

NATIONAL TRANSPORTATION SAFETY BOARD

**Office of Railroad, Pipeline and Hazardous Materials Investigations
Washington, DC**

Mechanical Factual Report

DCA17FR013

Union Pacific Railroad, Derailment with Employee Fatality

Arlington, TX - September 22, 2017

NTSB Accident Number: DCA17FR013
Date of Accident: September 22, 2017
Time of Accident: 11:06 a.m. (CDT)
Type of Trains: Remote Control Yard Operation
Railroad Owner: Union Pacific Railroad (UP)
Train Operator: UP
Fatalities: 1
Injuries: 0
Location of Accident: Arlington, TX

Group Members

Group Chairman
National Transportation Safety Board-Chairman
James A. Southworth, IIC

Federal Railroad Administration
Carenthia McCain
Railroad Safety Inspector
Motive Power & Equipment

Union Pacific Railroad
James Buck
Manager, Mechanical Maintenance

Accident Summary

For an IIC summary of the accident, refer to the *Accident Summary* report, within this accident docket.

On September 22, 2017 at approximately 11:06 a.m., a Union Pacific Railroad Company (UP) remote control operator (RCO) was fatally injured at the UP Great Southwest Yard in Arlington, Texas, a suburb of Dallas, TX/Fort Worth, TX. The remote-control locomotive (RCL) crew consisted of a 61-year-old foreman with 39 years of railroad experience and a 48-year-old helper with 19 years of railroad experience. The helper was controlling an eastward shoving movement - while riding the 5th rail car to protect the point - when the RCL initiated an emergency stop and the man-down broadcast message was heard over the railroad radio. The foreman found the helper between the 4th rail car and 5th rail car. The 5th rail car (boxcar) was derailed (on the movement, this car was the lead car).

Train Consist

Y-GW51R-22 consisted of three RCO locomotives units coupled to 5 empty boxcars. The train weighed 55.8 tons and was 435 feet in length.

Number	Weight	Length
UPY 2628	265,000 lbs.	74'4" RCO Locomotive
UPY 2614	265,000 lbs.	74'4" RCO Locomotive
UP 840	262,200 lbs.	59'2" RCO Locomotive
KCS 118613	69,400 lbs.	58'1" Boxcar
BKTY155361	62,600 lbs.	57'3" Boxcar
BKTY 153675	61,000 lbs.	56'4" Boxcar
ATW 122063	62,900 lbs.	59'8" Boxcar
RBOX 32725	63,600 lbs.	55'7" Boxcar

Records Review

During the on-scene phase of this investigation, investigators collected the daily and periodic inspection records from all locomotives involved in the derailment. The daily inspection requirements are outlined in 49 CFR 229.21. The rule requires that; except for MU locomotives, each locomotive in use shall be inspected at least once during each calendar day. A written report of the inspection shall be made. This report shall contain the name of the carrier; the initials and

number of the locomotive; the place, date and time of the inspection; a description of the non-complying conditions disclosed by the inspection; and the signature of the employee making the inspection.

Investigators reviewed the daily inspection and periodic inspection records for the leading locomotive, UPY 2628. The records were in compliance with the rule. The daily inspection was completed was September 22, 2017 at 7:55 a.m. in the Great Southwest Yard, Arlington, TX. The last documented periodic inspection was dated July 23, 2017, in Fort Worth, Texas.

Periodic inspection requirements for locomotives are outlined in 49 CFR 229.23. Each periodic inspection is to be recorded on FRA form F6180-49A, or the blue card. At the first periodic inspection in each calendar year the carrier shall remove from each locomotive, the blue card covering the previous calendar year and replace it with a current record that will cover the current year. If a locomotive does not receive its periodic inspection in a calendar year before April 2 because of out of use, the form must be replaced. The interval between any two periodic inspections cannot exceed 92-days unless the locomotive is equipped with advanced micro-processor based on-board electronic condition monitoring controls. The interval for these locomotive types is 184-days.

All RCO locomotive records examined were in compliance with the rule.

Wreckage Description

The only car to derail was an empty boxcar KCS 118613, the lead car in the direction of travel (east). The B-End of the car leading truck derailed and rolled to a stop down a slightly sloping ballast embankment to the south side of track 1. After stopping, the car was leaning approximately 20 -30 degrees with the rear truck wheels still on the rail.

1. KCS 118613
2. BKTY 155361
3. BKTY153675
4. ATW 122063
5. RBOX 32725

Equipment Post Accident Inspections

On Saturday, September 23, 2017, Mechanical Group investigators completed FRA Class I brake and the air leakage test on UPY 2628 (leading), UPY 2614 (second unit) and UP 840. The brakes set and released as commanded. Investigators also completed an on-scene mechanical walking inspection and an FRA Class I brake test on the 4 cars that did not derail. All brakes applied and released as designed.

Investigators again examined all 5 cars at Davidson Yard on Monday, September 25, thorough mechanical inspections were accomplished on the lead derailed boxcar KCS 118613 – to include disassembly of the lead truck on the B-end of the car. The A-end truck assembly was also inspected. All five cars were single car tested in accordance with AAR S-486. No defects nor exceptions that would contribute to a derailment were noted during any inspections, testing, and tear downs.

Damage Estimates

UP has estimated the damage to the equipment at \$2,500.

Documentation Collected

The following documentation was collected or requested as part of this investigation:

1. Train List
2. FRA form F6180-49A Locomotive Inspection Record and Repair Records
3. Daily inspection records for the RCO locomotive UPY 840
4. Event recorder data from UPY 840
5. Repair History and Alert History for all 5 boxcars
6. Car inspection reports (September 25) for KCS 118613 – Full measurements
7. Snapshot of MCS (Repair billing system) conducted on all 5 cars while at Davidson Yard repair track on Sept 25
8. Report for listed cars detailing work performed at Davidson Yard repair track on September 25

END OF REPORT

Group Member to the Investigation - Acknowledgment Signatures

The undersigned designated *Group Member to the Investigation* representatives attest that the information contained in this report is a factually accurate representation of the information collected during the investigation, to the extent of their best knowledge and contribution in this investigation.

_____ //s// _____ Date _____

Ms. Carenthia McCain, FRA

_____ //s// _____ Date _____

Mr. James Buck, UPRR