

**United States Environmental Protection Agency**  
**Region V**  
**POLLUTION REPORT**

**Date:** Wednesday, July 13, 2005

**From:** Steven Renninger

**Subject:** Initial & Final POLREP

Alternative Plastics Fire Response  
205 Brown Street, Greendale, IN  
Latitude: 39.1022230  
Longitude: -84.8654720

<b>POLREP No.:</b>	1	<b>Site #:</b>	
<b>Reporting Period:</b>	July 7-July 9, 2005	<b>D.O. #:</b>	
<b>Start Date:</b>	7/7/2005	<b>Response Authority:</b>	CERCLA
<b>Mob Date:</b>	7/7/2005	<b>Response Type:</b>	Emergency
<b>Demob Date:</b>	7/9/2005	<b>NPL Status:</b>	
<b>Completion Date:</b>	7/9/2005	<b>Incident Category:</b>	
<b>CERCLIS ID #:</b>		<b>Contract #</b>	
<b>RCRIS ID #:</b>			

**Site Description**

On July 7, 2005 at 11:53 AM the Greendale Fire Department was dispatched to a working structure fire at Alternative Plastics in Greendale (Dearborn County), IN. The fire was reported by a worker at the factory, which manufactures plastic products. Fire fighters arriving found an extremely heavy fire inside the second building of the business which handled bundled plastics and machinery. The fire could not be extinguished by fire fighters using heat penetrating foam to try to cool the burning plastic.

Assistance was called from the following Indiana Fire Departments: Aurora FD, Lawrenceburg FD, Dillsboro FD, Bright FD, Hogan Township FD, Miller York FD, Moores Hill FD, Manchester FD, and Rising Sun FD.

Additionally, Indiana Emergency Management Agencies responded including Dearborn County EMA, Indiana Department of Environmental Management (IDEM), and the Indiana State Fire Marshall.

IDEM OSC Jason Sewell requested assistance from U.S. EPA OSC Steve Renninger at 2:30 PM on July 7. EPA mobilized START air monitoring resources and established air monitoring in Greendale, Lawrenceburg, Aurora, and Ludlow Hill for volatile organics and particulates. Additionally, EPA and IDEM OSCs monitored fire water run-off into the adjacent Tanners Creek. ORSANCO sampled Tanners Creek on July 7 and July 8 for laboratory analysis.

A Unified Command was established on July 7 with additional FD support received from northern Kentucky and southwest Ohio fire departments. Based on EPA air monitoring results a Shelter in Place was in effect for Industrial Drive and Heiner Heights, west of the Alternatice Plastics facility through July 8.

**Current Activities**

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On July 7, 2005 at approximately 1600 hours, EPA-START (EPA Technical Assistance Team) arrived at Alternative Plastics. OSC Renninger tasked START with perimeter air monitoring in the residential neighborhoods surrounding the fire scene including Greendale, Lawrenceburg, Ludlow Hill, and Aurora. START mobilized RAT (Rapid Assessment Tools) to monitor for the presence of nuisance particulates and volatile organic compounds (VOCs) using a DataRam and MultiRae, respectively. Initial action levels of 5 parts per million (ppm) for VOCs and 165 micrograms per cubic meter (ug/m3) for particulates were set based upon ATSDR recommendations. Upon arrival START observed smoke from the fire was blowing in a south-southwest direction towards a Kroger store and residences on Heiner Heights road. Perimeter air monitoring was initiated to the north and east of the site in the city of Greendale, along a portion of State Route 48, along Heiner Heights road and Industrial Drive to the west, and to the south and southwest of the site along US 50. Initial monitoring results revealed elevated levels of particulates to the west, south, and north of the fire scene. Levels of particulates ranged primarily from 8.0 to 50 ug/m3 at approximately 1920 hours. A small area of elevated readings (up to 714 ug/m3) was observed Industrial Drive (road closed to traffic by local law enforcement).

At approximately 2030 hours, particulate concentrations increased to the west and northwest of the fire scene. Levels of particulates along Industrial Drive increased to between approximately 50 to 500 ug/m3. Increased levels were also observed to the east near the entrance to the fire scene. The levels near the entrance to the fire scene ranged from approximately 50 to 100 ug/m3

At 2045 hours, EPA-START collected Draeger tube samples for Cyanide based upon the increase in particulate levels around the fire scene. Two tubes were collected to the west and east of the fire scene based upon smoke plume direction and particulate levels from RAT. The tubes were collected at the end of Heiner Heights road (west) and across the street from Dearborn County Hospital (west). Results were non-detect for both locations. EPA-START also performed air monitoring within the Seagram's facility, located adjacent to the fire scene to the south. Levels of particulates at the Seagram's facility ranged between 30 and 135 ug/m3.

At approximately 2200 hours the fire intensified greatly at the northern end of the building. Materials staged outside of the building such as pallets, plastic containers, and other items caught fire and burn with very high heat and generated significant amounts of smoke. EPA-START continued perimeter air monitoring around the entire perimeter of the fire scene. Upon completion of the first round of monitoring after the fire spread, levels of particulates increased significantly to the east, southeast, and southwest of the fire scene. Levels to the east and southeast increased to between 150 to 500 ug/m3 with a small area of up to 1,000 ug/m3 located to the immediate southeast of the fire scene near the Seagram's facility. Based upon the high levels of particulates, EPA-START collected a third Draeger cyanide tube at a location adjacent to the eastern portion of the Seagram's facility on Main Street. The tube results were non-detect for cyanide.

At 2400 hours, EPA-START met with U.S. EPA OSC Renninger and IDEM OSC Sewell to review air monitoring results. The decision was made to suspend air monitoring activities due to darkness and lack of visibility of the smoke plume and to resume perimeter air monitoring using RAT at approximately 0430 hours on Friday morning. The shelter-in-place remained in effect until results of the next morning's air monitoring events could be reviewed by IDEM and U.S. EPA.

On July 8, 2005 at approximately 0430 hours, EPA-START resumed perimeter air monitoring utilizing RAT. The results of the first few rounds of monitoring showed elevated levels of particulates to the south of the fire scene along US 50, along Route 48 to the west of the fire scene, and to the southeast of the fire scene along Main Street near the Seagram's facility.

At approximately 0540 hours, EPA-START met with IDEM OSC Sewell to review air monitoring data. IDEM OSC Sewell requested EPA-START to continue air monitoring and provide updates. OSC Sewell also requested that EPA-START collect data west of the fire scene up to distance of approximately 10 miles. Low levels of particulates, less than 70 ug/m3 were observed and the smoke plume was visible up to 10 miles from the fire scene.

At 0900 hours, EPA-START resumed perimeter air monitoring in residential areas surrounding the fire scene. Levels of particulates remained elevated to the west of the fire scene near the Heiner Heights road

area throughout the morning rounds of air monitoring. Levels of particulates remained at approximately 180 to 200 ug/m3.

At 1224 hours, a summa canister sample was collected on Heiner Heights at the top of the hill west of the fire. The location was selected based upon smoke plume direction and particulate readings from RAT. The sample was submitted to Data Chem laboratories for rush analysis; results were non-detect for VOCs.

At 1230 hours, OSC Renninger met with the Incident Commander (IC) Ed Nole (Chief - Greendale Fire Department) to provide an update of monitoring results. OSC Renninger advised IC Nole and Dearborn County EMA Director Bill Black of the elevated concentrations in the vicinity of Heiner Heights road. IC Nole tasked local law enforcement with contacting residents in the Heiner Heights area and advising them of the shelter-in-place recommendation. Environmental Enterprises Inc, (EEI), contracted by Alternative Plastics, arrived on-site to recover water used as part of fire suppression activities. The removal was conducted to minimize the risk of the ponded water from entering Tanners Creek.

At 1300 hours, EPA-START resumed perimeter air monitoring in residential areas surrounding the fire scene. Air monitoring activities continued throughout the afternoon with periodic updates to OSC Renninger and OSC Sewell. EPA OSC Renninger continued to update Incident Command of air monitoring results via the Operations briefings. Areas covered by EPA-START during perimeter monitoring included Greendale, Lawrenceburg, and Aurora.

At approximately 1600 hours, EPA-ERT Greg Powell arrived on-scene with the EPA-ERT mobile command post. At approximately 1900 hours, EPA-START provided an update of monitoring to OSC Renninger and OSC Sewell. EPA-START collected two consecutive rounds of air monitoring with particulate levels below the action level of 150 ug/m3. Perimeter air monitoring activities were temporarily suspended based upon the two rounds of data below the action level. U.S. EPA OSC Craig Thomas arrived on-site to replace OSC Renninger and OSC Sewell. OSC Thomas requested EPA-START to return on July 9, 2005 to conduct perimeter air monitoring. The fire was classified as 'under-control' by IC Nole at approximately 2000 hours on July 8, 2005.

On July 9, 2005 at approximately 0530 hours, EPA-START resumed perimeter air monitoring using RAT. The fire was still smoldering and a faint smoke plume was visible drifting off towards the west and south-west. Particulates level above the action level were detected southeast of the fire along Main Street, south and southwest of the fire along US 50, and along State Route 48 towards Heiner Heights road. EPA-START conducted multiple rounds of perimeter air monitoring that included the areas of Lawrenceburg, Greendale, and the area along Heiner Heights road. Levels of particulates slowly decreased over time with the daytime heating and an increase in wind. OSC Thomas indicated that perimeter monitoring would continue until two consecutive rounds of reading below the action level were observed.

At approximately 1130 hours on July 9, 2005, EPA-START completed the second of two consecutive rounds of air monitoring with particulate results below the action level. EPA-START provided OSC Thomas with an update of results. OSC Thomas informed IC Nole of the latest round of air monitoring results. IC Nole indicated that the fire was still smoldering but he did not anticipate any additional significant volumes of smoke to be released. EPA-START collected photographs of the building area and disassembled the RAT gear. EPA-START was released from the fire scene by OSC Thomas at approximately 1200 hours on July 9, 2005.

#### **Planned Removal Actions**

None.

#### **Next Steps**

None.

#### **Key Issues**

As of July 13, 2005 approximately 100,000 gallons of water from fire suppression activities remains at the site pending disposal characterization. The water is containerized in frac tanks provided by EEI.

[response.epa.gov/alternativeplasticsfire](http://response.epa.gov/alternativeplasticsfire)