

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

Lisa Bonnett, Interim Director

618/346-5120

FAX: 618/346-5155

CERTIFIED MAIL 7009 0820 0000 3114 9002 RETURN RECEIPT REQUESTED

April 19, 2011

Shell Oil Products U.S. Attn: Mr. Kevin Dyer 17 Junction Drive PMB # 399 Glen Carbon, Illinois 62034 RECEIVED

APR 2 6 2011

Re:

Violation Notice, L-2011-01126

BOL # 1191150002 - Madison County

Shell Oil Products US Compliance File

Dear Mr. Dyer:

This constitutes a Violation Notice pursuant to Section 31(a)(1) of the Illinois Environmental Protection Act, 415 ILCS 5/31(a)(1), and is based upon a record review completed on March 22, 2011 by a representative of the Illinois Environmental Protection Agency ("Illinois EPA").

The Illinois EPA hereby provides notice of alleged violations of environmental statutes, regulations, or permits as set forth in the attachment to this notice. The attachment includes an explanation of the activities that the Illinois EPA believes may resolve the specified alleged violations, including an estimate of a reasonable time period to complete the necessary activities. Due to the nature and seriousness of the alleged violations, please be advised that resolution of the violations may require the involvement of a prosecutorial authority for purposes that may include, among others, the imposition of statutory penalties.

A written response, which may include a request for a meeting with representatives of the Illinois EPA, must be submitted via certified mail to the Illinois EPA within 45 days of receipt of this notice. The response must address each alleged violation specified in the attachment and include for each an explanation of the activities that will be implemented and the time schedule for the completion of that activity. If a meeting is requested, it shall be held within 60 days of receipt of this notice. The written response will constitute a proposed Compliance Commitment Agreement ("CCA") pursuant to Section 31 of the Act. The Illinois EPA will review the proposed CCA and will accept or reject it within 30 days of receipt.

If a timely written response to this Violation Notice is not provided, it shall be considered to be a waiver of the opportunity to respond and to meet provided by Section 31(a) of the Act, and the Illinois EPA may proceed with a referral to the prosecutorial authority.

Page 2 of 2

Written communications should be directed to:

Illinois EPA – Bureau of Land Attn: Mr. Chris Cahnovsky 2009 Mall Street Collinsville, Illinois 62234

All communications must include reference to your Violation Notice L-2011-01126. If you have questions regarding this matter, please contact Gina Search at 618-346-5120.

Sincerely,

Chris N. Cahnovsky, Regional Manager

Field Operations Section

Bureau of Land

CNC:GRS:jlb/shelloilvn41911

Attachment

ATTACHMENT A

- 1. Pursuant to Section 21(f) of the [Illinois] Environmental Protection Act (415 ILCS 5/21(f)), no person shall conduct any hazardous waste-storage, hazardous waste-treatment or hazardous waste-disposal operation:
 - 1. Without a RCRA permit for the site issued by the Agency under subsection (d) of Section 39 of this Act, or in violation of any condition imposed by such permit, including periodic reports and full access to adequate records and the inspection of facilities, as may be necessary to assure compliance with this Act and with regulations and standards adopted thereunder....
 - 2. In violation of any regulations or standards adopted by the Board under this Act
 - 3. In violation of any RCRA permit filing requirement established under standards adopted by the Board under this Act....
 - 4. In violation of any order adopted by the Board under this Act.

Notwithstanding the above, no RCRA permit shall be required under this subsection or subsection (d) of Section 39 of this Act for any person engaged in agricultural activity who is disposing of a substance which has been identified as a hazardous waste, and which has been designated by Board regulations as being subject to this exception, if the substance was acquired for use by that person on his own property and the substance is disposed of on his own property in accordance with regulations or standards adopted by the Board.

A violation of Section 21(f) of the [Illinois] Environmental Protection Act is alleged for the following reason: ConocoPhillips and Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of 21(f) because they have failed to comply with 35 Illinois Administrative Code Parts 702, 703 and 725.

2. Pursuant to 35 Ill. Adm. Code 703.121(a) No person may conduct any hazardous waste storage, hazardous waste treatment, or hazardous waste disposal operation as follows: 1) Without a RCRA permit for the HWM (hazardous waste management) facility; or 2) In violation of any condition imposed by a RCRA permit.

A violation of 35 Ill. Adm. Code 703.121(a) is alleged for the following reason: ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of 703.121(a) because they failed to comply with Section IV.F.2.a. and Section IV.D.2 of the RCRA Post-Closure Permit.

3. Pursuant to Section IV.F.2.a. of the RCRA Post-Closure Permit, the Corrective Action Program shall control the horizontal and vertical flow in the vertical column of water present in the uppermost aquifer beneath the North and Main Properties and monitor the position and rate of migration of the Hydrocarbon Pool as follows: The pumping from the Water Production Wells shall maintain the cone of depression to ensure groundwater flow is adequately controlled in the uppermost aquifer.

A violation of Section IV.F.2.a. is alleged for the following reason: ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of Section IV.F.2.a because the rate of groundwater pumping from the Water Production Wells was not high enough to ensure that groundwater flow was adequately controlled in the uppermost aquifer.

4. Pursuant to Section IV.D.2 of the RCRA Post-Closure Permit, the Permittee shall maintain the Water Production Wells identified in the table on page IV-8 and IV-9 to allow for the withdrawal of contaminated groundwater, in order to adequately control the flow of groundwater.

A violation of Section IV.D.2 is alleged for the following reason: ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of IV.D.2 because they failed to properly maintain the Water Production Wells.

Pursuant to Section IV.D.4 of the RCRA Post-Closure Permit, the Permittee shall Notify the Illinois EPA within thirty days in writing if any of the wells identified in Conditions IV.D.1 and IV.D.2 are damaged or the structural integrity has been compromised causing the well not to service its function or to act as a contaminant pathway. A proposal for the replacement of the subject well shall accompany this notification. The well shall not be plugged until the new well is on-line and monitoring data has been obtained and verified, unless the well is extremely damaged or would create a potential route for groundwater contamination. Prior to replacing the subject well, the Permittee shall obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction.

A violation of Section IV.D.4 is alleged for the following reason: ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of IV.D.4 because the failed to notify the Agency within 30 days of the production wells being taken out of service.

SUGGESTED RESOLUTIONS

Within 120 days of receipt of this Violation Notice:

- 1. Repair or replace the out of service water production wells listed in the 30 Day Report Groundwater Flow Control dated March 4, 2011.
- 2. Provide documentation for the out-of-service wells including dates when they became inoperable and service records for all repairs and maintenance work.
- 3. Maintain all water production wells in a proper condition to ensure containment of contaminated groundwater to prevent migration.
- 4. Repair or replace the out-of-service oil recovery system. In addition to what you have in the contingency plan comment, add that it include prompt notifications to IEPA when problems with the system arise.
- 5. Submit for the Illinois EPA's review and approval, a workplan to conduct an assessment to determine what pumping levels are necessary to maintain inward gradient control during periods of elevated groundwater levels and steady-state groundwater levels.
- 6. Submit for the Illinois EPA's review and approval, a workplan to conduct an evaluation of the hydrocarbon recovery system. The plan should include contingency measures for recovery hydrocarbon during elevated water table conditions.

The written response to this Violation Notice must include information in rebuttal, explanation, or justification of each alleged violation and must be submitted to the Illinois EPA by certified mail, within 45 days of receipt of this Violation Notice. The written response must also include a proposed Compliance Commitment Agreement that commits to specific remedial actions, includes specified times for achieving each commitment, and may include a statement that compliance has been achieved.

COMPLETED DATE: 3-31-11

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

BUREAU OF LAND / FIELD OPERATIONS SECTION RCRA INSPECTION REPORT

GENERAL FACILITY INFORMATION

USEPA ID #:	ILD08001230	5					BOL ID#	: 119	1150002	
Facility Name:	Shell Oil Prod	lucts U.S.					Phone #:	618	3-288-7237	
Location	900 South Ce	ntral Avenue					County:	Ma	dison	
City:	Roxana		State:	Illinois			Zip Code	: 620)84	
Region:	Collinsville	Inspection	Date:	March 22,	2011		Time:	N/A	\	
Weather:	N/A									
		i de	ACILI	TY TYPE						
Notified As:	G-1		Reg	gulated As:	G-D/	'Post	Closure			
INSPECTION TYPE										
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FCI (Other):								CCI:	CSI:	
Notification Dates (EPA 8700-12)										
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	T:	SD FACILITY	ACTIVITY SU	MMARY		
Activity by Process Code	On Part A?	On Part B?	Activity ever done?	Closed?	Being done during inspection?	Exempt per 35 IAC Sec:
S02 - Tank	\boxtimes	\boxtimes	\boxtimes		\boxtimes	SBW Tanks
T02 - Surf Impnd			\boxtimes	П		Pond 2
D83 - Surf Impnd*						Site 15
Dog - Surt Imprid						*Post Closure
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			Ц			
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C)WNER			Or	PERATOR	
Name: WRB Refini	ng LLC		Name:	ConocoPhi	llips	
	airy Ashford	Road	Address:	900 South	Central Ave	
City: Houston			City:	Roxana		
State: Texas	Zip Cod	e: 7709-1175	State:	Illinois	Zip Code:	62084
Phone #:			Phone #:	618-255-24		
INSPECTION PARTIC	IPANTS	AGENCY/BL	JREAU		Рн	ONE#
Gina Search*		IEPA/BOL			618-	346-5120
*Report prepared by thi	-	MMARY OF A	PPARENT VIC	LATIONS		
SECTION	$\overline{\mathbf{x}}$		CTION	X	SECTIO	N X
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21(f)	[]	VNL - 2008-01	134			اسسا
21(f) 703.121(a)			134			
21(f) 703.121(a) Section IV.D.2 of the RO Post-Closure Permit	CRA	12(a) 12(d)	134			
703.121(a) Section IV.D.2 of the RC Post-Closure Permit Section IV.F.2.a of the RCRA Post-Closure Pe	rmit	12(a)	134			
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X = CONTINUING VIOLATIONS	



1191150002 –Madison County Shell Oil Products US ILD080012305 Subpart F File

RCRA Nonfinancial Record Review

On March 22, 2011, I conducted a RCRA Nonfinancial Record Review for WRB Refining LLC Wood River Refinery located at 900 South Central Avenue in Roxana, Illinois. This record review was conducted to determine the facility's compliance with their RCRA Post-Closure Permit, applicable sections of the Illinois Environmental Protection Act ("Act") and 35 Ill. Adm. Code regulations.

Facility Operations, Processes and Products

ConocoPhillips operates the petroleum refining complex which receives crude oil from Canada, Middle Eastern and other foreign countries and the United States. The complex produces propane, motor gasolines, aviation fuels, diesel and heating oils, asphalt, petroleum coke and heavy fuel oil.

This refinery has been in operation since 1918 and was operated for many years by Shell Oil Company. On July 1, 1998 ownership was transferred to Equilon Enterprises. In June 2000 the refinery was sold to Toscopetro, but Equilon retained responsibility for certain environmental liabilities at the facility. Phillips Petroleum Company purchased the refinery in September 2001 and the Phillips merged with Conoco Corporation in August 2002 and became ConocoPhillips. In 2007, ConocoPhillips formed a joint venture (WRB Refining, LLC) with Encana US. Refineries, LLC (now known as Cenovus Energy, Inc.) WRB Refining, LLC owns the refinery, and ConocoPhillips operates the refinery.

Regulatory and Permit Status

A renewed RCRA Post-Closure Permit was issued on September 23, 2010 with an effective date of October 28, 2010. The permit focuses on three areas: (1) post-closure care of the Solid Waste Disposal Basin; (2) conducting a groundwater corrective action program to address contaminated groundwater at the facility; and (3) providing corrective action as appropriate on several solid waste management units at the facility.

Section IV of the RCRA Post-Closure Permit includes a groundwater corrective program. Section IV.F.2.a. of the RCRA Post-Closure Permit requires control of the horizontal and vertical flow in the uppermost aquifer such that the groundwater flow is towards the interior of these portions of the facility beneath the combined boundaries of the North and Main Properties. The pumping from the Water Production Wells shall maintain the cone

of depression to ensure groundwater flow is adequately controlled in the uppermost aquifer.

Section IV.A.2. of the RCRA Post-Closure Permit requires verification that the flow of groundwater is adequately controlled as required by Section IV.A.1.

A document entitled, "Groundwater Flow Control Notification", was submitted by Shell to notify the Illinois EPA that a potential loss of control of groundwater along the west fenceline of the North Property was identified from the contour data from January 2011. The document was dated February 4, 2011 and received February 8, 2011. A document dated March 4, 2011, and entitled, "30 Day Report – Groundwater Flow Control", was submitted to notify the Illinois EPA of what actions had been taken to ensure control of groundwater flow.

The 30 Day Report – Groundwater Flow Control stated that ConocoPhillips operates the groundwater pumping system at the facility to furnish water for process cooling needs. The following table lists the average pumping rates for 2010-2011 at the WRB Refining LLC, Wood River Refinery. The pumping rate began to decline in September 2010 and dipped below 3000 gpm in December and January 2010 (see table below).

Monthly average pumping rates – 2010-2011-- WRB Refining, Inc.

January	3308 gpm*
February	3242 gpm
March	3242 gpm
April	3355 gpm
May	3330 gpm
June	3725 gpm
July	3836 gpm
August	3874 gpm
September	3303 gpm
October	3304 gpm
November	3074 gpm
December	2779 gpm
January 2011	2819 gpm
February	3407 gpm
*gpm = gallons per	r minute

Shell Oil Products reported that groundwater data from the first quarter 2011 shows that groundwater was not fully controlled along portions of the western boundaries of Main and North properties. ConocoPhillips stated that the refinery water needs vary throughout the year from a low of 2600 in the winter months to a high of 4000 gpm in the summer months. Under the previous permit, ConocoPhillips was required to pump amounts greater than 3000 gpm. They would discharge the surplus groundwater to the process sewers when refinery needs were low. The renewed Part B Permit effective October 28, 2010, requires pumping the Water Production Wells to maintain the cone of

depression to ensure groundwater flow is adequately controlled in the uppermost aquifer. The 3,000 gpm minimum pumping rate is no longer a permit requirement. Under the renewed permit requirement, ConocoPhillips lowered the pumping rate below 3,000 gpm and caused the loss of control of inward flow along the western property boundary. ConocoPhillips failed to ensure that groundwater flow is adequately controlled in the uppermost aquifer is an apparent violation of Section IV.F.2.a. of the RCRA Post-Closure Permit, 35 IAC 702.141 & 703.121(a) and Section 21(f).

There are seventeen permitted Water Production Wells at the WRB Refining LLC Wood River Refinery, W39, W42, W68, W69, W70, W72, W73, W75, W76, W77, W78, W79, W80, W81, W82, W84 and W85. The 30-day Report-Groundwater Flow Control, Table 1 documents that five of the Water Production Wells were out of service at one time, W-39, W-42, W-72, W-73 and W-78. Water Production Wells W-84 and W-76 were repaired in February so that pumping rates could be increased. Seven of the seventeen Water Production Wells were in need of repair or out of service. Shell Oil Company, ConocoPhillips and WRB Refining LLC failed to maintain the Water Production Wells to allow for the withdrawal of contaminated groundwater. This is an apparent violation of Section IV.D.2. of the RCRA Post-Closure Permit, 35 IAC 703.121(a) and Section 21(f). Operating records and official notification documentation were not provided in this report so the Agency was not able to determine for what period of time the wells had been inoperable. Shell Oil Company, ConocoPhillips and WRB Refining LLC failed to notify the Illinois EPA within 30 days of the date that the Water Production Wells were taken out of service. This is an apparent violation of Section IV.D.4. of the RCRA Post-Closure Permit, 703.121(a) and Section 21(f).

A document entitled, "February 7, 2011 Notification of Free Product", was submitted by Shell Oil Products US on March 14, 2011. This notification was required by Condition 3(c) of the Agency's letter dated May 12, 2009. The document reports off-site detection of free product along the western property boundary. Piezometer ROST-4-PZ, located at the intersection of 3rd and Chaeffer Streets in Roxana, has had measurable free product, up to 0.04 feet. ROST-4-PZ is located approximately 100 feet west of P-60-11, which was installed in June 2010 for product recovery. Product levels have been measured at 1 to 1.5 feet in this area. Monitor Well P-60, which is located approximately 150 feet southeast of ROST-4-PZ, has had 3 to 9.5 feet of product. The skimmer pump in monitor well P-60 has been shut off since January 25, 2010, due to elevated groundwater levels. A review of the Semi-Annual Groundwater Data dated 1/14/2011 indicates that 0 BBLS were recovered by the system during July 2010 through December 2010. A line below Table 3 of this document states that system is not operating due to ongoing issues. There is no explanation of the ongoing issues. Shell needs to develop a contingency plan to handle LNAPL when the groundwater levels are elevated.

The following table documents the systems operational status and the amount of hydrocarbon recovered dating from January 1, 2007 through December 31, 2010.

Dates	System Operational Status	BBL recovered
1/1/2007-6/30/2007	Functioning between 1/31/07 and 3/10/07 – high recoveries every day during this period. Then system functions poorly or little is recovered between 3/11/07 and 6/12/07.	8,890
7/1/2007-12/31/2007	Functioning entire period	7,685
1/1/2008-6/30/2008 ¹	System only recovered product between 1/1/08 and 1/28/08	5,922 in January. The remainder of the period zero bbl recovered.
7/1/2008-12/31/2008	System not functioning.	Zero bbl recovered entire period.
1/1/2009-6/30/2009 ²	Product recovered between 3/14/09 and 4/29/09. Remainder of the period not operating.	2,239
7/1/2009-12/31/2009	System not in operation.	Zero bbl recovered entire period.
1/1/2010-6/30/2010	System not in operation.	Zero bbl recovered entire period.
7/1/2010-12/31/2010	System not in operation.	Zero bbl recovered entire period.

- Notes: 1 = The associated semi-annual report states; "from February forward due to maintenance issues associated with the collection header/conveyance systems. Repairs were initiated this quarter, and restart of the recovery wells is underway this month."
 - 2 = The associated semi-annual report states; "The oil recovery system was returned to operational status in mid-February 2009 and began recovering product in March. The system shut down in May to prepare for planned inspections of the oil recovery tank."

The Agency received a follow-up document, "Additional Information, February 7, 2011 Notification of Free Product", dated March 14, 2011. In this document Shell Oil Products US has proposed an additional six soil borings with monitor well installation near ROST-4-PZ, to determine the extent of contamination and allow for product recovery.

Summary of Apparent Violations

21(f) of the Illinois Environmental Protection Act

No personal shall conduct any hazardous waste-storage, hazardous waste-treatment or hazardous waste-disposal operation without a RCRA permit for the site issued by the Agency under (d) of Section 39 of this Act, or in violation of any condition imposed by such permit, including periodic reports and full access to adequate records and the inspection of facilities, as may be necessary to assure compliance with this Act and with regulations and standards adopted thereunder.

ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of 21(f) because they have failed to comply with 35 Illinois Administrative Code Parts 703.

35 Ill. Adm. Code 703.121(a)

No person may conduct any hazardous waste storage, hazardous waste treatment, or hazardous waste disposal operation as follows:

- 1) Without a RCRA permit for the HWM (hazardous waste management) facility; or
- 2) In violation of any condition imposed by a RCRA permit.

ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of 703.121(a) because they failed to comply with Section IV.F.2.a. and Section IV.D.2 of the RCRA Post-Closure Permit.

Section IV.F.2.a

The Corrective Action Program shall control the horizontal and vertical flow in the vertical column of water present in the uppermost aquifer beneath the North and Main Properties and monitor the position and rate of migration of the Hydrocarbon Pool. The pumping from the Water Production Wells shall maintain the cone of depression to ensure groundwater flow is adequately controlled in the aquifer.

ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of Section IV.F.2.a. because they failed to pump enough groundwater to maintain the cone of depression and control groundwater flow in the uppermost aquifer.

Section IV.D.2. of the RCRA Post-Closure Permit

The Permittee shall maintain the Water Production Wells identified in the table on pages IV-8 and IV-9 to allow for the withdrawal of contaminated groundwater, in order to adequately control the flow of groundwater, as required by Condition IV.A.1. ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of Section IV.D.2. because they failed to properly maintain the Water Production Wells.

Section IV.D.4. of the RCRA Post-Closure Permit

The Permittee shall notify the Illinois EPA within thirty days in writing if any of the wells identified in Conditions IV.D.1 and IV.D.2 are damaged or the structural integrity has been compromised causing the well not to serve its function or to act as a contaminant pathway. A proposal for the replacement of the subject well shall accompany this notification. The well shall not be plugged until the new well is on-line and monitoring data has been obtained and verified, unless the well is extremely damaged or would create a potential route for groundwater contamination. Prior to replacing the subject well, the Permittee shall obtain written approval from the Illinois EPA regarding the proposed installation procedures and construction. ConocoPhillips, Shell Oil Products US and WRB Refining LLC Wood River Refinery are in apparent violation of Section IV.D.4 because they failed to notify the Illinois EPA within 30 days of the date that the Water Production Wells were taken out of service.