bd. Sept. 21, 2006).

5. Citgo also contended that “it is not necessary for the Board to determine that all four factors exist to grant a discretionary stay.” *Id.* at 2-3, citing *Bridgestone/Firestone Off Road Tire Co. v. Illinois EPA*, PCB No. 02-31 (Ill.Pol.Control.Bd. Nov. 1, 2001).

6. The Board ultimately granted Citgo’s motion to stay the effectiveness of the contested conditions in the reissued NPDES permit. *Citgo Petroleum Corporation v. Illinois EPA*, PCB No. 07-10 at 3-4 (Ill.Pol.Control.Bd. Sept. 21, 2006).

7. A stay of effectiveness of the Agency’s interpretation of the concentration limitations for ammonia nitrogen (“NH<sub>3</sub>-N”) at Outfall 001, as included in the Final NPDES Permit reissued to ExxonMobil on September 30, 2009, is needed to prevent irreparable harm to ExxonMobil. Because the Agency did not include the limiting discussion regarding the NH<sub>3</sub>-N limitations, as was included in the public notice draft NPDES permit (June 9, 2009), the Agency is requiring compliance with the concentrations limits for NH<sub>3</sub>-N at Outfall 001 at all times, and thus, is improperly interpreting 35 Ill. Admin. Code § 304.122(b). *See* Petition for Review of Agency NPDES Permit Action. Further, a stay is necessary to protect ExxonMobil’s right to appeal permit conditions. That is, ExxonMobil’s appeal would be rendered meaningless

if it must comply with these provisions while its appeal is pending. Finally, no adequate remedy exists at law, and ExxonMobil has a probability of success on the merits. *See id.*

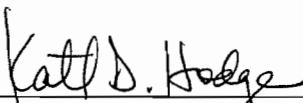
8. The Agency, the public, and the environment will not be harmed if a stay is granted.

WHEREFORE, Petitioner, ExxonMobil Oil Corporation, moves the Illinois Pollution Control Board to grant a Stay of Effectiveness as to the Agency's interpretation of the concentration limitations for NH<sub>3</sub>-N at Outfall 001, as included in ExxonMobil's Final NPDES Permit, until the Board's final action in this matter.

Respectfully submitted,

EXXONMOBIL OIL CORPORATION,  
Petitioner,

By: \_\_\_\_\_

  
Katherine D. Hodge

Dated: November 4, 2009

Katherine D. Hodge  
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MOBO:027/Filings/Motion to Stay Effectiveness of Contested Permit Conditions

**CERTIFICATE OF SERVICE**

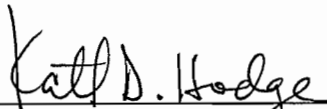
I, Katherine D. Hodge, the undersigned, hereby certify that I have served the attached ENTRY OF APPEARANCE OF KATHERINE D. HODGE, ENTRY OF APPEARANCE OF LAUREN C. LURKINS, PETITION FOR REVIEW OF AGENCY NPDES PERMIT DECISION and MOTION TO STAY THE EFFECTIVENESS OF CONTESTED PERMIT CONDITIONS upon:

John T. Therriault  
Assistant Clerk of the Board  
Illinois Pollution Control Board  
100 West Randolph Street  
Suite 11-500  
Chicago, Illinois 60601

via certified mail, return receipt requested, on November 4, 2009; and upon:

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

by depositing said documents in the United States Mail, postage prepaid, in Springfield, Illinois on November 4, 2009.

  
Katherine D. Hodge

MOBO:027/Filings/NOF-COS Petition for Review