

Inv-2207

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
WESTERN MARYLAND RAILWAY

BRUSH RUN, PA.

OCTOBER 15, 1937.

INVESTIGATION NO. 2207

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SUMMARY

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Railway: Western Maryland
Date: October 15, 1937
Location: Brush Run, Pa.
Kind of accident: Derailment
Train involved: Freight
Train number: Extra 615 West
Engine number: 615
Consist: Caboose, two box cars, and engine backing up shoving train.
Speed: 15-25 m.p.h.
Track: 5° curve; 1.15 percent descending grade; view obstructed; crossing protected by flashing-light signals.
Weather: Clear
Time: 1:55 p.m.
Casualties: 1 killed; 4 injured
Cause: Motor truck driven upon highway crossing at grade directly in front of approaching train.

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November 15, 1937.

To the Commission:

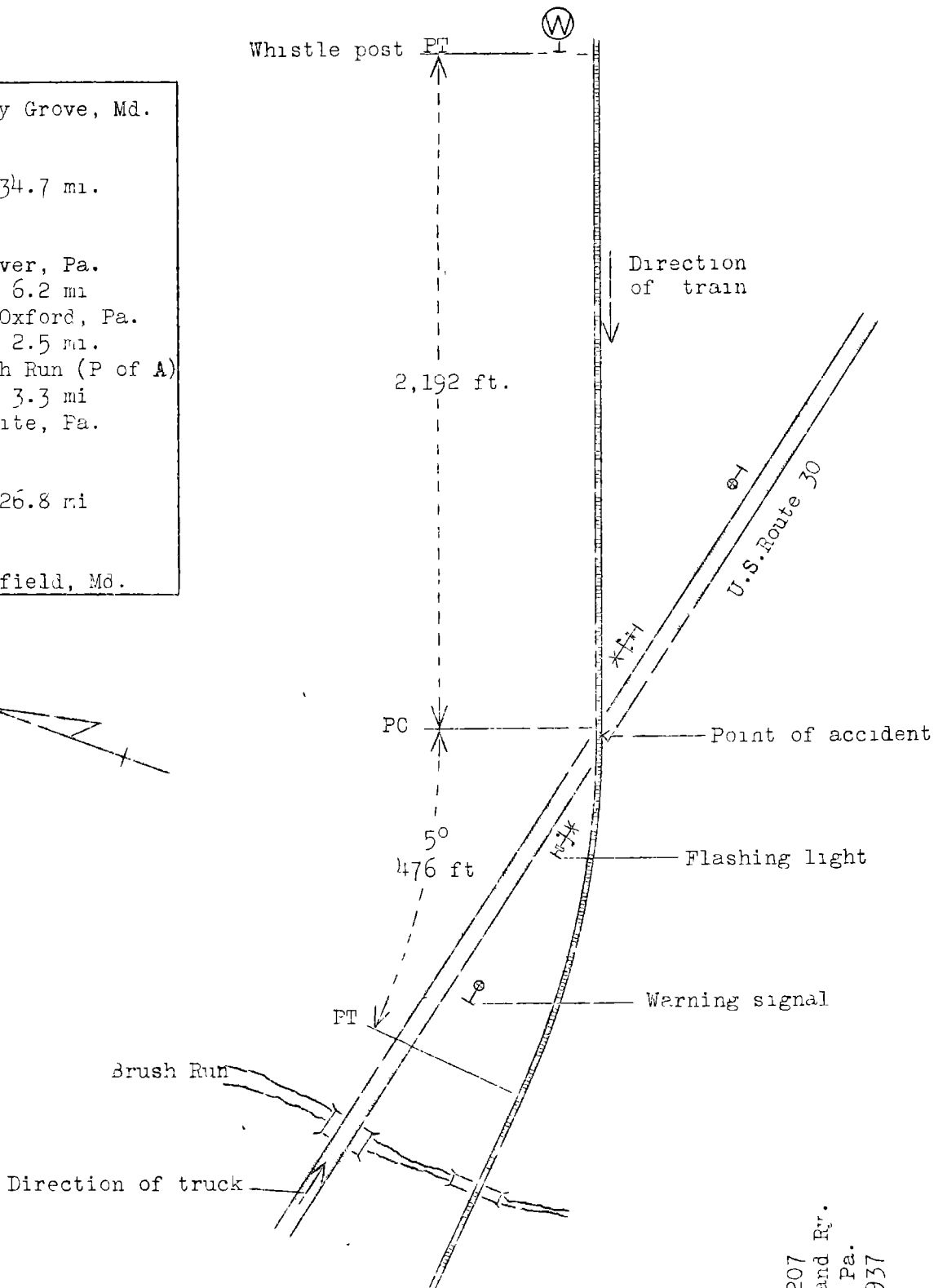
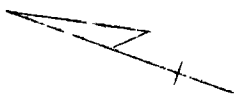
On October 15, 1937, there was a derailment of a freight train on the Western Maryland Railway as a result of striking a motor truck at a highway grade crossing at Brush Run, Pa., which resulted in the death of the truck driver, and the injury of another person who was riding on the truck, and three railway employees.

Location and method of operation

The accident occurred on the Hanover Subdivision of the Hagerstown Division, extending between Emory Grove and Highfield, Md., a distance of 73.5 miles; this is a single-track line over which trains are operated by timetable and train orders, no block-signal system being in use. The accident occurred at Brush Run crossing, where U. S. Route 30 crosses the track from northwest to southeast. Approaching from the east on the railway the track is tangent for a distance of 2,192 feet to the crossing, then there is a 5° curve to the right 476 feet in length, the accident occurring on this curve about 20 feet from its eastern end. The grade for westward trains is 1.15 percent descending. A whistle board is located 2,190 feet east of the crossing, and the speed of engines in backward motion is restricted to 20 miles per hour.

Approaching from the northwest on the highway, starting at a point 1,000 feet from the center line of the crossing, the road is straight, while the grade is 4.5 percent descending for 400 feet, following which it is 5.56 percent ascending for 400 feet, then 4.0 percent ascending for 100 feet, and 2.33 percent ascending for the last 100 feet to the crossing and beyond. The highway is a concrete road, 20 feet wide, with 10-foot dirt shoulders. A disk "RR" warning sign, and an automatic electric flashing-light signal, with two hooded lights that flash alternately, are located on each side of the crossing approaching the track. The disk warning sign on the north side of the track is west of the highway and 350 feet from the center of the crossing. The flashing-light signal is 11 feet 8 inches west of the pavement and 62 feet from the center of the crossing; the westward control circuit begins at a point 1,515 feet east of the center line of the crossing and when a westward train enters upon the circuit at that point the lights start flashing. A cross-bar sign is mounted on the mast above the lights, reading "RAILROAD

o Emory Grove, Md.
34.7 mi.
o Hanover, Pa.
6.2 mi
o New Oxford, Pa.
2.5 mi.
X Brush Run (P of A)
3.3 mi
o Granite, Pa.
26.8 mi
o Highfield, Md.



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CROSSING", while beneath the lights there is mounted a large square sign with white letters and reflector lenses on a black background, reading "STOP ON RED SIGNAL".

From the driver's seat of a southward vehicle on the highway the view of an approaching west-bound train is almost completely obstructed, on account of grade condition and trees in the north east angle of the intersection, until a point 150 feet from the center line of the crossing is reached, at which point a full view of 300 feet of track toward the east can be had; on reaching a point 90 feet from the center of the crossing 1,000 feet of track toward the east can be seen. The flashing lights can be seen at any point on the straight highway.

Rule 103 of the operating department reads as follows:

When cars are pushed by an engine, except when shifting or making up trains in yards, a trainman must take a conspicuous position on the front of the leading car.

The weather was clear at the time of the accident, which occurred about 1:55 p.m.

Description

Extra 615 West consisted, from west to east, of caboose 1205, two box cars and engine 615, in backward motion shoving the train, and was in charge of Conductor Markel and Engineman Hetrick. This train left New Oxford, 2.5 miles east of Brush Run, at 1:50 p.m., according to the train sheet, and was derailed when it struck a motor truck at Brush Run crossing while traveling at a speed estimated to have been between 15 and 25 miles per hour.

The motor truck involved was a 1935-model Chevrolet, equipped with mechanical brakes and dual rear wheels, operating under Pennsylvania license UO2V4, which authorized a gross weight of 13,000 pounds, and apparently was loaded to capacity with soft coal. It was jointly owned by Grant Harbold and William Humer and was being driven by Orval Hale, all of York, Pa., with Michael Walko, of Wall, Pa., riding on the truck. This truck was south-bound on U. S. Highway 30 and while attempting to move over the railroad crossing at Brush Run at a speed estimated at between 30 and 45 miles per hour it was struck by caboose 1205.

The cab and body of the truck were torn off, and the chassis stopped upright, south of and parallel with the track, 50 feet west of the center of the crossing. Caboose 1205 was de-

derailed and stopped, bottom up, on the same side of the track and at right angles thereto, about 25 feet west of the truck, practically destroyed. The box car next to the caboose was torn from its trucks and derailed to the north; its body stopped upright and at right angles to the track. None of the other equipment was derailed, but the second car and the engine were somewhat damaged. The employees injured were the conductor, brakeman and flagman.

Summary of evidence

Conductor Markel stated that his train, known as a traveling switcher, left Hanover, 8.7 miles east of Brush Run, at 11:33 a.m. and left New Oxford, 2.5 miles east of Brush Run, en route to Granite, 3.3 miles west of Brush Run, at 1:50 p.m., at which time the train was arranged with the caboose in the lead, then two box cars, followed by the engine on the rear in backward motion shoving the train. He said an air-brake test was made at New Oxford and the caboose gauge registered 70-pounds pressure. Approaching the scene of accident the conductor was seated in the east end of the caboose checking bills; ~~the flagman was inside the caboose looking out the window of the west door, while the brakeman was at the window on the south side of the forward part of the caboose.~~ The conductor had no intimation of the impending accident, neither the flagman nor head brakeman giving any warning, and the train came to a very sudden stop from a speed of from 15 to 20 miles per hour. The usual crossing-whistle signal was sounded but he could not say if the bell was ringing; the air whistle was not sounded. Conductor Markel said the rules required a trainman to be on the front end of the leading car when cars were being pushed. He thought the position of the flagman in the caboose was not the proper one but said he could do as well there as on the leading platform.

Flagman Boyer corroborated the statement of the conductor concerning events leading up to the time of approaching Brush Run crossing. He could see that the flashing-light signal on the south side of the crossing was operating but due to the sun he could not see if the one on the north side was operating. When about 400 feet from the crossing the flagman looked to the right but did not see any automobiles; when about 200 feet from the crossing he saw a truck coming up the hill at a speed of 35 or 40 miles per hour at a point close to the flashing-light signal. It appeared the truck driver was trying to steer to the right of and off the pavement; at this time the speed of the train was from 15 to 20 miles per hour. Flagman Boyer realized a collision was inevitable and ran to the east end of the caboose. He knew the rules required a trainman to be stationed on the front of the leading car when cars were being pushed and

said a trainman should have been in that position instead of all three employees being inside the caboose. He also said both caboose platforms were equipped with emergency air valves and back-up whistles, but they were not used on this occasion.

Head Brakeman Carr corroborated the statements of the conductor and flagman and added that the engine bell was ringing at the time of approaching the crossing. Just as the caboose arrived at the crossing the truck appeared on the north side of the track and it then turned slightly toward the right and the collision followed. The brakeman said he took no action to stop the train as there was not sufficient time to do anything after the truck appeared. He said that someone should have been on the front platform of the caboose.

Engineman Hetrick and Fireman Doll gave testimony to the effect that the engine was backing up at a speed of from 20 to 25 miles per hour down the hill, with the throttle closed. The proper engine-whistle signals were sounded and the bell was ringing. The fireman saw the truck approaching the crossing; it seemed to slow down, then suddenly start forward again and turn toward the right, as though the truck driver were trying to swing out of the way of the train. The fireman immediately shouted a warning of danger, but the engineman did not have time to apply the air brakes before the accident occurred.

Michael Walko, who was riding on the truck, stated that he did not know the driver of the truck. He hailed the truck driver at a point about 24 miles from the crossing involved. He stated that the driver did not appear sleepy or tired nor did he complain in any manner, and in his opinion he was a good driver. No conversation was held between them just prior to the accident. Approaching the crossing he remarked to the driver that there was a railroad track a short distance beyond, and the driver uttered something, which he did not understand. Walko was on the right side of the truck cab, which was closed; the left side was open. He was looking toward the right and saw the railroad track, but he did not see the train, which was approaching from his left, until the truck was within 60 feet of the crossing, traveling at a speed of from 30 to 40 miles per hour. The truck driver saw the train at the same time, a frightened expression coming over his face; he applied the foot brake, reduced speed slightly, turned to the right and was reaching for the hand brake when the accident occurred. Walko did not hear the engine whistle or bell sounded, nor did he notice flashing lights at the crossing; there were no automobiles ahead of the truck traveling in the same direction.

Stephen S. Pack, of Pittsburgh, Pa., stated that he approached the crossing in his automobile from the south and that the flashing-light signals were working and he stopped about 25 or 30 feet short of the signal. They continued flashing and he heard the engine whistle sounded for the crossing. Shortly afterwards the train came into view, about 300 feet distant, backing up at a speed of about 15 miles per hour; he then looked ahead along the highway and saw the truck approaching the crossing from the north, traveling at a speed of about 40 or 45 miles per hour and about 1,000 feet away. He thought the truck would stop for the crossing, but it continued on and was struck by the caboose. He did not remember hearing the engine bell ringing, and from his position on the south side of the track he could not see the flashing-light signals on the opposite side.

Harry E. Lough, of New Oxford, Pa., stated that he stopped his automobile on the south side of the track. The lights were flashing and he knew that a train was coming as he heard the engine whistle sounded. He got out of his automobile and started to walk across the road when he looked toward the crossing and saw both the train and truck, and immediately the accident occurred. He did not know at what speed either was moving, nor did he hear the engine bell ringing, neither could he see the flashing-light signal on the north side of the crossing.

Signal & Telephone Engineer Bradley, Supervisor Signals & Telephone Weagly, Maintainers Heiston and Highfield, made checks of the flashing-light signals shortly after the accident. No damage was done to the flashing-light structures or track connections as a result of the accident. The flashing lights worked properly when eastward Train No. 44 passed at 4:30 p.m., and when Extra 730 West passed at 4:56 p.m. Previous inspection and test of this flashing-light equipment was made on October 7, 1937, and it was found to be in good condition.

Observations by the Commission's inspectors

The first mark on the track was a deep scar on the gauge side of the south rail, beginning at a point 41 feet west of the center line of the crossing and extending westward for a distance of 6 feet and continuing diagonally across the ball of the rail an additional 8 feet to the outside edge of the ball, from which point, westward, the outer ends of the ties showed slight scars for a short distance. Scorings appeared on the ties between the rails and on the outside of the ball of the north rail, and continued to the point where the first box car stopped on the inside of the curve. No marks were discovered on the highway or track between the center line of the crossing and the rail scar, and at no place was there a mark which could

be identified as being made by a flange.

A test of the flashing-light signals showed them to be operating properly, and they could be seen from any point on the straight highway north of the crossing.

The condition of the wrecked truck was such that it was impossible to determine the efficiency of the brakes or the gear in which it was being driven at the time of the accident.

A check of railway and highway traffic was made, beginning at 11:45 a.m., October 19, and ending at 11:45 a.m., October 20; a total of 1,597 vehicles and 9 trains used the crossing, the peak of highway traffic being between the hours of 2:45 and 3:45 p.m., at which time 139 vehicles passed, while in the early morning hours, from 1:45 to 5:45 a.m., there was a total of but 38 vehicles.

The records of the Bureau of Motor Vehicles of Pennsylvania disclosed that Orvale Hale, the truck driver, was 22 years old and had been granted an operator's license on May 15, 1933, and for each succeeding year thereafter; his record was clear.

Discussion

The investigation developed that the proper engine-whistle signals were sounded and that the engine bell was ringing as the train approached the crossing, backing up. The caboose was equipped with a back-up whistle and emergency air-brake valve on the leading platform; however, no trainman took a conspicuous position on the front platform as required by the rules. The view of the truck driver was obstructed across the northeast angle of the intersection, due to highway grade conditions and trees, and both the train and truck were only a short distance from the crossing before the personnel of either one could see the other. The train was traveling at a speed of from 15 to 25 miles per hour, and the truck from 30 to 45 miles per hour. There were no eyewitnesses in position to see the flashing-light signal on the north side of the crossing except the truck driver and his passenger; the truck driver was killed in the accident, and the other rider did not notice flashing-lights at the crossing. Shortly after the accident this signal was tested and found to be operating properly. The passenger on the truck stated that he warned the truck driver that they were approaching a railroad track, and the driver's reply was unintelligible. In view of the death of the truck driver, no definite statement can be made concerning his failure to observe that the way was not clear for his passage over the crossing.

Conclusion

This accident was caused by a motor truck being driven upon a highway grade crossing directly in front of an approaching train.

Respectfully submitted,

W. J. PATTERSON

Director.