INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2918

SEABOARD AIR LINE RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR RICHLAND, GA., ON

AUGUST 6, 1945

SUMMARY

Railroad:	Seaboard Air Line	
Date:	August 6, 1945	
Location:	Richland, Ga.	
Kind of accident:	Rear-end collision	
Trains involved:	Freight	: Passenger
Train numbers:	First 11	: Second 11
Engine numbers:	516	: Gas-electric-motor-car 2021
Consist:	Auxiliary water car, 32 cars, caboose	: 1 car
Estimated speed:	5 m. p. h.	: 35 m. p. h.
Operation:	Timetable and train orders, and manual-block system for following first-class trains and trains carrying passengers	
Track:	Single; 4° curve; 1.2 percent ascending grade westward	
Weather:	Clear	
Time:	5 p. m.	
Casualties:	2 killed; 17 injured	
Cause:	Failure to provide adequate protection for preceding train	
Recommendation:	That the Seaboard Air Line Railway Company establish an adequate block system on the line on which this accident occurred	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2918

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

SEABOARD AIR LINE RAILWAY COMPANY

September 17, 1945.

Accident near Richland, Ga., on August 6, 1945, caused by failure to provide adequate protection for the preceding train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On August 6, 1945, there was a rear-end collision between a freight train and a passenger train on the Seaboard Air Line Railway near Richland, Ga., which resulted in the death of 1 train-service employee and 1 employee off duty, and the injury of 12 passengers, 1 railway-mail clerk, 1 express-messenger, 1 employee off duty and 2 train-service employees.

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[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

Inv. No. 2918
Seaboard Air Line Railway
Richland, Ga.
August 6, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Alabama Division designated as the Montgomery Sub-Division and extending westward from Shops, near Americus, Ga., to Montgomery, Ala., 140 miles, a single-track line over which trains are operated by timetable and train orders, and a manual-block system for following first-class trains and trains carrying passengers. The accident occurred on the main track 36.43 miles west of Shops, at a point 7.25 miles west of the station at Richland. From the east there are, in succession, a 2°30' curve to the left 1,100 feet in length, a tangent 3,200 feet and a 4° curve to the left 1,100 feet to the point of accident and 100 feet westward. The grade for west-bound trains is 1.27 percent descending 3,000 feet, then there is a vertical curve 1,000 feet, which is followed by a 1.2-percent ascending grade 1,200 feet to the point of accident and a considerable distance westward.

Operating rules read in part as follows:

11. Except in automatic block signal territory a fusee on or near the track burning red must not be passed until burned out.

* * *

AUDIBLE SIGNALS.

13. * * *

Note.--The Signals prescribed are illustrated by "o" for short sounds; "___" for longer sounds.
* * *

14. Engine and Motor Whistle Signals.

* * *

Sound:	Indication:
* * *	
(c) ___ o o o	Flagman protect rear of train.
* * *	
(e) ___ ___ ___ ___ ___	Flagman may return from north or east, as prescribed by Rule 99.
* * *	

15. The explosion of one torpedo is a signal to stop. The explosion of two torpedoes not more than 200 feet apart, is a signal to reduce speed and look out for a stop signal.

* * *

35. The following signals will be used by flagmen:

Day Signals--A red flag.
Torpedoes and Fusees.

* * *

99. When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, (not less than one-half mile), placing one torpedo on the rail, on the engineman's side; he must then continue to go back to a point not less than three-quarters of a mile (or further on descending grades or where the view is obscured) from the rear of his train, placing two torpedoes on the rail (100 feet apart), when he may return to the point where the first torpedo was placed, where he must remain until the approaching train has been stopped, or he is recalled by the whistle of his engine.

When necessary, lighted fusees will be displayed.

When signal * * * 14 (e) has been given to the flagman, and the safety of the train will permit, he may return, taking up the one torpedo, but when the conditions require he will leave a lighted fusee.

* * *

General Order No. 36 reads in part as follows:

* * * The flagman must understand that it is his full responsibility for protecting the rear of his train and must therefore not act upon signals recalling him to his train before the specified distance is reached, * * * unless visibility, curves, grades and other physical characteristics, weather conditions, maximum speed of trains and any other factors which may affect safety of his train, make it safe for him to do so.

* * *

Time-table special instructions read in part as follows:

BLOCK RULE

B 14--All first class trains, and all trains carrying passengers moving in the same direction will be blocked one telegraph station apart. * * * This rule in no way relieves trainmen and enginemen of all trains * * * from the strict observance of * * * Rule 99 * * *

The maximum authorized speed for the passenger train was 45 miles per hour and for the freight train, 35 miles per hour.

Description of Accident

First 11, a west-bound first-class freight train, consisting of engine 516, one auxiliary water car, 32 cars and a caboose, departed from Richland, the last open office, at 4:30 p. m., on time, and stopped about 4:45 p. m., because of a burst air hose, about 7.21 miles west of Richland. About 15 minutes later, when this train had moved westward about 300 feet and was moving at an estimated speed of 5 miles per hour, the rear end was struck by Second 11.

Second 11, a west-bound first-class passenger train, consisted of gas-electric motor-car 2021 and one coach, in the order named. The motor-car and the coach were of steel construction. This train departed from Richland at 4:45 p. m., 15 minutes late, and while moving at an estimated speed of 35 miles per hour it struck First 11.

None of the equipment of either train was derailed. The front end of the motor-car of Second 11 overrode the underframe and telescoped the caboose of First 11 a distance of about 25 feet. The superstructure of the caboose was demolished, and the front end of the motor-car was crushed inward about 5 feet. The fuel tanks of the motor-car were ruptured, gasoline became ignited, and the wreckage of the caboose and the interior of the motor-car were destroyed by fire.

The weather was clear at the time of the accident, which occurred about 5 p. m.

The engineer of Second 11 and an employee of the signal department were killed. The conductor and the baggagemaster of Second 11 were injured.

During the 31-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 12.4 trains.

According to data furnished by the railroad, gas-electric motor-car 2021, built in 1927, was of conventional, all-steel, plate, girder, post and sill construction. It was 73 feet in length, weighed 120,000 pounds, and consisted of a control-power compartment, a railway post office compartment and a baggage-express compartment. The car was powered by a 275-horsepower gasoline motor and an electric generator. Fuel was supplied from one 200-gallon tank and one 150-gallon tank. The fuel tanks were located on the right side under the floor and between the trucks. The car was provided with schedule MC-31 brake equipment having a safety-control feature. The control station was on the right side of the power compartment.

Discussion

First 11 stopped on the main track about 4:45 p. m. because of a defective air hose on the east end of the twenty-third car, which burst and caused the brakes to become applied in emergency. About 15 minutes later, after First 11 had started and moved westward about 300 feet, the rear end was struck by Second 11.

As First 11 was approaching the point where the brakes became applied in emergency the conductor and the flagman were in the caboose. The flagman said he dropped a lighted 10-minute fusee from the rear of the train about 3,100 feet east of the point where the accident occurred. Just before his train stopped he alighted, proceeded eastward, and had reached a point about 1,600 feet to the rear of his train when the engine-whistle signal recalling him was sounded. Then he placed two torpedoes on the north rail and a lighted fusee on the track, and returned to his train, but he soon proceeded eastward again because the engineer was unable immediately to start the train on the ascending grade. The flagman had reached a point about 500 feet to the rear of the caboose when his train started to move. He placed a lighted fusee on the track, ran westward and had just boarded the caboose when he saw the approaching train. He immediately jumped off the caboose, ran toward the approaching train and was giving stop signals with a lighted fusee from a point a short distance east of his caboose when Second 11 passed him. The conductor and the flagman of First 11 thought the flag protection furnished their train was sufficient. After the accident, remains of three freshly burned fusees were found at points about 3,100 feet, 757 feet and 450 feet east of the point where the accident occurred.

As Second 11 was approaching the point where the accident occurred the speed was about 45 miles per hour. No train order restricting the authority of Second 11 to proceed at the maximum authorized speed had been issued. The crew consisted of an engineer, a conductor and a brakeman. The engineer was in the control compartment, the brakeman was in the baggage-express compartment and the conductor was in the coach. The first the

conductor and the brakeman were aware of anything being wrong was when the brakes were applied in emergency a few seconds prior to the collision. It could not be determined when the engineer first became aware of anything being wrong, as he died immediately after the accident as a result of burns. The evidence indicates that the fusee dropped by the flagman of First 11 at a point about 3,100 feet east of the point where the accident occurred was consumed prior to the time Second 11 passed that point, and that vegetation on the inside of the curve and the position of the sun at the time of the accident prevented the engineer of Second 11 from seeing the other fusees soon enough to take effective action to stop the train short of the preceding train. The conductor and the brakeman were positive that no torpedo was exploded between Richland and the point where the accident occurred. The road foreman of engines said that the explosion of torpedoes could be heard from any position in either the motor-car or the coach.

Witnesses said that the engineer of Second 11 jumped from the control compartment, and the other employee, who also was fatally burned, jumped from the baggage-express compartment just before the collision occurred, but the flames of the burning gasoline from the ruptured fuel tanks enveloped them immediately after they alighted. The investigation disclosed that the fuel tanks of the motor-car were practically full at the time of the collision. In previous reports involving equipment of this character, the Commission has directed attention to the hazard to passengers and employees when there is a quantity of gasoline on a motor-car, and to the disastrous consequences when gasoline becomes ignited as a result of an accident. In five such accidents during the 5 years prior to this accident, 52 persons were killed and 94 injured, and most of the casualties were caused by burning gasoline. In view of the hazards involved in the use of gasoline on similar equipment, conversion to a type of equipment using other fuel should be promptly effected.

Time-table special instructions in effect in the territory involved provide that a first-class train or a train carrying passengers must not be permitted to enter a block that is occupied by a preceding first-class train or a preceding train carrying passengers. The preceding train involved in this accident was a freight train, without passengers, and the following train was a passenger train, but each train was a section of the same first-class schedule. The accident occurred 7.25 miles west of Richland, the last open office east of the point of accident, and 1.35 miles east of Lumpkin, the next open office westward. The superintendent and the assistant superintendent said that, according to the provisions of the time-table special instruction, the following train should not have been permitted to depart from Richland until the preceding train was clear of the block at Lumpkin. However, the operator at Richland and the train dispatcher said that, according to their understanding of

the time-table special instructions, it was permissible to admit a following passenger train to a block occupied by a preceding freight train regardless of the classification of either train, and indicated that it had been a long-standing practice to do so. This lack of a common understanding between the officers and the employees concerned of the special instructions resulted in a first-class passenger train being permitted to enter a block occupied by a preceding first-class freight train, and these trains collided within the block. The book of operating rules of this carrier contains manual-block rules which provide, among other things, that no passenger train may be permitted to enter a block occupied by any train, except in emergency. If the manual-block system as provided for in the book of operating rules had been in use in this territory, there would have been a common understanding as to the proper spacing of the trains involved, and Second 11 would have been held at Richland until First 11 was clear of the block at Lumpkin.

Cause

It is found that this accident was caused by failure to provide adequate protection for the preceding train.

Recommendation

It is recommended that the Seaboard Air Line Railway Company establish an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this seventeenth day of September, 1945.

By the Commission, Commissioner Patterson.

W. P. BARTEL,
Secretary.

(SEAL)