

United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Wednesday, December 6, 2006

From: Art Smith

Subject: EPA Issues CWA 311(c) Order to Compel Cleanup
SM Maple Lease/Rogers Fork Crude Oil Discharge
Pitts, KY
Latitude: 37.7322000
Longitude: -83.8911000

POLREP No.:	3	Site #:	Z4KS
Reporting Period:	11/21/2006 through 12/5/2006	D.O. #:	
Start Date:		Response Authority:	OPA
Mob Date:	11/17/2006	Response Type:	Emergency
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	Z4KS
FPN#	E07407		

Site Description

On 11/15/06, the Kentucky Department for Environmental Protection (KDEP) was notified of a potential crude oil spill in a mountain stream in rural Estill County, Kentucky. Estill County emergency management officials procured the use of a backhoe to divert the crude oil spill into a small farm pond at the base of the mountain. The pond, which serves as a containment basin for the crude oil spill, is located along Pitts Road, approximately 5 miles northeast of Ravenna, KY. (The GPS coordinates for the pond are N 37.73222 degrees latitude, and W 83.89111 degrees longitude). Prior to establishing containment of the oil spill at the farm pond on 11/15/06, the crude oil discharged directly into the Rogers Fork to Cow Creek, which flows directly into the Kentucky River in Ravenna, KY. The Kentucky River is a navigable water of the United States.

KDEP's Environmental Response Team (KDEP ERT) responded on 11/15, and identified the source of the oil discharge to be coming from multiple springs or seeps originating from the mountainside approximately 0.25 mi. uphill of the pond. KDEP mobilized PECCO, Inc. of Nicholasville, KY to respond and mitigate the oil discharge. KDEP also filed NRC Report No. 818332 on 11/15. On 11/16, OSC Smith was dispatched by the Region 4 Phone Duty Officer to further investigate the source of the discharge and monitor cleanup efforts.

Because of the complexity in determining the source of the discharge, and the continued need to mitigate the threatened discharge of oil into navigable waters, EPA obtained a Federal Project Number and funding in the amount of \$50,000 from the National Pollution Funds Center (NPFC) on 11/20. The purpose of the funding was to continue the oil removal action and to launch an investigation into the cause of the discharge.

Current Activities

On 11/22, EPA met with the KDEP and the KY Oil and Gas Division (KDOG) to review the progress of the investigation and cleanup. Based on field recon performed by KDEP, the focus shifted to two active production wells on the S.M. Maple Lease, located upgradient of the 2 seep locations. The S.M. Maple Lease is owned and operated by United American Energy, Inc. (UAE). UAE has contracted with Arrowhead Enterprises of KY, Inc. (Arrowhead), to manage production on the Maple Lease. KDOG's subsequent attempts to have the current owner/operator voluntarily cease production and inspect these wells were unsuccessful.

Because of the need for additional investigation, and in order to to continue response actions for an extended period, the OSC requested that NPFC approve an increase of an additional \$130,000 to the FPN ceiling.

NPFC concurred with the request and increased the total FPN ceiling to \$180,000 for this incident.

From 11/27-11/29, OSC Smith was onscene to oversee field activities in response to this incident. On 11/27, the OSC, the EPA START contractor and the KDEP Division of Water/Groundwater Branch rep convened to go over specific conductance testing performed on this date by KDEP. Using a conductivity meter, KDEP's results showed that the 2 oil-producing seeps exhibited an average value of 3,230 umhos/cm. Testing at 3 other springs in the area considered to be representative of background conditions revealed an average value of about 370 umhos/cm. The OSC interprets this data to be a strong indication that the oil-producing seeps contain an elevated amount of brine. Brine is found in the fluids generated in the oil production process. Due to the close proximity of the active production wells on the S.M. Maple Lease which are upgradient of the oil-bearing seeps, and the absence of oil and brine seeping from the subsurface or other abandoned wells at elevations lower than that of the oil-producing seeps, the OSC concluded that the cause of the oil discharge is from the active oil production facility owned and operated by United American Energy (UAE).

Under the delegated authority of the Clean Water Act Section 311(c), the OSC issued an Administrative Order on 11/29/2006 to UAE and Arrowhead requiring the Respondents to:

- Immediately cease all oil production and underground injection activities on active wells where the surface elevations are equal to or above identified oil discharge locations.
- Immediately assume responsibility for continued containment, collection, and offsite recycling/treatment/disposal of recovered oil product and debris at the Pitts Road containment basin.
- Submit a Work Plan (including a schedule) detailing procedures for measurement of fluid levels in all producing wells where the surface elevations are equal to or above that of the previously identified oil discharges and the inspection/evaluation of all gathering lines serving these wells.

As of 11/29 @ 1700 hrs. EST, all oil production was shut down on the affected portions of the Maple Lease. However, UAE has declined to accept responsibility for active containment and collection of the oil discharge, until such time as the investigation of the facility is completed. Upon receipt of this information, the OSC issued a verbal Task Order to the Region 4 Emergency and Rapid Response Services (ERRS) contractor CMC, Inc. on 11/30 for purposes of stabilizing the oil discharge and removal of oil product emanating from the seeps. KDEP has demobilized PECCO, and will initiate closeout of the PRFA issued previously by EPA.

On 12/1, the OSC returned to the Site to go over the scope of work with the ERRS contractor, and to further inspect site conditions. By 12/3, an underflow dam had been constructed approximately 200 feet downgradient of the most productive oil seeps. This catchment basin will serve as the primary collection point, and by 12/4, less than 50 gallons of oil had accumulated at this point over a 2 day interval. The farm pond at the base of the hill now functions as a secondary collection point, and less than 250 gallons of product has been collected at this location since ERRS was mobilized on 12/1.

On 12/5, the OSC returned to the Site to inspect construction of the underflow dam, and to outline work activities to be performed. Containment of the spill is effective at the present time. By 12/7, all currently planned stabilization measures will have been completed, and the ERRS contractor should demobilize on 12/8.

Planned Removal Actions

- Continue oil containment and recovery operations until such time as the oil release ceases to constitute a substantial threat of a discharge to surface water. The estimated continuous oil discharge rate is currently less than 15 gallons per day. Beginning on 12/11, plans are to have ERRS crews travel to the Site once a week to recover oil product, and maintain the collection points, as necessary.
- Monitor Respondent's efforts to implement the required actions stipulated in the Administrative Order.

Key Issues

Cost information is incomplete at this time. The OSC will collect information on costs incurred by ERRS and START contractors, and compare to estimates of projected costs for this response. An additional ceiling increase request is anticipated to cover the costs of response to the continuous oil discharge, and the oversight of RP actions to investigate the cause of the oil spill.

response.epa.gov/rogersfork