

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
DENVER & RIO GRANDE WESTERN RAILROAD AT CHANDLER  
JUNCTION, COLO., ON OCTOBER 14, 1930.

November 22, 1930.

To the Commission.

On October 14, 1930, there was a collision between a passenger train and a freight train on the Denver & Rio Grande Western Railroad at Chandler Junction, Colo., resulting in the injury of 40 passengers and 2 employees.

Location and method of operation

This accident occurred on Subdivision 2 of the Pueblo Division, extending between Salida and Pueblo, Colo., a distance of 95.8 miles; in the immediate vicinity of the point of accident this is a double-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The accident occurred on the eastbound main track opposite the crossover at Chandler Junction, located 1.6 miles west of Florence; approaching from the west, the track is tangent for 1,465 feet, and there is a compound curve to the right 1,535 feet in length, the last 435 feet having a maximum curvature of 60°, following which the track is tangent a distance of 212 feet to the point of collision, and for a short distance beyond that point. The grade for eastbound trains is 0.5 per cent ascending at the point of accident.

The crossover involved is a trailing-point crossover 211 feet in length, at a point 25 feet east of the east switch of the crossover, there is a facing-point switch for eastbound trains that leads off the eastbound main track to the south to the Chandler Branch, and there is a telephone booth 328 feet east of the Chandler Branch switch and on the south side of the main tracks.

Owing to a high embankment located at the eastern end and on the inside of the compound curve previously mentioned, at which point the curvature is at its maximum, neither engine crew had a view of more than 300 feet.

The weather was clear at the time of the accident, which occurred about 4.02 p.m.

Florence depot

750 ft.

2100 ft/

Middle passing track

4600 ft.

Y rd Limit board

P.T.

523 ft.

P.C.

Chandler Branch

Telephone booth

328 ft.

Crossover

25 ft.

P.T.

212 ft.

High Bank

6000'

435 ft.

1000'

1100 ft.

P.C.

1405 ft.

P.T.

Inv. No. 1072  
Denver & Rio Grande Western R.R.,  
Chandler Junction, Colo.,  
October 14, 1930.

### Description

Extra 1022, a switch run, holding an order to run extra Florence to Chandler Junction and return to Florence, consisted from west to east of engine 1022, headed east, one dump car, one box car, and a caboose, and was in charge of Conductor Ward and Engineman Cavanaugh. Extra 1022 made a back-up movement off the Chandler Branch, preparatory to returning eastward to Florence, and while standing on the main track was struck by train No. 2.

Eastbound passenger train No. 2 consisted of one combination mail and baggage car, one baggage car, one dead-head Pullman car, two coaches, two Pullman cars, one dining car, three Pullman cars, and one observation car, in the order named, hauled by engine 1712, and was in charge of Conductor Asbury and Engineman Kelker. This train left Canon City, 6.5 miles west of Chandler Junction, at 3.50 p.m., according to the train sheet, four minutes late, and collided with extra 1022 while traveling at a speed estimated to have been between 35 and 40 miles per hour.

Both engines were derailed to the south and came to rest on their right sides, the tender of engine 1022 was completely demolished, but the freight cars and the caboose were not derailed. The first two cars and the forward truck of the third car in train No. 2 were derailed, these cars remained upright. The employees injured were the engineman and a brakeman of train No. 2.

### Summary of evidence

Engineman Cavanaugh, of extra 1022, stated that his train backed up over the Chandler branch on the return trip and arrived at Chandler Junction about 3.49 or 3.50 p.m., being brought to a stop in the clear with the engine opposite the telephone booth. As usual, Conductor Ward went to the telephone booth to call the dispatcher, then returned to the engine and instructed Flagman Walsh to afford protection. Engineman Cavanaugh understood the conductor to say that train No. 2 either would not be out of Canon City for 30 minutes, or that it was 30 minutes late, which would have given extra 1022 ample time to have performed work and then go to Florence. Engineman Cavanaugh stated that Flagman Walsh started back to flag at 3.52 p.m. or 3.54 p.m., and that he watched him go around the point of curve, a minute or so later, after which extra 1022 waited in the clear about four minutes, or until the engineman figured the flagman had ample time to get back a sufficient distance to afford protection. He then backed out from the Chandler Branch, about 3.59 p.m. or a little later, and sounded the engine whistle calling in the flagman. Engineman Cavanaugh stated that just after he had called in the flagman or about one or two minutes afterwards, and while looking back for him to return, he saw train No. 2 rounding the curve, the collision occurring immediate-

ly afterwards, at 4.02 p.m. Engineman Cavanaugh knew that the rules were being violated every time the main track was occupied on the time of a superior train without orders, but said that it had been the practice to come out of the branch to the main track, after communicating with the dispatcher, and with flag protection, and that if the conductor had not been mistaken in his talk with the dispatcher on this particular occasion, the main track would not have been occupied on the time of train No. 2. Engineman Cavanaugh maintained that he had spoken previously to Trainmaster Walsh, inquiring as to what protection should be expected from the telephone, and was told "nothing without a flag", to which the engineman said "all right, there will be flag all the time." Engineman Cavanaugh felt safe in making the movement contemplated, since the flagman was out and everything was protected so far as he could see, saying that they had been doing this for two years, it was his opinion that there was ample time for the flagman to have gone back around the curve a sufficient distance to have afforded full protection, before the back-up movement was started from the branch.

Conductor Ward, of extra 1022, stated that when he called the dispatcher from the telephone booth about 3.50 p.m., he thought the dispatcher said that train No. 2 would be at Chandler Junction about 4.30 p.m. Conductor Ward told Flagman Walsh to "hold everything", as their train was going to back off the branch and proceed to Florence ahead of train No. 2, the flagman started back and the conductor said he watched him until he went out of sight around the curve. After waiting about three or four minutes, the back-up movement off the branch was made, about 4.01 p.m., and then the main line switch was closed, the flagman whistled in, and about one minute later train No. 2 came around the curve. Conductor Ward said that at the time he talked to the dispatcher about train No. 2, there was a slight pause in the conversation, something was also said about an extra west that would be at Florence, however, he did not hear anything said about the train that was following train No. 2, namely, train No. 46, a fast freight train. As it turned out, however, there was a misunderstanding between himself and the dispatcher, the conductor was laboring under the impression that the dispatcher said train No. 2 would be at Chandler Junction at 4.30 p.m., while the dispatcher maintained that he told the conductor train No. 2 was out of Canon City at 3.50 p.m., also that an extra west was coming into Florence and that train No. 46 would be at Canon City about 4.30 p.m. Conductor Ward stated that he had been criticized by the trainmaster for accumulating overtime, and for not doing the work with less delay, the trainmaster saying that considerable overtime had been paid for standing up there waiting. In this particular instance, he was trying to do what the trainmaster wanted done, and to move whenever there

was time to do so, and the way he understood the dispatcher, there was ample time for extra 1022 to make the contemplated movement ahead of train No. 2, it not being a question of taking a chance or an intentional violation of the rules, and he also stated that there was ample time for the flagman to have afforded proper protection; the intended movement would not have been attempted had he known the real conditions.

Flagman Walsh, of extra 1022, stated that after telephoning the dispatcher, the conductor told him that their train had until 4.30 p.m. on train No. 2 and to go back and flag everything, as extra 1022 would come off the branch. He started back immediately, between 3.50 and 7.55 p.m., walking at an ordinary rate of speed, and reached a point around the curve which he thought was about 900 or 950 feet from the branch-line switch, which would have put him entirely around the 6° portion of the compound curve and on to the 1° portion of it. He heard train No. 2 whistle for a crossing and placed one torpedo on the rail, but became excited and took it up again, as the train was bearing down upon him. Several things ran through his mind, he thought that his own train was in the clear on the branch, as he had not heard any back-up signal sounded for them to start out, and that members of his crew would hear the whistle of train No. 2 and remain in the clear, Flagman Walsh also thought that if he flagged the approaching train, the engineman probably would apply the air brakes in emergency and wreck the train, therefore, he made no attempt to flag it, and it passed him about the time he was recalled by the whistle of his own engine. Flagman Walsh was on the fireman's side as train No. 2 passed, having crossed over because there was more room on the outside of the curve, owing to the high bank on the inside of the curve. Flagman Walsh said that he was three or four car-lengths back of the rear car of train No. 2 when it came to a stop after the accident, and that he did not have time to afford protection as required, estimating that about five or six minutes elapsed from the time he started back until the collision occurred, and he thought that his own train could not have lost much time in backing out on the main track. Statements of Fireman Gotschall and Brakeman Hubersberger, of extra 1022, developed nothing additional of importance.

Engineman Kelker, of train No. 2, stated that the road crossing signal was sounded on the engine whistle and that the speed was about 35 or 40 miles per hour while rounding the curve, the first intimation he had of anything wrong was on seeing extra 1022 about three car-lengths distant, whereupon he applied the air brakes in emergency and then the collision occurred. He had received no warning of danger of any kind, such as torpedoes, fusee, or a flagman. Fireman Deikman stated that he saw Flagman Walsh cross from the eastbound to the westbound main track, on

the curve, about 700 feet in back of where the switch engine was located, about 12 or 13 coach-lengths back, with his flag under his arm, the flagman was looking eastward toward the switch engine, no effort being made to flag. Fireman Deikman said, however, that the flagman was too far around the curve to have seen the switch engine, the fireman thought that he was on a work train and was out to flag some following train.

Dispatcher Whiteman, on duty at the time of the accident, stated that he received the OS on train No. 2 from Canon City about 3.52 or 3.53 p.m., and immediately afterwards Conductor Ward telephoned from Chandler Junction, wanted to know if train No. 2 had gone, and the dispatcher told him that it was out of Canon City at 3.50 p.m., also that an extra west was coming into Florence and that train No. 46 would be at Canon City about 4.30 p.m. Dispatcher Whiteman said it was the custom to give the crew of this switch run a line-up and let them make their movement back to Florence under flag protection. He thought it was strictly within the rules to make such movements at any time, and then made an exception in the case of first-class trains.

Dispatcher Stearns, who had been relieved by Dispatcher Whiteman, said he knew crews had moved from the junction to Florence, ahead of first-class trains, without orders, and he had even heard of the return movement being made against the current of traffic without orders.

Operator O'Neill, on duty at Portland, 6.1 miles east of Florence, stated that he was listening in on the telephone between 3.50 and 4 p.m. trying to find out about train No. 2, so as to be in position to hang up the mail sack, he heard Conductor Ward call from Chandler Junction and ask the dispatcher about train No. 2, and the dispatcher told him it left Canon City at 3.50 p.m. As Operator O'Neill had found out all he wanted to know on train No. 2, he did not listen in to any further conversation.

### Conclusions

This accident was caused primarily by the failure of Flagman Walsh, of extra 1022, properly to protect his train by flag.

The evidence is clear that Flagman Walsh had been instructed to hold all trains, and while it is very doubtful whether he was given sufficient time to provide proper protection in accordance with the rules, the fact remains that he was back far enough so that he could have stopped train No. 2 had he not become excited when he saw the train approaching, with the result that he failed to give a stop signal of any kind.

The investigation developed that a practice had grown up whereby the crew of the switch run involved in this accident communicates with the dispatcher by telephone, obtains a line-up, and then comes out on the main track under flag protection and returns to Florence, the movement being made without train-order authority, even when on the time of overdue first class trains, and thus in violation of rule 86, which requires inferior trains to clear the time of superior trains in the same direction by at least five minutes, and to be into clear by the time a first-class train is due out of the last station in the rear where time is shown. In this particular case, train No. 2 is due out of Canon City at 3.46 p.m., and extra 1022 had no authority to occupy the main track after that time. It is probably true that in this particular case the movement would not have been attempted had it not been for the misunderstanding between the conductor and the dispatcher as to the time at which train No. 2 would arrive at Chandler Junction, but this only serves to emphasize the danger of adopting a practice not in accordance with the rules. Had the rules been observed, then no accident would have occurred, regardless of the misunderstanding between the conductor and the dispatcher, and regardless of the failure of Flagman Walsh to give train No. 2 a stop signal.

Conductor Ward and Engineman Cavanaugh are responsible, under the rules, for attempting the movement in question without proper authority, but on the other hand, there is an equal responsibility on the operating officials, whose duty it is to know what practices are being followed and to see that the rules are observed and obeyed by all concerned. The practice here in question had been in existence for some time, the train dispatchers knew it was going on, and it is certain that the officials responsible for the safe operation of this railroad either knew what was going on and neglected to do anything about it, or else were negligent in failing to know of the existence of the practice. In either case, it is incumbent on them to awake to the responsibilities of their positions and to take immediate steps to remedy this or any other situation whereby trains are operated in violation of the provisions of 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.