

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
NEW YORK, CHICAGO & ST. LOUIS RAILROAD NEAR  
SWANVILLE, PA., ON JUNE 13, 1928.

July 28, 1928.

To the Commission:

On June 13, 1928, there was a head end collision between two freight trains on the New York, Chicago & St. Louis Railroad near Swanville, Pa., resulting in the injury of four employees.

Location and method of operation

This accident occurred on the Buffalo Division, which extends between Buffalo, N. Y., and Conneaut, Ohio, a distance of 116.8 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time-table and train orders. The block-signal system in use governs only passenger movements. The accident occurred at point approximately 1,450 feet west of Swanville station, approaching the point of accident from the west there is a  $1^{\circ}$  curve to the right 183.3 feet in length, followed by 2,827.1 feet of tangent, the accident occurring on this tangent at a point about 500 feet from its eastern end. Approaching from the east there is a  $3^{\circ}$  curve to the right 650.8 feet in length, followed by the tangent on which the accident occurred. The grade at the point of accident is practically level, and the view was good.

Train orders are issued on Forms 17 and 19. In the case of an order on Form 19, the operator is required to deliver the order personally to the engineman and conductor, reading the order to them and taking their signatures, such an order is made complete after having been repeated by the operator to the dispatcher and prior to obtaining the signatures of the engineman and conductor. The special instructions in the time-table provide that in the case of an order on Form 17, the operator is not required to read such an order to the engineman and conductor, or to secure their signatures, an order on Form 17 is not to be used in restricting the rights of a superior train.

The weather was clear at the time of the accident, which occurred at about 4.32 p. m.

#### Description

Eastbound second-class freight train second No. 58 consisted of 94 cars and a caboose, hauled by engine 611, and was in charge of Conductor Friend and Engineman Hites. At Thornton Junction, 9.5 miles west of Swanville, a copy of train order No. 48, Form 19, was received, reading as follows.

"C&E 2nd No. 58.

2nd No. 58 Eng 611 will wait at Fairview Pit until four forty 4.40 p. m. for No. 51 Eng 640 ---No 13 and 2nd No 58 will meet at Swanville --- No 13 will take siding."

Fairview Pit is 5.9 miles east of Thornton Junction and 3.6 miles west of Swanville. Train second No. 58 left Thornton Junction at 4.12 p. m., 5 hours and 17 minutes late out instead of waiting at Fairview Pit as required by the train order it passed that point at about 4.29 p. m., 11 minutes in advance of the specified time, and was approaching Swanville when it collided with train No. 51 while traveling at a speed estimated to have been between 15 and 25 miles per hour.

Westbound third-class freight train No. 51 consisted of 89 cars and a caboose, hauled by engine 640, and was in charge of Conductor Gibbons and Engineman Miller. At Erie, 12.1 miles east of Fairview Pit, a copy of train order No. 48, Form 17, previously quoted, was received. Train No. 51 departed from Erie at 4.11 p. m., 1 hour and 36 minutes late, passed Swanville and collided with train second No. 58 while traveling at a speed estimated to have been between 15 and 25 miles per hour.

Both engines remained upright but were considerably damaged. The first five cars in train second No. 58 were derailed, while the twenty-seventh to the thirty-first cars, inclusive, were derailed and demolished. The first three cars in train No. 51 were not derailed but the next three cars were derailed and overturned.

Summary of Evidence

Engineman Hites, of train second No. 58, stated that when approaching Thornton Junction he reduced the speed of the train by means of the independent engine brake, as he thought there was a car in the train with a defective air brake and that had he made a service application by means of the automatic brake the car with the defective brake might have caused an emergency application, with resultant damage to equipment. The train was kept moving at a low rate of speed when passing Thornton Junction and Engineman Hites got off the engine, received train order No. 48 from Operator Ryan and signed for it, without having the operator read the order to him, and then got back on the moving train about five cars behind the engine, went over the top of the cars to the engine and the train continued en route without any stop having been made. Instead of reading the train order correctly Engineman Hites read it to the effect that his train would wait at Swanville until 4.40 p. m. for train No. 51 and would also meet train No. 13 at that point, Engineman Hites then gave the order to Fireman Delanty but did not read it to the fireman. There was no train in the siding at Fairview Pit and on reaching the curve to the right located at the western end of the tangent on which the accident occurred, Engineman Hites looked back along the train and watched the cars all the way around the curve. When his engine was about 35 car-lengths west of the eastern end of bridge No. 62, a steel viaduct 866 feet in length, at which time the end of his train was about 35 miles per hour, he saw train No. 51 rounding the curve at the eastern end of the tangent apparently 50 or 60 car-lengths distant. He made an emergency application of the air brakes but said that the brakes did not seem to hold very well and shortly afterwards, on reaching a point 760 feet east of the eastern end of the bridge, the accident occurred, at which time the speed of his train was about 20 miles per hour. Engineman Hites stated that while a terminal test of the air brakes was made by the car inspectors before his train departed from Conneaut yet for several years it had not been the practice of the car inspectors to inform him as to the condition of the air brakes or as to the percentage of operative air brakes on the cars in the train, he has had car inspectors tell him, however, if the brakes on a car were cut out, although ordinarily cars are not permitted to depart from

Conneaut with the brakes cut out. Considerable time was spent on this particular occasion in looking for a car with a defective air brake and some of the cars in the train were set out. He was not certain as to the number of cars in his train on leaving Conneaut, although the consist called for 80 loads and 24 empties, and he said he had had no occasion to use the air brakes prior to the accident. Engineman Hites further stated that there was nothing about the condition of his engine to distract his mind from the contents of the train order and acknowledged that there was nothing unusual about the wording of the order, saying that similar train orders are received every day, he could offer no explanation for his failure to read the order correctly and admitted his share of the responsibility for the accident, which he said was caused by his misreading the train order.

Fireman Delanty, of train second No. 58, also misread train order No. 48 and got the impression that his train was to wait at Swanville for train No. 51, as well as meet train No. 13 at that point. He said that the order was perfectly legible and he and Engineman Hites commented upon the order, although they did not read it back to each other. Previous to the receipt of the order Fireman Delanty had thought they would be able to reach Cascade, 6.1 miles east of Swanville, for train No. 13 and he was thinking about meeting train No. 13 at that point when the order was received, the first thing he noticed when he read the order was to see where his train was to meet train No. 13, which part of the order appeared at the bottom, and when he saw that his train was to meet train No. 13 at Swanville it was not to his liking as he thought there was ample time for his train to go to Cascade for train No. 13. As a result of this situation he confused the first part of the order in regard to waiting at Fairview Pit for train No. 51 and was under the impression that his train was to wait at Swanville for train No. 51. When his train went upon bridge No. 62 Fireman Delanty was breaking up a large lump of coal, and when the engine-man made what the fireman thought was a service application of the brakes, followed by an emergency application, at which time the engine was about halfway over the bridge moving at a speed of about 30 miles per hour, Fireman Delanty looked out and saw train No. 51 approaching, he felt the air brakes take effect and jumped just before the accident occurred. Fireman Delanty stated that he thought the car with the defective air brake was found

before the train left Conneaut. The only reason the fireman could offer for overlooking the wait at Fairview Pit for train No. 51 was the fact that he had his mind on meeting train No. 13 at Cascade and therefore confused the first part of the order. Fireman Delanty admitted his share of the responsibility for the accident.

Conductor Friend, of train second No. 58, stated that when his train passed Thornton Junction the operator handed on a copy of train order No. 48 to Flagman Stearns, who was on the rear of the caboose. Conductor Friend thoroughly understood the contents of the order, not having misread it, and he said the reason he did not apply the air brakes from the rear of the train when the caboose passed Fairview Pit, at which time the flagman called the matter to his attention, was the fact that he at first thought the engineer probably had received additional orders at Fairview, although that point is 0.9 mile east of Fairview Pit. As the train proceeded, however, he deliberated again and said he hesitated about applying the air brakes from the rear owing to the fact that there had been a car in the train with a defective air brake, and he was not sure that particular car was not still in the train and he thought that if he applied the brakes from the rear it might cause the train to break in two. Later on, while riding in the cupola of the caboose, watching very closely, he saw train No. 51 approaching, and on this occasion his reason for not applying the air brakes from the rear was because he thought that if he did so the engines would meet on the bridge. He felt the air brakes apply shortly before the occurrence of the accident, at which latter time the speed of the train was between 20 and 25 miles per hour. It also appeared from his statements that a terminal test of the air brakes was made at Conneaut and that several cars were set out of the train, and before departing from that point he was informed that the brakes were all right. Conductor Friend further stated that Flagman Stearns called his attention to the fact that their train was going by Fairview Pit instead of waiting there for train No. 51, and he was also aware that there was no train standing in the siding at Fairview Pit, and he admitted that the accident probably would have been averted had he applied the air brakes in emergency at that time.

Flagman Stearns said that he thoroughly understood the contents of train order No. 48 and when his train had passed Fairview Pit and had reached a point about 10 car-lengths east of the east switch, at which time he was working on the wheel report, he looked at his watch, saw it was only 4 28 p. m., and called the conductor's

hoop to Flagman Stearns as the caboose passed, the train not having been brought to a stop.

Between Brocton and Thornton Junction, a distance of 55.4 miles, within which territory this accident occurred, passenger movements are safeguarded by a block-signal system. In addition to the passenger trains, however, there are six westbound and eight eastbound freight trains which are operated daily, not counting such additional sections of these trains as may be necessary, or such extras as may be operated from time to time. With traffic of this density over a single-track line it would seem that the operation of the block-signal system should be extended to cover train movements of all classes. Had such a system been in use this accident might have been prevented.

All of the employees involved were experienced men and at the time of the accident none of them had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. HOLLAND,

Director.