FPN: E16415
Incident Name: Wolf Coal Derailment
Location: Wolf Coal, Breathitt County, Kentucky
USCG District: 8
OSC: Greg Harper, US EPA Region 4

311: 20 Questions

1) **Provide the time and date of oil or hazardous substance discharge, and the time and date of discovery that the discharge was reaching or threatening a waterway.**

   Time: 9:02 am
   Date: January 26, 2016

   An estimated 5,520 gallons of diesel fuel spilled from the two locomotive engine fuel tanks onto the soil located between the railroad tracks and the river embankment, which threatened to discharge to the waterway defined in question 7.

2) **The time and date of the response to the discharge by EPA, START, and the PRP if applicable. Provide the name(s) of any contractor(s) employed.**

   The EPA FOSC and Tetra Tech START arrived on scene at approximately 21:15 and 21:45 hours, respectively, on January 26, 2016. KYDEP, CSX, and CSC contractors were already onsite, but it was unclear as to when they arrived onsite. CSX contractors AMEC Foster Wheeler, Marion Environmental, Inc., EnviroScience, HEPACO, and RJ Corman were onsite.

   The FOSC met with KYDEP and CSX representatives to discuss site activities. CSX and their contractors worked to right the locomotive engines, determine the amount of diesel fuel spilled, excavated interceptor trenches, placed absorbent boom along the shoreline and downstream of the site, and visually inspected the shoreline. The FOSC tasked CSX to collect surface water samples from one upstream and three downstream (approximately 1000 feet downriver of the site, from the influent of and the effluent of the Jackson County Water Treatment Plant (WTP).

3) **The type of discharge (oil or hazardous substances), the type of oil or the chemical name and formula, the total amount of discharge in gallons, barrels, pounds, or kilograms; and the total number of days of discharge. If the solution discharged was a mixture, please give the percentages of substances in the mixture or solution.**

   Type: Diesel fuel
   Amount: Approximately 5,520 Gallons
   Days of discharge: The fuel released rapidly when the locomotive engines derailed. The diesel fuel soaked into the soil and appeared to be seeping into the North Fork of the Kentucky River from the shoreline.

4) **The location of the discharge including street address, city, county, and state.**

Location: Between the railroad tracks and shoreline of the North Fork of the Kentucky River
City: Wolf Coal
County: Breathitt
State: Kentucky
Lat/Long: 37.3965563, -83.3831455

5) **The description of the facility or vessel from which the material was discharged (i.e. pipeline, tank, well, ship, container, etc.).**

Two locomotive engines' fuel tanks.

6) **The total storage capacity (gallons, barrels, pounds, kilograms, etc.) of the facility or vessel responsible for the discharge.**

Capacity: 10,000 Gallons (5,000 Gallons per engine)

7) **Did the oil or hazardous substances discharge into water?**

Yes. Diesel fuel seeped into the North Fork of the Kentucky River from the river embankment and created a sheen on the surface water of the river and threatened downstream waterways and a water treatment plant.

a. **Please indicate the location, in relation to the facility or vessel responsible for the discharge, of the first water reached.**

The diesel fuel from the locomotive engines spilled from the fuel tanks, soaked into the soil, and seeped into the North Fork of the Kentucky River. The fuel traveled approximately 100-150 feet from the derailment area through the soil to the river embankment.

b. **If not already in water, what is the distance between the source of discharge and the nearest water body?**

Not applicable.

c. **Give the quantity of oil or hazardous substances reaching the water.**

An estimated 5,520 gallons of diesel fuel was released, but an unknown amount reached the river.

d. **Give the quantity of oil or hazardous substances that did not reach the water.**

Unknown

e. **Describe the type of waterway affected (i.e. mudflat, sandflat, wetland, ditch, creek, bayou, tributary, stream, river, lake, etc.). Give the name of the waterway and bodies of water to which it connects.**

North Fork of the Kentucky River

f. Provide a physical description of the receiving waters, including depth, width, and flow rate.

River: Depth: Unknown
Width: 90'-150'
Flow Rate: Swift

g. Indicate if any of the water bodies or connecting water bodies, as described above, are used for commerce, recreation, agriculture, etc.

The North Fork of the Kentucky River can be used for recreational purposes.

h. List any sensitive environments (i.e. wetlands), endangered species, water wells and/or drinking water intakes impacted or potentially impacted by the discharge.

The Jackson County Water Treatment Plant is located approximately 22 miles downstream of the site.

8) Document how this spill violated the Clean Water Act.

The diesel fuel entered a significant nexus to navigable waters causing a sheen upon the surface of the water as described in 40 CFR 110.3.

9) Describe in detail what actually caused the discharge.

A CSX train transporting empty coal hopper cars derailed after a large boulder sheared off a mountain face and damaged the railroad tracks.

10) Describe the damage to public health and the environment as a result of the spill. How many feet, miles, etc., of land and water were affected by the discharge? Was there observed damage to the terrestrial and aquatic biota and vegetation? Were any drinking water intakes forced to close? Were any persons required to evacuate? If yes, describe the damage.

An unknown amount of surface and subsurface soil was impacted by the discharge. Approximately 600-800 tons of diesel-contaminated surface soil was excavated and staged for disposal. Two tests pits were excavated to a depth of approximately 18 feet to native shale rock. No free-phase diesel was detected, but there was a faint odor of diesel fuel. There was no observed damage to the terrestrial and aquatic biota. No drinking water intakes were forced to close and no persons were required to evacuate.

11) Describe the procedures taken to clean up the discharge and to mitigate the environmental damage and public health threats. Include dates and times for the individual procedures.

On January 26, 2016, CSX mobilized personnel and resources to begin cleanup efforts. Initial site operations included righting the two locomotive engines and installing

recovery trenches between the trains and the shoreline to intercept and recover diesel fuel before it reached the river. CSX contractors placed containment boom along the shoreline near the derailment area where a sheen from the diesel fuel was visible to prevent the fuel from moving downriver. CSX also deployed absorbent boom approximately two miles downstream.

On January 27, 2016, CSX contractors righted the two locomotive engines and used absorbent materials to collect diesel fuel; staged derailed empty hopper cars; began constructing a staging area for the storage of diesel-contaminated soil from the derailment area; excavated a small test pit to search for free phase diesel fuel; installed hard boom along the shoreline of the derailment area to contain the diesel fuel seeping into the river and around the surface water intake of the Jackson County Water Treatment Plant (WTP) in Jackson, Kentucky, located approximately 22 miles downstream from the site; collected surface water samples from upstream and downstream locations; began demolition activities on the boulder blocking the railroad tracks and in the right-of-way

On January 28, 2016, CSX contractors completed demolition activities on the boulder and removed the rock slide debris from the railroad tracks and the right-of-way; installed new railroad track panels throughout the areas; excavated two test pits to a depth of approximately 18 feet below ground surface to native shale rock to detect no free-phase diesel; collected soil samples at various depths of the test pits and screened them using a MultiRAE Plus multi-gas monitor for VOCs; completed the staging area for diesel-contaminated soil; excavated approximately 600 to 800 tons of diesel-contaminated soil and placed it in the staging area; deployed additional containment boom and absorbent materials in the North Fork of the Kentucky River near the derailment site; continued working to contain sheen from the diesel fuel that was visible downstream due to the strong current of the river; continued to monitor and sample the surface water at upstream and downstream locations.

12) List the federal and state agencies contacted by the owner or operator at the time of the discharge. Also include the agency's location (mailing address, city, county, state), the date and time of notification, and the name of the official contacted.

At 9:51 am, CSX representative Terry Lloyd, 500 Water Street, Jacksonville, Duval County, Florida, reported the derailment to the NRC (Incident Report No. 1138966). KYDEP contacted EPA Region 4 to assist with the derailment.

13) State whether an SPCC inspection was conducted and describe any findings.

An SPCC inspection is not applicable to this site or incident.

14) Document the spill history of the facility and list the discharges which have occurred at this facility within the past five years using the following table.

DATE	AMT DISCHARGED	AMT IN WATER	SOURCE & CAUSE

Not applicable

15) Provide the name, title, home address, and home/work telephone number(s) of the owner(s) of the vessel or facility responsible for the discharge.

CSX Transportation
Joe McCann
Hazardous Materials Manager
624 Grassmere Park, Suite 14
Nashville, TN 37211-3671
Cell 317-694-2142
Work 615-835-6021

16) Provide the name, title, home address, and home/work telephone number(s) of the operator(s) of the vessel or facility responsible for the discharge if different from the owner, and the relationship between the owner and operator (i.e. employee, contractor, subcontractor, lessee, etc.)

Locomotive operator information not available. See above information.

17) Provide the names, titles, home addresses, and home/work telephone numbers of the persons who have knowledge of the facts concerning the spill as an attachment to the report labeled "Table of Witnesses". Include EPA, State, and local officials, START/Strike Team members, other Federal agencies, the company, and the cleanup contractor in the table.

Greg Harper, FOSC, US EPA-Region 4, 770-570-8106
Robert Stidham, SOSC, KYDEP, 606-647-0037
Joe McCann, CSX, 317-694-2142
Ben Iden, AMEC Foster Wheeler (CSX contractor), 859-640-8149
Scott Wilson, Marion Environmental, Inc. (CSX contractor), 423-582-1797
Dave Czayka, EnviroScience, (CSX contractor), 330-606-5822
Todd Robinson, HEPACO (CSX contractor), 423-421-8535
Greg Esthers, RJ Corman (CSX contractor), 859-321-5994
Paul Prys, Tetra Tech Inc. (EPA contractor), 404-849-7136

18) Does the owner or operator have a National Pollutant Discharge Elimination System (NPDES) permit or any other discharge permit provided by the local, state, or federal government? If yes, name and describe the permit.

No

19) Has the facility ever been assessed a fine for this incident or any other discharge by any other government entity (i.e. city, county, state, federal)? If yes, name the agency or agencies that have assessed a fine(s) on the facility or vessel, and the date(s) when the fine(s) was assessed.

Not applicable

20) Include the Federal Project Number on the title (cover) sheet of the incident summary report.

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