



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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PAT QUINN, GOVERNOR

JOHN J. KIM, INTERIM DIRECTOR

217/524-3300

March 14, 2012

CERTIFIED MAIL

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

WRB Refining LLC Wood River Refinery
Attn: Mr. Mike Bechtol
900 South Central Avenue
P.O. Box 76
Roxana, Illinois 62084

Re: 1191150002 -- Madison County
Equilon
ILD080012305
Log No. B-43R-CA-25
Received: September 19, 2011
RCRA Permit
Permit CA

Dear Mr. Dyer and Mr. Bechtol:

This is in response to the document entitled, "Response to Agency Comments Provided in June 16, 2011 Letter", submitted on behalf of Shell Oil Products US (SOPUS) by URS Corporation (URS), with regards to the WRB Refining, LLC Wood River Refinery (WRR) in Roxana, Illinois. The submittal was prepared in response to the 15 conditions listed in the June 16, 2011 letter (Log No. B-43R-CA-1,3,5,6,7,8,10,11 and PS11-032) which addressed corrective action efforts investigative activities associated with contaminated groundwater and free product (a.k.a. free phase hydrocarbons) within the Village of Roxana, and along the west fence line of the North Property WRR. The document was reviewed as a corrective action modification request to the Hazardous Waste Management RCRA Post-Closure Permit (Permit) for the WRR.

The Illinois EPA has determined that subject submittal can be approved, with the following conditions and modifications:

1. The Illinois can agree to delay the evaluation of the oil recovery system, and the evaluation of transmissivity for product removal, based on the facility's inability to evaluate a system intended for removal of product that cannot attain its intended purpose due to elevated groundwater levels.
2. Due to elevated groundwater levels, the facility request to utilize the existing oil recovery system to satisfy Condition 1.a of the June 16, 2011 letter cannot be approved or disapproved at this time. To better define the extent of potential contamination within the Village of Roxana, the facility must first complete the actions listed below to demonstrate whether the system is adequate for current conditions. The actions must be completed by the dates required below, unless access cannot be obtained.

- a. Historical accumulations of (light non-aqueous phase liquids) LNAPL within WRR west fenceline wells at the North Property demonstrates the LNAPL is mobile to some extent. To demonstrate that the LNAPL in the subsurface has not migrated beyond the property boundary, and the existing oil recovery system is adequate, additional wells are necessary.
 - i. Wells must be installed along Chaffer Street at the following six (6) locations: (1) at ROST-4-PZ (F); (2) west of well T-12; (3) east of VMP-4; (4) west of well P-59; (5) west of P-56; and (6) west of P-57.
 - ii. Groundwater sampling at the wells listed in 2.a.i above is not required at this time.
- b. For better delineation of the dissolved groundwater plumes and potential LNAPL, the following actions are necessary:
 - i. For the benzene plume, a well nest must be installed at the approximate mid-point between the west end of the block and ROST-21-PZ on Fifth Street, to monitor: (1) the uppermost aquifer; and (2) a potential perched groundwater zone.
 - ii. For the mixed hydrocarbon plume, install a well nested adjacent to ROST-7-PZ to monitor the uppermost aquifer. The screen length, not to exceed fifteen (15) feet, must be nested to monitor the zone of the uppermost aquifer at depths greater than the zone monitored by ROST-7-PZ.
 - iii. Due to the age of T-6, and it having a submerged screen, the Illinois EPA can approve the request for sampling P-57 instead of T-6.
 - iv. The Illinois EPA acknowledges profiling at GWP-24 indicates contamination is present. Therefore, the facility must propose an alternate location east of GWP-24 for delineation purposes, for Illinois EPA review and approval, within ninety (90) days of the date of this letter.
- c. Wells required by Condition 2.a and 2.b above must be installed, gauged, sampled, and all data reported in accordance with procedures previously approved for the Groundwater Interim Monitoring Program within the Village, with the following conditions and modifications:
 - i. The wells required above must be installed within ninety (90) days of the date of this letter, as 2-inch monitoring wells. These wells must be screened at intervals to intercept current groundwater levels. Due to the elevated groundwater levels observed over the last several years, fifteen (15) foot screened intervals may be installed, in an effort to capture current groundwater elevations, and continue to serve as viable wells as groundwater elevations return to more normal condition.

- ii. Monthly gauging is required at new wells required by Condition 2.a.i above for potential LNAPL delineation. Monthly gauging dates must reasonably coincide with quarterly gauging events for the WRR and Interim Groundwater Monitoring Program for better data comparisons.
 - iii. The data from new wells for gauging, analytical analyses (where required), and all other information related to well installation must be included within routine quarterly reports, beginning within the quarter wells are installed, for the Groundwater Interim Monitoring Program.
 - d. The facility must notify Gina Search at the Illinois EPA Collinsville Field Office 2 weeks prior to conducting the field work associated with the installation of new wells required above.
3. If product is detected at a well/piezometer located within the Village of Roxana, the well must be gauged weekly and the facility must conduct ongoing product recovery techniques (i.e., absorbent socks) at those locations. Additional corrective measures, if necessary, will not be required until the extent of the full-scale Soil Vapor Extraction (SVE) system effectiveness is known.
4. Once the oil recovery system is fully functional, or if the additional wells required in Comment 2.a.i above are deemed adequate by the Illinois EPA to verify product is not present in the Village, the facility may request to reduce gauging at these wells located within the Village of Roxana, at that time.
5. Condition 3.a.ii of the June 16, 2011 letter requires a system that can accommodate seasonal fluctuations. The additional work required by Condition 2 above must be completed before further determinations can be made regarding system ability to accommodate seasonal fluctuations.
6. The facility has not satisfied Condition 3.a.iii of the June 16, 2011 letter. The facility must submit alternative procedures that are to be implemented in the event that the free product recovery system has an extended or planned outage of the system, to ensure system operation continues in an alternate manner, or resumes with existing equipment. This information, and a definition of an extended outage, must be submitted for Illinois EPA review and approval within 120 days.
7. To ensure that the product recovery system is properly maintained and appropriate documentation recorded, the facility must submit a Class 1* Permit modification request to incorporate the following language into the Permit:

The Permittee shall maintain all equipment associated with withdrawal and treatment of groundwater withdrawn from the uppermost aquifer to adequately control groundwater flow, and removal of the hydrocarbon layer from the top of the water table. This includes any pollution control equipment necessary for these activities. A record of all

maintenance and inspections for pollution control equipment shall be maintained on-site and made available to the Agency upon request.

8. The facility is required to determine the extent of perched groundwater and potential contamination in such areas. Therefore, the facility remains subject to the requirements of Condition 4.c of the June 16, 2011 letter. The perched monitoring locations include: P-60-12S, P-60-13S, ROST-7-PZ, ROST-5-PZ, ROST-10-PZ, ROST-21-PZ, and the new well for monitoring a potential perched zone required by Condition 2.b.i above. If any of these locations must be reinstalled to accommodate sampling equipment, the facility must do so in accordance with Condition IV.D of the Permit.
 - a. The facility must include ROST-5-PZ and ROST-10-PZ within the program for at least one year before the determination is made that these wells are dry.
 - b. Detailed reporting for the perched zone must be included within all quarterly reporting required for the Interim Groundwater Monitoring Program, beginning with the First Quarter 2012.
9. The facility must continue to pursue access for additional groundwater investigation beyond well GP-5 to further delineate the dissolved plume, as required by Condition 6.a(3) of the August 5, 2010 Illinois EPA letter (Log Nos. B-43-CA-16 and CA-18).
10. RCRA corrective action activities carried out at the facility including off-site activities as necessary, must meet the requirements of: (1) 35 Ill. Admin. Code 724.201; (2) the facility's Permit; and (3) Illinois EPA letters regarding such activities.

This letter shall constitute Illinois EPA's final decision on the subject submittal. The applicant may appeal this final decision to the Illinois Pollution Control Board pursuant to Section 40 of the Act by filing a petition for a hearing within 35 days after the date of issuance of the final decision. However, the 35-day period may be extended for a period of time not to exceed 90 days by written notice from the applicant and the Illinois EPA within the 35-day initial appeal period. If the owner or operator wishes to receive a 90-day extension, a written request that includes a statement of the date the final decision was received, along with a copy of this decision, must be sent to the Illinois EPA as soon as possible.

For information regarding the request for an extension, please contact:

Illinois Environmental Protection Agency
Division of Legal Counsel
1021 North Grand Avenue East
Post Office Box 19276
Springfield, IL 62794-9276
217/782-5544

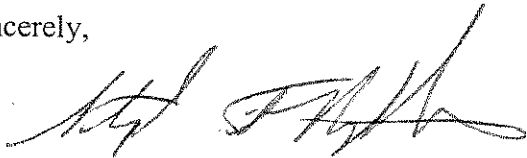
For information regarding the filing of an appeal, please contact:

Illinois Pollution Control Board, Clerk
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, IL 60601
312/814-3620

Work required by this letter, your modification requests or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. This letter does not relieve anyone from compliance with these laws and the regulations adopted pursuant to these laws. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

If you have any questions regarding the groundwater aspects of this letter, please contact Amy Boley at 217/558-4716; questions regarding other aspects of this letter should be directed to James K. Moore, P.E. at 217/524-3295.

Sincerely,



Stephen F. Nightingale, P.E.
Manager, Permit Section
Bureau of Land

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cc: ^{AMB JKM BM} Robert Billman, URS
Eric Peterson, ConocoPhillips

Bcc: Bureau File
Collinsville Region
DLC - Melanie Jarvis
Terri Myers
Jim Moore
Amy Boley
Mara McGinnis