

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Pilgrim's Pride Ammonia Release - Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #2  
Pilgrim's Pride Ammonia Release  
Marshville, NC  
Latitude: 34.9865120 Longitude: -80.3638720

**To:**

**From:** Kenneth Rhame, OSC

**Date:** 8/18/2011

**Reporting Period:** 8/18/2011

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>
<b>D.O. Number:</b>	<b>Action Memo Date:</b>
<b>Response Authority:</b> CERCLA	<b>Response Type:</b> Emergency
<b>Response Lead:</b> PRP	<b>Incident Category:</b> Removal Action
<b>NPL Status:</b> Non NPL	<b>Operable Unit:</b>
<b>Mobilization Date:</b> 8/17/2011	<b>Start Date:</b> 8/17/2011
<b>Demob Date:</b>	<b>Completion Date:</b>
<b>CERCLIS ID:</b>	<b>RCRIS ID:</b>
<b>ERNS No.:</b>	<b>State Notification:</b>
<b>FPN#:</b>	<b>Reimbursable Account #:</b>

#### 1.1.1 Incident Category

#### 1.1.2 Site Description

At 0436 hours on August 16, 2011, the food processing facility had an ammonia release. An unknown amount was released. Up to 35 homes in the surrounding area were initially evacuated by the local fire department, due to release to the air. CSX main rail line located 100 yards behind the facility was shutdown. CSX's contractors, HEPACO, is assisting the facility with the response. A 10-inch pipeline carrying ammonia may have been breached as well as a water line. The discharge may impact the Pee Dee River nearby. The facility remains shutdown due to elevated levels of ammonia in the facility. OSC Ken Rhame and START contractor, OTIE, have been dispatched to assist with the response. EPA is performing continuous air monitoring and has performed two sampling events of the nearby unnamed tributary.

##### 1.1.2.1 Location

5901 HWY 74 WEST  
MARSHVILLE, NC 28103

##### 1.1.2.2 Description of Threat

Unknown quantity of anhydrous ammonia released from the plant. Release to air and nearby creek has been documented, air quality is being monitored water samples collected.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

A release of approximately 100 lbs of anhydrous ammonia was reported to the NRC by employees of the Pilgrim's Pride poultry processing plant at approximately 0436 on 8/16/2011. An explosion was reported to the NRC at approximately 0500 by Pilgrim's Pride employees, no evacuation was reported at the time and no assistance was requested. At 0645 a call was received by 911 requesting fire department assistance in dissipating an ammonia cloud in the vicinity of the plant. Fire department responded and evacuated approximately 1.5 miles downwind of the facility, including 35 homes. Employees of Pilgrim's Pride and refrigeration contractors attempted to isolate damaged tanks and lines in the refrigeration system. CSX was notified of the incident, who hired HEPACO to perform air monitoring at the railroad to the North of the facility.

EPA did not receive any notification aside from the initial NRC Report, which reported a release of 100 lbs of ammonia, until approximately 1700. EPA received a call at approximately 1700 from local fire department reporting a potential release of greater than 20,000 lbs, EPA was also notified of the evacuation at this time. NC Outpost OSC Rhame notified phone duty, who placed follow up calls to local agencies and notified NCDENR. Phone duty collected information from local responding agencies. Fire department reported that no assistance was required at the time and that the incident was winding down based on information received from Pilgram's Pride employees and contractors. Fire Department continued air monitoring at the evacuated residence and consistently observed 0 ppm of ammonia. Evacuated residences were allowed to return to their homes at approximately 1700. On 8/17/2011, OSC Rhame received a call at approximately 1030 from Mike Cooke with NC Emergency Management. Cooke indicated that the release was still not secured and that ammonia concentrations in the plant were rising, it was not known at the time when the release would be secured. Cooke also mentioned that a water line had ruptured and that a potential release had occurred to an unnamed tributary located to the east of the facility. OSC Rhame contacted local fire department who then requested EPA assistance. EPA mobilized START and EPA Mobil Command Post (MCP) with Area Raes and YSI water quality meters.

EPA arrived at fire department at approximately 1400 to meet with local responders. START arrived onsite at approximately 1600 and collected water samples for ammonia analysis. Pilgrams environmental contractors CCI plugged water drainage lines and continued to offload ammonia tanks and lines. EPA MCP arrived onsite and set up Area Raes at ventilation exhaust point, southeastern property line on highway 74, northern property line on railroad tracks, western parking lot and northwestern property line. Levels on property lines have not exceeded approximately 1ppm. Several dead craw fish were observed approximately .5 miles downstream of the facility in one location and notified NC DENR DWQ, no other fish kills have been observed. At approximately 2350 Fire Department began positive air ventilation of the facility with large fans. EPA continuously monitored all Area Raes during ventilation. Approximately 5,000,000 lbs of chicken has been contaminated and will be disposed of in a landfill pending approval.

On 8/18/2011 Fire Department continued to vent the south side of the plant. An entry was made at approximately 1130 to the south side of the processing plant, the entry team observed 0 ppm NH3 in the entire south portion of facilities first floor, the second floor was also cleared at 0 ppm during a later entry. The Area Rae that was placed on the loading dock on the southeast of the facility and the Area Rae on the northeast on the property line were found to be reading high due to saturation the night of 8/17. New Area Raes equipped with VIPER supplied by ERT were placed on the northeast property line, south east property line, north west rail road crossing and southeast property line. Air monitoring continued throughout the day with minimal hits on all units with the exception of the unit on the northeast property line which averaged approximately 40 ppm. There are no residences or businesses to the northeast of the facility. No complaints have been received from residents or businesses as of 2200. A robot was delivered to the site to assess the northern section of the building. Elevated concentrations were observed that exceeded the monitoring capability of the instrument, visible vapor clouds were also observed via video feed. A ventilation plan was devised to conduct ventilation operations of the northern section of the facility while EPA continued to monitor ammonia levels. OSC Rhame consulted with EPA toxicologist who recommended an action level of 5ppm at the nearest residence to shut down ventilation operations. The local incident commander insisted on a 1 ppm action level for ceasing ventilation operations. EPA ERT established two additional VIPER equipped Area Raes to monitor nearest residences to the east of the facility and will continue to monitor ammonia concentrations continuously. Fire Department continued venting through the night and did not observe any ammonia readings on the residential Area Raes.

START and NCDENR DWQ walked approximately 1 mile of the nearby unnamed tributary to assess any damage to the area downstream of the facility. 3-4 areas with small numbers of small dead fish and crayfish were observed within .3 miles of the facility. No dead fish or any other organism was observed beyond .3 miles downstream of the facility. Samples were taken at the same points as the previous sampling event with the addition of two sampling points approximately .5-.75 miles downstream of the facility. Sampling results will be available of 8/19/2011. Numerous live minnows and small fish were observed in the tributary at the nearest road crossing Austin Grove Church Road.

On 8/19/2011 ventilation of the building continued. EPA continued air monitoring of the property line. The northern portion of the facility was vented from the western side to the eastern side. Visible ammonia was observed issuing from the exhaust point on the eastern side of the northern building, a fan was placed at the exhaust point to dissipate the ammonia into atmosphere. Ammonia concentrations were observed in the exhaust exceeding the Area Rae's monitoring capability of 200 ppm. Area Raes at the property lines did not detect ammonia levels exceeding 6 ppm during the day. Entry into the northern building is not possible due to damage to be building caused by the explosion on 8/16, so it has not yet been determined where the source of continued ammonia release is located. EPA is working with local response agencies to determine a plan to gain access to the building and address the ammonia source.

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

Pilgrims Pride, EPCRA notified, NC DENR Air Quality and Water Quality notified.

**2.1.4 Progress Metrics**

<b>Waste Stream</b>	<b>Medium</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Treatment</b>	<b>Disposal</b>
Anhydrous Ammonia	Air	Unknown			
Contaminated Chicken	Chicken	5 Million Lbs.			

**2.2 Planning Section**

**2.2.1 Anticipated Activities**

**2.2.1.1 Planned Response Activities**

Continue off-loading ammonia from system.  
Ventilate building for access.  
Structural Engineer to evaluate safety of building for access purposes.  
Remove and Dispose of contaminated meat.  
Continue air monitoring.  
Continue to monitor water quality in creek.

**2.2.1.2 Next Steps**

Continue Air Monitoring  
Collect Water Samples and Monitor Creek.

**2.2.2 Issues**

Small Fish Kill observed in unnamed tributary to Salem Creek which is a tributary to Pee Dee River.

**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**

No information available at this time.

**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.