United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Monday, February 18, 2008
From: Richard Franklin

To: Debbie Dietrich, Office of Emergency Management
Ragan Broyles, Superfund Division

Subject: First and Final Polrep
Alon Refinery Fire
I-20 at Refinery Road, Big Spring, TX
Latitude: 32.2590300
Longitude: -101.4064000

POLREP No.:	1	**Site #:**	
Reporting Period:		**D.O. #:**	
Start Date:	2/18/2008	**Response Authority:**	CERCLA
Mob Date:	2/18/2008	**Response Type:**	Emergency
Demob Date:	2/19/2008	**NPL Status:**	
Completion Date:	2/19/2008	**Incident Category:**	Removal Assessment
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

At approximately 0810 hours on February 18, 2008, an explosion and fire occurred at the Alon USA Refinery located at Highway I-20 and Refinery Road, in Big Spring, Howard County, Texas. The refinery is a basic fuels refinery serving west Texas by processing crude from the area, and shipping refined products via several pipelines. The refinery is located on the northeast edge of the city of Big Spring. The fire and explosion was reportedly felt for several miles around, shattering or cracking glass windows and doors. The fire was initially reported to have started in a propylene plant, but also threatened the alkalyzation plant where hydofluoric acid (HF) is used and stored. The fire created a large, black smoke plume which drifted up to 6500 feet in the atmosphere, and drifted slowly to the east northeast away from Big Spring, but along I-20. Refinery, local and state fire and police responded to the incident. The Midland Fire Department also responded to assist with fire fighting efforts. It was also reported that a 1-mile radius evacuation had taken place, and that I-20 had been closed. Any offsite drainage from the refinery would potentially flow to Beals Creek, which flows ultimately to the Colorado River.

Upon notification by Alon to the National Response Center, EPA immediately mobilized OSC Richard Franklin and the EPA START-3 contractors and the ASPECT plane to conduct on-scene monitoring and air monitoring at the site. OSC Franklin also notified the Department of Interior of the incident.

Current Activities

Upon arrival, EPA and START integrated into incident command and immediately began conducting air monitoring of adjacent offsite and downwind areas. The ASPECT plane arrived shortly before 1200 hours, and began conducting the first aerial overflight assessments of the refinery, smoke plume, and downwind areas. Alon representatives briefed EPA and stated that a possible release of HF was a high concern, but that the alkalyzation plant and HF area had been isolated from the fire and blocked in. Fires were contained to four refined product aboveground storage tanks: two contained gasoline and two contained asphalt. Alon also reported that an evacuation of refinery personnel had taken place, as well as an evacuation of non-essential personnel at the nearby Sid Richardson Carbin Black Plant, but that a community evacuation of Big Spring had not occurred. Alon reported that four personnel were injured, but none suffered life threatening injuries. Interstate-20 and the Union Pacific Railroad were closed temporarily during the day, but were re-opened by 1730 hours.

EPA START-3 contractors coordinated air monitoring efforts wit TCEQ and refinery personnel, and utilized Draeger MultiWarn II air monitors, TVA-1000B Photoionization Detector / Flame Ionization Detector and Draeger Colorimetric Tubes to monitor the air for hazardous chemicals potentially migrating offsite. EPA air monitoring results showed no detections of hazardous chemicals off-site due to the explosion and resulting fire. Also, Alon air monitoing showed no HF off-site.

Between 1200 and 1700 hours, ASPECT conducted two sets of aerial sweeps of the area affected by the refinery fire and the down-wind area potentially affected by the smoke associated with the fire. Results of the ASPECT over-flights indicated the absence of HF or other hazardous chemicals and radiation, with the exception of 1,3-Butadiene, which was detected in minimal levels within the refinery perimeter, but only in the first aerial sweep. No HF, butadiene or other hazardous chemicals were detected in the second aerial overflight. Similarly, no hazardous chemicals or radiation were detected within the within the plume of smoke downwind of the refinery perimeter. ASPECT was discharged from the site by OSC Franklin after the second overflight was completed.

Alon USA and other firefighting response crews extinguished the fire at 1730 hours after using a combination of firefighting foam and water. The smoke plume was also greatly diminished at this time and was no longer visible late in the day. Firefighting water runoff is being contained in a large on-site water treatment (evaporation) pond for future treatment and disposal. START-3 collected a pH reading from the firefighting runoff water. The pH was approximately 6 standard units. Alon also took pH readings, and reported pH levels of between 6 and 8.

Next Steps

During the morning hours of February 19th, EPA will continue air monitoring efforts and will continue monitoring condition and status of the water treatment pond. EPA will coordinate with Alon USA and local and state agencies to support the response.

Key Issues

Potential off-site impact to the community and facility personnel from the smoke plume, espescially from Hydrofluoric Acid and other hazardous chemicals. Another concern was potential overfilling of the water treatment (evaporation) pond from run-off firewater and off-site impact to Beals Creek.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
Intramural Costs				
Total Site Costs	$0.00	$0.00	$0.00	0.00%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

response.epa.gov/AlonRefineryFire

POLREP #1 Last Updated 2/19/2008