

## INTERSTATE COMMERCE COMMISSION

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REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
DELAWARE, LACKAWANNA & WESTERN RAILROAD AT GRAVEL  
PLACE, PA., ON FEBRUARY 20, 1923.

March 16, 1923.

To the Commission.

On February 20, 1923, there was a rear-end collision between two light engines on the Delaware, Lackawanna & Western Railroad at Gravel Place, Pa., resulting in the death of one employee.

#### Location and method of operation.

At Gravel Place, near Stroudsburg, there is a roundhouse on the south side of the main tracks, movements to and from the main tracks being controlled by an interlocking plant. Leaving the roundhouse, there is a track which extends westward and connects with a track known as the run-around track; the distance east and from the switch connecting these two tracks to the switch connecting the run-around track with the eastbound slow track is about 1,000 feet. The run-around track, commencing at the eastbound slow track and extending westward, is on a curve of 6°30' to the left, followed by a tangent, the accident occurring on this tangent near its eastern end. The grade is 0.32 per cent ascending for westbound movements. It was snowing at the time of the accident, which occurred at about 3:45 p. m.

#### Description

Light engine 839, in charge of Engineer LaBarr, disconnected on one side, and with the coupler missing from the rear end of the tender, was en route to the shops at Scranton for repairs. It was headed west, and after leaving the roundhouse and proceeding to the run-around track, water was taken, after which it was backed eastward on the run-around track at a speed estimated to have been 3 or 4 miles an hour. It was brought to a stop when about 150 feet west of dwarf signal 1, which governs movements from the run-around track to the main tracks, after Fireman Ayers, who was

riding on top of the tender, saw light engine 1258 coming west on the run-around track, he shouted to the engineman, at the same time giving a go-ahead signal, the engineman reversed the engine and had just started it ahead when the tender was struck by the tender of engine 1258.

Light engine 1258, in charge of Engineman Mack, headed east, stopped on the eastbound main track 1,103 feet east of the point of collision, dwarf signal 30 displayed an indication showing that the route was lined for a back-up movement across the eastbound slow track and thence to the run-around track, and engine 1258 had gone in on the run-around track 539 feet, traveling at a speed variously estimated to have been between 8 and 20 miles an hour, when it collided with the rear of engine 839.

The engines came to rest about 108 feet west of the point of collision, without being derailed. The tender of engine 839 was badly damaged, the tender of engine 1258 being only slightly damaged. The employee killed was the fireman on engine 839.

#### Summary of evidence.

Engine 1258 backed in on the run-around track at a speed estimated by Engineman Mack to have been about 8 or 10 miles an hour. He said the run-around track was clear as far as he could see, that he shut off steam at a road crossing about 200 feet from the point of collision, and when rounding the west end of the 3-degree 30-minute curve to the left, he saw engine 839, over the top of the tender of his engine, then about 40 feet distant, at about which time Fireman Hockin shouted to him. He at once applied the independent air brake, but the driving wheels locked and the engine slid and collided with the tender of engine 839 at a speed of 5 or 6 miles an hour. Engineman Mack attributed his failure to see engine 839 before the collision to the fact that he was on the outside of the curve and that the weather conditions and steam from the stoker obscured his vision. Fireman Hockin stated he was riding on the cab seat on the left side, looking backwards, when he saw engine 839 about four car lengths distant and shouted to the engineman to stop. He estimated the speed at this time at about 7 or 8 miles an hour, and said the engine was working steam.

Engineman LaBarr, of engine 838, said his first knowledge of anything wrong was when Fireman Ayers, who was riding on top of the tender, shouted to him and gave a go-ahead signal, and he reversed the engine and had just started ahead when the collision occurred. He estimated the speed of engine 1258 when he first saw it, about two engine lengths away, to have been about 20 miles an hour, he also said he sounded a whistle signal for brakes.

Towerman Arnold, on duty at the interlocking tower, 700 feet east of the point of accident, and Signalman Knoll, who was standing at a road crossing, about 400 feet east of the point of accident, said the speed of engine 1258 backing in on the run-around track was from 12 to 18 miles an hour. The towerman also said he could plainly see to the point of accident while the signalman said the engineman was looking in the direction of the roundhouse, on the fireman's side. Other employees about the roundhouse office estimated the speed of engine 1258 at 15 or 20 miles an hour. All of these employees heard the whistle for brakes sounded by the engine <sup>made</sup> of engine 838 before the collision, which signal the engine crew of engine 1258 claim not to have heard.

A test run was made with engine 1258, with Engineman Mack in charge, his instructions being to duplicate as nearly as possible the run made by him on the day of the accident, beginning at the point on the eastbound main track where the back-up movement started, and applying the air brakes at the point where he said he applied them at the time of the accident. It was found that he operated the engine at an average speed of about 15 miles an hour, and that the engine stopped 56 feet west of the point of collision, the driving wheels skidded when making the stop. Witnesses of the accident and of this test thought the rail was in the same condition as on the day of the accident, and that the speed of the engine was the same. It is noted, however, that nearly twice the distance was required to stop on the day of the accident, indicating that the speed was higher. The range of vision was found to be 270 feet.

#### Conclusions.

This accident was caused by the failure of Engineman Mack, of engine 1258, to operate his engine under proper control within yard limits.

Paragraph 7. of the general instructions in the time table read as follows.

"Within yard limits, yard engines, second class, third class and extra trains, will proceed under control expecting to find tracks occupied "

The evidence clearly indicates that Engineer Mack operated his engine at an excessive rate of speed when his vision of the track ahead was obscured by a curve, as well as snow and escaping steam.

The fact that the tender of engine 838 was not equipped with a coupler contributed to the seriousness of the accident, the coupler at the rear of the tender of engine 1458 passing under the tender frame of engine 838, raising the tender and pinning the fireman between the boiler head and the tender.

The employees at fault were experienced men. None of the employees involved had been on duty in violation of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND

Director.