

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Semi-Truck Tanker Anhydrous Ammonia Fire, Cle Elum (I90 MP 88 E) - Removal Polrep  
Initial and Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region X

**Subject:** POLREP #1  
Final  
Semi-Truck Tanker Anhydrous Ammonia Fire, Cle Elum (I90 MP 88 E)  
Cle Elum, WA  
Latitude: 47.1639460 Longitude: -120.8709480

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**From:** Angie Zavala, On Scene Coordinator

**Date:** 8/11/2016

**Reporting Period:**

1. Introduction

1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>	EP-S7-13-07
<b>D.O. Number:</b>	<b>Action Memo Date:</b>	
<b>Response Authority:</b> CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b> STATE	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b> Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b> 8/3/2016	<b>Start Date:</b>	8/3/2016
<b>Demob Date:</b> 8/3/2016	<b>Completion Date:</b>	8/3/2016
<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

Emergency Response to a hazardous substance releasing into the environment.

1.1.2 Site Description

On August 3, 2016 a highway accident took place east of Cle Elum, Washington on I-90. The incident involved a tractor trailer pulling a flatbed trailer with four anhydrous ammonia compressed gas cylinders strapped to it. The anhydrous ammonia cylinders were dislodged from a flatbed trailer as the tractor trailer left the roadway and rolled over. During the accident, one of the four ammonia cylinders had a pressure gauge sheared off and began to release its contents. The tractor and flatbed trailer subsequently caught fire. The driver of the tractor unit was killed during the accident. Washington State Patrol (WSP) and firefighters from Kittitas County Fire District #7 were first to arrive at the accident scene, establish control, and begin fighting the vehicle fire. A state patrol officer suffered minor injuries from exposure to the ammonia. The City of Cle Elum Fire Department later requested assistance from EPA to address the ammonia release.

1.1.2.1 Location

The truck accident occurred in the westbound lanes of I-90 just east of the town of Cle Elum, Washington.

1.1.2.2 Description of Threat

Following the accident, four cylinders of anhydrous ammonia were unsecured along I-90, one of which was leaking ammonia into the atmosphere and the truck that was carrying the ammonia cylinders was on fire. The prevailing winds on the day of the accident blew the anhydrous ammonia into the adjacent lane of traffic and into nearby residences. As a precaution by WSP and Kittitas County Fire District, officials evacuated residents within a one mile radius of the site and closed both east and westbound lanes of I-90 to prevent ammonia exposure. Anhydrous ammonia is used in large quantities, especially in agricultural communities, for both fertilizer and commercial refrigeration. When released in an uncontrolled manner, anhydrous ammonia can cause injury or death, primarily if it is inhaled.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The four cylinders of anhydrous ammonia were located on both sides of the westbound lanes. Three

cylinders were located in the median between east and west lanes, one of which was leaking, and the other cylinder was located on the north side of the westbound lane.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

Upon arrival at the site, EPA made contact with the WSP incident commander. EPA then entered into unified command with WSP, and Kittitas County Fire District. All agencies involved were coordinating efforts to ensure: (1) safety of responders and the surrounding population from threat of fire and exposure to anhydrous ammonia; (2) removal of the wreckage and ammonia cylinders; and (3) reopening of I-90 to traffic. During the initial briefing, EPA learned that the owner of the ammonia cylinders had someone enroute to the site but it was unclear if they were bringing adequate resources to address the ammonia release.

Following this direction, START contractors made a Level B entry with four Kittitas County Fire Fighters and set up perimeter air monitoring equipment (five gas monitors, two downwind and one upwind) and carried handheld multigas and single gas (ammonia) air monitors. Air monitoring was conducted around the four ammonia cylinders and levels measured were above the ammonia IDLH of 300 ppm at the source of the leak and ranged from 20 to 200 ppm in the downwind areas. The perimeter air monitors remained active until the cylinders were removed from the interstate.

START contractors then plugged the leaking cylinder with a temporary plug and reassessed all the cylinders and found no other leaks. Ammonia levels in the exclusion zone rapidly fell to low levels that did not warrant respiratory protection. START continued to monitor the cylinders for several minutes and also left air monitors in place upwind and downwind of the plugged cylinder prior to exiting the exclusion zone. Once the leaking ammonia cylinder was secured, the eastbound traffic was allowed to resume.

The owner of the ammonia cylinders arrived on-scene shortly after START stopped the leak and installed a permanent plug. This process involved a controlled release from an intact pressure valve on the leaking cylinder. Once the pressure was reduced in the cylinder, a steel plug was inserted into it. This action sealed the cylinder more permanently and rendered it safe for removal from the highway.

A few hours later, the equipment and transportation necessary to remove the wreckage of the truck and remaining ammonia cylinders arrived and the work begun. The cylinder was fully inspected one more time and the unified command agreed that it was safe to transport it to its destination. Air monitoring remained in place until all four ammonia cylinders were removed from the highway. By 8pm, the westbound lanes were clear of the ammonia cylinders and wreckage. At this time, the I-90 interstate was fully re-opened.

#### 2.1.2 Response Actions to Date

As of 8 PM PDT on August 3, 2016, the ammonia cylinders were completely secured and removed from the interstate. Air monitoring data indicated there was no ammonia exposure threat to drivers on I-90 or in nearby residences. The wreckage from the accident had been removed and the interstate was re-opened.

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

H.G. Liberty Transport as the shipper and Multistar Industries Inc as the owner of the ammonia cylinders are the only PRP's identified as of this time.

#### 2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

### 2.2 Planning Section

#### 2.2.1 Anticipated Activities

No further response actions are planned at this time.

#### 2.2.1.1 Planned Response Activities

None

#### 2.2.1.2 Next Steps

None

#### 2.2.2 Issues

Issues have been resolved.

### 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**

#### **3.1 Unified Command**

Washington State Police

Kittitas County Fire District #7

Kittitas County Sheriff

H.G. Liberty Transport (shipper)

Multistar Industries Inc. (owner of tanks)

US Environmental Protection Agency

#### **3.2 Cooperating Agencies**

Washington State Department of Ecology

Kittitas County Coroner

Washington State Department of Transportation

### **4. Personnel On Site**

EPA FOSC Angie Zavala

EPA START (2)

### **5. Definition of Terms**

START; Superfund Technical Assessment and Response Team.

### **6. Additional sources of information**

#### **6.1 Internet location of additional information/report**

No information available at this time.

### **7. Situational Reference Materials**

No information available at this time.

POLREP #1 Last Updated 8/12/2016