INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ST. LOUIS-SAN FRANCISCO RAILWAY AT HARDY, ARK., ON MAY 15, 1928.

June 23, 1928.

To the Commission:

On May 15, 1928, there was a head-end collision between two passenger trains on the St. Louis-San Francisco Railway at Hardy, Ark., which resulted in the injury of 14 passengers, 5 persons carried under contract and 1 employee.

Location and method of operation

This accident occurred on the Memphis Sub-division of the Southern Division, extending between Thayer, Mo., and Memphis, Tenn., a distance of 144.6 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 a point approximately 495 feet south of the north passing-track switch at Hardy; approaching this point from the north there is a 2° curve to the left 1,040 feet in length and then a tangent extending for a distance of 2,490 feet, the accident occurring on this latter tangent at a point 581 feet from its northern end. The passing track is 5,652 feet in length and parallels the main track on the east. Near the station there is a crossover which connects this passing track with the main track; the north crossover switch is 3,646.5 feet south of the north passing-track switch, and 819 feet north of the station. The grade at the point of accident is 0.75 per cent ascending for northbound trains. Regular northbound trains are superior to southbound trains of the same class. The view of the point of accident from the fireman's side of the cab of a southbound train is restricted to approximately 890 feet, while from the engineman's side it is limited to about 740 feet.

The weather was cloudy at the time of the accident, which occurred at about 2.18 p. m.

Description

Northbound passenger train No. 104 consisted of one express car, two mail cars, one baggage car, one combination baggage and passenger car and one coach, in the order named, hauled by engine 1045, and was in charge of Conductor Emery and Engineman Jacobs. At Hoxie, 35 miles south

of Hardy, the crew received a copy of train order No. 40, Form 31, providing for a meet with train No. 103 at Hardy, which also is the time-table meeting point between these two trains. Train No. 104 arrived at Hardy at 2.08 p. m., seven minutes ahead of its scheduled leaving time, and after performing station work at that point it moved ahead and was brought to a stop on the main track clear of the north passing-track switch. Shortly afterwards train No. 103 was seen to be approaching at a high rate of speed, whereupon the engineman of train No. 104 endeavored to avert an accident by moving his train backward but had succeeded in attaining a speed of only 6 or 7 miles per hour when the train was struck by train No. 103.

Southbound passenger train No. 103 consisted of one express car, two mail cars, one baggage car, one combination baggage and passenger car and one coach, hauled by engine 1067, and was in charge of Conductor Bearden and Engineman Phillips. At Thayer, 18.5 miles north of Hardy, the crew in charge received a copy of train order No. 40, Form 19, previously mentioned, together with a copy of a message reading in part as follows:

> "C and E 103 you head in north end Hardy and pull through passing track today *** "

This train left Thayer at 1.46 p. m., six minutes late, departed from Mammoth Springs, the last open office, 16 miles north of Hardy, at 1.54 p. m., nine minutes late, passed the north passing-track switch at Hardy and collided with train No. 104 while traveling at a speed estimated to have been between 15 and 25 miles per hour.

The impact derailed the forward pair of engine-truck wheels of engine 1067; none of the other equipment was derailed, although the head end of each engine was more or less damaged and the third car in train No. 103 sustained slight damage.

Summary of evidence

Engineman Jacobs, of train No. 104, stated that after performing station work at Hardy his train departed from the station at about 2.15 p. m. and was brought to a stop on the main track about four pole-lengths south of the north passing-track switch. About the time his train came to a stop he heard a meeting-point whistle signal sounded by the opposing train and it came into view about 15 or 20 seconds later, at which time a train porter from his own train who was proceeding to the switch for the purpose of opening it to permit train No. 103 to enter the siding had reached a point about midway between his engine and the switch. Engineman Jacobs noticed that train No. 103 was

traveling at an unusual rate of speed and apparently could not be stopped before reaching the switch, and therefore he reversed his engine and started his train in backward motion but had been able to acquire a speed of only 6 or 7 miles per hour in that direction before the accident occurred. He estimated the speed of train No. 103 at the time he first observed it to have been between 30 and 40 miles per hour and at the time of the accident at 15 miles per hour. Immediately after the accident he entered the cab of engine 1067 and found the throttle closed and the brake valve in the emergency position, while the engineman of train No. 103 later informed him that he had received a copy of train order No. 40 and the message to take the siding but was under the impression that when meeting a train at Hardy he should head in on the passing track through the crossover instead of at the north switch. The statements of Fireman Lamb, of train No. 104, practically corroborated those of Engineman Jacobs.

Engineman Phillips, of train No. 103, stated that after his train departed from Thayer a running test of the brakes was made and that they operated efficiently en route, although at one point he ran by a station about two car-lengths. Approaching Hardy at a speed of about 40 miles per hour he sounded a station whistle signal followed by a meeting-point whistle signal and had intended sounding a second meeting-point signal, as required by the rules in the case of the train which is to take siding, on reaching a point one-half mile from the switch to be used. When his train reached the leaving end of the curve, however, he observed train No. 104 standing on the main track and the fireman called to him at the same time. He at once applied the brakes in emergency, opened the sanders and then jumped off, he estimated the speed of his train at the time of the accident at 20 or 25 miles per hour. He also stated that he did not overlook the meeting point as required by train order No. 40, as well as the message he had received at Thayer to head in at the north passing-track switch, but that he had read it only once and was under a misunderstanding as to its contents, being of the impression that it required his train to enter the passing track through the crossover, more than one-half mile south of the point of accident. He stated that this message confused him and that had he not received it he would not have attempted to proceed to the crossover for the purpose of meeting train No. 104. Engineman Phillips further stated that he was promoted to engineman in 1922 but had not had much experience in handling passenger trains and had made only three or four trips on trains Nos 103 and 104 during the past year.

Fireman Rawdon, of train No. 103, substantiated the statements of Engineman Phillips as to the movement of their train between Thayer and the point of accident. He

also stated that he had read and understood train order No. 40, as well as the message, and was of the opinion that his own train would head in at the north passing-track switch at Hardy inasmuch as the engineman had sounded two meeting-point whistle signals approaching that point and also had reduced speed to some extent as the train rounded the curve north of the point of accident. For this reason he did not call the engineman's attention to the meeting point nor the requirements of the message although he knew the train was approaching the switch at a rather high rate of speed. Fireman Rawdon further stated that he first observed the opposing train as soon as it came into view, at which time he informed the engineman to this effect and the latter immediately made an effort to bring the train to a stop, but the fireman did not think the brakes took hold properly.

Conductor Bearden, of train No. 103, stated that while at Thayer the engineman read the train order to him, as well as the message. When the train was approaching Hardy, Conductor Bearden heard a station whistle signal sounded, followed by a meeting-point signal, while another meeting-point signal was sounded when his train had reached a point approximately one-half mile beyond, or about one-fourth mile north of the passing track at Hardy, indicating that his train would take the siding. He said that after the second meeting-point signal was sounded the brakes were applied, apparently an ordinary service application, reducing the speed of the train to 15 or 20 miles per hour; he did not feel any other application of the brakes nor did he think the speed had been further reduced prior to the occurrence of the accident.

The statements of Brakeman Davis, of train No. 103, brought out no additional facts of importance, except that he felt an application of the brakes between the time the first and second meeting-point whistle signals were sounded and also another application just prior to the accident, neither of which appeared to be an emergency application.

Dispatcher Marsh stated that as Hardy is the time-table meeting point for trains Nos. 103 and 104 it was not necessary to issue a train order covering this meet, but that it had been the established practice to issue orders covering all meeting points for opposing first-class trains, in order to effect a safer meeting with minimum delay. Due to the fact that train No. 103 usually has more station work to perform at Hardy than train No. 104, it has been the custom to reverse the rights of these trains and to allow train No 103 to hold the main track at this point, but on the day of the accident Dispatcher Marsh was notified that train No. 104 had an unusual amount of material to load, and therefore he issued train order No. 40 without reversing their rights, and as an additional precaution he issued the message instructing the crew of train No. 103 to head in at the north

end of Hardy. Dispatcher Marsh could not account for Engineman Phillips apparently becoming confused by this message, as train No. 103 was inferior by direction and should have entered the passing track at Hardy even without instructions, while failure to reverse the rights of the two trains in accordance with the usual practice should not have misled him since he was not the regular engineman.

Conclusions

This accident was caused by the failure of Engineman Phillips, of train No. 103, to have his train under control approaching a meeting point.

The current time-table designates Hardy as the meeting-point for train Nos. 103 and 104, train No. 104 being superior by direction. It had been the practice to reverse the rights of these trains when meeting at Hardy, permitting train No. 103 to use the main track. On the day of the accident, however, train No. 104 had the most work to perform and it was decided to allow that train to hold the main track, as a result of which Dispatcher Marsh issued the usual meet order but without restricting the rights of train No. 104, and in addition he issued a message to the crew of train No. 103 to head in at the north end of Hardy. Dispatcher Marsh said it would not have been actually necessary to issue either the train order or the message, but that it was the practice to issue train orders to first-class trains at all scheduled meeting points, while the message was issued as an additional precaution. It is evident that Engineman Phillips had not overlooked the meeting point as he had sounded at least one meeting-point whistle signal within 1 mile of Hardy. Engineman Phillips stated, however, that the message had resulted in confusing him, that he only read it once and was under the impression his train should proceed on the main track to the crossover and enter the siding at that point. He admitted that the message itself was clear and that it did not authorize him to go beyond the north switch.

The rules require a meeting-point whistle signal to be sounded by an engineman when at least 1 mile from the meeting point, and when a train is to take siding the meeting-point whistle signal is to be repeated when at least one-half mile from the switch to be used in entering the siding. Engineman Phillips said he did not sound the second signal because of the fact that he saw the opposing train before reaching a point one-half mile from the switch he intended to use in entering the siding, this being the north crossover switch, more than 3,600 feet south of the north passing-track switch. The other members of the crew, however, said that the second signal was sounded. The rule in question further provides that if the second signal is not

sounded the conductor must take immediate action toward stopping the train, and under this provision of the rule the question of whether Conductor Bearden is also responsible for the occurrence of the accident depends entirely on the question of whether the engineman sounded the second signal. In view of the direct conflict in the evidence on this point no definite opinion can be expressed.

Fireman Rawdon, who is a promoted man and who has had considerable experience on train No. 103, was familiar with the contents of train order No. 40, as well as the message. He also was one of those who said that two meeting-point whistle signals were sounded, the second signal not being sounded until the train had reached a point about one-fourth mile from the passing track switch. The fireman's statements indicated, however, that the speed approaching the switch was rather unusual, and in view of this fact the question as to whether he also is not responsible to some extent depends, as in the case of the conductor, on whether the engineman actually sounded the second meeting-point signal required by the rules.

The employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.