

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 2958
SEABOARD AIR LINE RAILWAY COMPANY
REPORT IN RE ACCIDENT
AT KOLLOCKS, S. C., ON
DECEMBER 16, 1945

SUMMARY

Railroad: Seaboard Air Line
Date: December 16, 1945
Location: Kollocks, S. C.
Kind of accident: Side collision
Trains involved: Passenger : Passenger
Train numbers: 108 : 31
Engine numbers: Diesel-electric : Diesel-electric
units 3008- units 3019-3012
3007-3010
Consist: 16 cars : 12 cars
Estimated speed: 8 m. p. h. : 40 m. p. h.
Operation: Timetable, train orders and
manual-block system
Track: Single; tangent; 0.78 percent
descending grade southward
Weather: Clear
Time: 3:41 a. m.
Casualties: 6 killed; 150 injured
Cause: Failure to obey meet order
Recommendation: That the Seaboard Air Line Railway
Company establish an adequate
block system on all its lines on
which a speed of 50 miles per hour
or more is authorized

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2958

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

SEABOARD AIR LINE RAILWAY COMPANY

January 30, 1946.

Accident at Kollocks, S. C., on December 16, 1945, caused
by failure to obey a meet order.

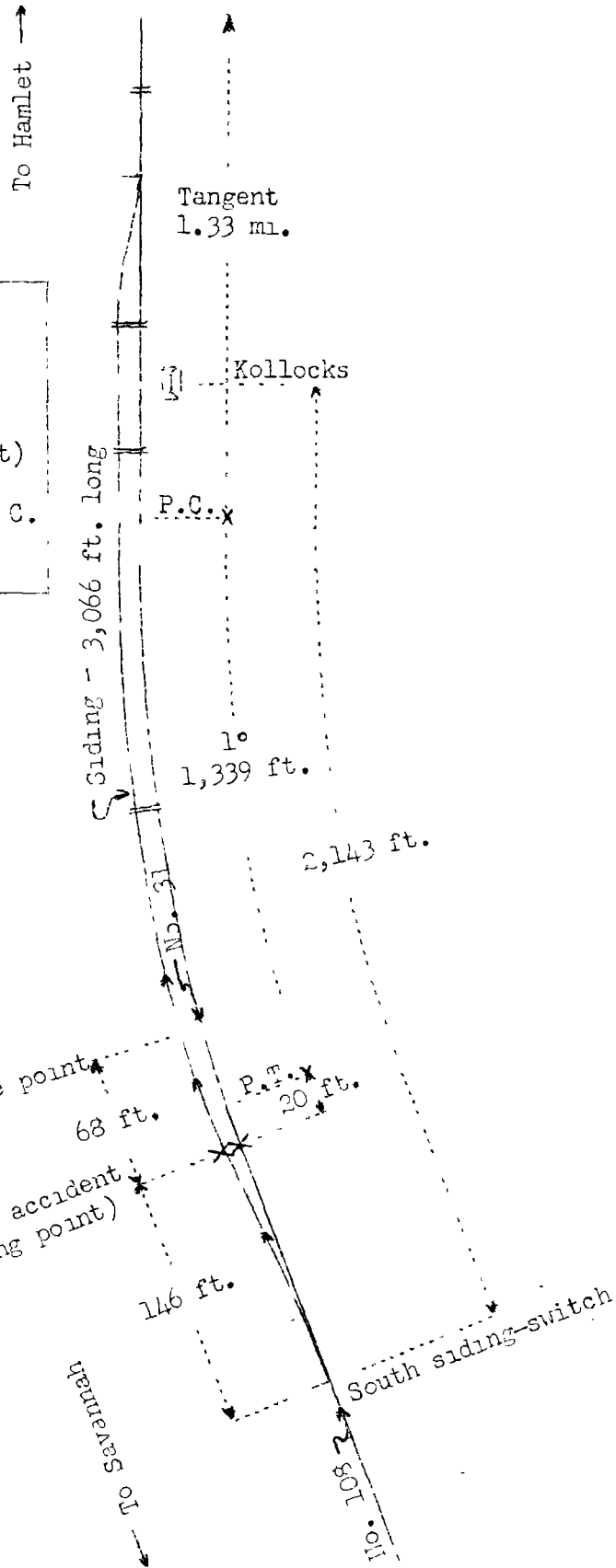
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On December 16, 1945, there was a side collision between two passenger trains on the Seaboard Air Line Railway at Kollocks, S. C., which resulted in the death of 4 passengers, 1 train porter and 1 train-service employee, and the injury of 149 passengers and 1 train porter. This accident was investigated in conjunction with a representative of the Public Service Commission of South Carolina.

¹Under 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.

- | | | |
|---|----------------------|---------------------|
| o | Hamlet, N. C. | 6.8 mi. |
| o | Osborne, N. C. | 9.0 mi. |
| X | Kollocks, S. C. | (Point of accident) |
| | | 3.4 mi. |
| o | Seaboard Jct., S. C. | 229.0 mi. |
| o | Savannah, Ga. | |



Inv. No. 2958
 Seaboard Air Line Railway
 Kollocks, S. C.
 December 16, 1945

Location of Accident and Method of Operation

This accident occurred on that part of the Carolina Division which extends between Savannah, Ga., and Hamlet, N. C., 248.2 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and a manual-block system. At Kollocks, 232.4 miles north of Savannah, a siding 3,066 feet in length parallels the main track on the west. The south switch of this siding is 2,143 feet south of the station. The clearance point at the south end of the siding is 214 feet north of the south siding-switch. The accident occurred at the fouling point of the main track and the turnout of the south siding-switch, at a point 68 feet south of the clearance point and 146 feet north of the switch. From the north there are, in succession, a tangent 1.33 miles in length, a 1° curve to the left 1,359 feet and a tangent 20 feet to the point of accident and a considerable distance southward. The grade is 0.78 percent descending southward.

At the time of the accident the manual block involved extended between Seaboard Jct., S. C., and Osborne, N. C., respectively, 3.4 miles south and 9 miles north of Kollocks.

Operating rules read in part as follows:

14 (n). _____ o (engine and motor whistle signal). Indication: Approaching meeting, waiting or passing points, and answer to 16 (m). (See Rule 90).

16 (m). _____ o (communicating signal). Indication: Approaching meeting, waiting or passing point. (See rules 14 (n) and 90).

17. The head-light will be displayed to the front of every train by night. It must be concealed when a train turns out to meet another and has stopped clear of main track * * *

* * *

71. A train is superior to another train by right, class or direction.

* * *

Direction is superior as between trains of the same class.

72. * * *

Trains in the direction specified by the timetable are superior to trains of the same class in the opposite direction.

90. At meeting points trains must stop clear of switch used by the train to be met in going in on the siding, unless the switch is right and the track is clear.

On trains equipped with communicating signal system the conductor must give Signal 16(m) to the engineman after passing the last station but not less than two (2) miles before reaching a meeting, waiting or passing point with a train of the same or superior class, or the station where by train order it is to meet, pass or wait for another train. The engineman will immediately reply with Signal 14(n). If the enginemen fail to answer by Signal 14(n) the conductor must take immediate action to stop the train.

* * *

90-B. * * * when trains of any class meet by train orders, the train which holds main track at meeting point will reduce speed as necessary to insure both trains making proper exchange of identification with each other. Such speed not to exceed thirty (30) miles per hour for passenger trains * * *

209-B. * * * Firemen and trainmen will keep orders in mind and should conditions require, call the attention of enginemen and conductors to their contents.

FORMS
of
TRAIN ORDERS.

* * *

Form S-A. Fixing Meeting Points for Opposing trains.

Examples.

- (1) "No. 1, Eng. 212, meet No. 2, Eng. 213,
at "B."

* * *

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner proscribed by the rules.

* * *

316. A first class train, or a train carrying passengers, will not be permitted to enter a Block occupied by another train; nor will any other train be permitted to enter a Block occupied by a first class train or a train carrying passengers, except as provided in rules * * * 339 * * *

339. When trains meet by train orders at closed Block Stations, or Intermediate Sidings, copies of such orders will be given to the operator at nearest Block Station on each side of the station where trains are to meet. Operators will deliver to trains entering Block, Clearance Card form 255 properly filled out.

* * *

When a train is clear of the main track between Block Stations, the Conductor will report the train and the time it cleared to the operator at the Block Station who will enter the report upon the Block record. When this report is received at the Block Station, the Block in which the siding is located will be considered clear of such train and other trains may be allowed to proceed.

When a train takes siding at a closed Block Station or Intermediate Siding it will not again enter the Block without first receiving Clearance Card, form 255, from the operator to whom he reported clear. If wire communication fails, the train will then proceed with caution provided its superiority permits, protecting its movement in the rear, and observing a time interval of at least ten minutes since the passage of a preceding train.

Clearance Card Form 255 reads in part as follows:

* * *

Train Order and Block Signal Clearance Card.
.....Station Date.....19....
Conductor and Engineman Train.....
* * *

To comply with Manual Block Rules * * * 339, Operators will fill out the following:

Signals are out for No.....and No..... to meet or pass as per Train Order No.....Except as stated Block is clear.
* * *

Time issued..... ..Operator.
* * *

Time-table special instructions provide that north-bound trains are superior to south-bound trains of the same class.

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 65 miles per hour.

Description of Accident

At Seaboard Jct., the last open office, the crew of No. 108, a north-bound first-class passenger train, received copies of Clearance Card Form 255 and train order No. 208 reading in part as follows:

Train Order No. 208:

No 108 Motor 3008 Meet No 31 Motor
3019 at Kollocks * * * No 108 take
Siding Kollocks * * *

Clearance Card Form 255:

* * *
Signals are out for No. 108 and No.
31 to meet * * * as per Train Order
No. 208 Except as stated Block is
clear. * * *
* * *

No. 108 consisted of Diesel-electric units 3008, 3007 and 3010, one mail car, one baggage-express car, six coaches, one dining car, six sleeping cars and one business car, in the order named. All cars were of steel construction. This train passed Seaboard Jct. at 3:33 a. m., 10 minutes late, and when it was entering the siding at Kollocks at the south switch and moving at an estimated speed of 8 miles per hour the sixth car was struck by No. 31.

At Hamlet, 15.8 miles north of Kollocks, the crew of No. 31, a south-bound first-class passenger train, received copies of train order No. 208 and Clearance Card Form 255, authorizing their train to proceed from Hamlet to Osborne. This train consisted of Diesel-electric units 3019 and 3012, one passenger-baggage car, four sleeping cars, one dining car, five coaches

and one observation-coach, in the order named. The second to fifth cars, inclusive, and the eighth car were of conventional all-steel construction, and the remainder of the cars were of light-weight steel construction. This train departed from Hamlet at 3:20 a. m., 1 hour 5 minutes late. At Osborne, the last open office, the crew received copies of Clearance Card Form 255 reading in part as follows:

* * *

Signals are out for No. 108 and No. 31 to meet * * * as per Train Order No. 208 Except as stated Block is clear. * * *

No. 31 passed Osborne at 3:31 a. m., 1 hour 7 minutes late, passed the clearance point of the south siding-switch at Kollocks, where it was required to wait unless No. 108 was into clear on the siding, and while moving at an estimated speed of 40 miles per hour it struck No. 108 at the fouling point of the turnout.

The sixth to ninth cars, inclusive, of No. 108 were derailed to the west. The sixth car stopped at an angle of about 15 degrees to the track and leaned to the west at an angle of 45 degrees. The right side-sheets of this car were crushed inward about 1 foot. The seventh and eighth cars overturned and stopped on their left sides about 30 feet west of the turnout and parallel to it. The front end of the right side of the seventh car was demolished a distance of 18.5 feet and a considerable number of seats were torn loose. The front end of the right side of the eighth car was demolished a distance of 12 feet. The ninth car remained upright and stopped at an angle of about 15 degrees to the track, and was badly damaged. The Diesel-electric units and the first to fifth cars, inclusive, of No. 31 were derailed. The first unit stopped upright and in line with the track, with the front end 407 feet south of the point of accident and about 50 feet east of the main track. The second unit stopped at the rear of the first unit and at an angle of 30 degrees to the track. Both units were badly damaged. The first car stopped upright 407 feet south of the point of accident, with the front end 110 feet east of the track and the rear end 70 feet east of the track. The second to fifth cars, inclusive, remained coupled and stopped upright at the rear of the first car. The front end of the first car was demolished throughout a distance of 15 feet, the second car was badly damaged, and the third to fifth cars, inclusive, were more or less damaged.

The weather was clear at the time of the accident, which occurred about 3:41 a. m.

The engineer of No. 31 was killed.

Discussion

The crews of both trains held copies of train order No. 208, which established Kollocks as the meeting point between No. 108, a north-bound first-class train, and No. 31, a south-bound first-class train, and the order included the instruction for No. 108 to take siding at the meeting point. Under the rules, No. 31 was required to stop clear of the south siding-switch at Kollocks unless No. 108 was into clear on the siding. As No. 108 was entering the siding at the south switch, No. 31 passed the clearance point and struck the sixth car of No. 108 at the fouling point of the turnout.

As No. 108 was entering the siding the headlight was lighted brightly to indicate to the crew of No. 31 that No. 108 was not into clear. The members of the crew of No. 108 observed that No. 31 was approaching the south siding-switch at an excessive rate of speed. The engineer of No. 108 sounded one long blast on the engine whistle and the conductor and the baggageman gave stop signals with lighted white lanterns from the right door of the second car to warn the engineer of No. 31.

As No. 31 was approaching Kollocks the speed was about 65 miles per hour. The headlight of the first Diesel-electric unit was lighted brightly, and the enginemen were maintaining a lookout ahead from the control compartment. The conductor and the front brakeman were in the baggage compartment of the second car and the flagman was in the eleventh car. These employees, except the flagman, received train order No. 208 at Hamlet, 15.8 miles north of Kollocks, about 20 minutes prior to the time the accident occurred. In addition, Clearance Form 255, which contained also the information that No. 31 was to meet No. 108 at Kollocks, was received at Osborne, 9 miles north of Kollocks, about 10 minutes prior to the time the accident occurred. The members of the crew of No. 31, except the flagman, understood that their train was required to stop clear of the south siding-switch at Kollocks unless No. 108 was into clear on the siding. The conductor said he instructed the train porter to give copies of train order No. 208 to the flagman soon after the train departed from Hamlet, but the train porter had not given the order to the flagman prior to the time the accident occurred. The conductor sounded the meeting-point signal on the train signal system, and the engineer sounded the acknowledging signal on the motor whistle about 5 miles north of Kollocks. The fireman said that soon afterward he reminded the engineer of the meet order, and the engineer indicated to the fireman that he understood the provisions of the order. When the engine was about 4,000 feet north of the south siding-switch the engineer made a service brake-pipe reduction. The fireman thought the speed was reduced to about 40 miles per hour within a distance of about 1,700 feet, then the engineer released the brakes. Because of the descending grade

the speed then increased somewhat. The fireman observed that the headlight of No. 108 was lighted brightly and he called a warning to the engineer. Then the engineer moved the brake valve to emergency position, but the collision occurred before the train could be stopped. The brakes of this train had been tested and had functioned properly en route. The engineer was killed in the accident. The conductor and the front brakeman said that when the brake application was made about 4,000 feet north of the point of accident they thought the speed was being controlled so that the train could be stopped short of the clearance point of the south siding-switch. When the conductor became aware that No. 108 was not into clear he opened the conductor's air valve, but this action was not taken soon enough to avert the collision.

The manual-block system in effect in this territory is inadequate. Under the rules, No. 31 was permitted to enter the block at the north end under clear-block authority, and 2 minutes later No. 108 was permitted to enter the block at the south end. No. 108 was required to obtain authority at Kollocks to re-enter the block, but No. 31 was not required to obtain further block authority until it reached Seaboard Jct., 3.4 miles south of Kollocks. This method of operation practically nullifies the protection to be derived from the block system. Under the system here used, proper block protection could have been provided by giving the trains involved block authority only to the meeting point, or by not issuing block authority to No. 31 until No. 108 was into clear on the siding at Kollocks.

In recent years, in addition to the present accident the Commission has investigated several collisions on various parts of the Seaboard Air Line Railway, on lines where maximum authorized speed varied from 40 to 75 miles per hour. The most disastrous accidents occurred on lines where the maximum authorized speed was from 60 to 75 miles per hour. In 10 of these accidents, there were 15 persons killed and 261 persons injured. In these 10 cases either there was no block system in effect or the rules and practices were such that adequate block protection was not provided, and the reports covering these 10 investigations contained recommendations that the carrier establish an adequate block system on the line where each accident occurred. During the past year the carrier has installed an automatic block system on its line between Monroe, S. C., and Atlanta, Ga., 271 miles, which includes the locations of 3 of these accidents, but the recommended modifications have not been made on the portions of its lines where the other 7 accidents occurred. On the Savannah-Hamlet line, where the present accident occurred, the maximum authorized speed is 70 miles per hour, and in the 30-day period preceding the date of the accident the maximum daily traffic over it consisted of 23 trains, many of which were streamlined, high-speed passenger trains.

Cause

It is found that this accident was caused by failure to obey a meet order.

Recommendation

It is recommended that the Seaboard Air Line Railway Company establish an adequate block system on all its lines on which a speed of 50 miles per hour or more is authorized. A rule to show cause why it should not do so will be served on said carrier.

Dated at Washington, D. C., this thirtieth day of January, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary.