INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2961

SOUTHERN RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR WHITE SULPHUR, GA., ON

DECEMBER 19, 1945

SUMMARY

Railroad:	Southern	
Date:	December 19, 1945	
Location:	White Sulphur, Ga.	
Kind of accident:	Rear-end collision	
Trains involved:	Passenger	: Freight
Train numbers:	Second 34	: Extra 4837 North
Engine numbers:	1371	: 4837
Consist:	12 cars	: 43 cars, caboose
Estimated speed:	4 m. p. h.	: 15 m. p. h.
Operation:	Timetable, train orders and automatic block-signal and train-stop systems	
Track:	Double; $1^{\circ}56'$ curve; 0.96 percent descending grade northward	
Weather:	Cloudy	
Time:	12:20 p. m.	
Casualties:	3 killed; 10 injured	
Cause:	Failure to operate following train in accordance with the rules governing movement when signals are imperfectly displayed	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2961

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

SOUTHERN RAILWAY COMPANY

February 4, 1946.

Accident near White Sulphur, Ga., on December 19, 1945, caused by failure to operate the following train in accordance with the rules governing movement when signals are imperfectly displayed.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On December 19, 1945, there was a rear-end collision between a passenger train and a freight train on the Southern Railway near White Sulphur, Ga., which resulted in the death of two passengers and one train-service employee, and the injury of six passengers, two dining-car employees and two train-service employees.

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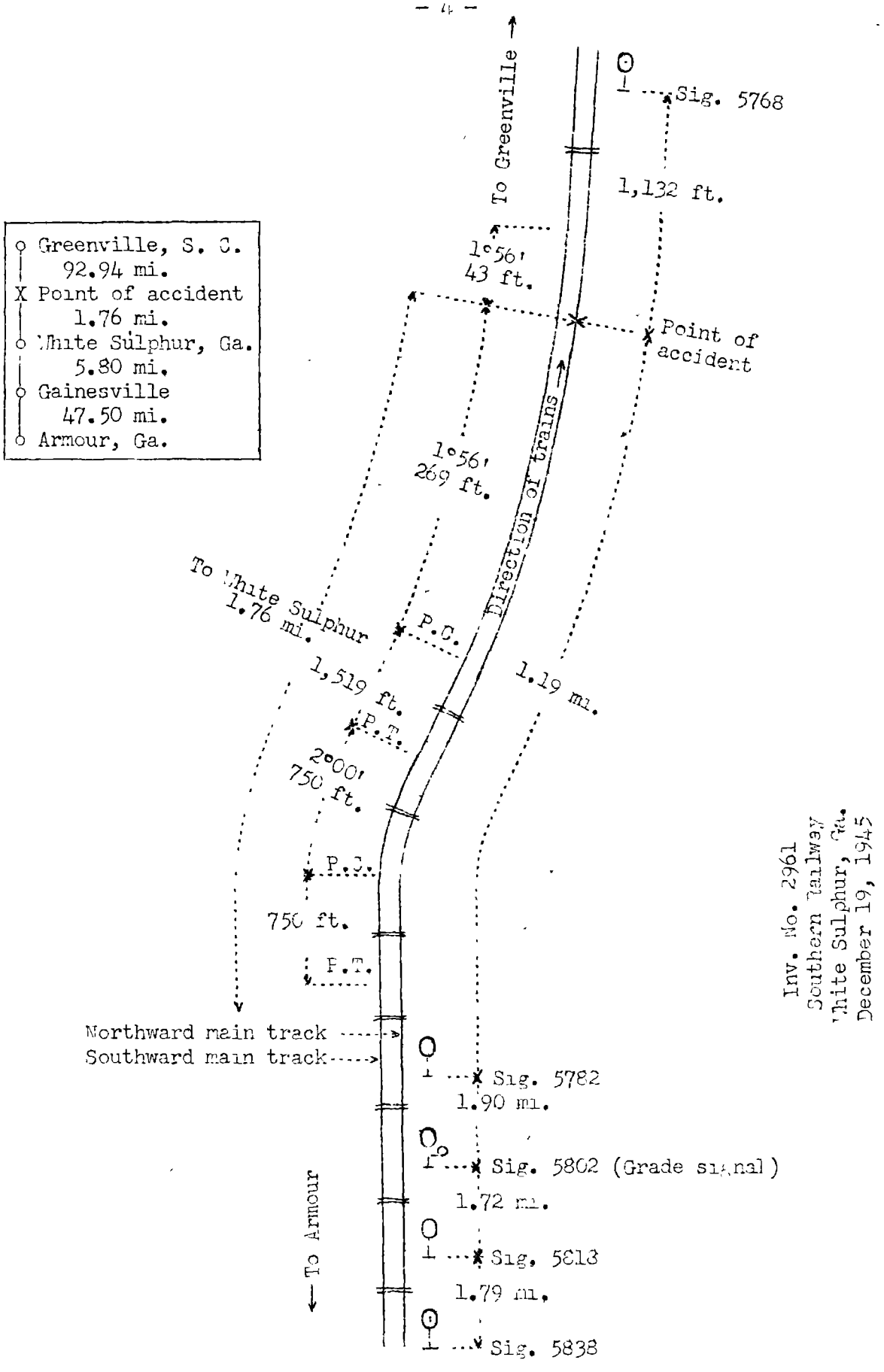
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 2961
Southern Railway
White Sulphur, Ga.
December 19, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Charlotte Division extending between Armour, near Atlanta, Ga., and Greenville, S. C., 148 miles, a double-track line in the vicinity of the point of accident, over which trains moving with the current of traffic are operated by timetable, train orders and an automatic block-signal system and an automatic train-stop system. The accident occurred on the northward main track 55.06 miles north of Armour, at a point 1.76 miles north of the station at White Sulphur. From the south there are, in succession, a tangent 750 feet, a 2°00' curve to the right 750 feet, a tangent 1,519 feet and a 1°56' curve to the left 269 feet to the point of accident and 43 feet northward. The grade for north-bound trains is 0.96 percent descending 3,240 feet to the point of accident and 117 feet northward.

Automatic signals 5838, 5818, 5802, 5782 and 5768, governing north-bound movements on the northward main track, are, respectively, 6.6 miles, 4.81 miles, 3.09 miles and 1.19 miles south, and 1,132 feet north of the point of accident. These signals are of the three-indication, color-light type, and are continuously lighted. Signal 5802 is provided with a bracket displaying the letter "G" on a yellow disc. At the time of the accident these signals were inoperative. The most restrictive aspects and the corresponding indications and names of these signals are as follows:

Signal	Aspect	Indication	Name
5838, 5818) 5782, 5768)	Red	Stop; Then Proceed at Restricted Speed	Stop and Proceed Signal
5802	Red light over letter G in black on yellow disc	(For heavy passenger and tonnage freight trains) Proceed at Restricted Speed	Grade Signal

Operating rules read in part as follows:

DEFINITIONS

* * *

Restricted Speed.--Proceed prepared to stop short of train, obstruction, or switch not properly lined and lock out for broken rail.

11. A train finding a fusee burning on or near its track must stop and extinguish the fusee, and then proceed with caution prepared to stop short of train or obstruction.

* * *

27. The absence of a light, a white light displayed where a colored light should be, a signal imperfectly displayed or the absence of a signal at a place where a signal is usually shown, must be regarded as the most restrictive indication that can be given by that signal, * * *

* * *

33. All members of engine and train crews must, when practicable, communicate to each other by its name the indication of each signal affecting the movement of their train or engine.

99. * * *

* * *

When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection. By night, or by day, when the view is obscured, lighted fusees must be thrown off at proper intervals.

* * *

405. Enginemen must not operate the acknowledging lever of the automatic train stop until after signal indication is being obeyed.

509(a). When a train is stopped by an automatic block signal displaying a Stop then Proceed-indication, it may proceed:

* * *

(2)--On any track signaled for traffic in one direction, at restricted speed through the entire block.

The automatic train-stop system is of the intermittent-inductive type. Engines are provided with acknowledging devices. Train-stop inductors for the northward main track are located about 45 feet south of each northward signal.

In the vicinity of the point of accident the maximum authorized speed for passenger trains is 50 miles per hour and for freight trains, 40 miles per hour.

Description of Accident

Second 34, a north-bound first-class passenger train, consisted of engine 1371, three baggage-express cars, four sleeping cars, one dining car, three coaches and one express car, in the order named. The second and twelfth cars were of steel-underframe construction, and the remainder were of all-steel construction. This train departed from Gainesville, the last open office, 7.56 miles south of the point of accident, at 11:50 a. m., 1 hour 30 minutes late. Because no aspect was displayed by signals 5838, 5818, 5802, 5782, and 5768, this train stopped at each of these signals except signal 5802, which is a grade signal. After this train had stopped momentarily with the engine just south of signal 5768, it moved northward about 50 feet and had attained an estimated speed of 4 miles per hour when the rear end was struck by Extra 4837 North at a point 1,132 feet south of signal 5768.

Extra 4837 North, a north-bound freight train, consisting of engine 4837, 43 cars and a caboose, departed from Gainesville at 12:03 p. m., passed signals 5838, 5818, 5802 and 5782, and while moving at an estimated speed of 15 miles per hour it struck Second 34 at a point 1.19 miles north of signal 5782.

The rear truck of the ninth car and the tenth to twelfth cars, inclusive, of Second 34, were derailed. The tenth car stopped on top of the ninth car and at right angles to the track. The eleventh car overturned and stopped on its right side east of the track and parallel to it. The twelfth car was telescoped its entire length by the engine of Extra 4837 North, and was demolished. The eighth to eleventh cars, inclusive, were badly damaged. The engine and the first eight cars of Extra 4837 North were derailed and badly damaged.

It was cloudy at the time of the accident, which occurred about 12:20 p. m.

The engineer of Extra 4837 North was killed. The conductor and the flagman of Second 34 were injured.

Discussion

The investigation disclosed that during a period of about 1 hour 20 minutes immediately prior to the occurrence of the accident the automatic block-signal system and the communication system in the territory involved were out of service, as a result of a sleet storm which damaged the power-transmission line of the signal system and the lines of the communication system. The automatic block signals throughout a distance of about 7 miles were not illuminated. These signals are of the color-light type. The automatic train-stop system was functioning properly.

The rules of this carrier provide that the absence of a light or signal at a place where a signal is usually shown or an imperfectly displayed signal indication must be regarded as the most restrictive indication that can be displayed by that signal. The surviving employees concerned so understood.

Second 34 had stopped at four automatic block-signals, the indications of which were imperfectly displayed. The most restrictive indication of these signals when properly displayed, was stop-then-proceed-at-restricted-speed. This train was moving at a speed of about 4 miles per hour when the rear end was struck by Extra 4837 North, at a point 1.19 miles north of signal 5782, the last imperfectly displayed signal south of the point of accident. Because the rear car of Second 34 was not equipped with end doors, the flagman was in the eleventh car. He said he placed one lighted 10-minute fusee on the track when his train stopped at signal 5818, the second imperfectly displayed signal and 2.75 miles north of Gainesville. Since the following train left Gainesville 13 minutes after Second 34 departed from that station, it is probable this fusee had burned out before the following train reached that location. The flagman was so severely injured in the accident that it was not possible during this investigation to obtain an accurate statement as to what action he took immediately prior to the collision to provide protection for his train. The other members of the train crew did not observe what action was taken by the flagman.

The engineer of Extra 4837 North was killed in the accident. The fireman said that he called the attention of the engineer to the absence of a lighted aspect at signal 5838, the first imperfectly displayed signal, 6.6 miles south of the point where the accident occurred, and the absence of lighted aspects at the three succeeding signals. The engineer told the fireman that it would cause excessive delay if the train stopped at the signals. The fireman said the acknowledging lever was operated at the automatic train-stop inductors at each signal to forestall an automatic train-stop application of the brakes. A speed of about 25 miles per hour was maintained until after the train had passed signal 5782, then the speed increased on the descending grade, and the engineer made a service brake-pipe reduction. When the speed was reduced to about 20 miles per hour the engineer released the brakes. About 45 seconds later and before the brake-pipe pressure was fully restored, the engineer made another service brake-pipe reduction. Before the brake-pipe exhaust ceased, the enginemen saw the rear end of the preceding train about 800 feet distant, and the engineer moved the brake valve to emergency position. The speed of Extra 4837 was about 15 miles per hour when the collision occurred. The brakes of this train had functioned properly at all points where used en route. The fireman said that no lighted fusee or any other flagging signal was seen or heard at any point

between signal 5838 and the point where the accident occurred, a distance of approximately 6.6 miles. The front brakeman was in the brakeman's booth on the tender of the engine, and the conductor and the flagman were in the caboose. These employees were not aware of anything being wrong until the brakes were applied in emergency immediately prior to the collision.

If the crew of the following train had seen lighted fusees on the track, they would have been required to stop to extinguish them, and then required to operate their train in such manner that it could be stopped short of another train or an obstruction. The automatic train-stop system was so arranged that as the following train closed up on the preceding train an automatic application of the brakes of the following train would occur at each signal, if such application had not been forestalled by the engineer. The rules require that the acknowledging lever must not be used until after the signal indication is being obeyed. However, the acknowledging lever was operated, the train passed each of these signals without stopping and entered the block occupied by Second 34.

If the following train had been operated in accordance with the rules governing movement when signals in automatic block-signal territory display imperfect aspects, or if the automatic train-stop applications had not been forestalled by the engineer this accident would not have occurred.

Cause

It is found that this accident was caused by failure to operate the following train in accordance with the rules governing movement when signals are imperfectly displayed.

Dated at Washington, D. C., this fourth day of February, 1946.

By the Commission, Commissioner Patterson.

W. P. BARTEL,
Secretary.

(SEAL)