INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3177

TEXAS ELECTRIC RAILWAY COMPANY

REPORT IN RE ACCIDENT

NEAR KIRKLAND, TEX., ON

APRIL 10, 1948

SUMMARY

Railroad:	Texas Electric	
Date:	April 10, 1948	
Location:	Kirkland, Tex.	
Kind of accident:	Head-end collision	
Trains involved:	Passenger	: Passenger
Train numbers:	3	: 6
Engine numbers:	Electric-traction car 365	: Electric-traction car 366
Consists:	Electric-traction car	: Electric-traction car
Estimated speeds:	25 m. p. h.	: 25 m. p. h.
Operation:	Timetable and train orders	
Track:	Single; 5° curve; level	
Weather:	Clear	
Time:	7:42 a. m.	
Casualties:	32 injured	
Cause:	Error in copying train order	
Recommendation:	That the Texas Electric Railway Company install an adequate block system on the line on which this accident occurred	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3177

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

TEXAS ELECTRIC RAILWAY COMPANY

May 25, 1948

Accident near Kirkland, Tex., on April 10, 1948, caused by an error in copying a train order.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On April 10, 1948, there was a head-end collision between two passenger trains on the Texas Electric Railway near Kirkland, Tex., which resulted in the injury of 30 passengers and 2 train-service employees.

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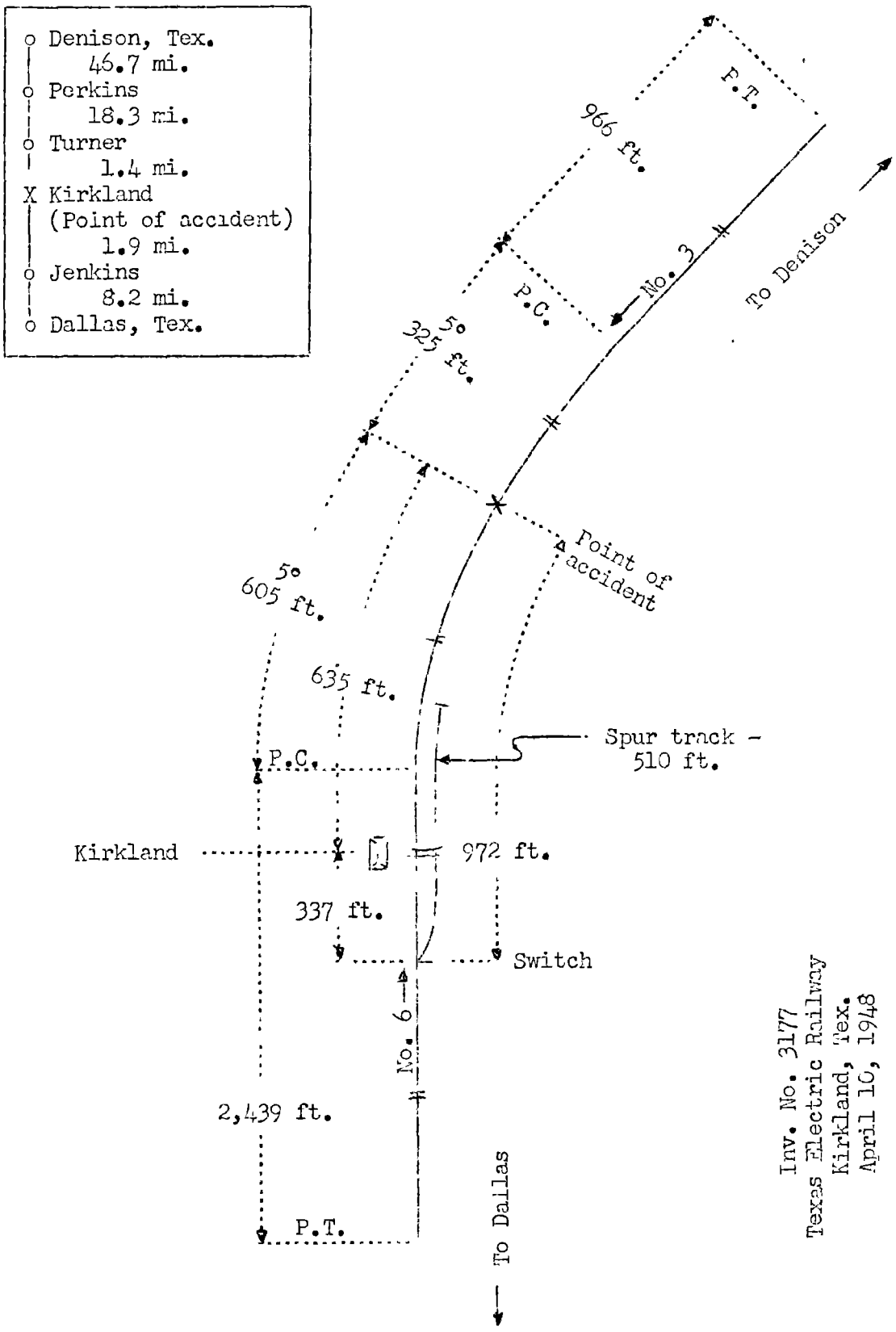
[1] Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 3177
Texas Electric Railway
Kirkland, Tex.
April 10, 1948

Location of Accident and Method of Operation

This accident occurred on the Dallas-Denison Division, which extends between Denison and Dallas, Tex., 76.5 miles. In the vicinity of the point of accident this is a single-track line, equipped with an overhead trolley system for the electric propulsion of trains, over which trains are operated by timetable and train orders. There is no block system in use. At Kirkland, 66.4 miles south of Denison, a spur track 510 feet long parallels the main track on the east. The spur-track switch is facing-point for north-bound movements and is 337 feet south of the station. The accident occurred on the main track 635 feet north of the station and 972 feet north of the spur-track switch. From the north there are, in succession, a tangent 966 feet in length and a 5° curve to the left 325 feet to the point of accident and 605 feet southward. From the south there is a tangent 2,439 feet in length and the curve on which the accident occurred. The grade is level.

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

SUPERIOR TRAIN.

30. A train having precedence over other trains. A train may be made superior to another train by right or class.

RIGHT is conferred by train order.

CLASS is conferred by time table.

* * *

MEETING POINT.

40. A place where opposing trains, i. e., trains moving in opposite direction, meet by schedule or train order.

119. Trains must approach meeting points, * * * prepared to stop, until sure the switches and signals are right and the track is clear. * * *

All curves where a clear view cannot be had of straight track ahead. Motormen in operating around such curves will have their cars under control and will operate strictly within the speed limits designated by established signs at specific locations.

* * *

Under control as herein used, shall be taken to mean:

Able to stop with an ordinary application of the brakes within one-half the distance the track is seen to be clear.

127. Whenever a train crew find they cannot reach a scheduled meeting point well within five minutes of scheduled meeting time, they will stop at the nearest siding or telephone station, when the Motorman or Conductor will call the Dispatcher, giving his train number, name and location and ask for orders, providing delay occurs between clearance stations and meeting points.

134. Each train order given for the control of two or more trains as to any matter must be addressed to the different trains and given to each in exactly the same words.

137. Each train order must be written in full by the Dispatcher in a book provided for the purpose, before or at the time of giving the order to the train crews. With it must be recorded the names of those who have signed for the order, the time, and from what station the order was repeated, and the Train Dispatcher's initials, underscoring each word and number as repeated. These records must be made at once, and never from memory or memoranda. No erasures shall appear in this book. In case an error has been made in any part of the order, cancel the entire order and rewrite it.

139. To obtain orders at telephone stations, the Motorman or Conductor will call the Dispatcher and report train number and location. The Dispatcher will give such orders as are necessary to trainmen, who will write same plainly and without unauthorized abbreviation on the blank provided for that purpose, with sufficient carbon copies for each member of the crew, and when he has finished writing the order, * * * will then read the order back to the Dispatcher, who will complete the same if correct, by giving his initials and the time of completion, which initials and time shall be promptly written on the order. When this order has been promptly completed each member of the crew must sign his own name to same, after which it will be in force and effect. If, for any reason, the line should fail before the Dispatcher completes the order, it is of no effect, and must then be treated as though it had not been given.

FORMS OF TRAIN ORDERS

FORM A--FIXING MEETING POINT FOR OPPOSING TRAINS.

155. (1) Train No.....will meet Train No.....at.....

* * *

Trains receiving this order will, with respect to each other, run to the designated point and having arrived there will meet in the manner provided by the rules.

* * *

There is no specified maximum speed for passenger trains.

Description of Accident

No. 3, a south-bound first-class passenger train, consisted of electric-traction car 365. At Turner, a blind siding, 1.4 miles north of Kirkland, the motorman copied train order No. 14 reading as follows:

Train No. 3 Meet Train No. 6 at Kirkland

This order was made complete at 7:35 a. m. No. 3 departed from Turner about 7:36 a. m., 6 minutes late, and while moving at an estimated speed of 25 miles per hour it collided with No. 6 at a point 972 feet north of the spur-track switch at Kirkland.

No. 6, a north-bound first-class passenger train, consisted of electric-traction car 366. This train departed from Dallas, the last open office, at 7:05 a. m., on time, and entered the siding at Jenkins, 1.9 miles south of Kirkland, about 7:36 a. m. to meet No. 3 in accordance with the timetable schedule meeting point. Soon afterward, the motorman copied train order No. 14, which was made complete to No. 6 at 7:38 a. m. This train departed from Jenkins about 7:38 a. m., on time, passed the spur-track switch at Kirkland, where it was required to enter the spur-track to meet No. 3, and while moving at an estimated speed of 25 miles per hour it collided with No. 3.

The front end of each traction car was badly damaged, and the front truck of each car was derailed.

The motorman of each train was injured.

The weather was clear at the time of the accident, which occurred about 7:42 a. m.

The electric-traction cars are designed for one-man operation. The superstructure is of wood construction covered by 5/32-inch steel sheathing below the windows and 20-gage steel sheathing above the windows. The centersills consist of 6-inch steel I-beams filled with wood. The remainder of each car is of steel construction. The cars are 55 feet 1/2-inch long, and have seating capacity for 48 passengers.

During the 30-day period preceding the day of the accident, the average daily movement in this vicinity was 37.3 trains.

Discussion

In the territory involved in this accident, no operators are employed to copy train orders. Train orders are transmitted by the train dispatcher over a telephone system, and the orders are copied by the conductor or the motorman of the train addressed. Telephones are provided at sidings and spur tracks. The rules require that each train order must be written in the train-order book by the train dispatcher before or at the time the order is transmitted. Record must be made of the names of those who have signed for the order, the station from which the order is repeated, and the time the order is made complete. After a train order has been transmitted and before it has been made complete, the train-service employee who has copied the order must read it to the train dispatcher. If the repetition is correct, the train dispatcher then gives the time of completion and his initials. After completion of a train order, the employee addressed is required to sign the order.

Nos. 3 and 6, which were opposing first-class passenger trains, were scheduled by timetable to meet at Jenkins, 1.8 miles south of Kirkland, at 7:38 a. m. The crew of each train consisted of only a motorman. The rules of this carrier do not provide for superiority by direction. When trains of the same class meet at a spur track it is customary practice for the train that can head into such track to enter the spur track. When a regular train is delayed to the extent that it will be 5 or more minutes late at a scheduled meeting point, it must stop at the first available telephone, where a member of the crew is required to call the train dispatcher for orders.

At Turner, 1.4 miles north of Kirkland, No. 3 was about 5 minutes late on its schedule, and the motorman called the train dispatcher by telephone for instructions. The train dispatcher sent train order No. 14, which established Kirkland as the meeting point between Nos. 3 and 6, to the motorman of No. 3, and it was made complete to No. 3 at 7:35 a. m. Later, the dispatcher sent the order to the motorman of No. 6 at Jenkins, 1.9 miles south of Kirkland, and the order was made complete to No. 6 at 7:38 a. m. No. 3 departed from Turner at 7:36 a. m., and No. 6 departed from Jenkins at 7:38 a. m. These trains collided on the main track at a point 972 feet north of the spur-track switch at Kirkland.

As No. 3 was approaching Kirkland the speed was about 30 miles per hour, the controller was notched open, and the motorman was maintaining a lookout ahead. The first the motorman was aware of anything being wrong was when his car was moving on the curve north of Kirkland and he saw No. 6 rounding the curve about 1,000 feet distant. Because of trees on the inside of the curve, the view ahead was considerably restricted. The motorman immediately moved the controller to off-position and applied the brakes in emergency. The speed of No. 3 was about 25 miles per hour at the time of the collision. The brakes of this train had been tested and had functioned properly en route.

The motorman of No. 6 said that, when he copied train order No. 14, he thought the train dispatcher gave the name Perkins as the meeting point station, and he copied and repeated the order accordingly. Perkins is 19.7 miles north of Kirkland. No. 6 was moving on the curve on which the accident occurred at a speed of about 30 miles per hour when the motorman saw No. 3 approaching about 1,000 feet distant, and he immediately moved the controller to off-position and applied the brakes in emergency. The speed of No. 6 was about 25 miles per hour when the collision occurred.

The train dispatcher said that, when the motorman of No. 6 repeated the train order, he understood the motorman to pronounce the word Kirkland and so underscored it in the train order book. The assistant superintendent said that he was in the train dispatcher's office when the train order was transmitted and he heard the train dispatcher distinctly pronounce the word Kirkland. Examination of the train-order book after the accident disclosed that the word Kirkland was written in the body of the order and that it had been underscored. The motorman of No. 6 said that he had placed his copy of the train order on a clip in the control compartment of the traction car. At the time the investigation was completed the motorman's copy of the order had not been found.

The rules of this carrier require that the words and numerals in the body of an order must be pronounced during transmission and repetition. However, the rules do not require that the names of stations and numerals in the body of the order be spelled during transmission or repetition.

In this territory trains are operated by timetable and train orders only. If an adequate block system had been in use, these opposing trains would not have been permitted to occupy the same block simultaneously.

Cause

It is found that this accident was caused by an error in copying a train order.

Recommendation

It is recommended that the Texas Electric Railway Company establish an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this twenty-fifth day of May, 1949.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,

Secretary.