

July 8, 1914.

In re investigation of accident on the Colorado & Southern Railway near South Park Junction, in the yard limits of Denver, Colo., on June 1, 1914.

On June 1, 1914, there was a head-end collision between two passenger trains on the Colorado & Southern Railway near South Park Junction, in the yard limits of Denver, Colo., resulting in the death of 1 employee and the injury of 20 passengers and 2 employees.

After investigation of this accident the Chief Inspector of Safety Appliances reports as follows:

Eastbound train No. 73 consisted of 1 combination baggage car and coach and 3 day coaches, hauled by locomotive No. 70, and was in charge of Conductor Jones and Engineman Stein. This train left Grant, Colo., at 5:15 a.m., on time, and at 8:35 a.m. collided with westbound train No. 60 at a point 1,860 feet west of South Park Junction while running at a speed of about 15 miles per hour. At the time of the collision train No. 73 was about 15 minutes behind its regular scheduled time.

Westbound train No. 60 consisted of 1 combination baggage car and coach and 1 day coach, hauled by locomotive No. 12, and was in charge of Conductor St. John and Engineman Auers. This train left Denver at 8:25 a.m., proceeded to South Park Junction, a distance of two miles, where it was registered, and left that place at about 8:34 a.m., colliding shortly thereafter with train No. 73, while running at a speed of about 15 miles per hour.

Both locomotives were quite badly damaged, while three coaches were slightly damaged. The weather at the time was clear.

The division upon which this accident occurred is a single-track line, trains being operated by train orders and time-card rights.

The collision occurred on an 8 degree curve, 309 feet long, at a point about 100 feet west of its eastern end. Approaching this curve from the east there is a tangent 1,800 feet in length; approaching this curve from the west there is a 16 degree curve 830 feet long, followed by 251 feet of tangent. The view of both engine crews was obscured by trees until the locomotives were within about 515 feet of each other.

At Sheridan Junction, 7.6 miles west of Denver, the crew of train No. 73 received a copy of train order No. 1 reading as follows:

"No. 70, engine 9, wait at South Park Jct.
until 8:29 a.m., Valverde until 8:33 a.m.,
Denver Mills until 8:36 a.m., for No. 73 engine 70."

Conductor Jones of train No. 73 stated that he gave a copy of the order to the engineman and remarked that if they hurried they could make Valverde. He did not have the engineman read the order back to him as is required by the rules, but stated the substance of its contents to him. He did not show the order to the brakemen until his train reached Denver Mills, whereupon he held the order up so it could be seen and remarked to Brake-man Lebew that they had until 8:29 a.m. in which to reach Valverde,

when in fact they had until 8:33 a.m. in which to reach that place, his error being due to his misreading the order. He could not say whether or not Brakesman Lehew took the order, as he was busy with the baggage at the time. He further stated that his train reached Valverde at 8:29 a.m., pulled in on the siding to permit train No. 70 to pass, then backed out and departed at 8:31 a.m. However, he was not certain that he read his watch correctly and said it might have been later. He thought he had three minutes in which to reach South Park Junction and clear train No. 60 by 8:34 a.m., which, in his opinion, was sufficient time. He had not overlooked train No. 60 and knew it was superior to his train. Shortly after leaving Valverde he felt that something was wrong and upon looking ahead saw smoke, indicating to him the approach of train No. 60. He immediately jumped up for the purpose of using the conductor's emergency brake, but instead pulled the air whistle. In the meantime, however, the engineman had applied the air brakes.

Engineman Stein of train No. 73 stated that his train arrived at Valverde at 8:28 a.m. and that train No. 70 passed that place at 8:30. Train No. 73 then pulled out on the main line and left that place at about 8:30½ a.m., which would give that train about three and one-half minutes in which to reach South Park Junction and clear train No. 60. He stated that as his train was leaving the bridge his fireman called to him to stop and he applied the brakes in emergency. He did not see train No. 60 until within about 50 feet of it on account of the curve and trees on the inside of the same. At the time of the col-

lision the speed of his train was about 15 miles per hour. He said that the collision occurred at about 8:33 a.m. and was caused by train No. 60 being ahead of time.

Rear Brakeman Hanes of train No. 73 stated that when his train left Valverde and proceeded toward South Park Junction he knew that train No. 60 was due to leave South Park Junction at about the same time but was under the impression that his train had time on that train. He had not seen the orders and after leaving Valverde he was looking for Conductor Jones to learn what time he had on train No. 60, when the collision occurred.

Head Brakeman Lehew of train No. 73 stated that Conductor Jones told him that he had received an order at Sheridan Junction and they had until 8:29 a.m. to reach Valverde, but did not show him the order. He did not ask the conductor for it because he was busy checking baggage. On account of the conductor telling him that they would meet train No. 70 at Valverde at 8:29 a.m. he thought his train arrived at that place at 8:29 a.m. and therefore believed they would have sufficient time to reach South Park Junction before the departure of train No. 60.

Engineman Auers of train No. 60 stated that his train left Denver at about 8:26 a.m., arrived at South Park Junction at 8:34 a.m., and after registering left that place a few seconds later and collided with train No. 73 at about 8:35 a.m. Leaving South Park Junction the track is straight for about one-half mile. When he had nearly reached the end of it he saw a locomotive and two coaches coming off the bridge about four car lengths away, and

applied the brakes in emergency. On account of the trees he was unable to see the approaching train sooner. At this time the speed of his train was about 15 miles per hour but at the time of the collision it had been reduced to about 4 miles per hour. He knew that train No. 73 was somewhere on the road, but as his train was the superior train he expected that train to keep clear of it.

Engine Foreman Gstettenbauer, in charge of a switching crew, stated that his train was on the siding at Valverde when train No. 70 passed that place at about 8:31 a.m. Train No. 73 left there at about 8:32 for South Park Junction and therefore assumed that train No. 60 must be late and intended to do some more switching. He heard train No. 60 whistle for a crossing as train No. 73 was crossing the Platte River bridge and shortly thereafter heard them collide.

The crew of train No. 70 stated that their train left South Park Junction at 8:29 a.m., passed Valverde at 8:32 a.m. and saw train No. 73 on the siding there.

This accident was caused by train No. 73 occupying the main track on the time of a superior train for which Conductor Jones and Engineman Stein are responsible.

The conductor thought his train left Valverde at 8:31 a.m. but said it might have been later. The engineman claimed to have left Valverde at about 8:30 a.m. or a half minute thereafter, and insisted that the accident was due to train No. 60 being ahead of time. The statements of the members of the crew of train No. 70

however, as well as the statements of the switching crew which was on the siding at Valverde, show that train No. 70 did not pass Valverde until 8:31 a.m. or 8:32 a.m. Train No. 73 then had to back out of the siding, close the switch and start on its way. It probably departed from Valverde between 8:32 a.m. and 8:33 a.m. Inasmuch as train No. 60 was due out of South Park Junction at 8:34 a.m., train No. 73 therefore only had between one and two minutes in which to travel the distance of 1.4 miles to that point and take the siding for train No. 60.

All of the employees involved in this accident were experienced men with good records and none had been on duty in violation of the hours of service law. At the time of the collision the crew of train No. 73 had been on duty 14 hours and 5 minutes.