RAILROAD ACCIDENT INVESTIGATION

Report No 3789

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

FALMOUTH, KY

NOVEMBER 14, 1957

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

DATE	November 14, 1957	
RAILROAD	Louisville and Nashville	
LOCATION	Falmouth, Ky	
KIND OF ACCIDENT	Derailment and collision	
TRAINS INVOLVED	Freight	Passenger
TRAIN NUMBERS	Extra 316 North	17
LOCOMOTIVE NUMBERS	Diesel-electric units 316, 120 and 314	Diesel-electric units 751 and 790
CONSISTS	145 cars, caboose	10 cars
ESTIMATED SPEEDS	25 m p h	50 m p h
OPERATION	Timetable, train orders, and automatic block-signal system	
TRACKS	Double, tangent and 1° curve, 0 25 percent descending grade northward	
WEATHER	Clear	
TIME	8 05 p m	
CASUALTIES	3 injured	
CAUSE	Broken coupler, and derailed cars obstructing adjacent main track in front of approaching train	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3789

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

LOUISVILLE AND NASHVILLE RAILROAD COMPANY

May 26, 1958

Accident near Falmouth, Ky., on November 14, 1957, caused by a broken coupler, and by derailed cars obstructing an adjacent main track in front of an approaching train

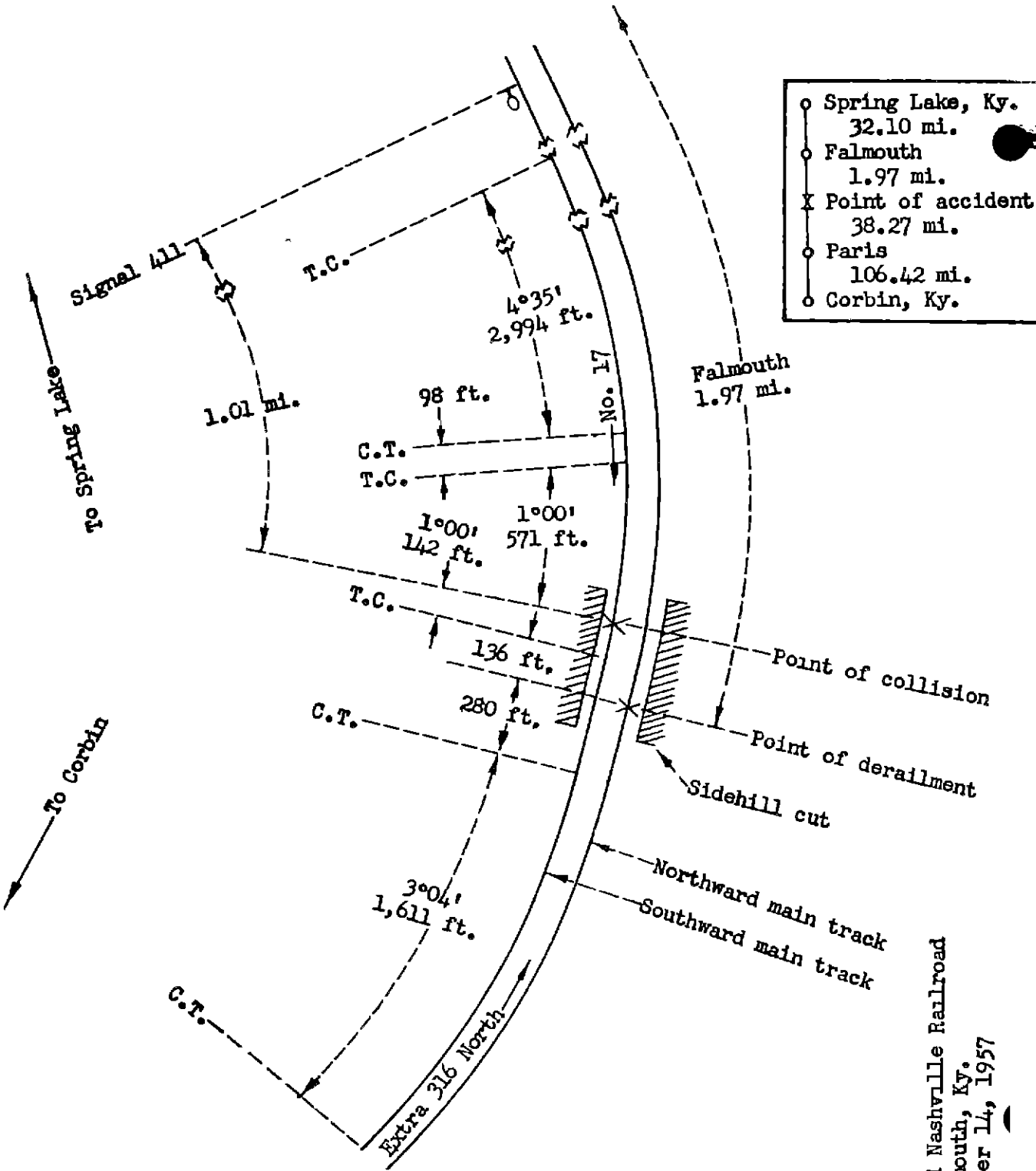
REPORT OF THE COMMISSION[1]

TUGGLE, Commissioner

On November 14, 1957, there was a derailment of a freight train, and a collision between derailed cars of that train and a passenger train moving in the opposite direction on an adjacent main track, on the Louisville and Nashville Railroad near Falmouth, Ky., which resulted in the injury of 1 train porter and 2 train service employees.

---

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



Louisville and Nashville Railroad
Falmouth, Ky.
November 14, 1957

Location of Accident and Method of Operation

This accident occurred on that part of the Cincinnati Division extending between Corbin and Spring Lake, Ky , 178 76 miles, a double-track line over which trains are operated by timetable, train orders, and an automatic block-signal system The derailment occurred on the northward main track at a point 144 69 miles north of Corbin and 1 97 miles south of Falmouth, Ky , and the collision occurred on the southward main track at a point 278 feet north of the point of derailment From the south on the main tracks there are, in succession, a 3°04′ curve to the left 1,611 feet in length, and a tangent 280 feet to the point of derailment and 136 feet northward From the north there are, in succession, a compound curve to the right 2,994 feet in length having a maximum curvature of 4°35′, a tangent 98 feet, and a 1°00′ curve to the right 571 feet to the point of collision and 142 feet southward The grade for northbound trains is 0 25 percent descending at the point of derailment

The track structure of the northward main track in the vicinity of the point of accident consists of 132-pound rail, 39 feet in length, laid new in 1951 on an average of 24 treated ties to the rail length It is fully tieplated with double-shoulder tie plates, double-spiked, and is provided with 6-hole, 36-inch joint bars and an average of 9 rail anchors per rail It is ballasted with crushed stone

In the vicinity of the point of accident the tracks are laid on a sidehill cut Immediately west of the tracks at the point of collision the ground slopes downward at a ratio of 0 35 to 1 to the east shoreline of the Licking river, 165 feet west of the centerline of the northward main track

A track motorcar setoff is located on the northward main track at the point of derailment The portion of the setoff between the rails consists of planking laid parallel to the rails and level with the tops of the rails

Automatic signal 411, governing southbound movements on the southward main track, is located 1 01 miles north of the point of collision

In the vicinity of the point of accident the maximum authorized speeds are 50 miles per hour for passenger trains and 40 miles per hour for freight trains

Description of Accident

Extra 316 North, a northbound freight train, consisted of diesel-electric units 316, 120, and 314, coupled in multiple-unit control, 145 cars, and a caboose This train departed from Corbin at 1 25 p m , departed from Paris, Ky , 106 42 miles north of Corbin, the last open office, at 6 55 p m , and while moving at an estimated speed of 25 miles per hour the 133rd to the 135th cars, inclusive, and the front truck of the 136th car were derailed at a point 1 97 miles south of the station at Falmouth Derailed equipment obstructed the southward main track, and shortly after this equipment was struck by No 17

No 17, a southbound first-class passenger train, consisted of diesel-electric units 751 and 790, coupled in multiple-unit control, 3 baggage cars, 1 mail car, 3 baggage cars, 2 coaches,

and 1 sleeping car, in the order named The cars were of conventional all-steel construction The 9th and 10th cars were equipped with tightlock couplers This train passed Decoursey, Ky , 2 96 miles north of Spring Lake, the last open office, at 7 28 p m , 23 minutes late passed signal 411 which indicated Proceed, and while moving at an estimated speed of 50 miles per hour it struck derailed equipment of Extra 316 North

The 133rd and 134th cars of Extra 316 North, tank cars, derailed to the west and stopped with the rear end of the 133rd car on the southward main track and the 134th car across the track at a point 278 feet north of the point of derailment These cars were struck by No 17 The 133rd car was heavily damaged and the 134th car was destroyed The 135th car and the front truck of the 136th car derailed to the east and stopped on the track structure These cars were slightly damaged The diesel-electric units and the first to the fifth cars, inclusive, of No 17 derailed to the west and stopped on the embankment Separations occurred between the diesel-electric units and at both ends of the first and second cars The first diesel-electric unit stopped upright, parallel to and 92 feet west of the southward main track with the front end approximately 120 feet south of the point of collision The second diesel-electric unit, and the first and second cars stopped upright to the rear of the first diesel-electric unit and at various angles to the track The other derailed cars stopped upright and in line, with the front end of the third car 44 feet west of the southward main track and approximately 30 feet south of the point of collision The diesel-electric units, and the first to the third cars, inclusive, were heavily damaged The other derailed cars were slightly damaged

The engineer and the fireman of No 17 were injured

The weather was clear at the time of the accident, which occurred at 8 05 p m

UTLX 73633, the 133rd car of Extra 316 North, was an all-steel tank car It was built in November 1917 It was 45 feet 2 inches in length, and the trucks were spaced 32 feet between centers The lightweight, nominal capacity, and load limit were, respectively, 41,600 pounds, 100,000 pounds, and 127,400 pounds It was equipped with type E couplers with 5-inch by 7-inch shanks and riveted yokes, and friction draft gears

Discussion

As Extra 316 North was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment of the first diesel-electric unit, and the conductor and the flagman were in the caboose The brakes of this train had been tested and had functioned properly when used en route The members of the crew said that there had been no rough handling or unusual slack action en route The engineer had made a service brake application to comply with a speed restriction at Falmouth The brakes of the train were being released and the speed was about 25 miles per hour when the derailment occurred The engineer said the first he became aware of anything being wrong was when he observed that the brake-pipe gauge indicated brake-pipe pressure was decreasing The conductor and the flagman observed No 17 approaching They said that the first they became aware of anything being wrong was when they observed the cars derailing shortly after the locomotives of the trains passed

As No 17 was approaching the point where the accident occurred the speed was about 50 miles per hour The enginemen were in the control compartment of the first diesel-electric unit,

and the members of the train crew were in various locations in the cars of the train The brakes of this train had been tested and had functioned properly when used en route The headlight was lighted brightly The enginemen said that shortly after the locomotives of the trains passed they observed sparks and an unusual amount of dust in the vicinity of the rear end of Extra 316 North Immediately after, they observed a derailed car across the southward main track about 150 feet distant The collision occurred before the engineer could take action to apply the brakes in emergency

After the accident occurred it was found that the coupler at the north end of UTLX 73633, the 133rd car of Extra 316 North, had broken and had dropped to the track structure The shank of the coupler was broken through the keyway There was a 10 percent old break in the portion above the keyway, and the remaining portion of the break was new The first mark on the track structure was a gouge mark near the center of a tie in the northward main track located at a point approximately 36 feet south of the point of derailment From that point throughout the distance to the motorcar setoff similar marks were found on intermittent ties A portion of the motorcar setoff planking between the rails was splintered throughout the length of the setoff The first marks of derailment appeared on the track structure immediately north of the motorcar setoff It is apparent that the broken coupler became wedged between the planking of the motorcar setoff and the front truck of UTLX 73633 causing the truck to derail to the east The broken coupler was found between the rails of the northward main track at a point 197 feet north of the point of derailment

According to the report of the engineer of tests of the carrier the coupler involved in the accident was a Grade B casting He said that chemical analysis indicated that the chemical composition of the coupler conformed with the specifications of the carrier

Cause

This accident was caused by a broken coupler, and by derailed cars obstructing an adjacent main track in front of an approaching train

Dated at Washington, D C , this twenty-sixth day of May, 1958

By the Commission, Commissioner Tuggle

(SEAL)

HAROLD D McCOY,

Secretary

Interstate Commerce Commission
Washington 25 D C

OFFICIAL BUSINESS

RETURN AFTER FIVE DAYS

POSTAGE AND FEES PAID
INTERSTATE COMMERCE COMMISSION