INTERSTATE COMMERCE COMMISSION

REPORT OF THE CHIEF OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MOBILE & OHIO RAILROAD NEAR TAMOLA, MISS , ON SEPTEMBER 18, 1922.

October 18, 1922.

To the Commission

On September 18, 1922, there was a derailment of a passenger train on the Mobile & Ohio Railroad near Tamola, Miss., which resulted in the death of 1 employee, and the injury of 2 employees

Location and method of operation

This accident occurred on that part of the Mobile Division which extends between Okolona and Meridian, Miss , a distance of 126 3 miles; 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 point of accident was about 1 mile south of Tamola; approaching this point from the north the track is tangent for a distance of about 3,600 feet The grade is descending for more than 2 miles, varying from 0 32 per cent at the point of accident to a maximum of 0.95 per cent. The track is laid with 75-pound rails, 33 feet in length, with an average of 18 white oak ties to the rail-length, ballasted with about 18 inches of crushed stone, no tie plates are used The weather was clear at the time of the accident, which occurred at about 8.45 p. m

Description.

Southbound passenger train No. 5 consisted of engines 210 and 153, the latter being operated backing up, 1 combination mail and baggage car, 1 express car and 2 coaches, in charge of Conductor Archer and Enginemen Smith and Baskin. Train No 5 left Electric Mills, 13 3 miles from Tamola and the last open office, at 8.08 p m., 2 hours and 31 minutes late, and was derailed south of Tamola while traveling at a speed estimated by the crew to have been 25 or 30 miles an hour

Engine 210 broke away from engine 153 and was not derailed, coming to a stop about 50 or 100 yards beyond Engine 153 was turned completely around, and came to rest on its left side, headed south, on the right side of the track, while its tender was on the opposite side of the track. The first two cars were derailed, but remained upright The employee killed was the engineman of engine 153

Summary of evidence

The first mark of derailment was a flange mark on the running surface of the left rail 5½ feet south of a rail joint, this mark extending a distance of 17½ feet to where the wheel dropped off on the ties, from this point to where engine 155 came to rest was 258 feet, and for about 100 feet of this distance the track was badly torn up Measurements of the surface showed that the joint on the left side of the track just north of the flange mark was one-fourth of an inch lower than the opposite rail, the preceding joint on the same side was also one-fourth of an inch low, while the third joint was 1 inch low; the fourth joint was one-fourth of an inch low, and the fifth one-eighth of an inch low, while the next two joints were level On account of the lack of proper tamping, the ties under the first four joints above mentioned were swinging

When train No 5 arrived at Smuqulak, 29.9 miles from Tamola, Engineman Smith of engine 210 found that the knocking he had heard was due to a broken cross-head pin, and that it would be necessary to have assistance in order to reach Meridian At the next station, Tamlak, 24 1 miles from Tamola, engine 153, which had been handling a work train, was coupled into the train behind engine 210, and was operated backing up After leaving Electric Mills at 8 08 p m , four station stops were made, at one of which both engines took water The speed was also reduced at Tamola, although the statements of some of the employees would indicate that it was not reduced to a low rate, the fireman of engine 210 saying it was about 30 miles an hour, while the flagman thought the train passed that point at a pretty high rate of speed The first the engine crew of engine 210 knew of anything wrong was when they felt the air brakes applied in energency Engineman Smith said his engine then seemed to be pulled down and as he looked back he saw a streak of fire Fireman Huffstettler, of engine 153, thought the rear tender truck of that engine was the first to be derailed None of these employees noticed anything to indicate that there was anything wrong with the train, while Fireman Hoffstettler said there had been no unusual rocking of the tender of engine 153.

With engine 153 being operated backing up, the operation of the train should have been governed by operating rule 1342, relating to the duties of enginemen This rule reads as follows:

> "They must never run their engine backward over the main track when it can be turned unless they have orders to do so or circumstances require it When so running they must never exceed a speed of fifteen miles per hour "

There are wyes at Electric Mills and also at Sucarnochee, 2 8 miles south of Electric Mills, owned by a logging road, and at the time of this accident the Mobile & Ohio Railroad had the privilege of using these wyes. Conductor Archer, however, said he had never seen the wye at Electric Mills, although he had had 22 years' service on this division, and that he would not attempt to use the other wye because he was not familiar with it, did not know whether an engine would go around it, and because there were instructions in effect not to use it. Chief Dispatcher Vestal also said he did not know of these wyes ever having been used by crews of the Mobile & Ohio Railroad, that he knew of no arrangement for using them, and that on a former occasion the roadmaster and superintendent had said it was not safe to turn an engine on them

The interpretation placed by the employees on that part of rule 1342 restricting speed to 15 miles an hour, was that it applied only when an engine was backing up by itself or as the leading engine of a train, Chief Dispatcher Vestal, Conductor Archer, and Engineman Smith not considering it to apply when the engine being so operated was the second engine, and Engineman Smith also said that a short time previously he had handled a dead engine in his train, backing up, and received orders not to exceed a speed of 30 miles an hour Conductor Archer also said he had handled tenders by themselves at a speed of 30 miles, and he considered them the same as a box car. Chief Dispatcher Vestal considered that the crew of train No. 5 had complied with rule 1342 as to speed in operating their train from Electric Mills to the point of accident, a distance of about 14 miles, in 37 minutes, including one slowdown and four full stops, at one of which both engines took water.

It further appeared that Engineman Smith, according to his own statement, had asked Engineman Baskin how fast he wanted to travel, and he said Engineman Baskin replied that he did not care; Engineman Smith also stated that if he had been handling engine 153 and had been asked how fast he wanted to travel he would have said not over 15 miles an hour. Fireman Huffstettler, however, said that at Electric Mills he and Engineman Baskin had talked about the speed and both were doubtful as to whether it was not too high for an engine backing up. Supervisor Bennett, judging from the wreckage, estimated that train No. 5 had been traveling at a speed of 35 miles and hour, if not more, at the time of the accident.

Engine 153 is of the 4-6-0 type. The original tank had a capacity of 4,000 gallons of water, but when the engine was in the shops in November, 1921, prior to being placed in work train service, another tank was attached which increased the water capacity to 7,000 gallons, and the fuel capacity to 15 tons, which was a much larger fuel capacity than that of

the former tank Examination of the engine, both at the point of accident and after it had been rerailed, disclosed nothing about it which could have caused the derailment.

Conclusions.

This accident was caused by engine 153 being operated backing up at an excessive rate of speed over uneven track.

Under rule 1342, engines backing up should not be operated at a speed in excess of 15 miles an hour, yet the evidence indicates that train No. 5 had been operated at an average rate of speed of 30 miles an hour, and it is apparent that this rate of speed, coupled with the low joints approaching the point of accident, caused the tender of engine 153 to rock to such an extent as to permit the wheels to be derailed.

All of 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,

Chief, Bureau of Safety.