



***Federal Railroad Administration
Office of Railroad Safety
Accident and Analysis Branch***

***Accident Investigation Report
HQ-2015-1102***

***Union Pacific Railroad Company (UP)
Union, OR
December 29, 2015***

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report, including this one, made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

TRAIN SUMMARY

1. Name of Railroad Operating Train #1 Union Pacific Railroad Company	1a. Alphabetic Code UP	1b. Railroad Accident/Incident No. 1215PD015
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GENERAL INFORMATION

1. Name of Railroad or Other Entity Responsible for Track Maintenance Union Pacific Railroad Company	1a. Alphabetic Code UP	1b. Railroad Accident/Incident No. 1215PD015
2. U.S. DOT Grade Crossing Identification Number 809372G	3. Date of Accident/Incident 12/29/2015	4. Time of Accident/Incident 2:50 PM
5. Type of Accident/Incident Hwy-Rail Crossing		
6. Cars Carrying HAZMAT 12	7. HAZMAT Cars Damaged/Derailed 0	8. Cars Releasing HAZMAT 0
	9. People Evacuated 0	10. Subdivision Huntington
11. Nearest City/Town Union Junction	12. Milepost (to nearest tenth)	13. State Abbr. OR
		14. County UNION
15. Temperature (F) 25 °F	16. Visibility Day	17. Weather Cloudy
		18. Type of Track Main
19. Track Name/Number Main Line	20. FRA Track Class Freight Trains-80, Passenger Trains-90	21. Annual Track Density (gross tons in millions) 53.6
		22. Time Table Direction East

OPERATING TRAIN #1

1. Type of Equipment Consist: Freight Train		2. Was Equipment Attended? Yes		3. Train Number/Symbol ZBRG1 29							
4. Speed (recorded speed, if available) R - Recorded E - Estimated 66 MPH		Code R	5. Trailing Tons (gross excluding power units) 2726		6a. Remotely Controlled Locomotive? 0 = Not a remotely controlled operation 1 = Remote control portable transmitter 2 = Remote control tower operation 3 = Remote control portable transmitter - more than one remote control transmitter Code 0						
6. Type of Territory Signalization: <u>Signaled</u> Method of Operation/Authority for Movement: <u>Signal Indication</u> Supplemental/Adjunct Codes: <u>Q</u>											
7. Principal Car/Unit (1) First Involved (derailed, struck, etc.) (2) Causing (if mechanical, cause reported)		a. Initial and Number UP 7911	b. Position in Train 1	c. Loaded (yes/no) yes	8. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box. Alcohol 0 Drugs 0						
				9. Was this consist transporting passengers? No							
10. Locomotive Units (Exclude EMU, DMU, and Cab Car Locomotives.)		a. Head End	Mid Train		Rear End	11. Cars (Include EMU, DMU, and Cab Car Locomotives.)	Loaded		Empty		
		b. Manual	c. Remote	d. Manual	e. Remote		a. Freight	b. Pass.	c. Freight	d. Pass.	e. Caboose
(1) Total in Train		3	0	0	0	0	(1) Total in Equipment Consist 56	0	0	0	0
(2) Total Derailed		0	0	0	0	0	(2) Total Derailed 0	0	0	0	0
12. Equipment Damage This Consist 1135			13. Track, Signal, Way & Structure Damage 0								
14. Primary Cause Code M302 - Highway user inattentiveness											
15. Contributing Cause Code											
Number of Crew Members						Length of Time on Duty					
16. Engineers/Operators 1		17. Firemen 1		18. Conductors 1		19. Brakemen 0		20. Engineer/Operator Hrs: 1 Mins: 19		21. Conductor Hrs: 1 Mins: 19	
Casualties to:		22. Railroad Employees		23. Train Passengers		24. Others		25. EOT Device? Yes		26. Was EOT Device Properly Armed? Yes	
Fatal		0		0		3					
Nonfatal		0		0		0		27. Caboose Occupied by Crew? No			
28. Latitude 45.223850000				29. Longitude -117.930010000							

CROSSING INFORMATION

Highway User Involved		Rail Equipment Involved	
1. Type Auto		5. Equipment Train (Units Pulling)	
2. Vehicle Speed (<i>est. mph at impact</i>) 10	3. Direction (<i>geographical</i>) North	6. Position of Car Unit in Train 1	
4. Position of Involved Highway User Moved over Crossing		7. Circumstance Rail Equipment Struck Highway User	
8a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? Rail Equipment		8b. Was there a hazardous materials release by Neither	
8c. State here the name and quantity of the hazardous material released, if any. N/A			
9. Type of Crossing Warning 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (<i>spec. in narr.</i>) 3. Standard FLS 6. Audible 9. Watchman 12. None 7, 8		10. Signaled Crossing Warning	11. Roadway Conditions Sand, Mud, Dirt, Oil, Gravel
12. Location of Warning Both Sides		13. Crossing Warning Interconnected with Highway Signals No	14. Crossing Illuminated by Street Lights or Special Lights No
15. Highway User's Age 40	16. Highway User's Gender Female	17. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train No	18. Highway User Did not stop
19. Driver Passed Standing Highway Vehicle No		20. View of Track Obscured by (<i>primary obstruction</i>) Not Obstructed	
Casualties to:	Killed	Injured	21. Driver was Killed
23. Highway-Rail Crossing Users 3	0	24. Highway Vehicle Property Damage (<i>est. dollar damage</i>) 15000	22. Was Driver in the Vehicle? Yes
25. Total Number of Vehicle Occupants (<i>including driver</i>) 3		26. Locomotive Auxiliary Lights? Yes	
27. Locomotive Auxiliary Lights Operational? Yes		28. Locomotive Headlight Illuminated? Yes	
29. Locomotive Audible Warning Sounded? Yes			

10. Signaled Crossing Warning


- 1 - Provided minimum 20-second warning
- 2 - Alleged warning time greater than 60 seconds
- 3 - Alleged warning time less than 20 seconds
- 4 - Alleged no warning
- 5 - Confirmed warning time greater than 60 seconds
- 6 - Confirmed warning time less than 20 seconds
- 7 - Confirmed no warning
- N/A - N/A

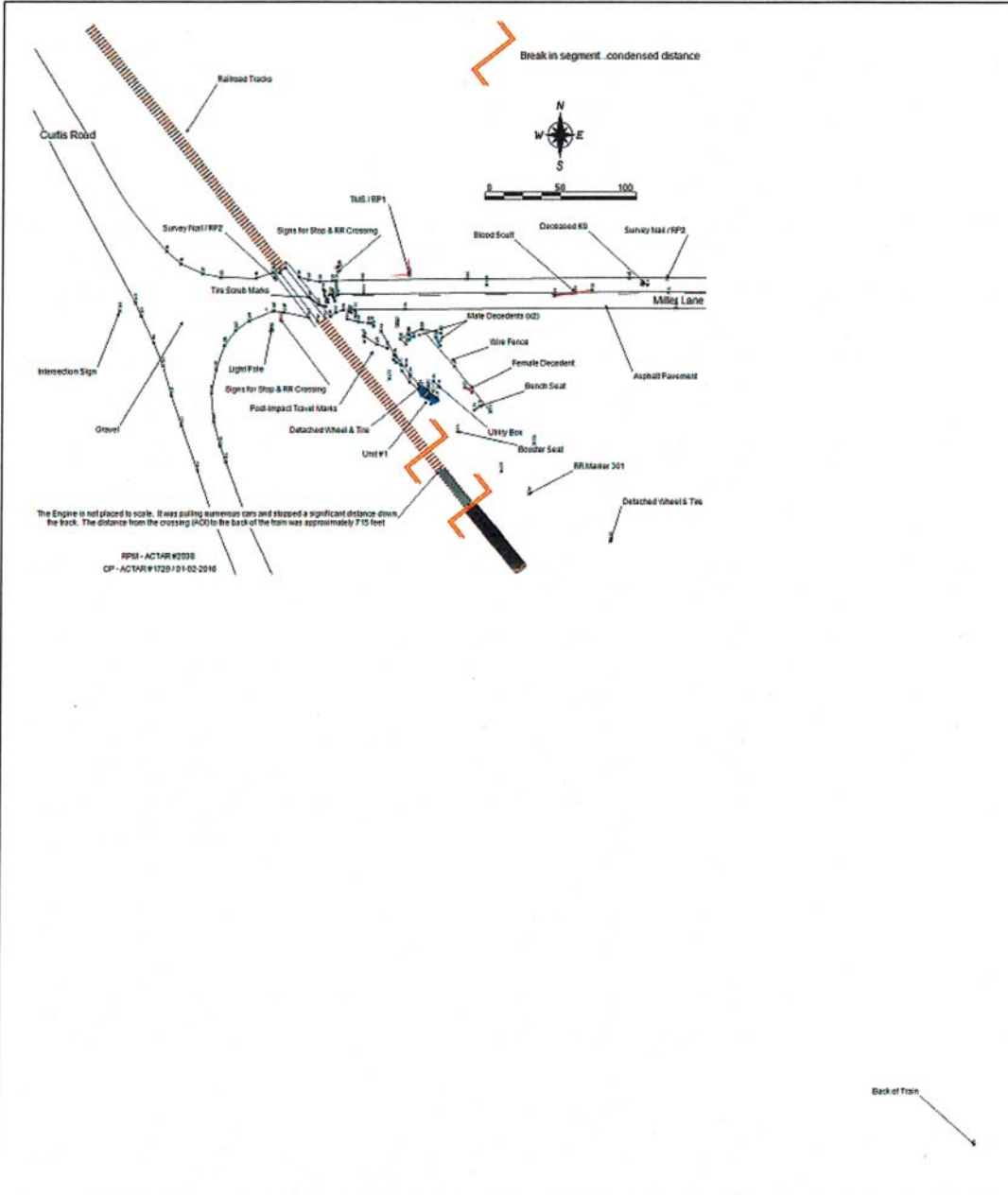
Explanation Code

- A - Insulated rail vehicle
- B - Storm/lightning damage
- C - Vandalism
- D - No power/batteries dead
- E - Devices down for repair
- F - Devices out of service
- G - Warning time greater than 60 seconds attributed to accident-involved train stopping short of the crossing, but within track circuit limits, while warning devices remain continuously active with no other in-motion train present
- H - Warning time greater than 60 seconds attributed to track circuit failure (e.g., insulated rail joint or rail bonding failure, track or ballast fouled)
- J - Warning time greater than 60 seconds attributed to other train/equipment within track circuit limits
- K - Warning time less than 20 seconds attributed to signals timing out before train's arrival at the crossing/island circuit
- L - Warning time less than 20 seconds attributed to train operating counter to track circuit design direction
- M - Warning time less than 20 seconds attributed to train speed in excess of track circuit's design speed
- N - Warning time less than 20 seconds attributed to signal system's failure to detect train approach
- O - Warning time less than 20 seconds attributed to violation of special train operating instructions
- P - No warning attributed to signal systems failure to detect the train
- R - Other cause(s). Explain in Narrative Description

SKETCHES

Sketch

	Oregon State Police		Case Name	DIAGRAM w/ POINTS
	Drawn By	Senior Trooper Ryan P. Morehead	Case Number	SP15-402596
	Date Drawn	December 30, 2015	Incident Date	12/29/2015 2:54 PM
	Scale	NA	Location	Curtis RD & Miller LN UNION COUNTY, OR



RP15 - ACT 148 #2038
CP - ACT 148 #17291 01-02-2016

SYNOPSIS

An eastbound Union Pacific Railroad (UP) freight train, ZBRG1-29, collided with a sport utility vehicle (SUV) at a public highway-rail grade crossing on December 29, 2015, at approximately 2:50 p.m. PST. The accident occurred just east of La Grande, Oregon on the Huntington Subdivision, Portland Service Unit, at Milepost 300.96, near Union Junction, Oregon, which is located about 13 miles east of La Grande. The SUV driver, two passengers, and a dog were killed. The SUV sustained about \$15,000 in damage. There were no injuries to the train crew. The leading locomotive sustained minor damage of about \$1,135. There was no derailment and no release of hazardous materials. This was not an Amtrak route and this was not PTC-preventable.

At the time of the accident, it was daylight and cloudy. The temperature was 25 degrees F.

The Federal Railroad Administration's (FRA) investigation determined the probable cause of the accident was due to the SUV driver's failure to stop at the stop sign and yield to the train; FRA Accident/Incident code (M302) Highway user inattentiveness.

NARRATIVE

Circumstances Prior to the Accident

The crew of Freight Train ZBRG1-29, with leading Locomotive UP 7911, included a Locomotive Engineer, Conductor, and a Student Engineer/Fireman-in-Training (FIT). They went on-duty at 1:31 p.m. PST on December 29, 2015, at UP's La Grande Yard in La Grande, Oregon. This is the home terminal for all crewmembers, and all received more than the statutory off duty period prior to reporting for duty.

Their assigned freight train consisted of 3 locomotives, 38 loaded rail cars, 78 loaded articulated containers and trailers on flat cars (56 platforms). It was 3,908 feet in length, and weighed 2,726 tons. The crew inspected the equipment prior to departure with no exceptions noted. They departed La Grande and were scheduled to travel to Nampa, Idaho, with no work planned en route.

As the eastbound train approached the accident area, the Locomotive Engineer was seated in the center seat observing the FIT. The FIT was seated at the controls on the south side of the lead locomotive and the conductor was seated on the north side of the lead locomotive.

According to the images viewed by a Federal Railroad Administration (FRA) Investigator from the on-board video camera of the lead locomotive, an SUV containing a driver, two passengers, and a dog, was traveling east on Curtis Road, a gravel road, and turned left southeast onto Miller Lane traveling over a public highway-rail grade crossing (DOT #809372G). The SUV traveling in the same direction and parallel with the train slowed by brake light indications during the turn and drove past the crossbuck and stop signs into the path of the oncoming train just seconds before impact. The SUV driver was visible through the door's window, sitting in an upright position in the driver's seat. The train hit the vehicle driver's side rear quarter panel.

This is single main track with Automatic Block Signal, Traffic Control System (CTC) as indicated by the railroad timetable. The railroad timetable direction of the freight train was east. Timetable directions are used throughout this report.

The Accident

Eastbound train ZBRG1-29 was being operated at 66 mph approaching the accident location. The train crews' view of the crossing was unobstructed. The FIT stated the train had just come around a right hand curve and noticed the SUV on the adjacent road next to the tracks. The FIT stated that he began the whistling sequence prior to the whistle board in attempt to let the driver know the train was approaching the crossing. The FIT stated he "laid" on the train horn when he noticed the vehicle's brake lights come on to make the left hand turn onto Miller Road. The FIT placed the trains brakes into emergency while simultaneously telling the conductor to place the train's brakes into emergency from the conductor's brake handle. The event recorder of the controlling locomotive recorded the speed. The maximum authorized speed for this train was 70 mph as designated in the current Huntington Subdivision Timetable 0810 S1-02. The recorded speed of the train at the time of impact was 66 mph.

Highway Vehicle

The SUV was traveling east on Curtis Road turning north onto Miller Lane. According to the Locomotive Engineer, the SUV slowed, but failed to stop for the stop sign of the public crossing (DOT Crossing Number 809372G) on Miller Lane when the collision occurred.

The train struck the left rear side of the SUV. The vehicle rotated and slid approximately 50 feet down the railroad right-of-way and came to a stop facing west. The lead locomotive came to a stop approximately 4,224 feet east of the point of collision.

Emergency Services' personnel, made up of both Union County Sheriff's Office and Oregon State Police, arrived on the scene at approximately 3:00 p.m. and immediately found two fatalities. At approximately 3:07 p.m., the first medical crew arrived and they were advised of the situation. An extended search of the area was conducted and a third person was located. All three occupants, as well as a dog, were ejected and pronounced deceased at the scene. The deceased were two males, ages 43 and 20, and one female, age 40.

A Risk Management person from the Law Department of the Union Pacific Railroad arrived on scene to assist with the collision and information gathering. The train crew was removed from the train by railroad management personnel, transported back to La Grande for debriefing, and then placed on trauma incident leave in accordance with Title 49 Code of Federal Regulations Part 272.

Analysis and Conclusions

Analysis - Toxicological Testing: Toxicological testing was not performed on the SUV occupants. There were no toxicological tests performed on the train crew.

Analysis - The lead locomotive was equipped with all locomotive safety devices required by Federal regulations, including a headlight, auxiliary lights, and an audible warning device.

Conclusion: Locomotive safety devices were in full compliance and working per Federal requirements.

Analysis - Locomotive Engineer Operating Performance: The locomotive was equipped with a speed indicator and an event recorder, as required. The event recorder data was downloaded by a road foreman at the site and data was analyzed by FRA personnel.

Conclusion: The Locomotive Engineer was in compliance with all applicable railroad operating and train handling rules.

Analysis - Public highway-rail grade crossing: DOT # 809372G

The crossing is a Union County road and has had no reported accidents since January 1, 2010.

This is not an Amtrak route and UP is the only regularly scheduled service that operates over this crossing.

FRA conducted a sight distance evaluation and found no safety discrepancies. The crossing is concrete pads. There are crossbucks and stop signs on each side of the crossing. The south side crossbuck/stop sign is approximately 21 feet from the nearest rail. The north side crossbuck/stop is approximately 15 feet from the nearest rail. Curtis Road is a gravel road which runs adjacent to the rails and Miller Lane turns to pavement immediately crossing southeast over the crossing. The Emergency Notification System signs are posted on the crossbuck/stop signs. All signs are in good condition and standard sizes.

Conclusion: The state of Oregon determined that signage at Crossing Number DOT 809372G is in full compliance with Oregon Department of Transportation, Order Number 50623, dated August 17, 2007.

Analysis - According to the on-board camera from locomotive UP 7911, an SUV with a driver and two passengers turned left from Curtis Road onto Miller Lane, approached the crossing, and failed to stop and yield to the train.

Conclusion: FRA's Investigator viewed the on-board camera from UP 7911 and noted the driver did not stop at the crossbuck/stop sign on the south side of the crossing. Railroad whistle signs are located 1200 feet from the crossing.

Probable Cause:

FRA's investigation determined the probable cause of the accident was due to the SUV driver's failure to stop at the stop sign and yield to the train. (FRA cause code M302 Highway user inattentiveness).