

Inv-2192

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
HOUSTON BELT & TERMINAL RAILWAY

HOUSTON, TEX.

AUGUST 3, 1937

INVESTIGATION NO. 2192

- 2 -

SUMMARY

Inv-2192

Railway: Houston Belt & Terminal
Date: August 3, 1937
Location: Houston, Tex.
Kind of accident: Collision
Trains involved: Passenger : HB&T switching transfer
Train number: B-RI No. 17 :
Engine numbers: 501 : 7
Consist: 5 cars : 4 cars
Speed: 15-35 m.p.h. : Standing
Track: 6° left curve southward 734 feet in
length, then 20 feet tangent to point
of accident
Weather: Clear
Time: 2:25 to 2:30 p.m.
Casualties: 3 injured
Cause: Switch engine occupying main track within
yard limits on time of first-class train
without authority or protection.

September 22, 1937.

To the Commission:

On August 3, 1937, there was a collision between a Burlington-Rock Island Railroad passenger train and a Houston Belt & Terminal Railway switch engine, backing up and hauling a cut of freight cars, on the track of the latter railway at Houston, Tex., which resulted in the injury of three passengers.

Location and method of operation

This accident occurred on the North Belt District, which extends between Gulf Coast and Houston Union Station, a distance of 6.43 miles; in the immediate vicinity of the point of accident this is a jointly used single-track line over which trains are operated by timetable and train orders, no block-signal system being in use. Hereinafter the Burlington-Rock Island Railroad is referred to as the B-RI, and the Houston Belt & Terminal Railway, as the HB&T. The accident occurred within yard limits and on the main track, about 1 mile north of Houston Union Station, at a point 259 feet south of a facing-point switch for southward movements, which leads to the South Texas Stone Company's spur track. Approaching the point of accident from the north there are several tangents and short curves, then 152 feet of tangent, followed by a 6° curve to the left 734 feet in length and 20 feet of tangent to the point of accident, this tangent extending 1,086 feet beyond. The grade in this locality is undulating, being 1 percent ascending southward for a distance of 214 feet to the point of accident, and for 400 feet beyond; it is then practically level for about 1,300 feet.

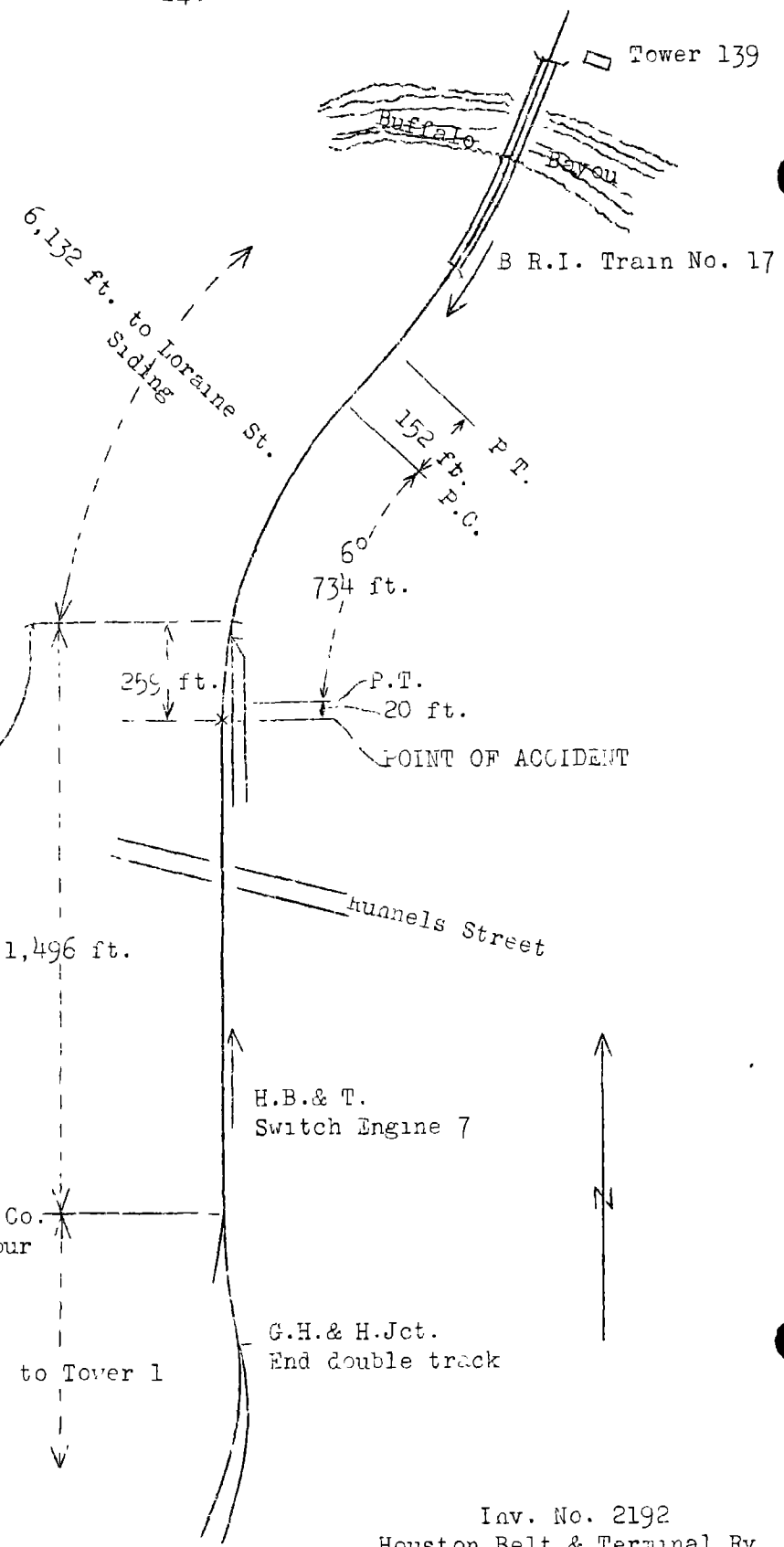
The south switch of Loraine Street Siding is located 6,132 feet north of the South Texas Stone Company spur-track switch; the switch leading to the Sampson Machine & Supply Company spur is located 1,496 feet south of the stone company switch, and tower 1 is located about 2,000 feet farther south.

A locomotive standing at the point of accident could be seen across the inside of the curve from the fireman's side of the cab of a south-bound engine, for a distance of 848 feet, the view being restricted by houses; however, until within 546 feet, it could not be definitely determined that the locomotive was standing on the main track.

An ordinance provides a speed restriction of 18 miles per hour within the city limits of Houston. Rule 8 of the HB&T timetable specifies that trains or engines operating over tracks

- Gulf Coast, Texas
1.68 mi.
- Belt Junction
2.71 mi.
- Loraine St. Siding
0.31 mi.
- Tower 26
0.53 mi.
- Tower 139
0.10 mi.
- Buffalo Bayou D.B.
0.32 mi.
- ✕ Point of accident
0.60 mi.
- Tower 1
0.18 mi.
- Houston Union Station, Tex.

South Texas Stone Co. switch



Inv. No. 2192
 Houston Belt & Terminal Ry.
 Houston, Texas
 August 3, 1937

of the HB&T will be governed by standard train rules; Rule 37 of the book of rules specifies that an inferior train failing to clear the main track as required by rule must be protected as provided by Rule 99. Rule 12 of this timetable requires second and inferior class trains, yard engines and light engines to clear the time of first-class trains five minutes. Train No. 17 was due at Belt Junction, located 2.71 miles north of Loraine Street Siding, at 1:44 p.m. and at Loraine Street Siding at 2:48 p.m.

The weather was clear at the time of the accident, which occurred between 2:25 and 2:30 p.m.

Description

HB&T switch engine 7, backing up and hauling four freight cars without the air brakes being coupled or in operation on the cars, was in charge of Engine Foreman J. E. Tarpey and Engineman Soeten. This switch engine departed from the Sampson Machine & Supply Company switch about 2:18 p.m., and backed northward, it being intended to clear for south-bound B-RI Passenger Train No. 17, on the South Texas Stone Company spur. On nearing the stone company switch the opposing train was observed approaching; the switch engine was stopped at a point 259 feet south of the switch, following which the reverse lever was placed in forward motion in an endeavor to move away from the passenger train, but the rear end of the tender was struck by that train immediately afterwards.

B-RI Train No. 17, a south-bound passenger train, consisted of one baggage and mail car, two Pullman tourist cars, one coach and one Pullman sleeping car, in the order named, of all-steel construction, hauled by engine 501, and was in charge of Conductor Hufstedler and Engineman Latham. This train passed Belt Junction at 2:18 p.m., according to the train sheet, and on reaching a point approximately 1.21 miles south of the south switch of Loraine Street Siding, collided with switch engine 7 while traveling at a speed variously estimated to have been between 15 and 35 miles per hour.

None of the equipment in Train No. 17 was derailed, but the forward end of engine 501 was badly damaged and stopped about 90 feet south of the point of collision, with the rear end of the tank of switch engine 7 resting on its front end. The air-brake equipment pipes on switch engine 7 were broken off at the distributing valve, rendering the engine and tender brakes inoperative. The throttle of engine 7 was open and the engine, together with the four cars moved southward on the main track unattended, the crew having jumped off. The train attained

a speed of about 25 miles per hour, crossed 10 street crossings and the engine stopped upright with all driving wheels derailed, 4,027 feet south of the point of collision, while the four freight cars remained on the track and stopped more than a city block beyond.

Summary of evidence

Engine Foreman J. E. Tarpey, of switch engine 7, stated that the towerman at tower 1 gave him verbal information that Train No. 17 would arrive at Belt Junction at 2:20 p.m. and would reach the depot at 2:35 p.m. Engine 7 with five cars left the tower about 2 p.m. and backed northward to the Sampson Machine & Supply Company spur, where a car was set out. The engine and 4 cars then continued northward, it being intended to clear at the South Texas Stone Company track for No. 17, the engine foreman saying that this should take about 7 minutes. Engineman Soeten and Fireman Elliott were on the engine, Switchman Ward was on the first car, Engine Foreman Tarpey was on the second car and Switchmen Gibbs and Ward were on the rear car. After moving about 900 feet, the engineman sounded one short blast of the whistle, which he repeated and brought the engine to a stop, the accident occurring shortly thereafter. Engine Foreman Tarpey thought that the throttle of switch engine 7 was knocked open as a result of the impact and said that there was no chance for him to board and stop the engine after the accident. He did not look at his watch to ascertain the time the accident occurred. The schedule running time of Train No. 17 between Belt Junction and Loraine Street Siding is 4 minutes; consequently, under the verbal information he received from the towerman, that No. 17 would reach Belt Junction at 2:20 p.m., the train should have reached Loraine Street Siding, the last station where time was shown, at 2:24 p.m., and he figured that this would give his engine ample time to clear at the South Texas Stone Company spur. He fully understood the requirements of the yard-limit rule; also that an inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the required 5 minutes must be protected by flag. Engine Foreman Tarpey said that had the passenger train been on the time given him, his engine would have been in the clear. The air was not coupled between the switch engine and cars as the cars were to be switched out en route. Verbal information concerning the time passenger trains would arrive had been given in the same manner for the past 22 years. Engine Foreman Tarpey further stated that he realized his engine should have been clear at 2:15 p.m., or 5 minutes prior to the time given in the verbal information.

Engineman Soeten and Switchman Paddock, of switch engine 7, noted that it was 2:18 p.m. when their engine was at Sampson Machine & Supply Company spur, and knew that Train No. 17 was expected to reach Belt Junction at 2:20 p.m. according to the verbal information given them. Engineman Soeten wanted to remain at Sampson's for No. 17, but was told by the switchman that they had 12 minutes to reach the stone company spur and clear for the passenger train; the engineman, therefore, assumed that more time on No. 17 had been obtained by telephone while at Sampson's and that the engine foreman had sent the switchman to him with the information that they had 12 minutes; when the engine foreman gave him a signal to back out he did so and started northward. When the engineman first saw the passenger train approaching he thought it was another switch engine and when he definitely realized that it was No. 17, he applied the independent engine brake, sounded the whistle, closed the throttle and stopped; he then placed the reverse lever in forward motion in an endeavor to move away from the approaching train and both he and the fireman jumped from the engine. As the switch engine started to run away after the collision Engineman Soeten was unable to get aboard. He estimated the speed of Train No. 17 to have been about 25 or 35 miles per hour when he first saw it approaching about 30 car lengths away. He said that he had no reason to believe that the passenger train would pass Belt Junction before 2:20 p.m. Engineman Soeten realized that under the rules his engine should have been clear of the main track 5 minutes before the time given in the verbal information, which would have been not later than 2:15 p.m. He said that had the information imparted to him been given by train order, he would not have left the end of double-track territory ahead of No. 17 after 2:15 p.m. Fireman Elliott estimated the speed of the passenger train to have been about 18 or 20 miles per hour when he saw it rounding the curve a short distance away.

Switchman Paddock said that from the verbal information they had received regarding the arrival time of Train No. 17 at Belt Junction, together with the train's scheduled running time between that point and the depot, he had estimated their time at the South Texas Company switch and concluded there was still 12 minutes left in which to clear. He said that under the rules his engine should have been clear at 2:15 p.m.; also, that the engine foreman said to clear at the stone works for No. 17. Statements of Switchmen Ward and Gibbs brought out nothing additional of importance.

Members of the crew of Train No. 17 were not aware of anything wrong until just prior to the accident. Fireman Mainard first saw the switch engine across the inside of the curve when about 450 to 600 feet away; the engine appeared to be moving

northward and he thought it was on a spur track. After traveling from 3 to 5 car lengths farther he realized that it was on the main track and shouted a warning to his engineman who immediately applied the air brakes in emergency and closed the throttle. Engineman Latham said that the switch engine was from $2\frac{1}{2}$ to 4 car lengths away when he applied the air brakes in emergency. They both estimated the speed of their train to have been between 15 and 18 miles per hour when the brakes were applied, and placed the time of the accident between 2:27 and 2:29 p.m. The air brakes were tested, and worked properly en route. Statements of other members of the crew developed nothing of additional importance.

Towerman J. M. Tarpey, at Tower 1, stated that he telephoned the operator at Belt Junction and received information that Train No. 17 would arrive at Belt Junction at 2:20 p.m. and the depot at 2:35 p.m. Engine 7 stopped opposite his tower about 2:10 p.m., the crew asking for time on No. 17, and he called to them the information he had obtained, whereupon the engine backed northward. He was later notified of the accident by telephone, and when his annunciator sounded, due to the runaway engine and cars moving southward, he arranged to have them derailed at another tower.

Operator-Towerman Robinson, at Belt Junction, stated that shortly after 11 a.m. he received verbal information regarding Train No. 17 from the dispatcher at Teague, and relayed the information to tower 1 between 1:30 and 2 p.m., that Train No. 17 would reach Belt Junction at 2:20 p.m. and the depot at 2:35 p.m. Train No. 17 actually passed Belt Junction at 2:18 p.m. and he entered the time on his record.

Towerman Traylor, at tower 26, located 4,350 feet north of the South Texas Stone Company switch stated that his record showed Train No. 17 passed his tower at 2:23 p.m.

Rules Examiner Luther stated that he had never instructed employees that it was permissible to act upon information regarding trains other than in accordance with the book of rules. He did not know of anything in this instance which would have prevented No. 17 from passing Belt Junction before 2:20 p.m.; however, he said that upon the verbal information received by the crew of the switch engine, it should have been clear of the main track not later than 2:15 p.m. and that he had instructed all HB&T men that first-class trains must be cleared not less than five minutes.

Discussion

According to the evidence it had been the practice for a period of years to furnish switch crews working in Houston Yard with verbal information on passenger trains, as was done in this instance. Shortly after 11 a.m., the operator at Belt Junction received information from the train dispatcher that Train No. 17 would arrive at Belt Junction at 2:20 p.m. and the depot at 2:35 p.m. As usual, when the towerman at tower 1 asked for a line-up shortly after 1:30 p.m., the operator at Belt Junction gave him this information, and the towerman in turn shouted it to the crew of switch engine 7 when they inquired of him at about 2 p.m. Engine 7 then backed northward to the Sampson Machine & Supply Company track where one car was set out. The engine foreman and other members of the switch crew were fully aware of the requirements of the yard-limit rule; also of the fact that their engine was required to be clear 5 minutes ahead of the time of Train No. 17 at Belt Junction which would have been at 2:15 p.m., and if not clear, to be protected by flag. At 2:15 p.m., the switch engine was in the clear on the Sampson Machine & Supply Company track. The engine foreman figured that since the timetable allowed Train No. 17 4 minutes between Belt Junction and Loraine Street Siding, this 4 minutes, in view of the verbal information received from the towerman, 2:20 p.m. at Belt Junction, would make the passenger train due at Loraine Street Siding at 2:24 p.m., which would afford ample time for them to clear on the South Texas Stone Company track. However, there was nothing to prevent Train No. 17 from passing Belt Junction and Loraine Street Siding on time as the verbal information in no manner restricted that train, and it actually passed Belt Junction at 2:18 p.m. or 2 minutes ahead of the verbal information received which was about the same time that switch engine 7 started the movement northward from the Sampson Machine & Supply Company track. The engineman said that he wanted to remain at the Sampson Machine & Supply Company spur for the passenger train, but that the switchman told him they had 12 minutes to back to the stone company track and clear; consequently, he assumed that more time had been obtained on the passenger train while switching at Sampson's, and when the engine foreman gave him a signal to back out he started the northward movement. The switchman said that he based the 12-minute estimate on the time he thought it should take Train No. 17 to run from Belt Junction to the South Texas Stone Company switch. The engineman indicated that if a train order had been received relative to Train No. 17, instead of verbal information, the accident probably would have been averted. The engine foreman said that verbal information regarding superior trains had been furnished yard crews in the same manner for the past 22 years. The rules examiner indicated on the one hand that the switch crew should have cleared the schedule time of Train No. 17 by five minutes

and on the other hand he indicated that it would have been permissible for this crew to have acted upon the verbal information time the same as the schedule time.

The occurrence of this accident demonstrates the dangerous practice of acting upon verbal information in the operation of trains and the proper officials should take immediate steps to remedy this practice.

Conclusions

This accident was caused by a switch engine occupying the main track within yard limits on the time of a first-class train without authority or protection.

Respectfully submitted,

W. J. PATTERSON

Director.