

U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
ConAgra - Garner Ammonia Release - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: POLREP #2
Pollution Report #2
ConAgra - Garner Ammonia Release
A4ZR
Garner, NC
Latitude: 35.7161000 Longitude: -78.5883000

To:
From: Kenneth Rhame, OSC
Date: 6/12/2009
Reporting Period: 6/10/09 - 6/12/09

1. Introduction

1.1 Background

Site Number:	A4ZR	Contract Number:	
D.O. Number:		Action Memo Date:	
Response Authority:	CERCLA	Response Type:	Emergency
Response Lead:	EPA	Incident Category:	Removal Action
NPL Status:	Non NPL	Operable Unit:	
Mobilization Date:	6/9/2009	Start Date:	6/9/2009
Demob Date:		Completion Date:	
CERCLIS ID:		RCRIS ID:	
ERNS No.:	908051	State Notification:	DENR Water Quality
FPN#:		Reimbursable Account #:	

1.1.1 Incident Category

EPA received a NRC Report (#908051) notifying us of a release of ammonia, 38,000 lbs., to the atmosphere and a emergency retention pond due to an explosion. The explosion occurred at approximately 10:30 am. Several Injuries have been reported as well as 2 fatalities and 1 person remains unaccounted for. US EPA and NC DENR Air Quality responded to assist Raleigh Haz-Mat with air monitoring. Raleigh Haz-Mat requested that EPA and DENR Air Quality conduct air monitoring in nearby neighborhood downwind from the facility. Primary contaminant of concern is ammonia vapor. Raleigh Haz-Mat conducted air monitoring on site.

1.1.2 Site Description

The explosion occurred at a ConAgra Foods Production/Packaging Plant. There is a couple of neighborhoods in close proximity to the plant. The plant has a storm water conveyance system that discharges to a unnamed tributary which leads to Big Branch Creek, Big Branch flows to Walnut Creek, Walnut Creek is a tributary to the Neuse River.

1.1.2.1 Location

The plant is located at 4851 Jones Sausage Rd, Garner, Wake County, NC.

1.1.2.2 Description of Threat

Two primary concerns are ammonia vapor migrating off-site and impacting residential neighborhoods and off-site migration via storm water discharge to Big Branch Creek both impacting aquatic life and potentially a public drinking water intake located downstream (Smithfield, NC).

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

As EPA arrived on site, EPA was briefed that the remaining ammonia in the tanks was being discharged to a emergency retention pond on-site per the emergency response plan. ConAgra has three retention ponds that could be used for containment/storage capacity, a total storage capacity of 500,000 gallons. Two retention ponds were currently being utilized. ConAgra was working with the City of Raleigh to be allowed to discharge the ammonia/water in the emergency retention ponds to the City of Raleigh Waste Water Treatment Plant.

EPA began conducting air monitoring in closest neighborhood downwind. Highest reading observed was approximately 20 ppm ammonia at the street just off of the facility property downwind.

Heavy storms passed thru the area, EPA and Raleigh Haz-Mat discovered a release of ammonia at the stormwater outfall in the unnamed tributary to Big Branch Creek. Ammonia vapor concentrations in the air at the ditch were over 150 ppm. A earthen dam was constructed, the stormwater discharge will be pumped to the retention ponds. It is not known how much ammonia was released or how much impacted Big Branch Creek. EPA and Raleigh Haz-Mat requested a sampling analysis plan be submitted for review and approval from ConAgra. Samples were collected from the outfall. EPA, Raleigh Haz-Mat and ConAgra will monitor

the creek, water samples will be collected and analyzed as well as air monitoring of residential neighborhood along creek. DENR Water Quality was notified as well as Smithfield public water intake as a precaution.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

Search and Rescue Teams have found, identified, and recovered all persons. The building is not stable. This is a complex operation that involves both trained search and rescue teams as well as haz-mat team. Air monitoring is occurring in the debris pile by Raleigh Haz-Mat as rescue teams search area.

On 6/10/08 at 1800 Raleigh Hazmat, and the site command center headed by Garner Fire demobilized from the site. Raleigh Hazmat is permanently demobilized from the site. Garner Fire will continue to conduct activities from their command center.

2.1.2 Response Actions to Date

At approximately 17:30 EPA was advised by ConAgra that the City of Raleigh Waste Water Treatment Plant approved for them to discharge the stormwater from the ditch to the Raleigh WWTP via vac-truck. The City of Raleigh Waste Water Treatment Plant will place this water in a temporary storage area within their facility for future treatment. EPA will continue to monitor stream impact as well as conduct air monitoring until site is stabilized.

On 6/9/09 a stormwater drainage ditch leaving the site was confirmed to have elevated levels of ammonia present. Air monitoring readings reached as high as 150 ppm. Later analytical resulted in 10,000 ppm for ammonia in the ditch. A earthen berm was placed on the ditch at 20:00 and storm water was pumped into vac-trucks and sent to Raleigh WWTP. EPA conducted continual air monitoring overnight and the next day downwind from the facility. Air monitoring indicated levels as high as 20.9 ppm one time at 16:35, but all future readings were below detectable limits.

On 6/10/09 At approximately 12:45, Raleigh WWTP authorized Con-Agra to discharge water from their emergency overflow basin to the Raleigh WWTP. Con-Agra contractors began collecting samples in several locations on site and down the water path as far as Walnut creek. Analytical results from 6/10/09 indicated there were still elevated levels of ammonia present in the tributaries, Big Branch Creek, and Walnut Creek. Levels as high as 14.0 ppm were recorded, with background readings at 0.04 ppm up stream. A fish kill was observed during the sampling at Big Branch Creek. 6 fish, 2 crawfish, and a snake were identified. EPA perimeter air monitoring discontinued on 6/10/09.

On 6/11/09 EPA continued oversight of Con-Agra's contractor sampling of the facility and creeks, and another fish kill was observed at Big Branch Creek at the corner of Rock Quarry Road and Jones Sausage Rd. 5 fish were identified killed, and approximately 40 minnows and 1 turtle were identified as alive. No other fish kills have been identified at the other sampling points. A brief investigation of Big Branch Creek indicated that the fish kill could potentially be more widespread as additional fish were identified as dead.

EPA Mobile Command Post deployed from Atlanta arrived at 16:30 and set up to provide support for site environmental activities.

EPA/DENR Water Quality requested that a full creek walk-thru assessment for the water pathway be conducted on 6/12/09 to determine the extent of the fish kill. During this investigation field screening will be completed using Hach ammonia field kits.

On 6/12/09 Con-Agra's contractors continued sampling and began a creek walk to determine the extent of the fish kill. Con-Agra notified EPA that they intend to release ammonia from the process lines that may have residual ammonia in them, but they anticipate that vacuum pressure will keep the ammonia from releasing into the atmosphere. EPA plans on conducting air monitoring during this process if necessary. ATF is conducting investigation inside the impacted area. ATF was requested to photograph those lines, if the lines look like they are intact, they may still contain residual ammonia, if they appear to be damaged, there is likely no ammonia of significance in them, thus no need to evacuate the lines or conduct air monitoring.

Morning of 6/12/09 Con-Agra informed EPA that the ammonia that was dumped during the emergency may have been inadvertently released to the stormwater system instead of the emergency retention ponds as originally intended. Con-Agra's dye trace investigation confirmed this. This would explain the elevated concentrations of ammonia found in the stormwater ditch and impact to the creek.

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

Cause of explosion is unknown at this time. ATF personnel are on site. As of the morning of 6/12/09 ATF is still investigating causation.

2.1.4 Progress Metrics

<i>Wastestream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
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<i>Cont. Water</i>		<i>Unknown</i>		<i>Raleigh WWTP</i>	<i>Sanitary Sewer</i>

2.2 Planning Section

2.2.1 Anticipated Activities

EPA will continue to provide oversight of Con-Agra sampling and conduct a meeting at 16:00 with NC DENR Division of Water Quality on 6/12/09 to determine future sampling requirements.

EPA will set up Area-Rae's to monitor Con-Agra bleeding additional pipes that may have ammonia present.

2.2.1.1 Planned Response Activities

2.2.1.2 Next Steps

2.2.2 Issues

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

No information available at this time.

4. Personnel On Site

US EPA
Alcohol Tobacco Firearms (ATF)
Chemical Safety Board (CSB)
NC DENR Water Quality
NC DENR Air Quality
Wake County Emergency Management
City of Raleigh Waste Water Treatment Plant
Garner Fire
Garner Police

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.