

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
PENNSYLVANIA RAILROAD

ELWOOD, IND.

JULY 11, 1938

INVESTIGATION NO. 2281

SUMMARY

Inv-2281

Railroad: Pennsylvania
Date: July 11, 1938
Location: Elwood, Ind.
Kind of accident: Collision
Trains involved: Engine, switching : Freight
Train numbers: Extra 8270 West : Extra 8162 West
(RH-1) (CO-3)
Engine numbers: 8270 : 8162
Consist: 1 car : 24 cars
Speed: Standing : 8-10 m.p.h.
Operation: Timetable, train orders and manual
block-signal system
Track: Single; tangent; practically level
Weather: Clear
Time: 6:30 p.m., daylight
Casualties: 1 killed; 2 injured
Cause: Failure of Extra 8162 West to be
operated under proper control
within yard limits

August 13, 1938.

To the Commission:

On July 11, 1938, there was a collision between a freight train and an engine making a switching movement on an industrial track on the Pennsylvania Railroad at Elwood, Ind., which resulted in the death of one trespasser and the injury of two trespassers.

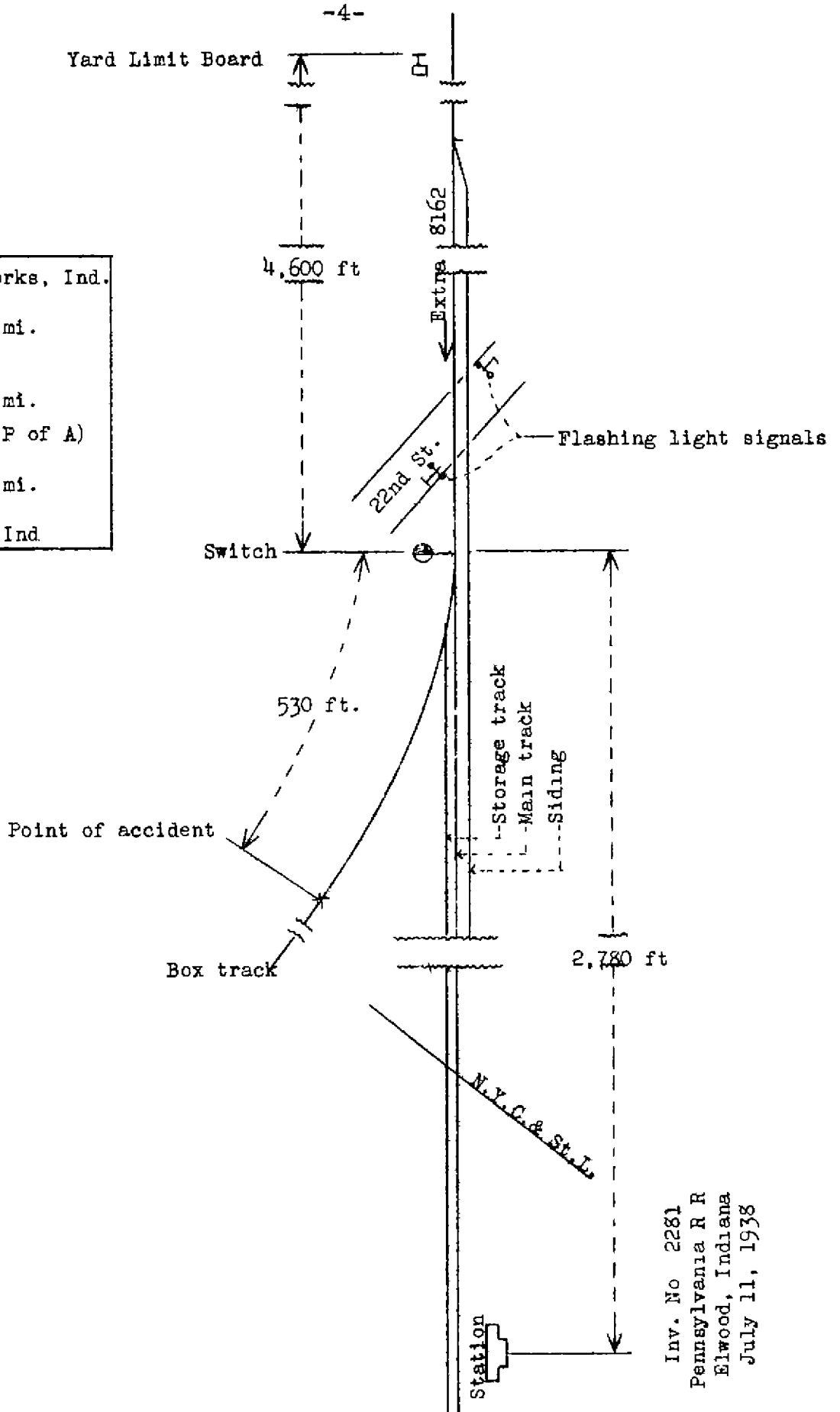
Location and method of operation

This accident occurred on that part of the Richmond Branch, Cincinnati Division, extending between Greens Fork and Walton, Ind., a distance of 88.6 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable, train orders and a manual block-signal system. The collision occurred within yard limits, on an industrial track known as the box track, at a point 530 feet from the main-track switch of a track designated as the storage track. Approaching from the east the main track is tangent for several miles to the storage-track switch and for a considerable distance beyond. The east switch of the storage-track, located 4,600 feet west of the east yard-limit board, is a facing-point switch for westward movements. The storage track leads off the main track to the north through a No. 10 turnout and parallels the main track. The switch is hand operated and is provided with a New Century No. 50-B intermediate switchstand which is located 7 feet 11 inches from the gage side of the north rail and is equipped with a switch lamp, a red banner and a white banner; the centers of the banners are located 7 feet 3½ inches above the ties. The red banner is displayed when the switch is lined for the storage track and the white banner when the switch is lined for the main track. The view of the switchstand for an engineman of a west-bound train was unobstructed. The box-track switch is located 93 feet west of the storage-track switch and is a facing-point switch for westward movements. The box track leads off the storage track to the north through a No. 8 turnout, followed by a 10° curve to the right 200 feet in length, 137 feet of tangent track, another 10° curve to the right 100 feet in length, and then tangent track; the accident occurred at the north end of the last-mentioned curve, at which point the grade is 0.01 percent descending northward. The box-track switch is hand operated and is provided with a New Century 50-A low stand located on the north side of the track; it is not equipped with lamp or banner.

A siding about 3,100 feet long parallels the main track on the south; the east switch is located about 1,350 feet east of the storage-track switch.

Yard Limit Board

o	Green Forks, Ind.
	41.2 mi.
o	Dow
	13.0 mi.
⊠	Elwood (P of A)
	34.4 mi.
o	Walton, Ind.



Inv. No 2281
 Pennsylvania R R
 Elwood, Indiana
 July 11, 1938

The maximum authorized speed for freight trains is 40 miles per hour.

Rules 93 and 317d read as follows:

93. (Single Track) Within yard limits the main track may be used clearing first-class trains as prescribed by the rules and protecting against other regular trains. Extra trains must move within yard limits prepared to stop unless the main track is seen or known to be clear.

317d. (Single Track.) Within yard limits when trains other than passenger trains are approaching under Permissive Block-signal, signalmen may permit other than passenger trains to make yard movements under Permissive Block-signal, and may permit other than passenger trains to enter the block under Permissive Block-signals while such yard movements are being made.

Rule 280 provides that trains other than passenger trains receiving a permissive block-signal indication shall proceed with caution prepared to stop short of train or obstruction.

Under special instructions contained in timetable No. 28, rule D1801 reads as follows:

D1801. Rules 93 and 317d amplified:

The use of the main track within yard limits, authorized by Rules 93 and 317d, applies to engines not authorized by time-table schedule or train order to use the main track within yard limits, and they may do so without train orders. Under Manual Block operation, before entering the block, the conductor or engineman must notify the signalman when it is desired to make such a yard movement, they must not exceed a speed of 15 miles per hour, prepared to stop short of other yard movements, extra trains or obstructions; they are not required to protect against other yard movements and extra trains. ***

It was daylight and the weather was clear at the time of the accident, which occurred about 6:30 p.m.

Description

Engine 8270, representing RH-1, headed west with one empty car coupled ahead, was in charge of Conductor Anderson and Engineman Abbott. It headed in at the storage-track switch and, leaving the switch open and unattended, headed in at the box-track

switch, which was also left open, and was engaged in placing the car at a loading platform on the box track when the rear end of the tender was struck by Extra 8162 West.

Extra 8162 West, an arranged-service freight train and representing CO-3, consisted of 24 cars and a caboose, hauled by engine 8162, and was in charge of Conductor Terhune and Engineman Brown. This train passed Dow, the last open block-office, 13 miles east of Elwood, at 6:15 p.m., according to the train sheet, under a permissive block-signal indication, passed the east yard-limit board at Elwood, and upon reaching a point 4,600 feet beyond, entered the open storage-track switch and then the open box-track switch, and collided with the tender of engine 8270 on the box track while traveling at a speed estimated to have been between 8 and 10 miles per hour.

Engine 8270 was driven forward about 70 feet by the impact and stopped against a cut of six cars; its front tender truck was derailed and the frame and cistern were badly damaged. The front end of engine 8162 was damaged, but the engine was not derailed; the forward pair of wheels of the rear truck of the sixth car in Extra 8162 was derailed.

Summary of evidence

Conductor Anderson, of engine 8270, stated that upon arrival at Elwood from Dow, at 2:55 p.m., the running order was fulfilled and the train was placed in the siding. His crew then engaged in switching until 6:10 p.m., at which time he told the operator that his engine was going to the box track and that as soon as it got back it would be ready to depart. At this time the operator told him that Extra 8162 was not in the block. The engineman, fireman and the two brakemen accompanied the engine to the box track to make the set-out but the conductor remained in the vicinity of the water plug, about 60 car lengths west of the storage-track switch, closing the main-line switches. He thought it would not take over 10 or 15 minutes to set out the one car, and that his engine might get back in time to depart ahead of Extra 8162, saying that he did not know that three other cars had been set off on the box track. His engine was operating under special instructions just as it did every day, and said the switching movement could be made in the yard without protection and that Extra 8162 should have been operated prepared to stop, expecting to find track occupied or switches open.

Engineman Abbott, of engine 8270, stated that when his engine backed eastward on the main track to head in at the box track and set out the one car ahead of it, he looked back along the straight track but did not see any indication of Extra 8162 approaching, nor did he know that it was due or coming. On reaching the box

track his engine headed in and was on that track about 5 to 8 minutes when the car ahead was detached. He then heard Extra 8162 whistle for the crossings. He did not think that his own engine had started to move when he saw Extra 8162 enter the open switches, traveling at a speed of about 20 miles per hour and only 10 or 12 car lengths distant; he jumped and then the accident occurred. He was an extra engineman and this was the first day he had operated RH-1; however, he had occasionally operated CO-3, and he said that under the conditions which existed on the day of the accident Extra 8162 should have been operated under control prepared to stop; this also required the engineman to see whether the switch was in wrong position.

Fireman Atkinson and Brakemen Irvin and Thomas, of engine 8270, gave testimony to the effect that they did not see any indication of Extra 8162 approaching at the time their own engine entered the main-line switch to place the empty car on the box track, otherwise they would have closed the storage-track switch after heading in. Their engine was on the box track between 4 and 7 minutes when they heard Extra 8162 whistle for two street crossings as it approached and they could tell from the sound of the whistle that the train probably was not going to stop before reaching the open main-line switch. Brakeman Irvin then ran toward the storage-track switch and gave stop signals in an endeavor to avert the accident, but Extra 8162 entered the switch at a speed of about 15 or 20 miles per hour and the speed had been reduced to about 8 or 10 miles per hour when the impact occurred. Usually work is performed until other trains show up, then their engine goes into the clear and lets the other trains by. They stated that engine 8270 was operating in yard limits under proper authority and the provisions of timetable special instruction D1801, and that Extra 8162 should have been operated under control. Fireman Atkinson stated that it was not unusual for a switch within yard limits to be open.

Engineman Brown, of Extra 8162 West, stated that his train passed Dow under a permissive block-signal indication. The weather was clear; it was daylight and the visibility was good. He could see the main track for several miles and there was nothing ahead on it, nor was there any smoke or other indication that the local engine was in that territory. Approaching the east yard-limit board at Elwood he closed the throttle, then applied the air brakes, reducing the speed to about 25 miles per hour, and released the brakes when about 15 car lengths from the storage-track switch, permitting the train to drift. He looked ahead, but again did not see anything on the track, and he sounded the whistle for two street crossings. His fireman was observing the train which stood on the siding. Some cars were to be picked up from the west end of the storage track and he looked back along the train for a signal from the head brakeman in order to know whether to cut off

the engine or to hold to some cars while making the pick up. While looking back he felt the engine lurch when it entered the open storage-track switch at a speed of about 20 miles per hour. He immediately applied the air brakes in emergency and then the impact occurred. The air brakes were tested and worked properly en route; he thought that he released them about a half-minute or so prior to making the emergency application. Engineman Brown said that he overlooked the position of the storage-track switch and did not recall of ever having found this switch open before. It was his opinion that he would have been able to stop short of the open switch had he taken action when it was first possible for him to see the position of the switch. He stated that this was his regular run, that rule 93 was in effect within yard limits and that he was familiar with timetable special instruction D1801. There was no particular point at which he expected to find the local engine.

Fireman Hagerty, of Extra 8162 West, stated that when approaching the east yard-limit board at Elwood he was on his seat-box looking ahead and the speed was about 40 miles per hour; the engineman applied the brakes, reducing the speed to about 15 miles per hour through the yard limits, then released. He said he was maintaining a lookout ahead but did not see the switchstand or the position of the switch points until the engine had almost reached it, and he merely got a glimpse of the open points. Shortly thereafter the engine entered the open switch and the engineman applied the brakes in emergency and then the impact occurred. Head Brakeman Bulach was on the left side of the tender approaching Elwood; he did not observe Engineman Brown looking toward him nor did he observe the position of the storage-track switch.

Conductor Terhune and Flagman Wiesehan, of Extra 8162 West, were on the caboose, and they could not see the switch. They said the speed was about 40 miles per hour approaching Elwood and the air brakes were applied and then released, reducing the speed to between 10 and 20 miles per hour on entering the switch. These employees were not aware of anything wrong until the accident occurred. The conductor did not recall of ever having had to stop on account of finding the storage-track switch open. He said that under a permissive block-signal indication it was all right to run at the maximum authorized speed so long as the track was seen to be clear, but that where it could not be so seen it was required to run under control expecting to find an obstruction of some kind.

Observations of the Commission's Inspectors

The Commission's inspectors observed that there was nothing to interfere with the view, from the cab of an engine approaching from the east, of the main-track switch involved in this accident.

Discussion

Extra 8270 arrived at Elwood about 2:55 p.m., where it fulfilled its running order, and its train was placed in the siding. Engine 8270 then performed switching within the yard limits under permission and authority of timetable special instruction D1801. It was so engaged and was spotting an empty car on the box track, the main-line storage-track switch and the box-track switch having been left open and unattended. Shortly after the engine entered the box track Extra 8162 West entered the open switches and struck the rear end of the tender of engine 8270 at about 6:30 p.m. The switches involved had been left open about 4 to 8 minutes, and according to the evidence it appears this was permissible within yard limits.

Extra 8162 West left Dow under a permissive block-signal indication. The track was straight for several miles approaching Elwood; the weather was clear; it was daylight and the visibility was good. The air brakes had been tested and were in proper working order. The speed was about 40 miles per hour when the engineman closed the throttle, reducing the speed to about 25 miles per hour, and released the brakes when about 15 car lengths from the switch and permitted the train to drift. The engineman, fireman and head brakeman looked ahead and ascertained that there was no engine or cars occupying the main line within yard limits; however, they did not see the open switch, and none of them was aware of its position until their own engine entered it at a speed of between 10 and 20 miles per hour, but it was then too late to avert the accident since the emergency application of the brakes did not stop the train short of engine 8270. Extra 8162 was to pick up cars from the west end of the storage track and instead of maintaining a proper lookout ahead, the engineman was looking back for a signal from the head brakeman to find out how many cars to hold behind the engine at the west end of the storage track, and he overlooked the position of the storage-track switch, not knowing that it was open until the engine entered it. According to the evidence the speed was not so great but that the engineman could have stopped the train short of the storage-track switch had he been looking ahead and observed the position of the switch when he was first able to see it. Proper observance of the requirements of rule 93 would have averted this accident.

Conclusion

This accident was caused by failure to operate Extra 8162 West under proper control within yard limits.

Respectfully submitted,

W. J. PATTERSON,
Director.

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