U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
BNSF Alma Ethanol Release - Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region V

Subject: **POLREP #3**
Progress
BNSF Alma Ethanol Release
E16501
Alma, WI
Latitude: 44.3199654 Longitude: -91.9148839

To:
From: Andrew Maguire
Date: 11/13/2015
Reporting Period: 11/10/2015-11/12/2015

1. Introduction

1.1 Background

Site Number:	E16501	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	OPA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	11/7/2015	**Start Date:**	11/7/2015
Demob Date:		**Completion Date:**	
CERCLIS ID:		**RCRIS ID:**	
ERNS No.:		**State Notification:**	WI Spill #9770 ID 20151107WC06-1-UNK
FPN#:	E16501	**Reimbursable Account #:**	

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description

The incident is a freight train derailment of 25 cars on a rail line that runs north-south along a man-made embankment constructed within the Mississippi River. Five of the tanker cars were reported to have released denatured alcohol (ethanol) to the ballast and river.

1.1.2.1 Location

BNSF Railroad Milepost 353, St. Croix Subdivision, Buffalo County, near the City of Alma, Wisconsin.

1.1.2.2 Description of Threat

Release of denatured alcohol (ethanol) from railroad tanker cars to the Mississippi River. Releases were reported from at least 5 tanker cars. BNSF estimated that approximately 12.000 - 18,000 gallons was released from one tanker car and between 5-500 gallons were released from the other four tanker cars. Denatured alcohol is flammable and toxic to aquatic organisms. The spill poses a threat to both human health and the environment.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The LaCrosse Fire Department made preliminary entry to the derailment site by watercraft within hours of the reported derailment. There was no fire, smoke or injury reported. Firefighters confirmed that denatured alcohol (ethanol) product was releasing from the top vents of five of the derailed tanker cars onto the ballast and to the Mississippi River. BNSF provided an estimate that approximately 18,000 gallons were released from one tanker and between 5-500 gallons were released from the other four tanker cars.

A secondary release occurred the afternoon of 11/8 due to high pressure in one of the tanker cars.

The site of the derailment is very remote, situated along a narrow, man-made embankment, with no land access other than along the tracks from the north and south. The Buffalo County Sheriff's Office initially closed sections of State Highways 35 & 37 and conducted a voluntary evacuation of approximately 150 residents until it was confirmed safe for the public to be in the area. The evacuation was lifted at 1300 on 11/7/2015.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

In the hours following the derailment, firefighters focused on accessing the derailment site to assess the damage to tanker cars, other freight cars, and rail infrastructure. Crews also confirmed the release to the environment. Un-impacted railcars and tankers were removed from the railway to the north and south of the derailment area to establish an access route.

2.1.2 Response Actions to Date

Refer to Pol Rep #2 for previous operations information.

The derailment site has been mostly cleared of damaged railcars. One auto transport car remains on the toe of the ballast and will be removed at a later date still yet to be determined.

Sampling was conducted in the spill area to understand the extent of contaminated ballast and soils. The ballast was replaced and train tracks were repaired early morning on 11/10, trains were running by 0300 on 11/10 . BNSF contractors delineated the spill radius using a PID and laboratory samples analyzed for BTEX, VOC's, and ethanol. A center point was established in the spill zone and points were collected horizontally and vertically from the central point. The spill area was delineated vertically to a maximum of 5.5 feet bgs and horizontally to a maximum of 20 feet from the center point. The maximum field screen reading for VOC was 351 ppm at the surface and 319 ppm at 5 feet bgs, this reading was taken on the eastern side near the center of the spill area. START collected spilt samples for the EPA and are awaiting the results.

Pinnacle engineering and START are continuing water monitoring activities. Additional sample points were added by Pinnacle to create a smaller zone to track possible impacts from the spill more accurately. Silt fence was installed along the western and eastern slopes of the spill area in order to prevent sediment washout from the anticipated rain event to occur mid morning of 11/11.

At the request of the EPA, Pinnacle set up two 24-hour ISCO samplers at 1600 on 11/11 to document ethanol leaving the source area during the rain event which began at 1800 on 11/11. These samplers took a sample every hour for 24 hours. Two YSI meters were also set up to data log water quality during the rain event.

The ISCO samplers that were set up did not collect samples during the rain event. The consultants stated that the one sampler failed due to a calibration issue and the other failed due to being struck by railroad debris which affected the sampling system of the ISCO. The YSI meter data was also lost due to a data logging issue. Grab samples, however were collected following the precipitation event.

BNSF and their contractors were continuing work on silt fence and boom, due to ethanol being miscible in water, the secondary-protection siltation boom needed to have a curtain that touches the bottom to have a full barrier from any runoff. Railroad debris (Track, ties, ballast) and contaminated soil remain as points of concern for the EPA, US FWS, and WDNR.

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

BNSF Railway was issued a Notice of Federal Interest by OSC Maguire on 11/7/2015. BNSF Railway has accepted responsibility for the release and is responding in coordination with federal, state and local response agencies.

2.1.4 Progress Metrics

Cumulative totals (to date) are found in the table below.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Denatured alcohol (ethanol) product	liquid	TBD	various	recovery	
Contaminated soil	solid	TBD	various	landfill	
Contaminated water	liquid	TBD		treatment	

2.2 Planning Section

2.2.1 Anticipated Activities

Environmental controls (containment boom) placed in and around the derailment site to contain spilled denaturant product will be monitored and maintained. Air sparging equipment in the river will be utilized as needed based on DO readings. A long term operation, maintenance and contingency plan will be developed with EPA, USFWS, WIDNR and BNSF input. A debris removal plan and embankment erosion stabilization plan is being developed by BNSF. The river pool is currently at low stage, however recent rains will likely increase the pool level. The anticipated changes in the water level vary from 0.4 feet to over two feet in the next week.

2.2.1.1 Planned Response Activities

Continue clean up around spill area, remove debris, re- shape slope to be stable and ensure minimum erosion of contaminated soils into the water way. Properly install silt fence and boom around spill area to prevent erosion and minimize any potential leaching from contaminated soils.

A three week Right of Way Debris Removal Plan has been put in place and is set to begin on 11/17/2015. In week 1 discarded piles of railroad ties on the embankment will be removed and the large autorack car left on the slope will be removed. In week 2 all scrap rail will be removed. In week 3, a contractor will grade the embankment and it will be "armored" with rip rap.

A rainfall-DO drop contingency plan is being finalized that will require intervention with air sparging equipment deployment if DO is noted to be dropping below 5 ppm. This plan is in place for three consecutive precipitation events.

2.2.1.2 Next Steps

Create a long term plan to monitor the river during winter and spring, when potential for the environmental stresses could be higher under the ice. Ensure actions are taken to physically prevent contamination from debris and soil still around the spill area.

2.2.2 Issues

Although a plan is in place, BNSF has not yet fully cleaned up the spill site, an auto train car, railroad debris (ties, track, contaminated ballast), and loose contaminated soil are left along the spill area.

2.3 Logistics Section

The incident command post is located at 125 Beach Harbor Road, Alma, Wisconsin, 54610. BNSF Railway, Hulcher, Pinnacle Engineering, WCEC, WDNR, US F&WS and START are providing ground support.

2.4 Finance Section

No information available at this time.

2.5 Other Command Staff

2.5.1 Safety Officer

OSC Andrew Maguire is serving in this role at this time. Individual contractors and response agencies are currently working under HASPs established for emergency response activities.

2.5.2 Liaison Officer

OSC Andrew Maguire is serving in this role at this time.

2.5.3 Information Officer

OSC Andrew Maguire is serving in this role at this time.

3. Participating Entities

3.1 Unified Command

A Unified Command was established consisting of U.S. EPA, WDNR, U.S. F&WS, and BNSF Railway. IAPs are being developed utilizing the ICS planning process to govern response activities during defined operational periods.

3.2 Cooperating Agencies

Wisconsin DNR

Wisconsin Emergency Management

Buffalo County Sheriff's Office

USDOT Federal Railroad Administration

USDOT Pipeline & Hazardous Material Administration

US F&WS

LaCrosse Fire Department HAZMAT

BNSF Railway

MPCA

4. Personnel On Site

FEDERAL: 7

STATE: 3

LOCAL: 0

BNSF: 10

CONTRACTORS: 30

TOTAL: 50 (estimated)

On 11/12/15 an on-site meeting was held by U.S. Representative Tammy Baldwin to discuss rail concerns and included the FRA Administrator (Sarah Feinberg), the FRA Regional Administrator, County Sheriff & local authorities, WI DNR, USFWS, EPA and a number of local news media.

5. Definition of Terms

BNSF	Burlington Northern Santa Fe
CTEH	Center for Toxicology and Environmental Health LLC
FPN	Federal Project Number
HASP	Health & Safety Plan
IC	Incident Commander
ICS	Incident Command System
IMT	Incident Management Team
ICP	Incident Command Post
NRC	National Response Center
OSC	On-Scene Coordinator
POLREP	Pollution Report
SDS	Safety Data Sheet
START	Superfund Technology Assessment and Response Team
VOC	Volatile Organic Compound

6. Additional sources of information

6.1 Internet location of additional information/report

Photographs, data, work plans and other supporting technical information can be found at:
http://www.epaosc.org/bnsfalmaethanol.

6.2 Reporting Schedule

POLREPs will be issued as milestones are met.

7. Situational Reference Materials

No information available at this time.