

INTERSTATE COMMERCE COMMISSION
WASHINGTON

INVESTIGATION NO. 3118
TEXAS AND NEW ORLEANS RAILROAD COMPANY
REPORT IN RE ACCIDENT
NEAR WENDELL, TEX., ON
JULY 19, 1947

SUMMARY

Railroad: Texas and New Orleans

Date: July 19, 1947

Location: Wendell, Tex.

Kind of accident: Head-end collision

Trains involved: Freight : Freight

Train numbers: First 245 : Second 244

Engine numbers: 970 : 912

Consists: 45 cars, caboose : 42 cars, caboose

Estimated speeds: 7 m. p. h. : 50 m. p. h.

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

Track: Single; tangent; 0.56 percent descending grade westward

Weather: Clear

Time: 4:35 a. m.

Casualties: 3 killed; 3 injured

Cause: Failure to provide adequate protection for inferior train, and failure to operate superior train in accordance with signal indications

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3118

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

TEXAS AND NEW ORLEANS RAILROAD COMPANY

September 22, 1947

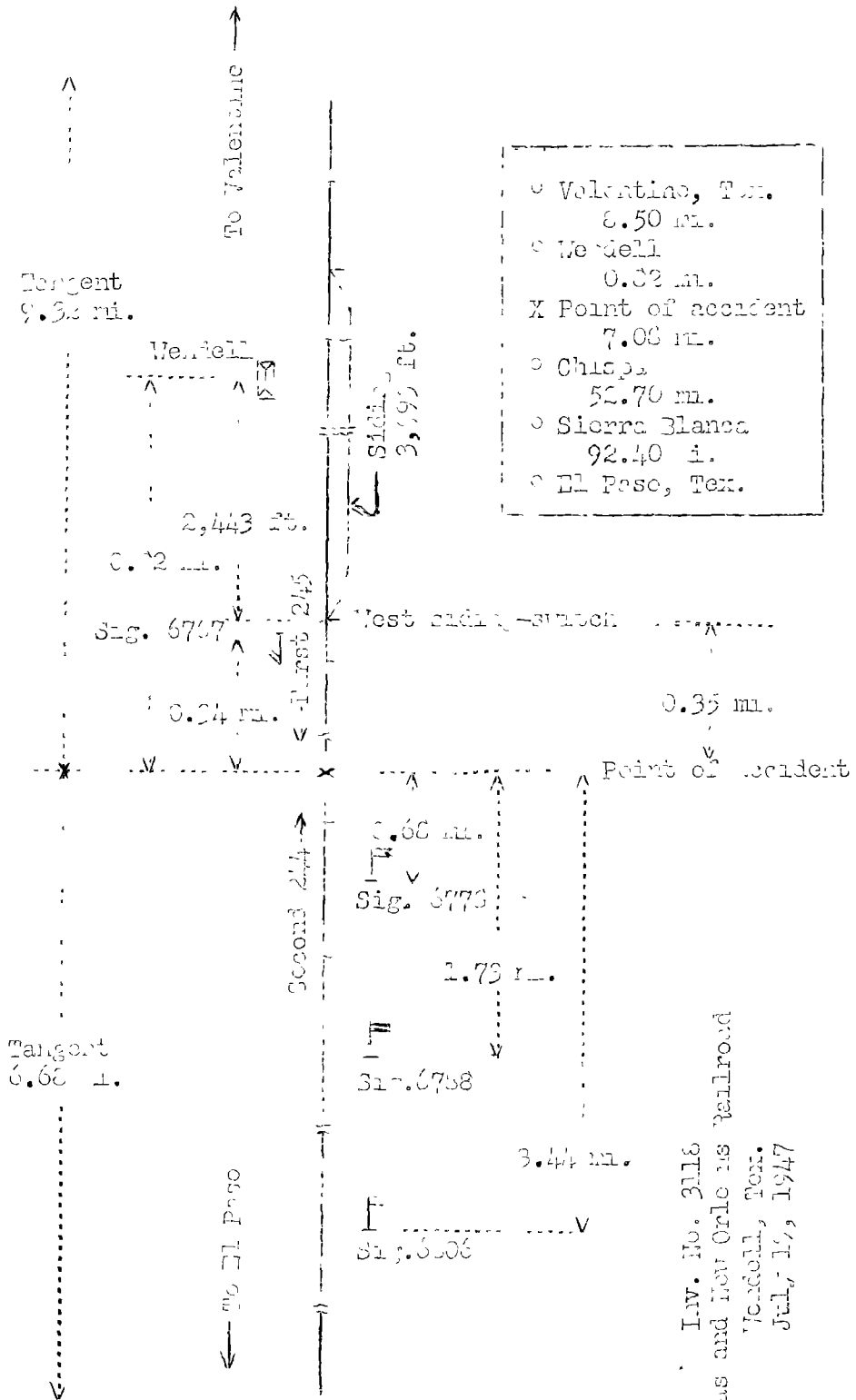
Accident near Wendell, Tex., on July 19, 1947, caused by failure to provide adequate protection for the inferior train, and by failure to operate the superior train in accordance with signal indications.

REPORT OF THE COMMISSION¹

PATTERSON, Commissioner:

On July 19, 1947, there was a head-end collision between two freight trains on the Texas and New Orleans Railroad near Wendell, Tex., which resulted in the death of three employees and the injury of three employees.

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.



- Valentia, Tex. 8.50 mi.
- Wendell 0.32 mi.
- X Point of accident 7.08 mi.
- Chispa 52.70 mi.
- Sierra Blanca 92.40 i.
- El Paso, Tex.

Inv. No. 3118
 Texas and New Orleans Railroad
 Wendell, Tex.
 July 11, 1947

Location of Accident and Method of Operation

This accident occurred on that part of the San Antonio Division extending between Valentine and El Paso, Tex., 161.5 miles, a single-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. At Wendell, 8.5 miles west of Valentine, a siding 3,995 feet in length parallels the main track on the south. The west switch of this siding is 2,445 feet west of the station. The accident occurred 0.35 mile west of the west siding-switch. The track is tangent throughout a distance of 9.32 miles immediately east of the point of accident and 6.68 miles westward. The grade is 0.53 percent descending westward.

The automatic block-signal system is arranged on the overlap principle, and consists of double-location home signals near the ends of sidings, distant signals in approach of home signals, and intermediate home signals between sidings. Home signal 6767, governing west-bound movements, is 0.34 mile east of the point of accident. Intermediate home signals 6806 and 6788 and distant signal 6778, governing east-bound movements, are, respectively, 3.44 miles, 1.73 miles and 0.68 mile west of the point of accident. These signals are of the one-arm, two-indication, lower-quadrant, semaphore-type, and are approach lighted. The involved night aspects and corresponding indications are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>
6767	Green	PROCEED
6806) 6788)	Red	STOP
6778	Yellow	PROCEED WITH CAUTION

The controlling circuits are so arranged that when a west-bound train passes signal 6767, signal 6778 displays proceed-with-caution and signal 6788 displays stop, and when a west-bound train reaches a point 1.03 miles immediately west of signal 6778, signals 6788 and 6806 display stop. When an east-bound train reaches a point 0.61 mile immediately west of signal 6788, signal 6767 displays stop.

This carrier's operating rules read in part as follows:

DEFINITIONS

* * *

With Caution--To run at reduced speed, according to conditions prepared to stop short of a train, * * * or before reaching a stop signal. * * *

* * *

5. * * *

* * * train-order time, * * * applies at the switch where an inferior train enters the siding, * * *

* * *

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

35. The following signals must be used by flagman:

* * *

Night signals--A red light,
a white light,
torpedoes and
fusees.

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

Right is conferred by train order; class and direction by time-table.

* * *

Direction is superior as between trains of the same class.

S-72. Trains in the direction specified by the time-table are superior to trains of the same class in the opposite direction.

36. CLEARANCE OF TRAINS WITHIN
BLOCK SYSTEM LIMITS:

(a) At meeting points the inferior train must clear the main track before the leaving time of the superior train.

* * *

39. Trains must pull into the siding when practicable; if necessary to back in, the train must first be protected as prescribed by Rule 99, * * *

99. * * *

When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure protection.

* * *

The front of the train must be protected in the same way, when necessary, by the brakeman; if not available, the fireman.

* * *

FORMS OF TRAIN ORDERS

* * *

S-E.

Time Orders.

* * *

(1) NO 1 WAIT AT
H UNTIL NINE FIFTY 950 AM
FOR NO 272

The train first named must not pass the designated point before the time given, unless the other train has arrived. The train last named is required to run with respect to time specified, at the designated point or any intermediate station where schedule time is earlier than the time specified in the order, as before required to run with respect to the schedule time of the train first named.

509 (F). When an automatic block signal indicates "stop", train, after stopping, may proceed with caution, not exceeding twelve miles per hour, under the following conditions:

* * *

(h) On single track, when view of track is clear to the end of block; or view of track is clear to a distant signal and such distant signal indicates "proceed".

* * *

509 (J). Except as provided in Rule * * * or 509 (F), when an automatic block signal indicates "stop", train must stop and send a flagman ahead immediately, wait at least five minutes * * *, and then follow, keeping at least one-fourth mile behind him until flagman reaches viewpoint as described in paragraph * * * (h) of Rule 509 (F).

Time-table special instructions provide that east-bound trains are superior to trains of the same class in the opposite direction.

The maximum authorized speed for the trains involved was 50 miles per hour.

Description of Accident

At Valentine, 8.5 miles east of Wendell, the crew of First 245, a west-bound second-class freight train, received copies of train order No. 17 reading in part as follows:

Second 244 wait at
Chispa until four twenty five 425 AM
* * *
for First * * * 245

Chispa is 7.9 miles west of Wendell. First 245, consisting of engine 970, 43 cars and a caboose, departed from Valentine, the last open office, at 4:00 a. m., 2 hours 45 minutes late, passed Wendell about 4:12 a. m., 2 hours 39 minutes late, passed signal 6737, which displayed proceed, and stopped about 4:13 a. m., with the engine standing about 1.44 miles west of the west siding-switch at Wendell. About 22 minutes later, while First 245 was moving in backward motion at an estimated speed of 7 miles per hour and was entering the siding at Wendell at the west switch, the engine was struck by Second 244 at a point about 0.35 mile west of the switch.

At Sierra Blanca, 60.6 miles west of Wendell, the crew of Second 244, an east-bound second-class freight train, received copies of train order No. 17. This train, consisting of engine 912, 42 cars and a caboose, departed from Sierra

Blanca, the last open office, at 3:07 a. m., 6 hours 52 minutes late, passed Chispa at 4:28 a. m., passed signals 6806 and 6788, which displayed stop, passed signal 6778, which displayed proceed-with-caution, and while moving at an estimated speed of 50 miles per hour it collided with First 245 at a point 0.68 mile east of signal 6778.

The engines and tenders of both trains were derailed and badly damaged. Engine 970 stopped upright and at right angles to the track, with the rear end of the engine 164 feet east of the point of collision and pointing toward the south. The tender was torn loose from the engine and stopped upside down, south of the main track and at an angle of about 45° to it. Engine 912 remained upright and in line with the track. The front truck of the first car of First 245 and the first twelve cars of Second 244 were derailed. The first ten cars of Second 244 were demolished.

The engineer of First 245, and the engineer and the front brakeman of Second 244 were killed. The fireman and the conductor of First 245, and the fireman of Second 244 were injured.

The weather was clear at the time of the accident, which occurred about 4:35 a. m.

Discussion

The crews of both trains held copies of train order No. 17, which required Second 244, an east-bound second-class train, to wait at Chispa until 4:25 a. m. for First 245, a west-bound second-class train. First 245 was inferior to Second 244 by direction. Under the rules, First 245 was required to be into clear on the siding at Chispa not later than 4:25 a. m., if it proceeded to that station to meet Second 244. First 245 passed Wendell about 4:11 a. m. and, because of a broken brake-pipe branch pipe on the eighteenth car, it stopped about 4:13 a. m. at a point about 1.44 miles west of the west siding-switch at Wendell. About 22 minutes later, while First 245 was moving eastward and entering the siding at Wendell at the west switch, the engine was struck by Second 244.

The crew of First 245 received copies of train order No. 17 at Valentine, 9.32 miles east of the point of accident, about 50 minutes prior to the time the accident occurred. At that time each member of the crew read the order and understood that under the rules their train was required to be into clear on the siding at Chispa not later than 4:25 a. m., if it proceeded to that station for Second 244. However, because of

the delay as a result of the broken brake-pipe branch pipe on the eighteenth car, there was not sufficient time remaining for this train to proceed to Chispa and to be into clear at the required time. When First 245 stopped, the conductor and the flagman were in the caboose, and the front brakeman was on the engine. The conductor and the front brakeman proceeded to the disabled car, and the front brakeman informed the conductor he understood that protection against Second 244 was being provided by the fireman. About 4:25 a. m., after the air brake of this car had been cut out, First 245 moved eastward in backward motion to enter the siding at Vendell at the west switch to clear for Second 244. The flagman had proceeded eastward to provide protection against west-bound trains, and to line the west siding-switch for entry to the siding. The fireman said that he did not proceed westward to provide protection against Second 244 because he was not instructed to do so until the engineer saw the reflection of the headlight of Second 244. Then the engineer instructed the fireman to display a lighted fusee from the left side of the cab of the engine. The engineer was killed in the accident.

As Second 244 was approaching the point where the accident occurred the speed was about 50 miles per hour, and the headlight was lighted brightly. The enginemen were on the engine, the front brakeman was in the brakeman's booth on the tender, and the conductor and the flagman were in the caboose. This train passed the east siding-switch at Chispa at 4:28 a. m., 3 minutes later than the time it was required to wait at that point, unless First 245 was into clear on the siding. The engineer was seated in his usual position on the right side of the cab. The fireman said that, because of low steam pressure, he spent considerable time on the deck of the engine sanding the flues of the boiler at frequent intervals. When the engine was about two miles west of signal 6806 the fireman looked eastward and he thought that this signal was displaying a proceed indication at that time. He did not again observe this signal nor the indication displayed by signal 6788, the next signal eastward. The fireman was not aware of anything being wrong until just prior to the collision, when he heard the engineer call a warning, then he saw the reflection of the headlight of First 245 about 150 feet distant, and jumped from the left side of the engine. The fireman said the engine was working steam and that the air brakes had not been applied when he alighted from the engine. The brakes of this train had been tested and had functioned properly en route. The engineer died as a result of injuries received in the accident, and the front brakeman was killed. Under the conditions present, intermediate home signals 6806 and 6788, located

respectively, 2.76 miles and 1.05 miles west of distant signal 6778, should have displayed stop and signal 6778 should have displayed proceed-with-caution for Second 244. The collision occurred 0.68 mile east of signal 6778. Under the rules, Second 244 was required to stop short of signal 6806 and not to proceed until a member of the crew had proceeded ahead and an interval of 5 minutes had elapsed, then the speed of the train was required to be not in excess of 12 miles per hour until a signal indicating proceed was encountered. In tests after the accident, the signals involved functioned properly.

Cause

It is found that this accident was caused by failure to provide adequate protection for the inferior train, and by failure to operate the superior train in accordance with signal indications.

Dated at Washington, D. C., this twenty-second day of September, 1947.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.