

In re Investigation of accident which
occurred on the St. Louis & San
Francisco Railroad at Carthage,
Mo., on July 14, 1916.

On July 14, 1916, there was a head-end collision between a passenger train and a freight train on the St. Louis & San Francisco Railroad at Carthage, Mo., which resulted in the death of one employee, and the injury of seven employees and twenty-three passengers. After investigation of this accident the Chief of the Division of Safety reports as follows:

The Carthage Subdivision of the Northern Division of the St. Louis & San Francisco Railroad, upon which this accident occurred, is a single track line, extending between Peirce City, Mo. and Neodesha, Kansas, a distance of 114.5 miles. Train movements are governed by time-table and the telegraphic train order system, no block signal system being in use.

Westbound freight train extra 517 consisted of locomotive 517, backing up and pushing a caboose, and was in charge of Conductor Horton and Engineman Royalty. This train left Peirce City, Mo., 26.3 miles east of Carthage, at 1.25 p. m., en route to Cronogo Junction, Mo., 35.4 miles distant. At Peirce City the crew in charge received a copy of train order No. 63, reading as follows:

"Engine 517 run extra Peirce City to Oronogo Jct. meet extra 521 east at Sarcoxie. Meet No. 342 at Carthage. No. 336 wait at Sarcoxie until 2.15 p. m. for extra 517 west."

It arrived at Sarcoxie, Mo., 11.8 miles from Peirce City, at 2.15 p. m., left there at 2.30 p. m., arrived at the water tank just east of Carthage station at 3.12 p. m., and at 3.15 p. m. collided with train No. 328, at a point 850 feet west of the station at that place, and 160 feet west of the west switch of the house track, the speed of extra 517 being about four miles an hour at the time.

Eastbound passenger train No. 328, en route from Wichita, Kansas, to Lebanon, Mo., consisted of 1 mail car, 1 baggage car, and 2 coaches, all of wooden construction, hauled by locomotive 214, and was in charge of Conductor Dunigan and Engineman Geister. This train left Oronogo Junction, its initial station on the Carthage subdivision, 9 miles west of Carthage, at 2.57 p. m., one minute late, and collided with extra 517 while running at a speed of about 25 miles an hour.

As a result of the collision, the tender of locomotive 517 was derailed; its frame remained upright on the roadbed, while its cistern was forced off the frame and to the north side of the track, and the caboose was demolished; locomotive 517 was not derailed. Locomotive 214 broke away from its tender and turned over on the north side of the track. Its tender was partly derailed, although none

of the cars in train No. 328 were damaged. The engineman of extra 517 was killed in the collision.

Approaching the point of accident from the west there is a 4-degree curve to the right, 593 feet in length, the view of engineman on approaching eastbound trains being limited to about 360 feet by an embankment on the inside of the curve. Approaching from the east the track is tangent for more than one-half mile. The grade in both directions is practically level. The weather at the time of accident was clear.

Conductor Horton, of extra 517, stated that according to his watch his train came to a stop at the water tank, 235 feet east of Carthage station, at 3.06 p. m. He said he knew that train No. 328 was due at Macy, Mo., 5.2 miles west of Carthage, at 3.04 p. m., and at Carthage at 3.17 p. m., and therefore told his engineman to head the train in on the coal track after he had taken water, the switch of the coal track being located near the water tank and about 300 feet east of the station. He then went to the telegraph office and was just entering it when his train passed, about two minutes after having come to a stop at the water tank. He said that, while he could have signaled his train to stop at that time, he supposed the engineman knew what he was doing and therefore made no effort to stop him. Conductor Horton also stated that he had a standard watch, but that he had not compared time for at least a week, although he knew that the rules required him to compare his watch with a standard clock before starting on each trip.

He further stated that because of his excitement it did not occur to him to look at his watch when the collision occurred, but that when he compared it with the clock at Carthage station some time after the collision he found that his watch was seven minutes slow. He stated that he was familiar with the rule requiring inferior trains to clear superior trains by five minutes at meetings points, as well as with rule 99, which required his train to be protected by flag during the movements made at Carthage in this instance, and that these rules were not complied with. Conductor Horton also stated that the train order board at the station was in the stop position when his train passed it, and that, had the engineman complied with his instructions to head in on the coal track, the accident would not have occurred.

Fireman McEwen, of extra 517, stated that when his train stopped at the water tank at Carthage he looked at his watch, it being then 3.04 p. m., that when his train was proceeding from the water tank to the west switch of the house track he asked his engineman how much time they had in which to get into clear for train No. 328, the reply being: "10 minutes." He stated that his first knowledge of the impending collision was when his engineman reversed the locomotive, and that his train had almost stopped when the accident occurred.

Rear Brakeman Bennett, of extra 517, stated that his train stopped at the water tank at 3.08 p. m., that the conductor told the crew to head in on the coal track there,

that within two minutes his train proceeded, backing up, and when it reached the west switch of the house track he got off for the purpose of opening it and letting his train pull in on that track, the collision occurring almost immediately thereafter. He said that when his train started to back up he gave the engineman a stop signal, but the latter ignored it, replying that they had ten minutes in which to clear train No. 328. Brakeman Bennett further stated that while it was his understanding that it was his duty to take the conductor's place when the latter went to the telegraph office, and that while he could have stopped the train by means of the air brake valve in the caboose, it was customary for the engineman to be in charge during the absence of the conductor, and he therefore decided that his train would probably get into clear more quickly if he allowed the judgment of the engineman to prevail. He said that, as he had not been in the service of this railroad for a period of six months, he was not required to have a standard watch.

Head Brakeman Wright, of extra 517, stated that he did not look at his watch when his train arrived at the water tank, and that he did not take any steps to protect his train, as he did not think the conductor wanted him to do so and the engineman did not whistle out a flag.

Operator Spindler, at Carthage, stated that extra 517 arrived at the water tank there at 3.12 p. m. He also stated that when extra 517 passed the telegraph office he signaled to the engineman that train No. 328 was on time,

the latter nodding his head in response. At about the same time the conductor came into the office and he warned him of the danger to his train, whereupon the conductor started out of the office, the collision occurring when he reached the waiting room door, at 3.15 p. m.

Engineman Geister, of train No. 328, stated that as his train was approaching Carthage station his engine was not working steam, and that he made a slight application of the brakes, preparatory to making the station stop. On account of the curve and embankment he first saw the caboose of extra 517 when it was about 100 feet distant. He stated that the speed of his train was about 25 miles an hour when the collision occurred. He looked at his watch as soon as he got off his overturned engine, and it was then 3.15 p. m.

Rules 3, 89 and 99, of the rules of the transportation department of the St. Louis & San Francisco Railroad, read as follows:

No. 3:

"Watches of conductors and enginemen must be compared before starting on each trip with a clock designated as a standard clock. The time when watches are compared must be registered on a prescribed form."

No. 89:

"At meeting points between trains of different classes, the inferior train must take the siding and clear the superior train at least five minutes, and must pull into the siding when practicable. If necessary to back in, the train must first be protected as per Rules 99 to 99b, inclusive, unless otherwise provided."

No. 99:

*When a train stops or is delayed, under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals a sufficient distance to insure full protection.

* * * * The front of a train must be protected in the same way, when necessary, by the fireman, if the front brakeman is not available. * * *

This accident was caused by extra 517 occupying the main track on the time of a superior train, without protection, in violation of rules 89 and 99, for which Conductor Horton and Engineman Royalty were responsible. Had Engineman Royalty headed his train in on the coal track at the water tank, as instructed by Conductor Horton, this accident would have been averted.

However, according to the statements of the train crew of extra 517, their watches were from six minutes to eight minutes slow, as evidenced by the fact that when Brakeman Bennett repeated to Engineman Royalty the instructions of the conductor to head in on the coal track, he replied that he had ten minutes in which to get into clear at the west switch of the house track, while in reality it was then within four minutes of the schedule leaving time for train No. 328.

This investigation developed the fact that none of the members of the crew of extra 517 had compared their watches with a standard clock on the day of the accident, the conductor stating that he had not compared his watch for at least a week. This was in direct violation of Rule

3. Just as long as such neglect of duty and disregard of rules on the part of employees exists, accidents such as this may be expected to occur.

Conductor Horton entered the service of this railroad as a brakeman on May 18, 1909, and was promoted to conductor July 19, 1915. Engineman Royalty was employed as a fireman October 15, 1906, and was promoted to engineman January 5, 1916.

At the time of the accident the crew of extra 517 had been on duty 10 hours 35 minutes. The engineman of train No. 328 had been on duty 5 hours 16 minutes, the fireman 5 hours, the conductor 8 hours 8 minutes, and the brakeman 8 hours 40 minutes.