

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE MISSOURI  
PACIFIC RAILWAY AT TEXARKANA, ARK., ON MARCH 18, 1920.

May 12, 1920.

On March 18, 1920, there was a head-end collision between an equipment train and a mail and express train on the Missouri Pacific Railway at Texarkana, Ark., which resulted in the death of 2 employees and the injury of 13 employees. After investigation of this accident, the Chief of the Bureau of Safety reports as follows:

The Little Rock District of the Arkansas Division, on which this accident occurred, extends from North Little Rock, Ark., to Texarkana, Ark., a distance of 145.6 miles. In the vicinity of the point of accident it is a double-track line over which trains are operated by timetable, train orders and a manual block signal system. The timetable designates northbound trains as superior to southbound trains of the same class with the exception of southbound mail and express train No. 7, which under special time-table instructions is superior to all other trains regardless of class or direction.

The accident occurred at the south switch of a crossover leading from the southbound to the northbound main track at the north end of the yard, approximately 4,600 feet north of the passenger station and about 1,450 feet inside the yard limit board. Approaching the point of accident from the north the track is tangent for a distance of about 3 miles, on a 0.6 percent descending grade. Approaching from the south beginning at the passenger station, there are several curves and tangents; two short curves, one to the right and one to the left within less than 1,000 feet of the point of accident, and it is practically impossible for an engineer of an approaching southbound train to tell from the headlight of an opposing train whether that train is on the northbound or the southbound track. The weather at the time of the accident was cloudy.

Northbound equipment train No. 38 was in charge of Conductor Armstrong and Engineman Irwin and consisted of engine 6413, 4 refrigerator express cars, 3 baggage cars and 1 chair car, no passengers were carried on this train. On account of the congested condition of the yard, the crew was verbally instructed by the general yardmaster to use the southbound main track from the passenger station to the crossover at the north end of the yard. Train No. 38 left the passenger station on the southbound track at 6.30 p.m., two hours late, and at 6.35 p.m. while traveling at a speed variously estimated at between 12 and 20 miles an hour, collided with southbound train No. 7 at the crossover switch.

Southbound mail and express train No. 7 was in charge of Conductor Moore and Engineman Hickman and consisted of engine 6412, 11 baggage and express cars and 1 combination car, this train also carried no passengers. It left Little Rock, Ark.,

at 3.10 p. m., 3 hours and 35 minutes late, passed Clear Lake Junction, the last telegraph office, 9.86 miles north of Texarkana, at 6.21 p.m., 3 hours and 31 minutes late, and collided with train No. 38, while traveling at a speed of 20 or 25 miles an hour.

Both engines were derailed but remained upright, with their front ends considerably damaged, and their frames bent and broken. The third car in train No. 7, a wooden baggage car, was broken in two, while the first refrigerator car in train No. 38, was partially telescoped, both of these cars were afterwards destroyed. None of the other cars of either train sustained serious damage, and none was derailed. The employees killed were the engineman of train No. 7 and the fireman of train No. 38.

General Yardmaster Secrest told Assistant Yardmaster Ransom over the telephone that it would be necessary to operate train No. 38 against the current of traffic, that train No. 7 would have to be flagged in order to permit this movement to be made, and directed him to take a switchman to the crossover at the north end of the yard and give him written instructions covering what he was to do; on account of the importance of train No. 7, he was to be sure that the switchman thoroughly understood. The assistant yardmaster went to the crossover on engine 901 and gave written instructions to Switchman Walker. The instructions read as follows.

"Hold No. 7 until No. 38 goes, let No. 7 come and No. 6 go."

He said he instructed the switchman to line the switches for the crossover movement of train No. 38 and then to flag train No. 7, taking with him the necessary flagging equipment. He saw the switchman obtaining torpedoes from the fireman of engine 901 and supposed that he would obtain the other equipment necessary. He said he did not hear any conversation between the switchman and the engine crew to the effect that there were no fuses or red lanterns on the engine, and he returned to the station on engine 901 without knowing positively whether or not the switchman had proper flagging equipment.

After receiving the written instructions from the assistant yardmaster, Switchman Walker asked the crew of engine 901 for fuses, torpedoes and a red lantern, as all he had with him was a red flag and he realized that it would be dark by the time trains Nos. 38 and 7 had passed. He was given some torpedoes but was told there were no fuses or lanterns on the engine, he then boarded the engine to look for himself, but was unable to find any. He stated that he notified the assistant yardmaster accordingly, that the assistant yardmaster had overheard his conversation with the engine crew, and that he was told to put down the torpedoes and then to throw the switches. The switchman put down two torpedoes at a point estimated by him to have been 50 car lengths north of the switch, returned and lined the crossover switches for the passage of train No. 38. Shortly afterwards he heard train No. 38 leaving the station and also

saw train No. 7 approaching. He was then about six car lengths north of the crossover and started to walk toward train No. 7. He began giving stop signals with his white lantern at about the time the engine of train No. 7 exploded the torpedoes, this signal being answered by the engineman. The engine passed him at a speed of about 30 miles an hour, and from the fact that the speed was not being reduced he judged that the air brakes had not been applied. He said he was about one car length north of the rear end of train No. 7 when it came to a stop. The engineman and fireman of engine 901 verified the switchman's statement about the assistant yardmaster having overheard the conversation about there being no fuses or red lanterns on the engine. After the accident the fragments of the two torpedoes were found nine feet apart, the one farther north being 1,228 feet from the clearance point of the crossover.

Train No. 7 received a clear block signal indication at Clear Lake Junction, which indicated that the block was clear to the next block station at Texarkana. It approached Texarkana at a speed of about 40 miles an hour, and according to the fireman the engineman shut off steam before reaching the yard limit board and had made two applications of the air brakes when the engine exploded one torpedo. The fireman saw someone at the crossover switch giving stop signals with a white lantern and notified the engineman that there was a flagman ahead. He also saw the headlight of the engine hauling train No. 38, but thought it was on the northbound track. The engineman continued to apply the air brakes and sounded one blast on the whistle, but the distance was too short to enable the train to be brought to a stop. The switchlight was displaying a red indication, but the fireman did not see this until after he had seen the stop signals of the flagman. Members of the crew who were on the rear car did not notice any application of the air brakes or hear any torpedoes, and they did not see any flagman north of their train after the collision had occurred.

The engineman of train No. 38 was looking directly toward the electric headlight of the engine hauling train No. 7 and was unable to tell that that train had not been stopped. He did not realize that there was going to be a collision in time to enable him to apply the air brakes. The crew of this train knew of the arrangement which had been made for its protection, while moving against the current of traffic, the conductor said that he did not like this way of handling the trains but was told that it could not be avoided. He was not furnished with a crossover card, Form E, as required by rule 317-F.

Manual block signal rule 317-F reads as follows:

On double track, when a train is to cross over or obstruct the other track, a signalman will inform the Train Master and obtain from him authority to issue a Cross-over Card Form E, before allowing the train to obstruct the other track.

A Cross-over Card when issued must be properly filled out; the response complete, and the time, with the initials of the Train Master, to be entered thereon.

A crossover card is addressed to the conductor and engineer of a train, and reads as follows.

After protecting your train by sending out flagmen as per General Rules, you may cross to the other track at \_\_\_\_\_ Station.

The authority granted by this card is void after \_\_\_\_\_ M. Report your train when clear of the other track.

Following this there are spaces for the time made complete and the signature of trainmaster and signalmen.

Assistant Yardmaster Ranson stated that no effort was made to notify the operator at Clear Lake Junction that train No. 38 was being operated against the current of traffic, and to issue a caution card to the crew of train No. 7, and that he had never known of caution cards being issued under similar circumstances, although the evidence indicated that movements of this character were not uncommon. He did not think a caution card was necessary when flag protection was provided. In this connection the superintendent of safety stated that he did not think trains Nos. 7 and 38 should have had caution cards. His opinion was that in a yard of the size of that at Texarkana, with several crossovers, and with switch engines moving about continuously, the train dispatcher would be unable to handle movements by train order, as it would be impracticable for him to obtain an understanding from every man in the yard. He stated that when it was desired to run a train against the current of traffic in a yard the only safe, positive way was to do so under proper flag protection. His statements were concurred in by the division and general superintendents.

There were several reasons for the occurrence of this accident, and in the following paragraphs they are discussed in the order in which they occurred.

This accident was caused by train No. 38 being authorized to operate against the current of traffic in an occupied block, and by failure to utilize measures of protection for this movement provided in the rules, by the failure of Assistant Yardmaster Ranson to know that Switchman Walker was equipped with

the flagging materials necessary to enable him properly to perform his duties, and by the failure of Switchman Walker to go out a sufficient distance to insure full protection.

Rule No. 201 provides that "for movements not provided for by timetable, train orders will be issued----." And rule No. 317A governing the manual block system provides that

"Except by tr in order in case of necessity, as instructed by the Train Master, or as provided in these rules, the positive block will be used.

"The caution block will be used only when authorized by the rules or by the Train Master, and must be protected by caution cards."

The fact that train No. 38 was to be run against the current of traffic was known for some time before train No. 7 entered the block at Clear Lake Junction, for the general yardmaster issued his instructions at about 5.30 p.m. while train No. 7 did not enter the block until 6.21 p.m. Under these circumstances there was ample opportunity for the dispatcher to have been advised of the movement and for him to have issued a train order covering this movement as provided by the rules, and for the operator at Clear Lake Junction to have been instructed to issue a caution card to the crew of train No. 7. There is a paragraph in the caution card which reads as follows:

"Approach \_\_\_\_\_ under control expecting to find train \_\_\_\_\_ in block at \_\_\_\_\_."

Even if train No. 38 was not actually in the block at the time train No. 7 entered it, the switches had already been lined for a movement against the current of traffic, and it was the intention to operate train No. 38 through the block a distance of nearly one mile, on the time of train No. 7. Under these circumstances a train order should have been issued and train No. 7 should have been given a caution card. It does not appear from the investigation that any condition existed which would have precluded this method of directing and protecting the movement. Had the requirements of the rules applicable to a movement of this character been observed and the prescribed procedure followed this accident undoubtedly would not have occurred. For this failure to observe the requirements of operating and block rules in the movement of the trains involved, General Yardmaster Secrest is primarily responsible.

Assistant Yardmaster Ransom went to the crossover for the express purpose of delivering written instructions to Switchman Walker and to make sure that the man knew what he was doing and how to do it. He fully realized the importance of the matter as he told the general yardmaster that he would give it his personal attention. Under these circumstances his duty was not complete until he had made certain Switchman Walker was supplied with the necessary flagging equipment. According to his own

statement he returned to the station without knowing that the switchman was properly equipped, and according to Switchman Walker's statement, he was fully aware that the switchman did not have necessary signalling devices. For these reasons a large share of the responsibility for this accident rests upon Assistant Yardmaster Ranson. Had he seen to it that the switchman was supplied with necessary equipment, or had he even given him specific instructions as to the proper use of the equipment available, this accident could have been averted.

Switchman Walker is at fault for failing to make full use of the flagging equipment with which he was furnished. The evidence indicated that he had ample time after placing torpedoes and lining up the switches for the proposed movement to go out half a mile at the least and notwithstanding that he had no red lantern or fusees, if he had put down the torpedoes at a greater distance from the crossover and remained at that point the engineman of train No. 7 would have been able to bring his train to a stop before reaching the crossover.

General Yardmaster Secrest had been in railroad service since 1900, Assistant Yardmaster Ranson since 1906, and Switchman Walker since March 1917. The records of all these employees were good. At the time of the accident none of the employees involved had been on duty in violation of any of the provisions of the Hours of Service Law.