ROUTE 111/RAND AVENUE AND WOOD RIVER REFINERY WEST FENCELINE VICINITY ENVIRONMENTAL INVESTIGATIONS

ROXANA, ILLINOIS

Prepared for:

Shell Oil Products US 17 Junction Dr. Glen Carbon, Illinois 62034

February 9, 2009



URS Corporation 1001 Highlands Plaza Drive West, Suite 300 St. Louis, MO 63110 (314) 429-0100 Project #21561979 This community relations plan (CRP) was developed in response to a letter from the Illinois Environmental Protection Agency (IEPA) to Shell Oil Products US (SOPUS) dated June 13, 2008 as supplemented August 19, 2008. The CRP provides the information outlined in the "Right-to-Know" regulations (35 IAC Part 1600).

1.0 SITE DESCRIPTION AND BACKGROUND

A benzene release occurred on January 30, 1986, from an underground pipeline used by the Wood River Refinery (WRR) while Shell owned and operated the refinery. The release site is located at the northwest corner of Route 111 and Rand Avenue in Roxana, Illinois in Madison County (**Figure 1**). The pipeline extended from the refinery to barge loading facilities on the Mississippi River, along a route parallel to and just north of Rand Avenue. Shortly after the release, a portion of the underground pipeline near the release site was abandoned in place and was replaced with an aboveground section following a similar route to the river, which is still in use. There is limited documentation available regarding the cleanup activities at the time of the release other than that the liquids that accumulated at the surface were recovered to the extent possible. Other than this liquids recovery, there is nothing to indicate that the subsurface release was further addressed at that time.

In 2005, analytical results from regular groundwater sampling of monitoring wells at the refinery, now WRB Refining LLC¹ Wood River Refinery, indicated an increase in the levels of benzene in the vicinity of the WRR west fenceline. The monitoring well where a benzene increase was detected is approximately 800 feet from the release location. SOPUS suspects that this occurrence was related to migration of benzene in groundwater from the 1986 release location due to groundwater pumping at the WRR. The uppermost groundwater aquifer occurs at depths of approximately 35 to 50 feet below ground surface (bgs) and, due to a groundwater pumping program at the WRR designed to capture and treat contaminated groundwater, flows generally to the east. Several water pumping wells are located near the western boundary of the refinery (**Figure 1**). Based on groundwater measurements, shallow groundwater was encountered in two localized areas of the WRR near the west fenceline. Further evaluation of these areas is proposed as part of a revised work plan being reviewed by IEPA.

¹ WRB, formed January 1, 2007, is a 50/50 joint venture between ConocoPhillips and EnCana Refineries LLC. The facility is owned by WRB and operated by ConocoPhillips.



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URS Corporation (URS), on behalf of SOPUS, conducted a groundwater investigation in 2006 to gather information on benzene in the vicinity of the release area. A report of this investigation was submitted to the IEPA in September 2007^2 . This investigation provided initial information on the distribution of benzene in groundwater in the area. The 2006 investigation identified benzene in groundwater, as well as other constituents generally associated with gasoline and petroleum refining, near the former release site.

URS conducted an additional investigation in May and June 2008 to expand upon the 2006 investigation and gather further information on the extent of the groundwater impacts in the area. The report of this investigation was submitted to the IEPA in August 2008³. These investigation activities included soil sampling, well installation, groundwater sampling, and soil vapor sampling. The highest benzene concentrations in groundwater generally occur in an approximate wedge-shaped band (**Figure 1**) originating at the release area, passing underneath the Roxana Public Works yard and increasing in width to approximately 200 feet wide at the western fenceline of the refinery. Soil vapor results from this area show benzene levels to be very low or not detectable. The investigation also found other hydrocarbons characteristic of petroleum refining at locations in the Village near the WRR fenceline.

A Water Well Survey was conducted to identify water wells within 2,500 feet of the 1986 benzene release site. No public water wells were identified within the survey area. Three active private commercial/industrial (i.e., non-potable) wells were identified. The well survey was submitted to IEPA on June 16, 2008.

The Village of Roxana enacted an ordinance which prohibits the installation and use of private potable water supply wells. The ordinance was adopted on June 2, 2008 (Ordinance No. 867). The subject investigation area is contained within the ordinance area.

A work plan was submitted to IEPA on September 5, 2008 to guide future field sampling activities with the aim of assessing the nature and extent of hydrocarbons in the area west of the WRR west fenceline. The area to be investigated is generally bordered by Route 111 to the west, First Street to the north, and the WRR to the east and south (**Figure 1**). On November 25, 2008, the Illinois EPA provided comments on that work plan and requested a revised work plan be

³ URS, 2008; *Route 111/Rand Avenue Vicinity Subsurface Investigation Report – Roxana, Illinois*; prepared for SOPUS; dated August 2008.



² URS, 2007; *West Fenceline P-93 Dissolved Phase Benzene Investigation Report – Roxana, Illinois*; prepared for SOPUS; dated September 2007.

submitted. The revised work plan was received by IEPA on January 22, 2009. This revised work plan indicates free petroleum product was encountered at a shallower depth than anticipated in two localized areas of the WRR, along the west fenceline. Evaluation of this area is an objective of the proposed work. The revised work plan is currently under review.

2.0 COMMUNITY ISSUES AND CONCERNS

The Village of Roxana was founded in 1921. Roxana has a population of about 1,500 and a population density of about 220 people per square mile. The largest employer in the Village of Roxana is the WRR.

A meeting between SOPUS and the Village of Roxana was held on May 12, 2008 to discuss the planned work activities (May-June field work). Village officials requested that SOPUS develop a fact sheet, describing the upcoming work, and provide a mailing to area residents. The initial project fact sheet was mailed to residents in the southern portion of the current investigative area (generally south of Sixth Street) on May 30, 2008. This fact sheet was provided to the IEPA at the time of distribution and gave background information concerning the 1986 benzene release, a description of upcoming investigative activities, and contact information.

A subsequent fact sheet, Fact Sheet #1, provides background information and addresses potential concerns of the community. This fact sheet includes information on: the potential benzene exposure pathways and possible effects of benzene exposure; details regarding water wells and drinking water in the area; and a brief discussion of upcoming work activities. This fact sheet will be provided to the community as described in **Section 4**.

3.0 COMMUNITY RELATIONS PROGRAM

The Village officials will continue to be informed of upcoming work and the anticipated schedule. Fact sheets will be updated, posted to an on-line repository and distributed to the contact list as described in Section 4 when additional information becomes available (e.g., schedule of work described in approved work plans). If needed, a public meeting or information session could be held to provide information. The time and place would be determined based on the anticipated attendance and discussions with IEPA and Village of Roxana officials.



A document repository has been established on the World Wide Web and is available at <u>http://RoxanaInvestigation.urs-stl.net</u>. A link to this site will also be added to the Village of Roxana's website (<u>http://www.roxana-il.org</u>). A local repository has also been established at the Roxana Village Hall.

Questions about community relations activities and news media inquiries should be directed to one of the following:

Kevin Dyer Staff Project Manager Shell Oil Products US 17 Junction Dr., PMB #399 Glen Carbon, IL 62034 (618) 288-7237 kevin.dyer@shell.com Mara McGinnis Community Relations Coordinator Illinois EPA 1021 North Grand Ave. East Springfield, IL 62794-9276 (217) 524-3288 mara.mcginnis@illinois.gov Marty Reynolds Public Works Director Village of Roxana 400 South Central Ave. Roxana, IL 62084 (618) 254-0980 <u>mreynolds@roxana-il.org</u>

4.0 CONTACT LIST

The following contact list has been developed for the area outlined in **Figure 1**, including:

- The owners and occupants of the properties within the investigation area;
- Local, state and federal officials whose jurisdiction covers the investigation area; and
- Citizens, identified groups, organizations or businesses in the vicinity of the investigation area, as identified by Village officials.

The sources of information for the contact list include: Village of Roxana (water meter records); Madison County tax assessor's office (property owner information); and other government websites (elected officials). Private individuals' names and addresses will be kept private by withholding them from the publicly available version of the CRP but will be provided to the Illinois EPA and the Village of Roxana. This list will be reviewed with IEPA and Village officials prior to mailings, and revised if necessary. Any other residents who contact the Illinois EPA with questions or concerns about the project also will be added to the contact list.



PUBLIC OFFICIALS MAILING LIST COMMUNITY RELATIONS PLAN ROXANA, ILLINOIS

Felix Floyd, Mayor Village of Roxana 400 South Central Avenue Roxana, IL 62084

Glen Vinyard, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

Chris White, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

The Honorable Alan J. Dunstan Madison County Board Chairperson Madison County Admin. Bldg. 157 North Main Street; Suite 165 Edwardsville, IL 62025

Madison County Department of Health Division of Environmental Health 101 East Edwardsville Road Wood River, IL 62095

The Honorable Jerry F. Costello United States Representative 144 Lincoln Place Court; Suite 4 Belleville, IL 62221 Marty Reynolds, Public Works Director Village of Roxana 400 South Central Avenue Roxana, IL 62084

Jack La Tempt, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

Jim Loyd, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

The Honorable Mark A. VonNida Madison County Clerk Madison County Admin. Bldg. 157 North Main Street; Suite 109 Edwardsville, IL 62025

The Honorable Daniel V. Beiser Illinois State Representative 528 Henry Street Alton, IL 62002

The Honorable Richard Durbin United States Senator 230 South Dearborn Street; Suite 3892 Chicago, IL 60604 Nona Austin, Clerk Village of Roxana 400 South Central Avenue Roxana, IL 62084

Brenda Cermak, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

Mark Diveley, Village Trustee Village of Roxana 400 South Central Avenue Roxana, IL 62084

The Honorable William A. Mudge Madison County States Attorney Madison County Admin. Bldg. 157 North Main Street; Suite 402 Edwardsville, IL 62025

The Honorable William R. Haine Illinois State Senator 307 Henry Street Alton, IL 62002

The Honorable Roland Burris United States Senator 523 Dirksen Senate Office Bldg. Washington, D.C. 20510-1305



Amy Boley Illinois EPA 1021 North Grand Avenue East Springfield, IL 62794-9276

Dave Webb Edwardsville Regional Office Illinois Dept. of Public Health 22 Kettle River Dr. Glen Carbon, IL 62034 Mara McGinnis IEPA - Office of Community Relations 1021 North Grand Avenue East Springfield, IL 62794-9276

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