United States Environmental Protection Agency
Region IV
POLLUTION REPORT

Date: Saturday, February 4, 2006
From: Perry Gaughan

Subject: Initial POLREP
Synthron Chemical Fire
305 Amherst Road, Morganton, NC
Latitude: 35.7569000
Longitude: -81.6600000

POLREP No.:	1	**Site #:**	A4LD
Reporting Period:	01/31/06 - 2/5/06	**D.O. #:**	
Start Date:	1/31/2006	**Response Authority:**	CERCLA
Mob Date:		**Response Type:**	
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	Removal Assessment
CERCLIS ID #:		**Contract #**	
RCRIS ID #:			

Site Description

At approximately 1130 hours on January 31, 2006, an explosion and fire occurred at the Synthron Chemical plant in Morganton, NC. Synthron is a manufacturer of textile, agriculture, water treatment and other specialty chemicals. The cause of the explosion is currently under investigation, however, initial reports have indicated that the incident was caused when materials leaked from a process reactor.

The City of Morganton Department of Public Safety (Police, Fire, EMS) responded to the incident with assistance provided by Burke County Emergency Services. Emergency response activities (fire, EMS, HazMat) were coordinated by Burke County Emergency Services. Initially 9 people were taken to the hospital for treatment. Later, 5 more were treated, including three walk-ins and one responder. Local residents were advised to shelter in place and area businesses were closed. One fatality occurred due to injuries received during the explosion and fire.

At about 1600 hours, the fire was reported to be out, but still smoldering. North Carolina Department of Environment and Natural Resources (NCDENR) Division of Water Quality (DWQ) and Division of Air Quality (DAQ), North Carolina Emergency Management, North Carolina OSHA, EPA, ATF, Chemical Safety Board (CSB) and FBI responded to provide technical assistance with the cleanup and/or investigation. Norfolk Southern Railroad hired HEPACO to conduct perimeter air monitoring near the facility and around a rail line to determine when it was safe to reopen. Synthron hired STAT Inc. to start cleanup activities and to control fire fighting run off discharged from the site. The run off caused a fish kill in Hunting creek.

Current Activities

January 31, 3006

EPA On Scene Coordinator (OSC) Misenheimer arrived on scene at approximately 1830 hours on January 31, 2006. The OSC contacted the Incident Commander (Morganton Department of Public Safety) to get a briefing regarding the status of the response. The Incident Command Post (ICP) was located in the parking lot of the Hispanic church, just across the street from the incident. Smoke from the smoldering fire was still impacting the area around the chemical plant and church. News media and other civilians were co-located around the ICP. DENR DAQ response team arrived on scene at approximately 2000 hours. Due to an anticipated temperature inversion, the OSC and DAQ team leader met with the IC and recommended that the media and other civilians be moved from the ICP to a safer proximity from the smoke and chemical plant. Media units were eventually moved from the ICP and advised not to operate out of that area.

EPA OSC met with Mr. Frost with DWQ to get a briefing regarding the environmental impacts of the incident. DWQ reported that a fish kill had occurred in Hunting creek due to runoff from the site. Runoff from the facility was migrating directly to Hunting creek via a ditch along Amherst Road. Hunting creek is a tributary of the Catawba River. DWQ notified downstream water users regarding the potential

contaminant plume. Contractor STAT, Inc. worked to control runoff by diking the area where runoff was discharging from the site, plugging the site storm water drains and by constructing a dike / berm in the ditch prior to the discharge point to the creek. The water was collected by vacuum truck and transported to frac tanks staged nearby.

Norfolk Southern contractor Hepaco was on scene and conducted air monitoring on Amherst Road and along the nearby railroad. Hepaco used a four-gas instrument and chemical detector tubes, neither of which produced any levels of concern. START-2 team arrived on scene at approximately 2130 hours. EPA, START and DAQ held an objectives meeting to set priorities for air monitoring and to develop a list of equipment available through each organization. EPA and DAQ established four air monitoring stations around the perimeter of the site. Two stations were located on Kirksey Drive (one on the northwest corner of the site and one southwest near the residences on Kirksey). Two of the stations were located along Amherst Road: one on the south side of the plant and one near the bridge over Hunting Creek). DAQ placed an Area Rae at each location. Each Area Rae monitored for Lower Explosive Limit (LEL), oxygen, Volatile Organic Compounds (VOCs), carbon monoxide and one toxic gas (hydrogen sulfide, hydrogen cyanide, ammonia or chlorine). START also deployed two stationary particulate monitors on the western and southwestern side of the site. Throughout the early morning of February 1, 2006 START conducted perimeter monitoring at each station using handheld instruments including the TVA-1000 (photo ionization and flame ionization detectors) and four-gas meter. Throughout the night and morning, no significant detections were found on air monitoring equipment. DAQ demobilized from the scene at 0500 hours, February 1, 2006.

February 1, 3006

At 0930 hours on February 1, 2006 the Incident Commander held a briefing with all private and public responders. A Unified Command was formed and the UC members met to discuss the ongoing operations and to set schedules for meetings. The Incident Command Post was moved away from the scene to a school bus parking facility approximately ½ mile away. A Unified Command Safety Officer was named and EPA and NC OSHA began to coordinate health and safety concerns with the Safety Officer. Work zones were established on the site in consult with CCI. A representative from DENR Division of Waste Management (DWM) was appointed as coordinator for all DENR efforts. EPA OSC met with the Vice President of Synthron Chemical to discuss EPA's role in the response. A Notice of Federal Interest under the Clean Water Act was issued to Synthron.

Synthron mobilized contractor Contaminant Control Inc. (CCI) to the site to begin stabilization of containers, continue control of runoff and to assist the fire department with extinguishing the remaining hotspots. During the day, START continued perimeter air monitoring at locations previously defined with no significant detections. DAQ assets were requested by EPA and DWQ and remobilized to the scene. DAQ air monitoring resumed in the early morning of February 2.

February 2, 2006

On February 2, EPA and START continued to coordinate environmental operations at the Synthron Chemical facility. EPA Environmental Response Team (ERT) representative arrived on site to provide technical assistance to the OSC. AIG insurance mobilized consultant Center for Toxicology and Environmental Health (CTEH) to the site to conduct perimeter air monitoring. CTEH set up additional Area Raes and also conducted perimeter monitoring using handheld instruments. No significant detections were reported by START, DAQ or CTEH air monitoring teams. CCI continued to remove runoff and also began to clear debris and containers from the south side of the plant. The Incident Commander declared that the fire was out on February 2.

February 3, 2006

START, CCI and the fire department conducted a Level B entry into the exclusion zone. The fire department provided a decontamination team to support the operation. The purpose of the entry was to assess the north and northeastern portions of the facility and to identify and inspect tanks and other containers which may have been compromised by the explosion. START conducted air monitoring using a PID, FID and four-gas meter. Elevated readings were detected on the FID around the tank farm and drum storage area. It appeared that the source of the elevated readings was liquid contained in the secondary containment of the tank farm. Numerous drums and other containers were identified during the entry. Most of the containers identified appeared to be intact and not damaged however several bulging drums were observed. Chemicals identified included flammable liquids, acids, caustic solutions, oxidizers and poisons. A complete list of items identified during the START entry is attached to this Pollution Report.
During the entry, START collected two grab samples (air) for analysis by DAQ.

CCI cleared debris and other materials on the south side of the plant. START, DAQ and CTEH perimeter monitoring teams reported no significant air monitoring readings during the day. DAQ reported the findings from the bag samples collected by the entry team. Toluene was detected at 1 part per million. DAQ demobilized resources from the scene.

February 4, 2006

START conducted a three-man Level B entry into the exclusion zone to continue documenting and assessing the chemical plant. The entry included air monitoring and photo documentation of chemical containers in the facility. Air monitoring indicated elevated readings on the FID near the tank farm on the northwestern portion of the site. During the entry, the team noted a plume of smoke emanating from the debris pile. The entry team immediately exited the zone and a fire fighting team entered to suppress the hot spot.

CCI continued to remove debris and containers away from the southern part of the site. CTEH maintained the perimeter air monitoring program and reported no elevated readings during the day.

February 5, 2006

START conducted a two-man Level B entry into the exclusion zone to complete the assessment of the southern and southeastern portions of the site. Additional chemical containers were observed in this area. CTEH installed several monitoring stations within the exclusion zone (south side of the facility). CTEH also continued perimeter air monitoring using Area Raes. No elevated readings were reported on any CTEH monitors. Based on these readings, the Unified Command decided to divide the site into two operational zones. The northern zone would require Level B PPE and the southern zone would require Level C PPE. This modification of work zones would allow fire and insurance investigators to enter the zone to inspect the debris and collect evidence.

Planned Removal Actions

EPA and START will continue to monitor PRP activities. Contractor CCI will continue to remove and stabilize containers on the site. Once all containers have been stablized, the contractor will hazard catagorize and profile each waste stream for disposal. CCI will also sample and document the nature and extent of contamination in the offsite drainage ditches.

Key Issues

Site is under investigation by the NC OSHA and U.S. Chemical and Hazard Investigation Board.

response.epa.gov/synthron