

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3674

PANHANDLE AND SANTA FE RAILWAY COMPANY

IN RE ACCIDENT

AT DANFORTH, TEX., ON

JUNE 10, 1955

SUMMARY

Date: June 10, 1955

Railroad: Panhandle and Santa Fe

Location: Canadian, Tex.

Kind of accident: Derailment

Equipment involved: Locomotive with cars

Engine number: Diesel-electric units 145,
145A, and 145B

Consist: 21 cars

Estimated speed: 10 m. p. h.

Operation: Signal indications

Track: Yard track; tangent; 0.40 percent
ascending grade westward

Weather: Cloudy

Time: 1:05 p. m.

Casualties: 1 killed

Cause: Failure to operate locomotive with
cars in accordance with a signal
indication

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3634

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

PANHANDLE AND SANTA FE RAILWAY COMPANY

July 22, 1955

Accident at Canadian, Tex., on June 10, 1955, caused
by failure to operate a locomotive with cars in
accordance with a signal indication.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On June 10, 1955, there was a derailment of a locomotive with cars on the Panhandle and Santa Fe Railway at Canadian, Tex., which resulted in the death of one train-service employee.

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

Location of Accident and Method of Operation

This accident occurred on that part of the Plains Division extending between Canadian and Amarillo, Tex., 97.9 miles. In the vicinity of the point of accident this is a single-track line, over which trains are operated by signal indications. At Canadian a number of yard tracks parallel the main track on the north. The track immediately north of the main track is designated as track No. 1. A crossover connects the main track with track No. 1 at a point 1,342 feet west of the station. This crossover is facing-point for west-bound movements on the main track. A crossover 430 feet in length connects track No. 1 with track No. 4, which parallels track No. 1 on the north, at a point 1.66 miles west of the station. This crossover is trailing-point for west-bound movements on track No. 1. The west switch, which is designated as switch 13, is power-operated. The accident occurred at switch 13. Track No. 1 is tangent throughout a considerable distance on each side of the point of accident. The grade is 0.40 percent ascending westward at the point of accident.

Semi-automatic signal 14L, governing west-bound movements on track No. 1, is located 474 feet east of the point of accident. Semi-automatic signal 14R, governing east-bound movements on track No. 1 and from track No. 1 to track No. 4, is located 509 feet west of the point of accident. These signals are of the two-unit searchlight type. The upper unit of each signal is continuously lighted. The lower unit is lighted only when required to display the desired aspects. Aspects applicable to this investigation and the corresponding indications and names are as follows:

<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
Red	STOP	STOP
Red-over-yellow	PROCEED AT RESTRICTED SPEED.	RESTRICTING

These signals form part of a traffic-control system and are controlled from a control machine at Canadian. Time, indication, and route locking are provided. Miniature lamps on the control machine indicate occupancy of the track sections and the positions of controlled switches provided the switches are locked in either normal or reverse position. When a switch is not locked, the indication lamps for that switch are extinguished. The control circuits of signal 14R are so arranged that when the route is lined for movement from track No. 1 to track No. 4 the signal indicates Proceed-at-restricted-speed.

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

Definitions.

Restricted Speed.--A speed that will permit stopping short of another train or obstruction, but not exceeding 20 miles per hour.

Centralized Traffic Control Rules.

652. When a train or engine is stopped by a stop signal, and cause is not apparent, member of crew will communicate with control station by telephone, and be governed by instructions. If authorized to proceed, all switches and derails in that block must be examined before moving over them * * *

Description of Accident

Extra 145 West, a west-bound freight train, consisted of Diesel-electric units 145, 145A, and 145B, coupled in multiple-unit control, 58 cars, and a caboose. This train arrived at Canadian at 12:55 p. m. and was routed to track No. 1 via the crossover west of the station. It stopped with the front end of the train in the vicinity of signal 14L. The locomotive and the first 21 cars were detached, and this portion of the train moved westward beyond signal

14R. It then moved eastward, passed signal 14R, which indicated Stop, and while moving at an estimated speed of 10 miles per hour the four most easterly cars and the east truck of the fifth car were derailed at switch 13.

The derailed equipment stopped approximately in line, with the east end of the east car between track No. 1 and the crossover and approximately 200 feet east of switch 13. The most easterly car was considerably damaged, and the other derailed cars were somewhat damaged.

The front brakeman was killed.

The weather was cloudy at the time of the accident, which occurred about 1:05 p. m.

Discussion

When Extra 145 West arrived at Canadian the enginemen, the front brakeman, and the flagman were on the locomotive. The conductor was in the caboose. The first 21 cars were to be set off at Canadian, and when the train stopped the flagman detached these cars from the rear portion of the train. He then proceeded northward to line switches for movement to a yard track. The front brakeman alighted at signal 14R, and when the forward portion of the train had passed the signal he gave a stop signal. He then crossed to the south side of track No. 1 and called the operator on the telephone. The engineer said that a short time later the brakeman returned to the north side of the track and gave a back-up signal. The engineer could not see signal 14R from his position in the control compartment, and when he saw the brakeman's signal he asked the fireman the indication of signal 14R. The fireman replied that the signal indicated Stop. The engineer said that he extended one of his arms as an indication to the brakeman that the signal indicated Stop. The brakeman gave a signal commonly in use in this territory that he understood and that he had made arrangements for the movement to pass the signal. He then gave another back-up signal. The engineer

started the forward portion of the train eastward, and he said that the brakeman boarded the east car. The engineer said that as this car was closely approaching switch 13 the brakeman disappeared from his view. When this occurred he applied the independent brake. Several seconds later the brakes became applied in emergency as a result of the derailment. The fireman said that signal 14R indicated Stop from the time the forward portion of the train passed it until the eastward movement was made. From his position in the control compartment he could not see the signals given by the brakeman. Both he and the engineer estimated that the eastward movement was made at a speed of about 10 miles per hour.

The operator of the traffic-control machine said that after the forward portion of Extra 145 West passed signal 14R he set the machine to line switch 13 for movement through the crossover. In operating a switch, several seconds elapse between the time the starting button is depressed and the time an indication appears on the control panel that the switch is locked in the desired position. The operator said that after he depressed the starting button the front brakeman of Extra 145 West called on the telephone and informed him that the forward portion of the train was ready to move eastward through the crossover. He told the brakeman that the switch was being lined for the movement. The brakeman then left the telephone. No indication appeared on the control panel that the switch had become locked in reverse position, and after waiting for some time the operator set the machine to restore the switch to normal position. The switch operated to this position properly. The operator then made a second attempt to operate the switch to reverse position. He said the lights on the control panel indicated that the forward portion of the train of Extra 145 West passed signal 14R after the switch became unlocked and before it had moved to reverse position and become locked in that position.

After the accident occurred, the fifth car from the east end of the forward portion of the train of Extra 145 West was found to be standing with the west truck about 15 feet east of the switch points of switch 13. The south wheels were on the stock rail of track No. 1, and the north wheels were on the stock rail of the crossover. The switch

points were in mid-position between the stock rails. Neither the switch points nor the mechanism of the switch machine were damaged. There was no indication that the switch points had been forced in either direction while the mechanism was locked in either normal or reverse position, and apparently the switch points were in mid-position when the first car passed the switch. Marks on the ties indicated that wheels had dropped inside the south rail of track No. 1 and inside the north rail of the crossover a short distance east of the switch points.

The signal maintainer was of the opinion that when the operator attempted to operate the switch, the switch failed to move to full reverse position because of dirt and sand on the switch plates. Sand had been blowing, and there had been a rain on the day before the accident occurred. Other than this dirt and sand, he could find no cause for the failure of the switch to operate properly.

The rules of this carrier provide that a train or engine may pass a stop signal if authorized by the employee in charge of the control machine of a traffic-control system. In the instant case the operator said that in his opinion nothing was said during his conversation with the front brakeman of Extra 145 West which the brakeman could interpret as authorizing him to pass signal 14R while that signal indicated Stop. However, from the signals given by the brakeman it appears that he understood that he had received authority to pass the signal. The brakeman was killed in the accident.

Cause

This accident was caused by failure to operate a locomotive with cars in accordance with a signal indication.

Dated at Washington, D. C., this twenty-second day of July, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,
Secretary.