INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CENTRAL OF GEORGIA RAILWAY NEAR GLENWOOD, ALA., ON AUGUST 29, 1929.

December 14, 1929

To the Commission:

On August 29, 1929, there was a derailment of a passenger train on the Central of Georgia Railway near Glenwood, Ala., which resulted in the death of one employee and the injury of one employee.

Location and method of operation

This accident occurred on the Andalusia District of the Columbus Division, extending between Andalusia, Ala., and Columbus, Ga., a distance of 138 3 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 point of accident was at a highway grade crossing located approximately 1 mile east of the station at Glenwood, approaching this point from the west the track is tangent for a distance of more than 1 mile. The grade for eastbound trains is 0.9 per cent ascending for a distance of 2,250 feet, followed by a descending grade of 0.67 per cent to the point of accident, a distance of 450 feet, and extending some distance beyond that point. The track is laid with 63½-pound rails, 30 feet in length, with an average of 18 pine ties to the rail-length, 25 per cent tie-plated, and is single-spiked. The track is ballasted with gravel to a depth of 4 inches, on a subgrade of sand, and is well maintained.

The highway crossing involved is located in a slight cut and crosses the track at a slight angle. There is a descending grade toward the track on each side, approaching on the highway from the south the grade is 5 per cent descending for a distance of 145 feet to the crossing, and approaching from the north it is 3.9 per cent descending for a distance of 130 feet, followed by 3.2 per cent descending grade for a distance of 155 feet to the crossing. At a point about 25 feet from each side of the track there are bulkheads, or ridges, which extend across the highway, for the purpose of diverting the flow of water from rainfall to the ditches on either side. There are also surface ditches at the top of the cut on the north side of the track which divert the water so it will not flow down the highway toward the track. The track is paralleled on each side with 12-inch terra cotta drainage pipes extending under the highway. The highway is 24 feet in width, unimproved, and surfaced with a mixture of sand and clay, and the crossing is constructed of plain dirt and is not planked.

Due to the grade of the track approaching this crossing from the west, the view had by crews of eastbound trains is restricted to a distance of about 700 feet.

There had been a heavy rain storm between 3 and 3.20 p. m. in the vicinity of Glenwood, which covered an area of about 2 miles, but it was not raining at the time of the accident, which occurred about 3.40 p.m.

Description

Eastbound passenger train No. 18 consisted of one combination mail and baggage car and two coaches, all of wooden construction, hauled by engine 355, and was in charge of Conductor Rawls and Engineman Ledbetter. This train departed from Brantley, 3 4 miles west of Glenwood, the last open office, at 3 20 p m , on time, stopped at Glenwood, and on reaching the highway crossing located approximately 1 mile beyond Glenwood it was derailed while traveling at a speed estimated to have been from 30 to 35 miles per hour.

The engine was derailed to the right and came to rest on its left side at a point 150 feet from the initial point of derailment, with the rear wheels and cab resting on the track and the pilot buried in the bank The tender was torn loose from its frame and came to rest on its left side on the left or north side of the track, the tender frame buckled and was torn from the trucks, but remained coupled to the first car The first car and the front truck of the second car were derailed to the left but remained upright. The rear car was not derailed and stopped on the crossing. The employee killed was the fireman and the employee injured was the engineman.

Summary of evidence

Engineman Ledbetter stated that west of Glenwood there had been a light sprinkle, but it was not raining to any extent when he arrived at Glenwood and he saw no evidence of there having been a heavy rain at any time. On approaching the highway crossing, while it was cloudy, the visibility was good and he was watching the highway closely as the traffic is usually heavy there, and when about 20 feet from the crossing he noticed sand on the track, he immediately applied the air brakes in emergency but the derailment occurred before the brakes had time to take effect, he estimated the speed of the train to have been about 30 or 35 miles per hour at the time Due to the rise of the track on approaching this crossing the view is considerably restricted and when he starts sounding the road crossing whistle the fireman usually fixes the fire so he can watch the crossing, and Engineman Ledbetter thought the fireman was standing in the gangway when they approached

the crossing on that afternoon. His train westbound on the morning of the same day was the last one to pass over the crossing prior to the accident, and at that time nothing wrong was noticed. Engineman Ledbetter had been running over this territory for the last five or six years, and during that time he had never seen sand washed on this crossing. He further stated that the brakes had been tested that morning at Columbus, and also at Andalusia, and were found to be in good condition and had worked properly en route. The engine was in good condition, and he did not think there was anything about it that could have caused the derailment, and it was his opinion that the sand on the track caused the wheels to slip and the flange to run over on the side of the rail.

Conductor Rawls stated that the first intimation he had of anything wrong was when he felt the air brakes apply in emergency just before the derailment occurred. On his way back to the station at Glenwood, to telephone for medical aid and report the accident, he noticed that there was about 2½ or 3 inches of sand on the rails at the crossing, and he was of the opinion that this sand had been washed on the track by a rain storm just prior to the arrival of his train and that it was the cause of the derailment. There had been a light rain west of Glenwood, but on arriving at Glenwood the train had stopped, and although he noticed there had been considerable rain at that point, the only definite information he had of a heavy rain was from three young ladies who boarded the train at Glenwood and told him they had encountered a very heavy rain storm on their way to the station from their homes. Conductor Rawls' statements corroborated those of Engineman Ledbetter as to the air brakes, and he also estimated the speed of the train at the time of the accident to have been about 35 miles per hour. Conductor Rawls further stated that they had never experienced any trouble at this crossing. The statements of Brakeman McCain and Express Messenger Childs brought out nothing additional of importance. They felt the air brakes apply in emergency practically at the time the derailment occurred.

Track Supervisor Howard, in charge of the section of track on which this accident occurred, stated that he arrived at the scene of the accident about four hours after its occurrence, and his examination of the crossing disclosed that there was about 2½ inches of sand on the outside of the south rail for a distance of about 10 feet, and for a distance of about 4 feet along the north rail. It appeared that the engine left the track at the east end of the crossing, as there was a flange mark at that point, but on examining the engine truck he found nothing that could have contributed to the derailment. Track

Supervisor Howard stated that the ditches on the south side of the crossing were open, but one of the ditches on the north side was filled with water from the bulkhead to the track, and it appeared to him that the sand had poured in from the west side of the highway and had run down and spread over the south rail, while on the north rail the sand seemed to have flowed down from the bulkhead in the ruts of vehicles on the highway. Track Supervisor Howard further stated that he had had some trouble with a small amount of sand having been washed on other crossings, but he had never had any previous trouble of this nature at this particular crossing. It is an old crossing but he had always felt that by keeping up the bulkheads it would be perfectly safe, he had gone over this territory on the day previous to the occurrence of the accident, and his section foreman had covered that territory on the morning of the accident, at which time nothing unusual was noted. It also appeared from the statements of the track supervisor that he had personally given rigid instructions to all of his sectionmen to patrol their track after heavy rains, and that on one occasion he had dismissed a man for failing to perform this duty. At the time of the accident none of the sectionmen was on duty, the section foreman lives at Goshen, 4½ miles east of the crossing, and the rain had been so recent and within such a limited area that no one had had an opportunity to discover the condition of the crossing before the arrival of train No. 16.

Section Foreman Meads stated that when he arrived at the scene of the accident he made an examination of the track and found that on the crossing it was covered with sand for a distance of about 8 feet, and the first mark of derailment was on the south rail at a point about 10 feet beyond that point. He thought that the sand was heavy enough so that there were no flange marks on the ball of the rail until the wheels had passed over the crossing. He did not see any flange marks on the ball of the rail on the opposite side but found where the wheel had dropped off on the ties on the inside of the north rail. He had patrolled the track over this crossing on the day of the accident, walking over it in both directions, but found nothing wrong. The surface and alignment of the track were good, there were no low places and the drainage was good, while the cut had been ditched out on the north side of the track, up to the crossing, about 10 days previous to the occurrence of the accident, it was not needed on the south side. Section Foreman Meads stated that he has very rigid instructions to patrol his track after storms, and has always done so. On this occasion, however, there had been only a light rain at Goshen, and he did not know of there having been a heavy rain at Glenwood, consequently he did not intend to patrol the track again that day. This track is patrolled about twice a week.

The statements of Trainmaster Doughtie, Road Foreman of Engines Thompson and Master Mechanic McCafferty brought out nothing additional of importance, except that they stated they made an examination of the engine after the accident and could find nothing that contributed in any way toward the derailment, which fact was substantiated by the examination of the engine made by the Commission's inspectors.

Conclusions.

This accident was caused by the track at a highway grade crossing being covered with sand.

The evidence indicates that there had been an unusually heavy rain storm in the immediate vicinity of the point of accident just prior to the arrival of train No. 16, resulting in sand being washed down on the track to such an extent that the engine became derailed when it encountered the sand. The highway is well drained, but due to the heavy descending grade toward the track on both sides, it appears that the drainage was unable to take care of the excess water on this occasion. Neither the train crew approaching from the west nor the section crew located east of the crossing had any knowledge of such a storm having prevailed. The track had been patrolled a few hours before the occurrence of the accident, at which time nothing wrong was noted.

The view of the highway crossing had by the crew of an eastbound train is considerably restricted, owing to the grade of the track, and with the engineman giving his attention to the traffic on this crossing, it is doubtful whether the sand could have been seen on the track except from a very short distance, as the sand is of the same general color as the crossing, which is constructed of plain dirt and is not planked.

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,
Director.