

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON
THE PENNSYLVANIA RAILROAD NEAR WILKES-BARRE, PA ,
ON JANUARY 28, 1932.

March 10, 1932.

To the Commission:

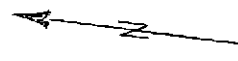
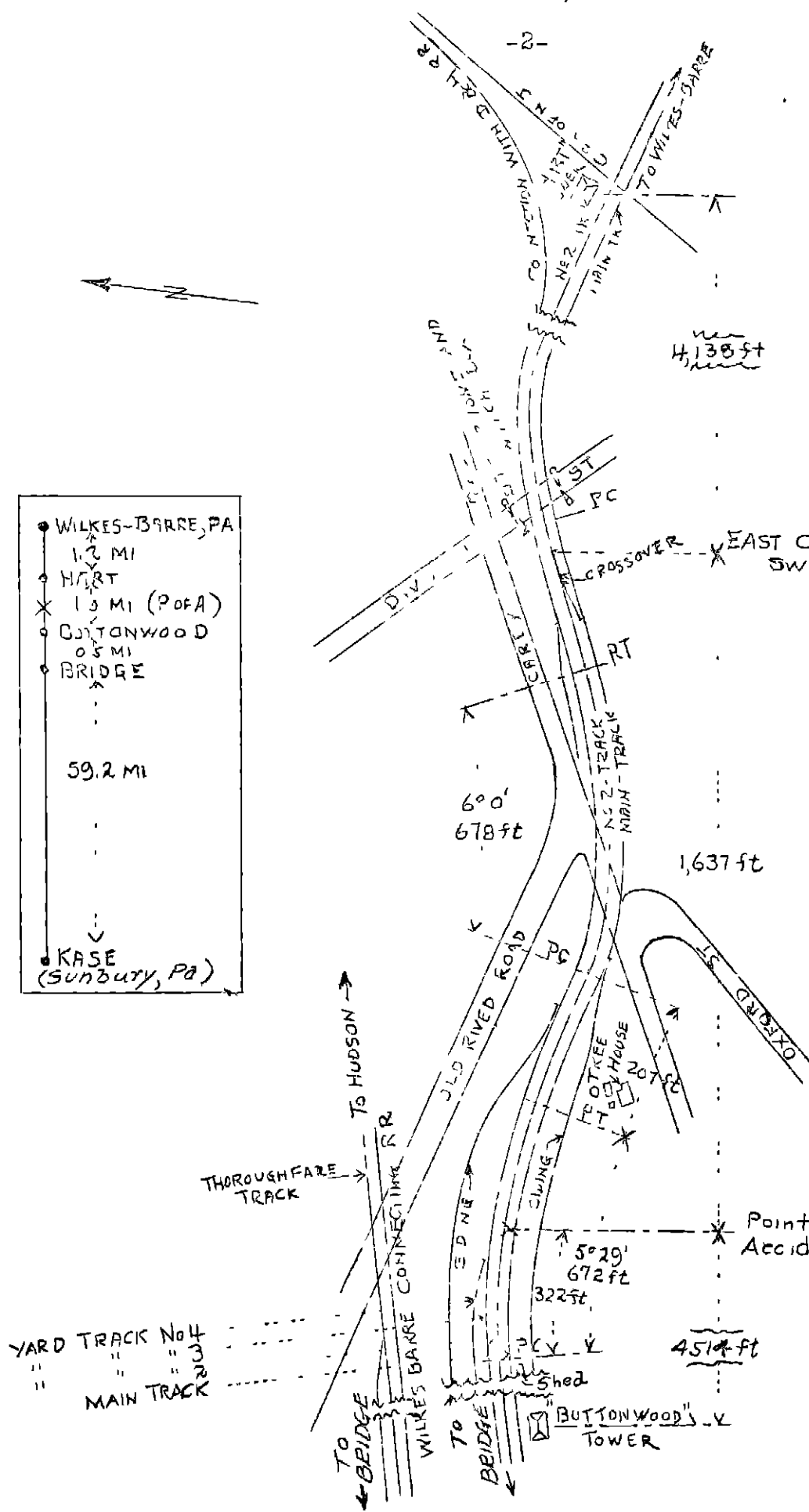
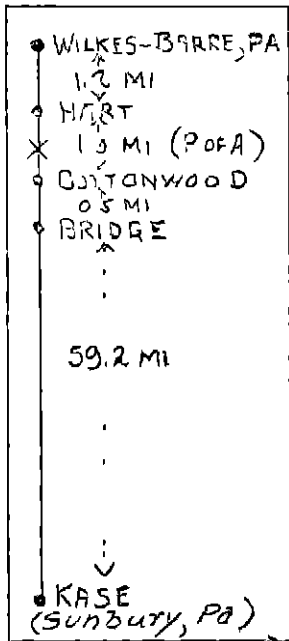
On January 28, 1932, there was a head-end collision between an engine hauling an auxiliary water tank car and another engine hauling a cabin car on the Pennsylvania Railroad near Wilkes-Barre, Pa., which resulted in the death of one employee and the injury of one employee. This accident was investigated in conjunction with a representative of the Pennsylvania Public Service Commission.

Location and method of operation

This accident occurred on that part of the Sunbury Division extending between Kase (Sunbury) and Wilkes-Barre, Pa., a distance of 42.3 miles, in the vicinity of the point of accident there is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. Yard tracks parallel the main track on the north, yard track 2 being adjacent to the main track. The accident occurred on the main track, within yard limits, at a point 4,514 feet east of Buttonwood tower or 5,775 feet west of Hart tower. Approaching the point of accident from the west, there are 690 feet of tangent, followed by a $5^{\circ} 29'$ curve to the right 672 feet in length, the accident occurring on this curve at a point 522 feet from its western end. Approaching from the east there is a 6° curve to the right 672 feet in length and then 207 feet of tangent track, followed by the curve on which the accident occurred. The grade is practically level.

The tracks of the Wilkes-Barre Connecting Railroad, hereinafter referred to as the W-BCRR., are located north of the tracks of the Pennsylvania Railroad, and connect with the Pennsylvania main track at Bridge, west of Buttonwood tower. Movements on the main track of the Pennsylvania are governed by manual block signals located at Buttonwood and Hart towers. At a point 4,138 feet west of Hart, just west of Division Street, there is a crossover connecting yard track 2 with the main track and

INV. NO. 1748
 PENNSYLVANIA R. R.
 WILKES-BARRE, PA.,
 JAN. 28, 1932.



H 138 ft

1,637 ft

600' 678 ft

5029' 672 ft
322 ft

451 ft

there is a telephone nearby.

The view is obscured by buildings and sheds located south of the main track and on each end of the curve on which the accident occurred, and an embankment on the inside of the curve which varies in height from 3 feet to $6\frac{1}{2}$ feet above the rails. At the time of the accident a freight train was standing on yard track 2, with its rear end about 10 car-lengths west of the point of accident.

The weather was clear at the time of the accident, which occurred about 9.30 p. m.

Description

Westbound extra engine 8134, in charge of Conductor Smith and Engineman Hawk, hauling an auxiliary water tank car, left Hart on yard track 2 at 9.16 p. m. and placed a caboose on the rear end of the train that stood on that track. The engine then made a back-up movement to the crossover near Division Street and permission was obtained from the operator at Hart to cross over and proceed westward on the main track to Buttonwood. Engine 8134 departed from Division Street at 9.24 p. m., according to the block record, and shortly thereafter, while proceeding westward on the main track at a speed estimated to have been between 2 and 8 miles per hour, it collided with the caboose being shoved ahead of engine 3495.

Eastbound extra engine 3495, in charge of Conductor Fromm and Engineman Barnhart had delivered a train to the Delaware & Hudson Railroad at Hudson, Pa., and then returned westward over the W-BCRR. Engine 3495 was admitted to the main track of the Pennsylvania Railroad at Bridge, located about 0.5 mile west of Buttonwood tower, about 9.25 p. m., proceeded eastward with its caboose coupled ahead of it, passed Buttonwood tower at 9.28 p. m. according to the block record, under a clear block-signal indication, and collided with engine 8134 while traveling at a speed estimated to have been between 12 and 15 miles per hour.

The caboose of extra 3495, of steel-underframe construction and wooden body, was crushed between the two engines, caught fire and was consumed, the engines stopped with their head ends only 8 feet apart. Engine 3495, of the 2-8-2 type, had all wheels derailed except the trailer wheels, while engine 8134 was not derailed, the front ends of both engines were damaged. The employee killed was the flagman of engine 3495, while

the employee injured was the conductor of that engine, both of whom were riding on the caboose.

Summary of evidence

Conductor Smith, of engine 8134, said he telephoned Operator Jarrett at Hart tower and obtained permission to cross over from yard track 2 and use the main track from Division Street to Buttonwood. Conductor Smith opened the main-track switch of the crossover and he said that the headlight on his engine was burning brightly when the engine went by him, following which he closed and locked the switch and boarded the rear end of the auxiliary water tank car, he said that he obtained the block at 9.24 p. m., and he judged that his engine actually reached the main track at 9.27 p. m. Conductor Smith looked ahead when passing Oxford Street and noticed that the headlight on his engine was still burning, the first knowledge he had of anything wrong was when the air brakes were applied in emergency, on reaching a point about five telegraph pole lengths west of Oxford Street, at which time the speed of his engine was 6 or 8 miles per hour, and he thought that his engine had been brought to a stop immediately prior to the impact.

Engineman Hawk, of engine 8134, stated that he turned the headlight on full before starting the crossover movement and that his engine proceeded westward on the main track at a speed not exceeding 8 miles per hour at any point. The first he knew of anything wrong was when the fireman shouted a warning of danger and he immediately applied the air brakes in emergency, he estimated the speed to have been between 2 and 4 miles per hour when the impact occurred, at which time the headlight on his engine was still burning brightly, not having been dimmed en route. At no time did he see engine 3495 prior to the collision, as he was on the outside of the curve, the fireman was on the seat box on the left side of the cab from the time the engine left Division Street and was apparently maintaining a proper lookout ahead, no conversation being held between them.

Fireman Hill, of engine 8134, stated that he was sitting on his seat box looking ahead for the indication displayed by a signal located about 4,000 feet east of Buttonwood tower, this signal governing various intermediate switches and also being the distant signal for the block signal at Buttonwood. When his engine entered upon the track circuit, which extends 584 feet east of the distant signal, he saw the light go on and called "caution distant signal." He then saw the caboose being

pushed by engine 3495, about 100 feet distant, with a dim light shining through the windows, and shouted a warning of danger, the engineer applying the air brakes in emergency and reducing the speed from 10 or 11 miles per hour to 4 or 5 miles per hour at the time of the collision. Fireman Hill first said the headlight on his engine was not burning, while later on he said it was only dimmed and should have been visible to the opposing crew. The headlight on the opposing engine was not burning, and he did not observe any one on the front end of the caboose that was being shoved ahead of that engine, nor did he see any lights on the forward platform.

Head Brakeman Kline, of engine 8134, was in the gangway looking towards the engineer's side, in order to count the cars on track 2, he was not in position to see ahead, did not know whether the headlight was burning, and was unaware of anything wrong until the fireman shouted a warning of danger. He estimated the speed of his engine at the time of the accident to have been about 7 or 8 miles per hour.

Flagman Bidding, of engine 8134, was engaged in releasing hand brakes on the cars on yard track 2 and the first knowledge he had of anything wrong was when he heard the crash of the collision, he knew nothing of the circumstances leading up to its occurrence.

Conductor Fromm, of engine 3495, stated that when returning westward on the W-BCRR he telephoned Operator Ashworth at Buttonwood tower and was told to proceed to Bridge and then move eastward on the main track of the Pennsylvania Railroad. When his engine reached a public highway crossing at Buttonwood tower he got off and went up in the tower while his engine continued westward to Bridge over the W-BCRR and then returned eastward on the main track of the Pennsylvania Railroad. Conductor Fromm stated that the block signal at Buttonwood was displaying a green indication when he went up in the tower and also when he came down, saying that he was in the tower about two or three minutes and that during this time the operator was not talking with any one. When his engine returned from Bridge, shoving the caboose ahead of it, he boarded the head end of the caboose, at that time Flagman Herman was at the door and Head Brakeman Nuss was at the air whistle. Conductor Fromm stepped inside to put his reports away, and then turned to the door in order to go outside again. At this time he saw the headlight of engine 8134, at about the west side of Oxford Street, but thought it was on yard track 2, so he suggested to the flagman that they both go outside to identify the engine. As he was coming out of the door, Head Brakeman Nuss was on the platform, facing east, and

sounding the air whistle for the crossing, while the flagman was just behind also coming out of the door, engine 8134 had almost reached the caboose as it came around the curve before the conductor definitely realized that it was on the main track, and then the collision occurred. Conductor Froo estimated the speed of his engine to have been about 15 miles per hour just prior to the collision, saying that they had just started to reduce it for Oxford Street crossing.

Head Brakeman Nuss, of engine 3495, stated that a clear indication was displayed on the block signal at Buttonwood. He was riding on the front platform of the caboose coupled ahead of his engine, sounding the air whistle, and there were two lighted white lanterns on the front platform, while the conductor and flagman were inside the caboose. He heard a road crossing whistle signal sounded by some engine, which might have been engine 8134, but he thought that that engine was on yard track 2 and it was not until it was about two car-lengths away that he definitely realized it was on the main track. He immediately shouted a warning of danger and jumped just about the time the collision occurred, without applying the brakes, he estimated the speed of his engine to have been about 12 miles per hour at the time he jumped. Head Brakeman Nuss did not think that the headlight on engine 8134 was burning.

Engineman Barnhart, of engine 3475, stated that a clear block signal indication was displayed at Buttonwood, he saw the reflection of the headlight of engine 8134 when that engine was in the vicinity of Oxford Street. At this time his own engine was approaching the west end of the curve on which the accident occurred and he thought that engine 8134 was on yard track 2 or 3. The speed of his own engine was about 12 or 14 miles per hour, and he did not realize that the opposing engine was on the main track until it was only a very short distance away, he immediately applied the air brakes in emergency, but the collision occurred before any material reduction had been made in the speed. He did not have the headlight on his own engine lighted as the caboose was coupled ahead of the engine and the headlight would have interfered with the view ahead from the front platform of the caboose.

Fireman Barkes was on the outside of the curve, he saw the reflection from the headlight of engine 8134 shining on the cars of the freight train that stood on the adjacent track, but he had no idea that engine was moving on the main track until immediately prior to the accident, when the engineman applied the air brakes in emergency.

Operator Jarrett, on duty at Hart, stated that he had been in the service of this railroad for 26 years, and as operator for 24 years, and had been at Hart since December 17, 1931. Operator Jarrett stated that after he secured permission over the telephone from Operator Ashworth at Buttonwood for engine 8134 to proceed over the main track from Division Street to Buttonwood, he told Operator Ashworth to record engine 8134 as entering the block at 9.24 p. m. Shortly afterwards, about 9.26 or 9.28 p. m., Operator Ashworth called him and started to report engine 3495 as entering the block, and he said he at once told Operator Ashworth that he had not given him the block for any eastbound train, whereupon Operator Ashworth replied that the train was by and that he thought he had been given the block. Operator Jarrett had known Operator Ashworth for about 10 or 12 years, had worked with him quite often, and noticed nothing unusual in his manner when obtaining the block for engine 8134. Operator Jarrett stated positively that Operator Ashworth did not ask for the block for engine 3495, saying that had he done so there would have been an entry on the block record at Hart, but that no such entry was there.

Operator Ashworth, at Buttonwood, stated that he had been in the service as block operator and extra train dispatcher for 23 years, he had been at Buttonwood for approximately three months and had worked what was known as the relief schedule, that is, one day at Buttonwood and one day at Hart. He had had sufficient service to be entirely familiar with the operation in the Wilkes-Barre territory, most of his experience during the past 18 years, however, had been in double-track territory. Operator Ashworth stated that at 9.23 p. m. Operator Jarrett telephoned and obtained the block for engine 8134 westbound from Division Street, the engine then being reported to Operator Ashworth as having entered the block at 9.24 p. m. Subsequently he forgot about this engine, he stated that at 9.26 p. m. he asked Operator Jarrett for the block for engine 3495 and secured it, whereupon he changed the indication of the eastward block signal at Buttonwood from stop to proceed. Operator Ashworth discovered the error shortly after engine 3495 had passed, having then recalled that engine 8134 was also in the block, so he went to the window, along with Yard Clerk Rohrbach, who had been visiting in the office, and stood there looking out, hoping that members of the crews would see the opposing engines in time to avert the accident. Operator Ashworth did not know what he did after that and then he saw fire and concluded that the engines had collided, following which Conductor Smith telephoned and requested that assistance be summoned. Operator Ashworth said that between 9.24 and 9.26 p. m. he was busily engaged arranging with

another operator about the westward movement of engine 3495 from the W-BCRR to the main track of the Pennsylvania Railroad at Bridge and thence eastward, and he thought that this temporarily took his mind off the movement of engine 8134. Operator Ashworth understood he should have checked the block record and ascertained whether any other train was in the block before trying to obtain the block for engine 3495, and said that apparently he did not do so in this instance, although he could give no reason for not having done so, he also said that engine 8134 had been recorded by him on his block record. Operator Ashworth further stated that while he had talked with Yard Clerk Roarbach about one-half hour prior to the time engine 3495 arrived, he held no conversation whatever with the yard clerk after that time, and he could not account for his mental lapse unless it was due to the fact that he had worked in double-track territory for many years.

Subsequent to the accident a test was conducted with a westbound engine 450 feet east of the point of accident and an eastbound engine, pushing a caboose, 515 feet west of the point of accident, and it was found that two lighted lanterns on the caboose, as well as two yellow markers on yard track 2, were plainly visible from the fireman's side of the westbound engine, while the headlight of the westbound engine could be seen plainly from the caboose of the eastbound engine, although it could not be determined on what track the westbound engine was moving. It was also found that the eastbound engine could be stopped within a distance of 66 feet by an emergency application of the air brakes made from the caboose.

Conclusions

This accident was caused primarily by the error of Operator Ashworth, at Buttonwood in permitting a train to enter a block that was already occupied by an opposing train.

Operator Ashworth, at Buttonwood said he overlooked the fact that the block was occupied by engine 8134, he having pledged the block to Operator Jarrett at Hart at 9.24 p. m., and maintained that at 9.26 p. m. he telephoned Operator Jarrett, secured the block for engine 3495, and displayed a clear indication on the eastward block signal at Buttonwood, permitting that engine to enter the occupied block, and that he did not discover the error until shortly after that engine passed, too late to avert the accident. Operator Ashworth failed to check his block record and ascertain whether there was a train in the block before communicating with the

operator at Hart, but he felt that even though he erred in this respect, Operator Jarrett should have checked him on the movement at the time he claims to have asked for and secured the block for engine 3495. Operator Jarrett, however, denied that Operator Ashworth asked for and secured the block for engine 3495, and said he did not know there was anything wrong until Operator Ashworth called and started to report engine 3495 as entering the block. Operator Ashworth could not account for his error, unless it was because he had been busy arranging with another operator for the movement of engine 3495 to the main track at Bridge and thus temporarily forgot about engine 8134, or else because for years previously he had been accustomed to working in double-track territory.

The statements of the employees on the trains involved indicate that they did not see the opposing train until just before the accident occurred. Tests made subsequent to the accident showed that the view was obscured, also that it was difficult for the eastbound crew to tell on what track the opposing engine was moving, furthermore, there is a dispute as to whether there was any lantern on the front end of the caboose, while the fireman of the westbound engine had been looking up watching for a signal indication and so did not look at the track ahead until after he had seen the signal. Notwithstanding all these factors, however, it is thought that the accident could have been averted had the brakeman of engine 3495 and the fireman of engine 8134 been maintaining a proper lookout.

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. BORLAND

Director.