

**United States Environmental Protection Agency
Region X
POLLUTION REPORT**

Date: Tuesday, March 8, 2005

From: Andy Smith

To: Dan Opalski, EPA Region 10 (POLREP List) Chris Field, EPA Region 10 (POLREP List)

Subject: Union Pacific RR Train Derailment at Kamela, Oregon
Meacham, OR
Latitude: 45.4250000
Longitude: -118.3750000

POLREP No.:	1	Site #:	E05007
Reporting Period:		D.O. #:	
Start Date:	3/6/2005	Response Authority:	OPA
Mob Date:	3/6/2005	Response Type:	Emergency
Demob Date:	3/7/2005	NPL Status:	
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:		Contract #	
RCRIS ID #:		Reimbursable Account #	
FPN#	E05007		

Site Description

At approximately 2400 hours on March 5, 2005, a Union Pacific freight train derailed with consists including non-hazardous materials and hazardous materials. Hazardous materials included sodium hydroxide, molten sulfur, and anhydrous ammonia. In addition, diesel fuel was involved, which is an environmentally hazardous substance.

The derailment occurred in Kamela, Union County, Oregon. Kamela is located about 40 miles east of Pendleton, Oregon, and is accessible from Interstate 84 via exit 261. The spill site is in a valley incised by Dry Creek, a tributary to Pelican Creek, which is a tributary to Five Points Creek, which is a tributary to the Grande Ronde River.

Five railcars carrying hazardous materials derailed. Four cars carrying molten sulfur derailed, and one car carrying anhydrous ammonia derailed. No sulfur was observed to have spilled on the ground. No evidence for spillage of anhydrous ammonia was observed.

Railcars carrying phosphoric acid and sodium hydroxide did not derail and were reported by Union Pacific Railroad (UPRR) to be undamaged. The cars were relocated to a storage track before EPA or START-2 arrived on scene. A refrigerated insulated boxcar (reefer) was also derailed. The reefer carries a 500-gallon diesel fuel tank which supplies the refrigeration units. The 500-gallon tank was sheared off and spilled about 300 to 400 gallons of diesel fuel onto the railroad ballast sub-grade. The diesel fuel presents an environmental hazard to Dry Creek and downstream locations.

Current Activities

START-2 Team Member (STM) Ryan Whitchurch was activated out of Portland, Oregon at 0345 hours on March 6, 2005. Because the situation was uncertain at that time, EPA requested that two additional START-2 personnel and the Level-A truck be mobilized from Seattle, Washington. EPA also mobilized OSC Andy Smith, and Oregon DEQ mobilized SOSC Mike Renz.

START-2 Whitchurch arrived on scene at approximately 1045 on March 6, 2005, and immediately located UPRR Rick Sloan, who provided a briefing on the current status of the incident response. STM Whitchurch also accompanied a UPRR subcontractor on a site walk-through. Four booming strategies in Dry Creek, and the locations of hazardous materials cars were observed. Following the walk-through, STM Whitchurch drove to an area with cell phone coverage and reported observations to OSC Mike Szerlog. STM Whitchurch then rendezvoused with STM Lee Shin and STM Joe Fowlow. OSC Andy Smith and SOSC Mike Renz arrived shortly later.

EPA and DEQ were briefed on the incident response, operational plan, health and safety, and a specific plan for handling the anhydrous ammonia rail car. EPA insisted on the creation of a surface water sampling plan to be approved by incident command, and which would be implemented as soon as possible.

After wrecked cars were sufficiently cleared, UPRR conducted a walk-through along the railroad alignment. The spilled diesel tank, stained ballast, the anhydrous ammonia car, and the molten sulfur cars were observed at close range. EPA documented the scene with digital photography. A final meeting for the handling of the anhydrous ammonia rail car was held by UPRR Rick Sloane. UPRR preferred to move the car off the tracks onto a secure and leveled area next to the tracks. UPRR would then transfer the contents to ammonia trucks at a future date. UPRR explained that only a third of the contents could be transferred from the car in its current position. The primary risk of the operation is the possibility of tank rupture while it is being moved, resulting in sudden loss of the entire contents. According to UPRR, it was very unlikely for a rupture due to the integrity of the structure of the rail car. UPRR planned to manage this risk by exercising extreme caution, and by limiting the operation to essential personnel only. La Grande Fire Department was scheduled to standby to knock down vapors if required, and EPA provided real-time remote air monitoring using the Area-Rae instruments.

The relocation of the ammonia rail car began at 2000 hours and proceeded without incident. EPA air monitoring did not indicate any release during the operation. Only a slight drop in oxygen levels was registered, and appeared to be the result of equipment exhaust gases.

Surface water sampling could not be conducted during the ammonia rail car relocation because all non-essential personnel were required to remain upwind and uphill of the operation. The relocation operation concluded after nightfall; sampling will begin at the next earliest opportunity.

Following the ammonia rail car relocation operation, a debriefing was held between EPA, DEQ, and UPRR. The debrief included review of events, fate of product, and next operational plans. Now that the ammonia car has been stabilized, transfer of product is not considered a high priority. The transfer of molten sulfur is also not considered a high priority. All product transfers will be coordinated by UPRR with the owners of the products. Surface water sampling will be postponed until tomorrow morning for safety reasons.

On March 7, 2005, the START-2 and EPA mobilized to the site for a briefing with the SOSOC, UPRR, and ODOT at 0900 hours. UPRR's plan for the day was to continue to clean wrecked cars along the bank, prepare for the transfer of the anhydrous ammonia car, and to conduct water quality testing with the START-2.

During the night operations, a refrigerated rail car had been moved before diesel in the tank had been pumped off. As a result, 200 gallons of diesel was released on the banks of Dry Creek. Some visible sheen was seen during the morning walk through. UPRR will remove the soil and restore the banks.

Also, during Sunday evening, UPRR opened one line and the backlog of trains started to roll through. The second line called for replacing a section of track.

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