

PUBLIC UTILITIES COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN THE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE COLORADO & SOUTHERN RAILWAY AT MAYNE, COLO.,
ON AUGUST 30, 1925.

December 23, 1925.

To the Commission.

On August 30, 1925, there was a side collision between two passenger trains on the Colorado & Southern Railway at Mayne, Colo., which resulted in the injury of 29 passengers and 2 Pullman Company employees. The investigation of this accident was made in conjunction with representatives of the Public Utilities Commission of Colorado.

Location and method of operation

This accident occurred on that part of the Southern Division extending between Southern Junction and Trinidad, Colo., a distance of 88.1 miles, in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred at the north switch of track 1, this switch is located about 550 feet north of the station and nearly 2,600 feet south of the north passing-track switch. Approaching the point of accident from the south there are 5,400 feet of tangent followed by a 3° curve to the left 1,836 feet in length; the track is then tangent to the point of accident, about 200 feet distant, and for a short distance beyond. The grade at the point of accident is 0.92 per cent descending for northbound trains, which are superior by direction to opposing trains of the same class.

It was daylight and the weather was clear at the time of the accident, which occurred at 5.50 a.m.

Description

Southbound passenger train No. 8 consisted of two baggage cars, one combination mail and baggage car, two coaches, four Pullman sleeping cars and one observation car, in the order named, hauled by engine 375, and was in charge of Conductor Greiner and Engineeran Rashford. The cars were all of steel construction excepting the Pullman sleeping car "Davenport", the seventh car in the train, which had a steel underframe and wooden superstructure sheathed with steel. At Walsenburg, 8.2 miles from Mayne and the last open office, the crew in charge received a copy of train order No. 4, Form 19, which read as follows:

"No. 1 meet No 8 at Mayne No 8
use No 1 track as passing track."

Train No. 8 departed from Walsenburg at 5.19 a. m., according to the train sheet, two minutes late, passed the north passing-track switch at Mayne, at which point it ordinarily would pull into clear for its time-table meet with train No. 1, and stopped at the north switch to track 1. The switch was opened and the train was pulling in on that track, moving at a low rate of speed, when it was struck by train No. 1.

Northbound passenger train No. 1 consisted of one mail car, one combination baggage and express car, one dead-head Pullman car, two coaches, one dining car, and five Pullman cars, in the order named, hauled by engine 374, and was in charge of Conductor Steley and Engineeran Schaller. The cars were of all-steel construction with the exception of the first coach, which had a steel underframe. Before departing from Trinidad the crew received a copy of train order No. 4, Form 31, which read as follows:

"No. 1 meet No. 8 at Mayne."

This train departed from Trinidad at 4.50 a. m., on time, passed Ludlow, the last open office, 18.3 miles from Mayne, at 5.20 a. m. according to the train sheet, four minutes late, and approached Mayne at the usual rate of speed, said to have been about 30 miles an hour, intending to proceed as far as the north passing-track switch on its time-table rights. It collided with the side of train No. 8 at the north switch of track 1 while traveling at a speed of about 15 miles an hour.

The engine of train No. 1 struck the rear end of the sixth car in train No. 8, tore off the platform end sills and vestibule, plowed into the side of the Pullman sleeping car "Devenport", turning it over on its side to the west of the track and practically demolishing it, and then collided head-on with the ninth car in the train, crushing in the front vestibule of that car and resulting in the derailment of its forward truck, the engine trucks and driving wheels of engine 374 were also derailed.

Summary of evidence

Dispatcher Crispell said he issued train order No. 4 on Form 31 to the crew of train No. 1 at 4.17 a. m., transmitting the order by telephone to the operator-ticket clerk in the passenger station at Trinidad, there being no telegraph wires between his office and the station, and because of this fact he was unable to transmit the order simultaneously to the station at Trinidad and to the operator at Walsenburg. Later Dispatcher Crispell put out train order No. 4 on Form 19 to train No. 8 at Walsenburg, this order being transmitted by telegraph and as an afterthought he added the following words to the order as originally issued to the operator at Walsenburg: "No 8 use No 1 track as passing track." This was due to the fact that on the day prior to the accident a car of coal had been involved in an accident at Mayne, resulting in the passing track at that point being temporarily blocked, and while train No. 8 could have headed in at the north passing-track switch it would have been necessary for it to back out after train No. 1 had passed, and wishing to avoid the delay that this would occasion he added to the original order the clause above quoted, and was not conscious that in effect he had issued a lap order until told of the occurrence of the accident.

The statements of the train and engine crews of train No. 8 were principally to the effect that the meeting point as designated by train order No. 4 was thoroughly understood and that the accident occurred while they were in the act of moving into clear for train No. 1 at the north switch to track 1. Owing to the curve and intervening obstructions on the inside of the curve a clear view of the track south of the point of accident was not permitted, and it was not realized that train No. 1 would not be able to stop in time to avert the accident until it was too late properly to warn that train that the track was not clear.

Fireman Sullivan, of train No. 1, said he saw train No. 8 just north of the station at Mayne about the

time his own engine was 1,000 feet distant and had he not thought that train was into clear on the passing track he could have warned Enginemen Scheller who was on the outside of the curve, and there would have been ample time and distance in which his train could have been brought to a stop. After moving a considerable distance farther he saw the brakeman who was riding on the pilot of the engine of train No. 8 get off and give a signal indicating reduced speed, which signal he conveyed to Enginemen Scheller, and it was not until about the time that the two engines were nearly opposite each other that he realized that train No. 8 was not into clear and he then called a warning of danger to the enginemen and jumped from the engine.

Enginemen Scheller said he was on the outside of the curve as his train approached the point of accident and as his range of vision was restricted to a distance of about 200 feet he did not see the train ahead and had no intimation of the impending collision until Fireman Sullivan called to him to apply the brakes in emergency. The speed of his train just prior to this had been about 30 miles an hour and he had made a light service application of the air brakes; upon being warned by the fireman he placed the brake valve in the emergency position, which reduced the speed of his train to about 15 miles an hour by the time the accident occurred.

The rules of this railway require the use of middle orders where practicable; in this case, however, the meeting point was fixed at a station which was closed, consequently the rules could not be observed in this particular respect.

Conclusions

This accident was caused by the issuing of a meet order, the copy of which as received by the inferior train had an added clause conferring additional rights and resulted in creating a lap order, for which Dispatcher Crispell is responsible.

The investigation developed that on account of the fact that there is no telegraph communication between the dispatcher's office and the station operator at Trinidad, Dispatcher Crispell used the city telephone in issuing train order No. 4 to the superior train at that point; later the dispatcher used the telegraph in transmitting the order to the inferior train at Walsenburg and at that time added the words to the original order which resulted in the creation of a lap order. If the order could have been issued simultaneously to both offices, it

is probable that the error would not have been made, in which event the accident would not have occurred. The lack of telegraph communication between the dispatcher and the station operator at Trinidad has existed for some time, and in the interests of safety this condition should be remedied immediately.

Had an adequate block-signal system been in use on this line this accident probably would not have occurred, an adequate automatic train stop or train control device would have prevented it.

All of the employes involved were experienced men; at the time of the accident none had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND

Director.