

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
ENTERPRISE PIPELINE SPILL- E17602 - Removal Polrep
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region VI

Subject: POLREP #2
Final POLREP
ENTERPRISE PIPELINE SPILL- E17602
V6SA
Cushing, OK
Latitude: 35.9401912 Longitude: -96.7491590

To: Reggie Cheatham, Office of Emergency Management
Ronnie Crossland, Superfund Division
Richard McDaniel, ODEQ

From: Roberto Bernier, FOSC

Date: 12/14/2016

Reporting Period: 10/25/2016 - 11/15/2016

1. Introduction

1.1 Background

Site Number:	V6SA	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	OPA	Response Type:	Emergency
Response Lead:	PRP	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	10/24/2016	Start Date:	10/24/2016
Demob Date:	10/27/2016	Completion Date:	11/28/2016
CERCLIS ID:		RCRIS ID:	
ERNS No.:	1162329	State Notification:	
FPN#:	E17602	Reimbursable Account #:	

1.1.1 Incident Category

Emergency Response, Oil Spill

1.1.2 Site Description

On 24 October 2016, Enterprise Products (Enterprise) notified the National Response Center (NRC) of a discharge of crude oil from a 30-inch transmission pipeline in Cushing, Lincoln County, Oklahoma. According to Enterprise representatives the break was discovered at approximately 2325 hours on 23 October 2016. An initial report to the NRC (No. 1162329) estimated 5,000 bbl. of crude oil was discharged from the pipeline. At 0149 hours (local time), Enterprise representative reported to the NRC (No. 1162334) the estimate was revised to the worst-case discharge of 50,000 bbl. based on the total capacity of oil contained between the nearest pipeline block valves. Enterprise reports the two block valves are 13-mile apart. An early report to the NRC (No. 1162328) was made by the local county Emergency Management representative indicating an unknown volume. The spilled crude oil is an API 41.5 gravity sweet crude.

1.1.2.1 Location

The incident is located immediately adjacent to the Enterprise Cushing East Terminal along CR 3510 (aka Linwood Road) and approximately 500 feet south of CR E740 (aka Texaco Road). The 30-inch pipeline is identified as the Seaway pipeline, originating at the Cushing East Terminal and terminating at the Jones Creek Terminal near Freeport, Texas.

1.1.2.2 Description of Threat

The spillway pathway involves a portion of CR 3510 immediately south of CR E740. The oil traveled approximately south 460 feet along the road ditch, then west and southwest for approximately 1000 feet before being contained in a 1.2 acre impoundment used as a pond for firefighting purposes on Enbridge property. The EPA Team visually confirmed that oil had not migrated downstream of this pond. However if oil were to overflow this impoundment, another larger 3-acre fire pond is downstream and would retain the spilled oil. An unnamed intermittent stream is located approximately 0.6 miles downstream of the incident and Wildhorse Creek is located approximately 1.0 miles down gradient of the impacted pond. It is estimated that based on the pond size, depth of the oil of about 18", some soil assimilation, and length of the spill path, closely to 8,800 bbls were actually spilled, which is significantly less than the earlier report of 50,000 bbls. Enterprise will eventually conduct an investigation for a more accurate spilled volume

calculation.

On 1 November 2016 and after conducting a more in-depth investigation, Enterprise updated the spilled volume to 7,603 bbls. This volume does not include the oil that remained within the pipeline section that was recovered by vacuum when it continued to gravity feed and pushed towards the collection point at the pipeline break, nor does it include the total fluids recovered which will include water.

2. Current Activities

2.1 Operations Section

Oil recovery, road surface washing, and exposing the impacted section of the buried pipeline. Soil excavation and confirmation samples are being conducted to reach below OCC concentration limits.

2.1.1 Narrative

Enterprise initiated oil recovery during the morning of 24 October and utilized 24-hour response operations until oil was removed from the containment pond. About 15 to 17 response crew during both day and nights operations were actively involved in oil recovery efforts. One OSRO, Future Environmental performed oil recovery operations and Apex Environmental was on-scene providing air monitoring and EH&S support. Operations currently underway include excavation of impacted soils and confirmation samples. As of 10 November, no free product on the surface was visible, and efforts to remove free product near an Enbridge line 8 ft deep are being conducted.

2.1.2 Response Actions to Date

The EPA team performed air monitoring activity at the incident scene, along the incident perimeter, and the nearest residence over a mile away. Air monitoring parameters utilized were O₂%, LEL%, CO ppm, H₂S ppm, and VOCs ppm. VOC concentrations ranging between 26 and 48 ppm were observed during oil recovery efforts at the impacted pond. All other concentrations and locations were observed at background concentrations or zero, respectively. Lincoln County Emergency Management also conducted air monitoring at the facility perimeter and the nearby community and did not detect any contaminant of concern.

Enterprise response activities included oil recovery from the impacted pond utilizing vacuum trucks and a 12 frac-tank and high efficiency pump system set up to assist with the recovery operations. At the source of the spill crews were washing the oil-affected road surface and hydro-excavating the soil around the impacted pipeline section to expose the break and initiate the investigation as to the cause. The remaining oil in the pipeline at the time of shut-down is also being pumped out by vacuum trucks. Recovered oil was re-injected into Enterprise's Cushing East Terminal system. Enterprise began excavating oil-affected soil for treatment and/or disposal in coordination with the Oklahoma Corporation Commission (OCC) and the U.S. Fish & Wildlife. At 1745 hours on 24 October, 2605 bbls of crude oil were been recovered by the response efforts and about 8" of oil remained within the pond. Between 25 and 27 October 2016, the response continued with removing the oil from the retention pond by pumping, flushing the road ditch, draining the remaining oil still inside the isolated pipeline section, and working on the soil remediation action plan with OCC. The EPA team continued to oversee the response actions and provided advice. The soil remediation will also include a portion of the adjacent Enbridge property where high pressure sprayed oil was deposited on the surface during the pipeline break.

On 28 October 2016, Enterprise reported that 7,020 bbls of oil had been recovered. Contractors transitioned from the Emergency Response phase to the Remediation Phase and contractors on-site eliminated night shift operations. On 1 November 2016, Enterprise reported to EPA that the calculated volume of oil released on-site was 7,603 bbls and the volume of oil recovered was 7,327 bbls, with a difference of 276 bbls. Impacted soils are being excavated and will be land-farmed under guidance from the OCC if the excavated soil meets the state's standards.

On 10 November 2016, Enterprise reported that all free product was removed from the surface. The only free product being found is alongside an Enbridge line that is approximately eight (8') feet deep. This is on Enbridge's property directly west of the release point. There are several lines that run across this location in a north-south direction and have slowed progress. Enterprise reports signs of historical releases in this area and it is expected to take the longest to remediate. Enterprise will take another round of confirmation samples at a later date (total projected samples will be about 100). Confirmation samples from the ditch line along CR 3510 were received and all came back below OCC criteria as described in the 2014 OCC Guidance for the Assessment and Cleanup of Crude Oil Impacted Sites. Initial confirmation samples were pulled on Enbridge's property and all but two came back below the OCC. The slightly elevated levels in this area are being further excavated and will be re-sampled.

On 15 November 2016, Enterprise provided to the EPA Team an email update and photographic documentation of the final remediation activities being conducted on-site. Zones were implemented to better manage operations and those that are below OCC limits are currently being backfilled. Those that are still pending soil analysis will be backfilled after analysis is complete. The submitted documentation shows that all the free oil or oil stain areas that could be a threat of a discharge have been removed and cleaned. The EPA OSC notified Enterprise that no additional updates in relation to the response or remediation would be needed, unless any other Federal or State agency, or local trustee requested additional information from the EPA.

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Based on interviews with Enterprise, DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA), and the OCC, it was determined that the responsible party for the impacted pipeline is Enterprise Products as they are the owner and operator of the pipeline/facility. Enterprise uses the pipeline to also transport oil from other companies that operate terminals within the Cushing, OK area. At the time of the spill, the pipeline was transporting oil owned by Enbridge who owns and operates the terminal next to Enterprise, where the pond is located. FOSC Bernier issued a Notice of Federal Interest to Enterprise.

2.1.4 Progress Metrics

On 1 November 2016 at 1341 hours, Enterprise calculated that 7,603 bbls were released. The total volume of recovered oil is 7,327 bbls, a difference of 276 bbls, mostly from what remained inside the pipeline after the break. As of 15 November 2016, 15,820 cubic yards of impacted soil have been removed.

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal
crude oil	liquid	7,327	n/a		returned
sorbent booms/pads	solids				anticipated Oklahoma City landfill

2.2 Planning Section

2.2.1 Anticipated Activities

Response operations are anticipated to resume if any additional oil is observed within the spill pathway or the pond, and remediation of the impacted soil will continue until confirmation samples are below OCC limits. Another round of confirmation samples will be conducted at a later date. Sorbent booms/pads are currently staged in a rolloff, and they anticipate proper disposal at the Oklahoma City Landfill. The roads have not been opened yet due to operations.

As of 15 November 2016, 15,820 cubic yards of impacted soil have been removed. The soil is still being staged at the Cushing West Terminal under OCC permit 1014-X. An erosion control plan has been implemented and backfilling will begin in appropriate zones pending soil analysis and consensus from Enbridge.

2.2.1.1 Planned Response Activities

Free oil recovery appeared to be adequate and complete. Response efforts were reduced from 24-hour operations to a day-shift basis on 28 October 2016. Impacted soil excavation will continue until confirmation sample levels are below OCC limits.

2.2.1.2 Next Steps

Enterprise provided photo documentation of response and remediation activities in an email update to the EPA Team to confirm completion of response activities. Backfilling will continue in appropriate zones in accordance with OCC guidelines. As confirmation samples are received for zones pending analysis, backfilling will commence once concentrations are below OCC limits.

2.2.2 Issues

None at this time.

2.3 Logistics Section

No information available at this time.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

No information available at this time.

3. Participating Entities

3.1 Unified Command

Since no significant changes to operations were expected, a basic unified command was established with only short operational briefing at shift changes to facilitate transition. Not all the cooperating agencies participated at the briefings but were kept updated of progress.

3.2 Cooperating Agencies

PHMSA, NTSB, OCC, ODEQ, Lincoln County EM and local PD/FD, and the Sac and Fox Nation Environmental Office.

4. Personnel On Site

During EPA response:

- 1 EPA
- 2 START
- 2 OCC
- 1 PHMSA
- 15 – 17 Future Environmental (OSRO)
- 4 – 5 APEX (RP Consultant)
- > 10 Enterprise
- Several Lincoln County EM Dept, Sheriff Office, and Local FD/PD.
- 1 Sac and Fox Nation

5. Definition of Terms

No information available at this time.

6. Additional sources of information

No information available at this time.

7. Situational Reference Materials

No information available at this time.

POLREP #2 Last Updated 11/7/2017