

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
LACKAWANNA & WYOMING VALLEY RAILROAD NEAR SOUTH
PITTSBURGH, PA. ON JULY 3, 1920.

September 3, 1920.

On July 3, 1920, there was a rear-end collision between two passenger trains, the rear of the second train being struck by a third passenger train, on the Lackawanna & Wyoming Valley Railroad near South Pittsburg, Pa., resulting in the death of 16 passengers and 1 employee, and the injury of 20 passengers and 3 employees.

This accident occurred on a double-track, standard-gauge, electric line extending between Scranton and Wilkes-Barre, Pa., a distance of 18.30 miles. Trains are operated by time-table and train orders, no block-signal system being in use. Spacing semaphore signals are located at Avoca, 7.04 miles south of Scranton, and at Plains, 3.14 miles north of Wilkes-Barre, train orders and messages may also be received by train crews at these points, while at Pittsburg, 10.75 miles south of Scranton, train orders are received by the operator in charge. Telephones are located at various points along the line, where train crews may communicate with the dispatcher at Scranton.

Approaching the point of accident from the south the track is tangent for about 1,400 feet, followed by a 4-degree curve to the right 945 feet in length, then a tangent 524 feet in length. The first collision occurred at the southern end of this tangent, and the second collision near the middle of the tangent. The grade varies from .166 to 2.09 per cent descending for northbound trains for more than three-fourths of a mile and at the point of accident it was 2.09 per cent. At the time of the first collision the weather was cloudy while at the time of the second collision a severe rain and electric storm was raging.

Northbound passenger train No. 6, consisting of two coaches, in charge of Motorman Moran, and Conductors Cawley and McGrail, left Wilkes-Barre at 6.10 a.m., on time; left Inkerman, the last station stop south of the point of accident, at 6.28 p.m., 5 minutes late, and at about 6.37 p.m., while traveling at a speed variously estimated at from 15 to 25 miles an hour, its rear-end was struck by train No. 21 at a point about 1 mile north of Inkerman.

Northbound passenger train No. 21 consisted of 1 coach and was in charge of Motorman White and Conductor Mulroney. This train left Wilkes-Barre at 6.25 p.m., on time, and stopped at Plains, the last scheduled station stop south of the point of accident and about $3\frac{1}{2}$ miles distant therefrom. It left Plains at 6.32 p.m., on time, and collided with the rear of train No. 6 while traveling at a speed estimated to

have been about 35 miles an hour.

Train No. 6 was driven ahead 3 or 4 car-lengths by the force of the collision. The rear of the second car in this train and the front vestibule of the car in train No. 21 were considerably damaged and the brake pipe on the second car of train No. 6 was broken. None of the cars was derailed.

Northbound passenger train No. 3, consisting of two coaches, in charge of Motorman Dailey and Conductors F. Retchford and Boone, departed from Wilkes-Barre at 6.32 p.m., 2 minutes late, left Inkerman at 6.47 p.m., 4 minutes late, and on arriving at Yatesville Crossover, about 1,600 feet south of the point of accident, was flagged by Conductor Mulronev of train No. 21, who got on the train and rode to the point of accident. After picking up Conductor Cawley, who was fatally injured, this train backed to the crossover at Yatesville, picked up the flagman, and proceeded northward on the southbound track to Pittston, verbal authority for this movement against the current of traffic having been obtained from the dispatcher. In the meantime the crew of train No. 6 decided to uncouple the first car, which was not damaged, and run it to Pittston, about .08 mile north, with a load of passengers and then return for the passengers in the second car. Accordingly, the first car in train No. 6 was moved ahead a few feet, and shortly after this had been done train No. 4 approached at a high rate of speed and collided with the rear of train No. 21.

Northbound passenger train No. 4, consisting of 2 coaches, in charge of Motorman Schlager and Conductors J. Retchford and Gabriel, left Wilkes-Barre at 6.50 p.m., Plains at 6.58 p.m., and Inkerman at 7.03 p.m., being on time at each of these points, and at about 7.05 p.m. collided with the rear of train No. 21.

The first car of train No. 4 mounted the under-frame of the car in train No. 21 and telescoped it to within 5 feet of its forward end, carrying passengers and seats with it and spreading the sides outward, both cars came to rest about 200 feet north of the point where the collision occurred. The first car in train No. 4 was badly damaged, all the seats in the front section being torn loose and the debris from the second car partly filling it. It is thought that all of the passengers killed and the majority of those injured were in train No. 21.

After leaving Inkerman, Conductor Cawley, who was in charge of train No. 6, told Motorman Moran to run slowly so that fares could be collected before the next station was reached. Train No. 6 was therefore operated at a speed of about 4 miles an hour until near Yatesville Crossover, where

Conductor Cawley, who had gone into the second car, told Conductor McGrail to give a signal to resume speed. Conductor McGrail knew his train left Inkerman only 9 minutes ahead of the time of train No. 21, but claimed he thought Conductor Cawley had made arrangements with the motorman and that Conductor Cawley would protect the train, he also said that usually the motorman would sound the whistle signal for the flagman to go back. Conductor McGrail afterwards admitted that as conductor of the rear car he should have provided proper flag protection.

Motorman White, of train No. 21, estimated the speed of his train to have been about 35 miles an hour when he saw the rear end of train No. 6, his range of vision being limited by the curve and a bank on the inside of the curve.

After the collision between trains Nos. 6 and 21, Motorman White of train No. 21 went to the rear of his train and told Conductor Mulroney to go back and flag. Rule 213 which prescribes the duties of the conductor in a case of this kind, reads as follows

213. "In case of a wreck, or where a train is disabled so as to be unable to proceed, the Conductor must go back to the nearest telephone from which Dispatcher can be notified, and protect his train to the rear by flagging, as provided in Rule No. 211 as he goes."

Conductor Mulroney, who was slightly injured in the first collision and badly injured in the second collision, said that he remembered going back to flag, and of returning on train No. 3 and taking the names of passengers. He did not know that train No. 3 afterwards passed on the southbound track and was unable to give any other definite information concerning the accident. The evidence indicates that Conductor Mulroney went back to Yatesville Crossover, notified the dispatcher of the accident, and flagged train No. 3, after which he boarded the head end of train No. 3 and returned to the point where Conductor Cawley was lying, about 300 feet behind the rear of train No. 21. Later on Motorman White told a man he thought was an employee of the company to go back and help out at Yatesville Crossover, and afterwards he saw Conductor Mulroney in the car taking the names of passengers; Motorman Moran also saw Conductor Mulroney taking names.

When train No. 3 backed to the crossover after picking up Conductor Cawley, Conductor F. Hatchford called the dispatcher and obtained verbal authority for the movement of his train over the southbound track. Conductor F. Hatchford, of train No. 3, knew when his train picked up

over
the flagman, at the time of crossing/to the southbound track, that the rear of train No. 21 was not being protected, but assumed that from the way in which the train was being handled the dispatcher had established a single-track zone between Yatesville Crossover and Pittston. When going back to protect his train by flag, after it had stopped near the wreckage of trains Nos. 3 and 21, Conductor Boone did not take with him any fuses or torpedoes, and although required by rule to leave torpedoes on the rail when conditions require it, he said that in this case he would not have used them if he had had them with him, as after his train crossed over to the southbound track it needed no further protection. Motorman Dailey at no time gave any thought to the matter of protection for train No. 21. Conductor McGrail heard train No. 4 approaching and said he had gotten back about 1 car-length when the second collision occurred. Motorman Moran said he did not know Conductor Cawley had been injured and thought he was protecting the rear of train No. 21.

Motorman Schlager, of train No. 4, did not receive flag signals of any kind approaching the point of accident, and said he did not see the rear end of train No. 21 until he was within about 200 feet of it, moving at a speed of 40 or 45 miles an hour, he then applied the air brakes in emergency and jumped. The statement of Conductors J. Ratchford and Gabriel, of train No. 4, added nothing to those of Motorman Schlager.

Dispatcher O'Malley was notified of the first collision by Conductor Mulroney at 6.49 p.m. After failing to reach train No. 4 at Wilkes-Barre he gave a message to the operator at Plains, at 6.55 p.m., to notify the crew of the next southbound train to call the dispatcher's office on their arrival at Yatesville Crossover. Although it was customary to keep a written record of all orders and messages, he did not do so in this case, neither did he make any record of the instructions he had issued authorizing train No. 3 to operate against the current of traffic to Pittston. The dispatcher said he did not say anything about establishing a single-track zone either to Conductor Mulroney or to Conductor F. Ratchford.

Operator Brennan, on duty at Plains, said it was 6.59 p.m. when the dispatcher called him, at which time train No. 4 had been gone 1 minute, and that the instructions he received were to have the next southbound train stop at Yatesville and call the dispatcher. He thought these instructions unusual, Yatesville being north of Plains, and said he repeated the name of the station to the dispatcher, but did not repeat the direction of the train, as he distinctly heard the word "southbound." At about 7.02 p.m. these instructions were delivered to Motorman Boland of southbound train No. 1, who asked the operator to repeat them to him, as he had passed Yatesville only a few minutes previously. According to the

dispatcher, his first knowledge of a misunderstanding of his instructions was at 7.04 p.m., when Operator Brennan notified him that the instructions had been delivered to the crew of southbound train No. 1. The dispatcher then counted on Conductor Mulronev protecting his train in accordance with rule 213, previously quoted, and he said it was customary when flagging under this rule for the conductor doing the flagging to establish himself as an operator, but was unable to give any instances of when this had been done.

Operator Groarke, on duty at South Scranton, verified the statements of the dispatcher as to his instructions to Operator Brennan, but was unable to fix the exact time at which they were delivered.

There were two rear-end collisions in this case, each of which was caused by failure to provide proper flag protection.

Rules 106, 211, and 218, of the Rules of Operating Department of this railroad, read as follows

106. "A fusee must be lighted and left by the flagman whenever a train is running on the same of another train, or behind its own train and under circumstances which call for such protection."

211. "When a train stops or is delayed under circumstances in which it may be overtaken by another train, the conductor or flagman must go back immediately with stop signals a sufficient distance to insure full protection. In no case may this distance be less than 1,000 feet or 12 telephone poles. When recalled he may return to his train, first placing two torpedoes on the rail when the conditions require it."

218. "Both conductors and motormen or enginemen are responsible for the safety of their trains, and, under conditions not provided for by the Rules, must take every precaution for their protection."

One of the special rules in the time-table reads as follows.

"The conductor on first car will carry train orders and be responsible for safety of train."

Under these rules Conductor Cawley, being in charge of train No. 6, should have seen to it that proper protection was afforded when his train was encroaching on the time of train No. 21, and he is therefore primarily responsible for the collision between trains Nos. 6 and 21. Conductor McGrail is also at fault for his failure to take proper steps

to protect his train. He was an experienced employee and should not have assumed that necessary protection would be afforded by Conductor Cawley, neither should he have depended on Conductor Cawley to instruct him to provide such protection. Motorman Moran knew that his train was on the time of train No. 21, and under rule 218 should have taken every precaution to insure that the proper protection was provided.

The responsibility for the collision between trains Nos. 21 and 4 is divided among several employees. Conductor Mulronev, of train No. 21, notified the dispatcher of the occurrence of the first collision and flagged train No. 3, but did not take any measures for protecting his train by flag after train No. 3 had been crossed over to the southbound track and run around train No. 21. Motorman White, of train No. 21, knew that train No. 3 had departed on the southbound track and knew that Conductor Mulronev had returned to his train, but notwithstanding his knowledge of these facts he did not take proper measures for the protection of his train. Conductor Mulronev and Motorman White are primarily responsible for failure to insure that proper flag protection was provided for their train, notwithstanding that the next following train had been flagged, after train No. 3 had departed their train was then stopped "under circumstances in which it may be overtaken by another train." The fact that the dispatcher had been notified of the first collision did not relieve them of the duty of protecting their train by flag as required by the rules. When train No. 3 crossed over and proceeded, Flagman Boone of that train did not put down any torpedoes, the crew of train No. 21 was not consulted about further protection, as might easily have been done, and no measures of any character were taken by the crew of train No. 3 for the protection of train No. 21 from following trains, it might reasonably have been expected, in view of the abnormal conditions following the first collision, that the crew of train No. 3, who were experienced railroad men, would have had the forethought to notify the crew of train No. 21 that the flag protection had been removed, or would have taken such precautions as were practicable for the protection of that train, but this was not done, the assumption being that necessary protection would be provided by the dispatcher. Dispatcher O'Malley failed to take effective measures for the safe operation of following trains after he had been informed of the first collision, while the evidence indicates that there was a misunderstanding between Dispatcher O'Malley and Operator Brennan, nevertheless the dispatcher's failure contributed directly to the second collision. Any of these employees, by exercising good judgment and taking proper precautions, could have prevented the second collision.

Had an adequate block system been in use on this line, this accident probably would not have occurred.

With the exception of Conductor Cawley, who had been a conductor for nearly 1 year, after 3 years' experience as a brakeman, all of the motormen and conductors of the four trains involved had had at least 9 years experience. Conductors Cawley and McCrall, and Motormen Loran and White, had each been suspended on one occasion for responsibility in connection with an accident. Dispatcher O'Halley was employed in 1909 as ticket agent and operator, and promoted to train dispatcher in 1918, his record was clear.

None of these employees had been on duty in violation of any of the provisions of the hours of service law.