

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Martin Derailment - Removal Polrep  
Final Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region IV

**Subject:** POLREP #4  
Final POLREP  
Martin Derailment  
B45Q  
Martin, SC  
Latitude: 33.0678418 Longitude: -81.4796497

**To:** James Webster, USEPA R4 ERRB  
Paul Lee, DHEC

**From:** Jordan Garrard, OSC

**Date:** 2/25/2015

**Reporting Period:** 2/3/2015 - 2/25/2015

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	B45Q	<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 Assessment
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	1/27/2015	<b>Start Date:</b>	1/27/2015
<b>Demob Date:</b>	2/4/2015	<b>Completion Date:</b>	2/10/2015
<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

#### 1.1.2 Site Description

A train derailment in a wetland area.

##### 1.1.2.1 Location

788 Chert Quarry Rd  
Martin, South Carolina

##### 1.1.2.2 Description of Threat

During the derailment a rail car containing 20,000 gallons of hydrochloric acid (HCL) was breached. Approximately 19,000 gallons of the HCL was released to the environment. A derailed engine discharged approximately 4,000 gallons of diesel fuel into a wetland area which is adjacent to Lower Three Runs Creek.

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

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

At approximately 2:15 am, a CSX train collided with several stationary cars on a siding rail at a chemical facility in rural Allendale County, South Carolina, near the town of Martin. The CSX train was somehow steered onto the siding and was unable to stop before striking the tanker cars. Nine (9) rail cars and the locomotive were derailed. Though the train itself carried no hazardous materials, it struck six (6) tanker cars which were carrying some hazardous materials.

One of the cars was an empty tanker previously containing a dye product. There was no release of this material. Four other cars contained a sodium hydroxide solution. Only one was damaged in the accident, and an estimated 20 gallons of material was lost. The most damaged tanker was carrying 20,000 gallons of a 37% hydrochloric (HCl) acid solution. This tanker lost an estimated 19,000 gallons of material directly to the ground. Additionally, one locomotive lost a fuel tank, and an estimated 4,000 gallons of diesel fuel was

discharged into a wetland area.

EPA mobilized two On-Scene Coordinators, START contractors, and QSI equipment contractors to the scene. The OSC integrated into Unified Command.

### **2.1.2 Response Actions to Date**

1/28/2015

Unified Command met this morning to discuss objectives and tactics. Law enforcement accident investigation was completed over night. EPA and START deployed Viper. Although operating, Viper coverage is transient due to limited cell and satellite coverage. CSX has mobilized air monitoring contractor, CRA Environmental to conduct work place air monitoring.

The diesel from the locomotive discharged into a wetland area adjacent to the facility. This wetland flows into Lower Three Runs Creek, which eventually empties into the Savannah River. An estimated 4,000 gallons of diesel fuel entered the wetland. Approximately 5 acres of bottomland hardwood swamp is impacted by the diesel fuel. The sheen extends to at least one half mile from the spill site. HEPACO has placed boom at the outflow from the swamp into Lower Three Runs Creek, at the outflow of Three Runs Creek into the Savannah River, and at an intermediate point between the swamp and the Savannah River. An improvised dam constructed of logs was built to impede surface flow. Additional containment boom will be placed in Lower Three Runs Creek on 1/29/2015.

The HCl acid spilled on the south side of the industry rail. The water takes a different drainage path but does flow eventually into Lower Three Runs Creek. EPA and START pH'd several areas and found the water pH was 1. Plans are being discussed for an application of sodium bicarbonate or a calcium carbonate slurry to neutralize the plume. CSX contractors are currently working on a delineation plan for the low-pH plume. During the evening of 1/28/2015, a culvert draining low pH water into Lower Three Runs Creek was being dammed to prevent further release into the creek.

CSX is still attempting to upright and remove the damaged cars, but progress has been slow. Because of the delay, CSX has been unable to move a high-rail vacuum truck in close enough to offload the remaining HCl left on the damaged tanker. CSX may consider neutralizing in place.

1/29/2015

The remaining 300 gallons HCl acid in the impacted rail car was transferred into poly totes. The residual dye rail car and the HCl acid rail car were staged for deconing and scraping. Remaining pools and puddles of HCl are being neutralized with soda ash. Water quality monitoring is continuing downstream and upstream of the derailment site in Lower Three Runs Creek.

Four (4) sets of containment boom have been deployed along Lower Three Runs Creek. Hi-Rail vac trucks were utilized to collect discharged diesel fuel and pooled water. Approximately 4,000 of diesel and petroleum contaminated water was collected during the night 1/29/2015.

Unified Command met with officials from Department of Energy (DOE) Savannah River Site (SRS) to discuss site access, worker accountability, and residual radiological contamination. It was determined that portions of DOE property have been impacted by the derailment.

1/30/2015

Four (4) of the remaining industry rail cars on the facility's rail line were taken back to Archroma's plant. The impacted sodium hydroxide (NaOH) rail car will be prepped for transfer into another rail car on 1/31/2015. Hi-rail vac trucks are continuing to be utilized to recover discharged diesel fuel. Neutralization of the HCl acid plume continues along the south side of the facility rail line and at the drainage culvert.

Unified Command met with officials from DOE SRS to finalized procedures addressing worker and equipment deconning, worker access and accountability, and remedial actions. Based on the discussion the site workers would be allowed to access DOE property through the remote worker program and OSC Garrard would be the lead to inform SRS security office about the amount of workers and location of workers. DOE would provide personnel to conduct radiation screening for the workers exiting the Lower Three Runs Creek flood plain. CSX would limit excavation activities to only the rail bed. Any acidic material which migrated onto DOE property would be neutralized in place. The diesel fuel will be removed via flushing and skimming of oil. Additional conversations with the SRS security officials determined that spill response personnel do not need to be accounted for through the remote worker program. The worker sign in logs at the site will be saved and can be provided to DOE if needed.

Rail service has been restored.

2/1/2015

Neutralization of the soils and HCl plume on the the south and north side of the rail tracks continue. Twenty-eight (28) tons of soda ash have been used to neutralize the HCl impacted soils and water. Water quality monitoring results indicated pH levels of 6.8-7.2 in Lower Three Runs Creek. No adverse impacts have been observed in Lower Three Runs Creek. Four additional limestone check dams have been installed along the southside of the facility rail siding. Diesel recovery operations continue. A six (6) inch trash pump was installed to aid in flushing activities. 13,000 gallons of oil/water mixture has been recovered.

2/2/15

The NAOH and HCl rail cars were deconned and purged. Representatives from CSX, SCDHEC, and EPA met with South Carolina Representative Lonnie Housey to brief him on the cleanup activities. Diesel fuel

recovery within the wetlands continues. A total of 27,000 gallons of oil/water mixture has been collected.

2/3/15

Approximately 27,000 gallons of oil/water mixture has been recovered to date. A safety stand down occurred and cancelled oil recovery ops due to high winds blowing down trees in the wetland areas. Oil recovery resumed late in the afternoon, when the wind advisory expired. START personnel demobilized.

2/4/15

Oil recovery operations continue approximately 37,000 gallons of oil water mixture collected to date. Residual oil pockets in the wetlands are being addressed with absorbents. OSC Garrard demobilized on the afternoon of 2/4/15, SCDECH will continue oversight.

2/10/15

OSC Garrard and SCDECH representatives conducted a final site walk. Operation and maintenance (O&M) of booms and absorbents will continue following the O&M plan approved by Unified Command. OSC Garrard, SCDHEC, DOE, and CSX officials attend a public meeting on Tuesday February 10, 2015 to answer additional questions from the community concerning the derailment and cleanup activities.

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

CSX

**2.1.4 Progress Metrics**

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>
oil/water mix	Liquid	51,514 gallons			
Diesel	Liquid	975 gallons			
HCl	Liquid	300 gallons			
NaOH	Liquid	150 gallons			
HCL/NaOH Rinsate	Liquid	200 gallons			
Acidic Soils	Soils	700 yds			

**2.2 Planning Section**

**2.2.1 Anticipated Activities**

Continue to conduct O&M on booms and absorbents  
Continue monitor pH levels

**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**

**Estimated Costs \***

	<b>Budgeted</b>	<b>Total To Date</b>	<b>Remaining</b>	<b>% Remaining</b>
<b>Extramural Costs</b>				
TAT/START	\$20,000.00	\$0.00	\$20,000.00	100.00%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	\$20,000.00	\$0.00	\$20,000.00	100.00%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the

government may include in any claim for cost recovery.

## **2.5 Other Command Staff**

### **2.5.1 Safety Officer**

Brooke Martin - CSX

### **2.5.2 Liaison Officer**

### **2.5.3 Information Officer**

## **3. Participating Entities**

### **3.1 Unified Command**

EPA  
SCDHEC  
CSX

### **3.2 Cooperating Agencies**

## **4. Personnel On Site**

EPA  
CSX  
SCDECH  
TTEMI - START  
Arcadis  
CRA  
EnviroScience  
HEPACO  
Moran  
MEI  
Craneworks  
Hulcher  
B&P

## **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.