

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3513
ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY
IN RE ACCIDENT
NEAR CARBON HILL, ALA., ON
MARCH 30, 1953

SUMMARY

Date: March 30, 1953

Railroad: St. Louis-San Francisco

Location: Carbon Hill, Ala.

Kind of accident: Head-end collision

Equipment involved: Track motor-car : Freight train
RC-1666 and
trailer

Train number: : Extra 5002 North

Engine number: : Diesel-electric
units 5002,
5126, 5112, and
5016

Consist: : 81 cars, 2
caboose

Estimated speeds: 5 m. p. h. : 30 m. p. h.

Operation: Timetable, train orders, and automatic
block-signal system

Track: Single; 4°38' curve; 0.05 percent
descending grade southward

Weather: Clear

Time: 7:15 a. m.

Casualties: 1 killed; 13 injured

Cause: Failure to provide adequate protection
for movement of track motor-car

Recommendation: That the St. Louis-San Francisco
Railway Company provide adequate
protection for movement of track
motor-cars on its line

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3513

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

ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY

May 15, 1953

Accident near Carbon Hill, Ala., on March 30, 1953, caused
by failure to provide adequate protection for the
movement of a track motor-car.

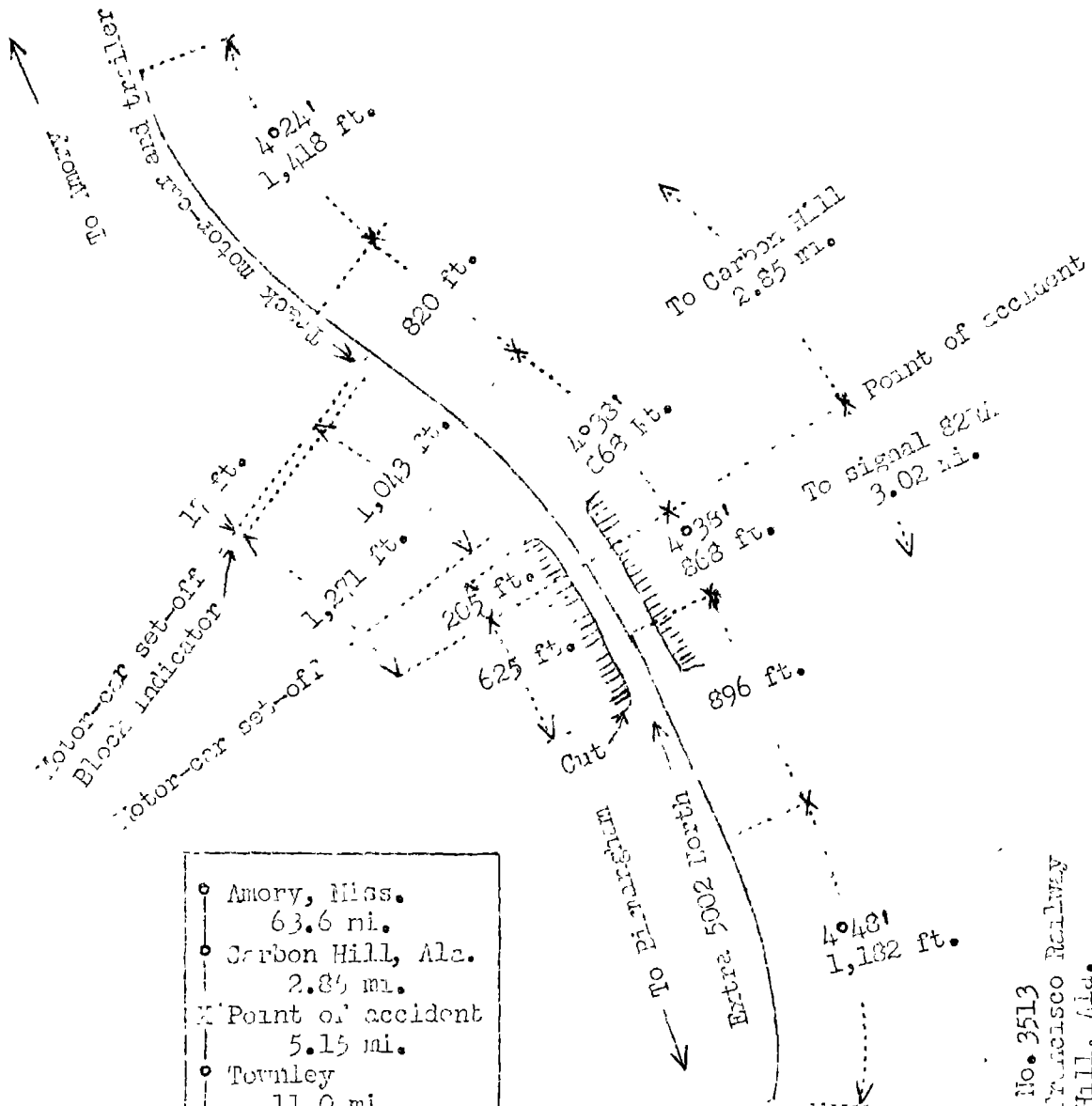
REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On March 30, 1953, there was a head-end collision between a track motor-car and a freight train on the St. Louis-San Francisco Railway near Carbon Hill, Ala., which resulted in the death of 1 maintenance-of-way employee, and the injury of 13 maintenance-of-way employees.

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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.



○	Amory, Miss.	63.6 mi.
○	Carbon Hill, Ala.	2.85 mi.
✕	Point of accident	5.15 mi.
○	Townley	11.0 mi.
○	Jasper	13.6 mi.
○	Dora	24.7 mi.
○	Thomas Yard	2.7 mi.
○	Birmingham, Ala.	

Report No. 3513
 St. Louis-San Francisco Railway
 Carbon Hill, Ala.
 March 30, 1953

Location of Accident and Method of Operation

This accident occurred on that part of the Southern Division extending between Amory, Miss., and Birmingham, Ala., 123.6 miles. This is a single-track line. At the time of the accident trains in the vicinity of the point of accident were operated by timetable, train orders, and an automatic block-signal system. The accident occurred on the main track at a point 67.7 miles south of Amory and 2.85 miles south of the south siding-switch at Carbon Hill, Ala. From the north there are, in succession, a 4°24' curve to the left 1,418 feet in length, a tangent 820 feet, and a 4°38' curve to the right 368 feet to the point of accident and 387 feet southward. From the south there are, in succession, a 4°48' curve to the left 1,182 feet in length, a tangent 986 feet, and the curve on which the accident occurred. The grade is 0.05 percent descending southward at the point of accident. Between points 205 feet north and 625 feet south of the point of accident the track is laid in a cut. The west wall of the cut rises to a maximum height of 12 feet above the level of the tops of the rails.

When the accident occurred a traffic-control system was in service south of Townley, 71.6 miles south of Amory, and was being extended northward. On March 27, 1953, the semaphore-type block signals between Carbon Hill and Townley were replaced by color-light signals. These signals were used as block signals from March 27 until March 31, when they were made a part of the traffic-control system for the operation of trains by signal indications.

Semi-automatic signal 82RA, governing north-bound movements, is located 3.02 miles south of the point of accident. Block indicators for the information of maintenance-of-way employees and the operators of track motor-cars are located near the south siding-switch at Carbon Hill and at a point 1,271 feet north of the point of accident. The indicator near the south siding-switch is an electric light and the indicator near the point of accident is a small upper-quadrant semaphore. Each indicator is enclosed in a case so located that it is visible from the track in the immediate vicinity of the indicator. Block Clear indications are given either by the illumination of the bulb or by the vertical position of the semaphore. Block Occupied indications are given by the absence of a light or by the horizontal position of the semaphore. These indicators indicate Block Occupied from the time the route is lined for movement through the block in either direction until the train passes the first signal beyond the indicators.

This carrier's maintenance-of-way rules governing the operation of track motor-cars read in part as follows:

229. Operation. Employees operating track cars must provide themselves with current time-table covering the territory over which they are moving, familiarize themselves with time of regular trains, and will be required to exercise sufficient caution to avoid being struck by a train, flagging curves and other obscure places when necessary, taking every precaution to avoid accidents of any kind.

* * *

230. * * *

Block signals and block indicators may be used as supplemental protection and in conjunction with line-ups. The use of such devices, however, is confined to the immediate area and only while their indication is visible to the track car operator.

Timetable special instructions read in part as follows:

Rule 755(a) * * *

When practicable, track cars will not be placed or moved on main track unless current line-up has been received by the track car operator. * * *

When practicable, line-up will be given by train dispatcher in a prescribed form, for stated period and specified territory, making copy in train order book as a matter of record as per the following example:

No.....(or Extra).....left (Station).....M.
Other regular trains on time.
Extra.....East leave (Station).....M.
This line-up for use between (Station) and (Station)
and is void at.....M.

* * *

Line-up will show passenger extras and all sections of passenger trains. Other trains shown will, unless otherwise indicated, be considered as freight trains operating at maximum speed of such trains.

* * *

On divisions or subdivisions, where practicable, dispatcher will issue a general line-up each morning, showing locations of trains at that time and as much information as possible as to trains to be called, and other line-ups at fixed periods throughout the day * * *

* * *

Train dispatcher will take necessary action by use of holding orders, wait orders, or in C.T.C. territory by use of lever tag on signal levers to see that no trains are operated in advance of time shown in line-up (or time table) or that no trains are operated that are not shown on line-up (or time table) unless such train or trains are fully advised of the circumstances. Dispatcher will issue train order requiring such train or trains operated to move at restricted speed approaching and on curves, and where view is obscured whistle frequently, expecting to find track car not protected by flagman. * * *

The maximum authorized speed for freight trains is 55 miles per hour, but it is restricted to 50 miles per hour on the curve on which the accident occurred.

Description of Accident

Track motor-car RC-1666, towing a trailer, departed south-bound from Carbon Hill at 7:02 a. m. The track motor-car was occupied by a maintenance-of-way foreman and 7 employees, and the trailer was occupied by 16 employees. While the track motor-car was moving at a speed of about 5 miles per hour it collided with Extra 5002 North at a point 2.85 miles south of the south siding-switch at Carbon Hill.

Extra 5002 North, a north-bound freight train, consisted of Diesel-electric units 5002, 5126, 5112, and 5016, coupled in multiple-unit control, a caboose, 81 cars, and a caboose, in the order named. This train passed Townley at 7:10 a. m., passed signal 82RA, which indicated Proceed, and while moving at a speed of 30 miles per hour it collided with track motor-car RC-1666.

Extra 5002 North stopped with the front of the locomotive 1,084 feet north of the point of accident. The front of the locomotive was slightly damaged. Track motor-car RC-1666 was moved northward to the point at which the locomotive stopped. It was demolished. The trailer stopped west of the track and 355 feet north of the point of accident. It was badly damaged.

One maintenance-of-way employee who was riding on the trailer was killed. Six maintenance-of-way employees who were riding on the track motor-car and seven employees who were riding on the trailer were injured.

The weather was clear at the time of the accident, which occurred at 7:15 a. m.

Track motor-car RC-1666 was powered by a 4-cylinder 31-horsepower gasoline engine. It weighed 1,800 pounds and had seating capacity for eight persons. It was provided with full-width safety railings at each end. The railings extended 13-1/4 inches above the top of the seat. A canvas windshield at the front extended 13-1/2 inches above the top of the safety railing. The trailer was constructed with a flat wooden deck, a railing in the center which extended the length of the car, and full-width safety railings at each end. Both the track motor-car and the trailer were equipped with four-wheel brakes, and both were insulated to prevent the shunting of track circuits.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 13 trains.

Discussion

On the day of the accident a maintenance-of-way force reported for duty at Carbon Hill at 7 a. m. Work was to be performed on the siding at Townley. Before the foreman went on duty he obtained a copy of a line-up which had been issued by the train dispatcher at 6:20 a. m. This line-up read as follows:

Amory March 30th 1953
Line up to track car operators
Carbon Hill, Alabama.
620 am
No 136 annulled
Extra 5226 South left Amory 617 am
Extra 519 South called Carbon Hill 630 am
No 249 called Amory 730 am
Extra 5002 North by Dora 620 am
Extra 581 North left Thos Yard 555 am
ties up at Carbon Hill
This line up for use between Amory and
Jasper and is void at 10 am

Thomas Ward, Dora, and Jasper are located, respectively, 57.3 miles, 52.3 miles, and 19 miles south of Carbon Hill. While the foreman was at the station he observed Extra 519 South, a south-bound local freight train, move through the siding toward the south siding-switch. The foreman estimated that Extra 5002 North, the first north-bound train indicated on the line-up, would consume about 1 hour 10 minutes in moving from Dora to Townley and should pass Townley about 7:30 a. m. The track motor-car and trailer were placed on the track several minutes before 7 a. m. At this time the foreman thought he saw Extra 519 South moving on a curve about 1-1/2 miles south of the station. The track motor-car departed south-bound about 7:02 a. m. The brake was tested after the car started, and it functioned properly. When the track motor-car passed the block indicator near the south siding-switch, this indicator apparently indicated Block Occupied. The foreman assumed that the block was occupied by Extra 519 South. The speed was reduced to about 12 miles per hour as the track motor-car passed the block indicator located 2.61 miles south of the south siding-switch. This indicator indicated Block Occupied. There is a motor-car set-off 17 feet north of this block indicator and a second motor-car set-off 1,043 feet farther south. The track motor-car was passing the first set-off before the occupants could see the indication of the block indicator. Sufficient time had elapsed for Extra 519 South to clear the block, and when the foreman saw the indicator he decided to remove the track motor-car from the track. Because he thought that some of the occupants of the trailer might fall if the track motor-car was stopped suddenly, he gave a signal to the motor-car operator to proceed to the second set-off and to stop at that point. As the track motor-car approached the set-off the motor-car operator applied the brake. An employee on the trailer then applied the brake on the trailer. The foreman said that the rails appeared to be oily or greasy and that the brakes were not as effective as usual. The track motor-car passed the set-off a distance of 245 feet and collided with Extra 5002 North before it could be stopped. Because of the wall of the cut and a hillside west of the track, the occupants of the track motor-car did not observe the approach of Extra 5002 North until the train was about 150 feet distant.

As Extra 5002 North was approaching the point where the accident occurred the speed was 30 miles per hour. The headlight was lighted brightly. A road foreman of equipment, the fireman, and the front brakeman were maintaining a lookout ahead from the control compartment at the front of the locomotive. The road foreman of equipment was operating the locomotive. The engineer returned from the engine compartment to the control compartment just before the collision occurred. The conductor and the flagman were in the caboose at the rear

of the train. The members of the crew had no knowledge that the track ahead was occupied by a track motor-car. The grade-crossing whistle signal was sounded for a rail-highway grade crossing 1,844 feet south of the point of accident. The employees on the locomotive thought that the track motor-car became visible to them at a distance of between 200 and 400 feet. When it became visible, the road foreman of equipment immediately made an emergency application of the brakes. The collision occurred before the speed of the train had been materially reduced.

After the accident occurred it was found that the bulb in the block indicator near the south siding-switch at Carbon Hill was not adjusted properly and was not clearly visible from the track. According to the traingraph of the traffic-control machine, Extra 519 South passed the south siding-switch at Carbon Hill at 6:33 a. m. and the north siding-switch at Towhley at 6:45 a. m. Apparently at the time the track motor-car passed the indicator either the light in the indicator was so indistinct that it appeared to be extinguished or the route had already been lined for the movement of Extra 5002 North. The maintenance-of-way foreman said afterward that at the time the track motor-car departed from Carbon Hill he was positive that he was closely following Extra 519 South. When he found that approximately 25 minutes had elapsed between the time Extra 519 South departed and the time the track motor-car departed, he thought that he may have mistaken highway vehicles near the track south of Carbon Hill for the rear of the train of Extra 519 South.

The rules of this carrier provide that the operators of track motor-cars must exercise sufficient caution to avoid collisions with trains. Operators of track motor-cars are provided with line-ups, when practicable, and train dispatchers are required to take necessary action, by use of train orders or traffic-control signals, to see that trains do not operate in advance of the times shown in line-ups. Trains are not otherwise restricted by the issuance of a line-up, and train crews are not informed when a track motor-car is occupying the main track. In the instant case Extra 5002 North was shown on the line-up received by the maintenance-of-way foreman, but the line-up indicated only the location of the train at the time the line-up was issued. The foreman understood that he was required to expect each freight train shown on the line-up to operate at maximum authorized speed, but he said he thought that because of speed restrictions at various points between Dora and Towhley Extra 5002 North would not pass Towhley before about 7:30 a. m. This method of operation,

which places on the operators of track motor-cars the responsibility for computing the running times of trains and judging the approximate arriving times at stations and at other points, does not provide adequate protection for the movement of track motor-cars.

Since January 1, 1944, the Commission has investigated 44 collisions, including the present case, which were caused by failure to provide adequate protection for the movement of track motor-cars. These accidents resulted in the death of 80 persons and the injury of 144 persons. In the reports covering the investigations of these accidents, the Commission repeatedly has recommended that the carrier involved take measures to provide adequate protection for the movement of track motor-cars on its line.

Cause

It is found that this accident was caused by failure to provide adequate protection for the movement of a track motor-car.

Recommendation

It is recommended that the St. Louis-San Francisco Railway Company provide adequate protection for the movement of track motor-cars on its line.

Dated at Washington, D. C., this fifteenth day of May, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,
Acting Secretary.