

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
MISSOURI PACIFIC RAILROAD

GALE, ILL.

OCTOBER 3, 1937.

INVESTIGATION NO. 2203

-2-

SUMMARY

Inv-2203

Railroad:	Missouri Pacific
Date:	October 3, 1937.
Location:	Gale, Ill.
Kind of accident:	Side collision
Trains involved:	Freight : Passenger
Train numbers:	Extra 1554 : 905
Engine numbers:	1554 : 602
Consist:	85 cars and : 5 cars caboose
Speed:	10-12 m.p.h. : 35-50 m.p.h.
Track:	Tangent; level
Weather:	Raining
Time:	About 2:35 a.m.
Casualties:	1 killed; 5 injured
Cause:	Failure to protect the freight train while making a cross-over movement on the time of a first- class train.

Inv-2203

November 11, 1937.

To the Commission:

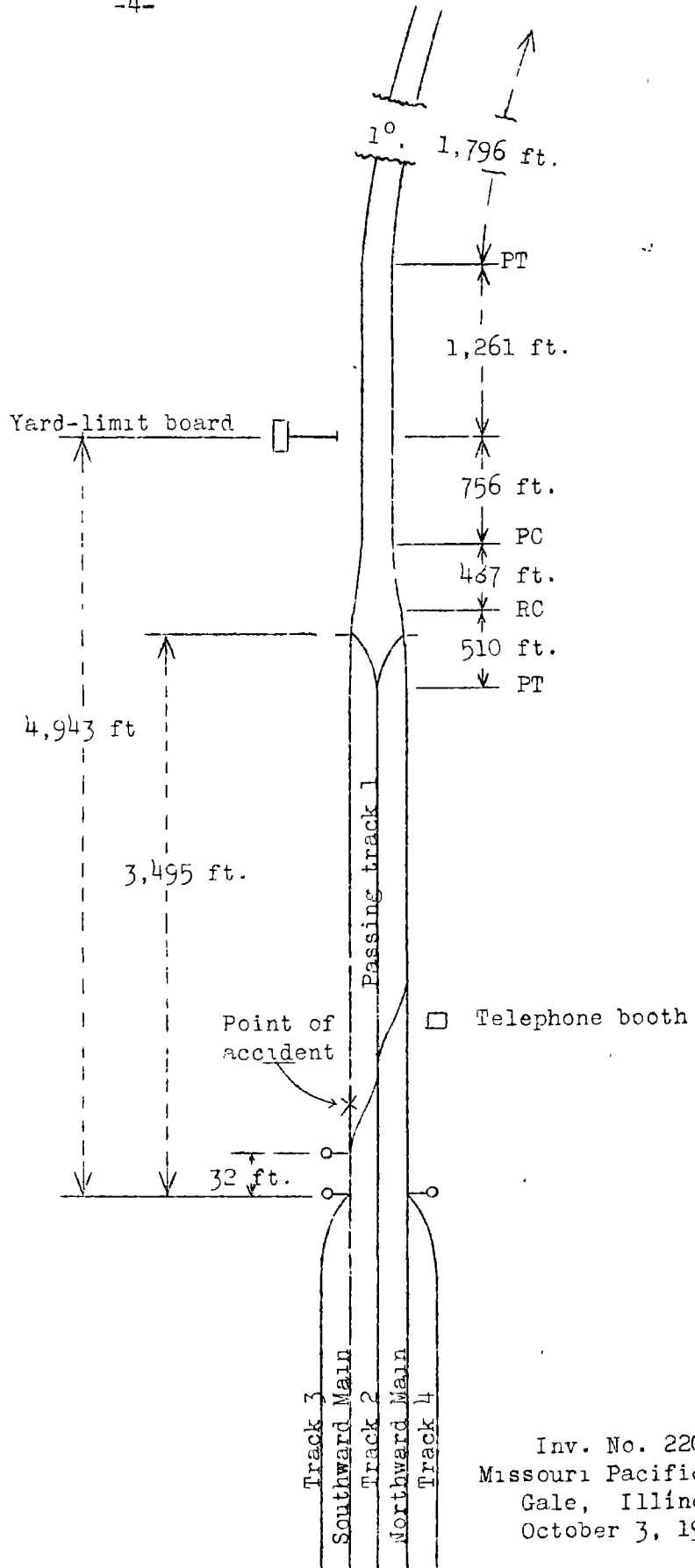
On October 3, 1937, there was a side collision between a passenger train of the St. Louis Southwestern Railway, and a freight train of the Missouri Pacific Railroad on the tracks of the latter company at Gale, Illinois, which resulted in the death of one employee and the injury of three passengers, one employee and one mail clerk.

Location and method of operation

This accident occurred on the Chester District of the Illinois Division which extends between Valley Junction and North Junction, Ill., a distance of 119.33 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by timetable and train orders, no block-signal system being in use. Trains of the St. Louis Southwestern Railway, manned by its own crews, are operated over this entire district in accordance with the rules of the Missouri Pacific Railway.

The point of collision is located 4,843 feet south of the north yard-limit board at Gale. In the vicinity of this station there are five tracks, designated from west to east as track 3, southward main, track 2, northward main, and track 4. The north ends of tracks 3 and 4 merge with the southward and northward mains, respectively, at a point approximately 4,950 feet south of the north yard-limit board. From a point 32 feet north of the switch which connects track 3 with the southward main two continuous cross-overs, directed from southwest to northeast, connect the southward main with the middle track and the northward main. The middle track, which is a continuation of track 2 and is called Passing Track 1 north of the cross-over switches, extends northward about 3,200 feet and by means of facing-point turnouts connects with both main tracks. The main line switches at the north end of track 3 and the south end of the cross-overs described above are equipped with lamps which display green when the route is set for the main track, and red when the route is lined against the main track. The lamp on the switch at the north end of track 3 is 7 feet 6 inches above the cross tie while that on the switch at the south end of the cross-over is 6 feet 5 inches above the cross tie.

o	Valley Jct., Ill.
	91.17 mi.
o	Halsey
	22.2 mi.
o	McClure
	4.16 mi.
X	Point of accident
o	Gale
	1.8 mi
o	North Jct., Ill.



Inv. No. 2203
Missouri Pacific R.R.
Gale, Illinois
October 3, 1937

Approaching the point of accident from the north there is a 1° curve to the left 1,796 feet long followed by a tangent 2,017 feet long, then a 30' curve to the right 487 feet long, a 30' curve to the left 510 feet long and a tangent which extends 3,090 feet to the point of accident and some distance beyond. In this vicinity the track is level.

It was dark and there was a light rain falling at the time of the accident which occurred about 2:35 a.m.

Description

Extra 1554, a north-bound Missouri Pacific freight train, consisted of 85 cars and a caboose, hauled by engine 1554, and was in charge of Conductor Buckminster and Engineman Hardesty. This train departed from Paragould, Ark., at 6:35 p.m., October 2nd, and at 1:01 a.m., October 3rd, arrived at Gale, 127 miles north, where it pulled in on track 3. At 2:35 a.m., while moving from the north end of track 3 through the cross-overs to the northward main track at a speed of about 10 miles per hour it was struck by south-bound St. Louis Southwestern passenger train No. 905 moving on the southward main track.

South-bound St. Louis Southwestern first-class passenger train No. 905 consisted of one mail and express car, one baggage car, two coaches and one Pullman sleeping car, in the order named, all of all-steel construction except the first coach which had a steel underframe; this train was hauled by engine 602, and was in charge of Conductor Green and Engineman Manley. It left St. Louis at 11:15 p.m., October 2nd, on time, passed Halsey, Ill., the last open office, 22.46 miles north of Gale, at 2:14 a.m., October 3rd, 6 minutes late, according to the train sheet, and struck the 79th car in the train of Extra 1554 at the fouling point of a cross-over located 4,843 feet south of the north yard-limit board at Gale while moving at a speed estimated at between 35 and 50 miles per hour.

Engine 602 stopped on its right side at an angle of about 40° to the track, with its head end nearer to the track and about 150 feet south of the point of collision. The tender frame lay east of and parallel to the engine while the cistern lay north of the engine. The three head cars in the passenger train were derailed to the southwest but remained upright, and the two rear cars were not derailed. Three cars in the freight train were derailed and two of these were turned over upon the southward main track.

The employees injured were the engineman and fireman of the passenger train; as a result of his injuries the engineman died 23 days after the accident.

Summary of evidence

Conductor Buckminster, of Extra 1554, stated that when his train arrived at Gale it pulled in on track 3 and the engine went to the engine house for servicing. At about 2:00 a.m. the engine was again coupled to the north end of the train, and he went to the telephone to communicate with the dispatcher regarding north-bound freight train 906. While he was using the telephone his train started to pull out of track 3, and by the time he was ready to leave the telephone booth, which was on the east side of the tracks, the engine was close by. He informed the engineman regarding the instructions received from the dispatcher, and then made arrangements with the brakeman of a northbound train which had just arrived to close the switches. He did not discuss the approach of train 905 with anyone and made no arrangements for flag protection against it as he calculated that his train would get through the cross-overs in time to clear the passenger train, due at the last station in the rear at 2:31 a.m., and he expected the engineman to arrange for flag protection if it became necessary. At the time of the collision, about 2:35 a.m., a light rain was falling but visibility was fair so that he could see switch lights for a distance equal to the length of his train which consisted of 86 cars. The lights on the switches at the north end of track 3 and at the south end of the cross-over were burning, as were also the cupola light and the marker lights on his caboose. Since he was on the east side of his train he did not witness the approach of train 905.

The statement of Head Brakeman Brown of Extra 1554 agreed with that of Conductor Buckminster regarding the movement of his train in and about Gale, and also with respect to the weather conditions and the visibility of the caboose and switch lights. While his train was moving through the crossovers he was in the brakeman's cabin on the rear of the tender, and made no effort to provide flag protection against train 905.

In addition to corroborating the statements of the conductor and head brakeman regarding movements at Gale, and weather and visibility conditions, Flagman Mercer of Extra 1554 stated that so far as he knew there had been no discussion regarding protection against train 905, and he did not know whether any protection had been provided. When the caboose was about 40 car lengths south of the north end of track 3 he turned the markers to show red to the rear.

Engineman Hardesty, of Extra 1554, stated that after his engine had been serviced at Gale and was again coupled to the train at the north end of track 3 they waited for Extra 805 south to pass, and then, at about 2:23 a.m., in accordance with a signal received from the flagman, he started to move his train out of track 3. He had not discussed with anyone the matter of protection against train 905, nor had he whistled out a flag, but as he saw a red fusee burning on the southward main a considerable distance north of the switches he assumed that the conductor had made the necessary flagging arrangements. They proceeded through the cross-overs at a speed of between 10 and 12 miles per hour and shortly after his engine passed the lighted fusee he saw train 905 approaching and asked the fireman if that train was being flagged. The fireman replied in the negative and just then the engine of 905 passed them. His recollection was that the wind was from the northwest which would have the effect of keeping any smoke or steam to the east side of his train.

The statement of Fireman Gaines, of Extra 1554, agreed with that of Engineman Hardesty; in addition he stated that until the engineman called his attention to the approach of train 905 he had overlooked that train. He had noticed the fusee burning on the southward main track and stated that it was still burning when his engine passed it, but when at the request of his engineman he looked toward the rear of his train to see whether train 905 was being flagged he observed that the fusee had burned out. He could not give the direction of the wind, and was unable to say whether steam or smoke might have hampered the engineman of a southbound train in seeing the position of the crossover switches. The headlight of engine 1554 was burning dimly, but he could not recollect whether the headlight of train 905 was burning brightly or dimly.

Fireman Lemmer, of train 905, stated that Engineman Manley appeared to be normal during the trip involved and that the brakes functioned satisfactorily. Engine 602 is an oil burner and is equipped with an efficient electric headlight. His train passed McClure at 2:36 a.m., 5 minutes late, and when they approached Gale he saw Extra 1554 on the northward main and called the attention of his engineman to it and to the fact that the visibility was not good; the engineman slowed the train down to a speed of about 35 miles per hour. Until they had passed engine 1554 they were blinded by its headlight, and after they had passed that engine their view was obscured by fog, mist or smoke so that they were unable to see the position of the cross-over switches until they were only 5 or 6 carlengths from them. At that time the engineman made an emergency application of the brakes but they were still moving at a speed of 35 or 40 miles per hour at the time of collision. He stated that he has never been instructed or required to approach main track

switches prepared to stop when the view was obscured by fog or other abnormal conditions, nor is there any rule requiring road crews to regulate their speed to guard against the possible imperfect display or absence of switch signals. He admitted, however, that enginemen have been disciplined for failure to observe such switch-signal indications.

Conductor Green, of train 905 stated that a terminal test of the air brakes was made before leaving St. Louis, and the brakes operated satisfactorily en route. He felt an emergency application of the brakes when his train was 4 or 5 car lengths from the point of accident but the train was still moving at a speed of about 45 miles per hour when the collision occurred. When he dismounted from his train after the accident it was raining lightly but he did not notice any fog.

Flagman Ham of St. Louis Southwestern Railway Extra 805 stated that shortly after 2:20 a.m. his train stopped momentarily south of the north yard-limit board at Gale and when he got to the ground on the right side of his train he could see the reflection of the headlight 83 car lengths away. At 2:24 or 2:25 a.m. as his train was starting he lighted a ten minute fusee and deposited it to the rear of the train on the southward main track. He described weather conditions as raining and slightly hazy with fair visibility.

Conductor Adams of Extra 805 corroborated the statement of Flagman Ham.

Road Foreman of Engines Coley of the Missouri Pacific Railroad stated that he was a passenger in the coach of train 905 when this accident occurred but did not notice any application of the brakes previous to the time of collision. It was raining at the time but when he got to the ground he was able to see the lamps of switchmen working at a point about a mile to the south. After the accident the brake valve of engine 602 was found in emergency position. He stated that enginemen are instructed and required to closely observe the indications of main-line switches and other fixed signals and are disciplined for failure to do so. It is proper for trains to run expecting to find switches properly lined, but enginemen are required to regulate the speed of their trains so as to insure against passing open switches. They are also expected to know when a signal is improperly displayed, and when such a signal is a switch they are required to stop short of it if possible. Foggy conditions are encountered frequently on this division and at such times crews are expected to operate their trains in a safe manner regardless of delay; he cited several cases where delay was charged to foggy conditions. He estimated that it should have been possible to stop train 905 in about 1400 feet.

Observations by the Commission's Inspectors

On the night of October 7th vision tests were made in the locality of the point of accident. A caboose and seven cars of the same type as those comprising the rear eight cars of Extra 1554 were placed in the position of the rear end of that train when it was struck. An engine headed south and moving with the current of traffic on the southward main track had reached a point 6,204 feet north of the switch at the north end of track 3 when one red light became visible from each side of the cab and at a point 4,943 feet north of this switch these lights were distinct. At a point 3,495 feet north of the switch the red light on the cupola of the caboose came into view and at a point 2,250 feet north of the switches both switch lights, the red cupola light and the caboose marker light were plainly seen. In these tests there was no locomotive on the northward main, and the engine used in making the approach tests moved very slowly.

Discussion

According to the evidence Extra 1554 started to make the cross-over movement from track 3 to the northward main at about 2:28 a.m. Train 905 was due to leave McClure, about 4 miles to the rear, at 2:31 a.m. Rule 152 for double track stipulates that when a train crosses over to or obstructs another track, unless otherwise provided it must first be protected as required by rule 99, in both directions on that track. This movement being within yard limits protection was not required for any but first-class trains but as train 905 falls within that classification it was required of the crew of the extra that protection be provided. It was admitted by all members of the crew of the extra that no flag protection of any kind was afforded in spite of the fact that none but the fireman overlooked the passenger train. The evidence discloses that the conductor and engineman each depended upon the other to make arrangements for protection, and the engineman believed that the conductor had done so as a fusee was burning on the southward main about 40 car lengths north of the cross-overs. This fusee, however, had been dropped by the flagman of a south-bound extra which had passed while extra 1554 was on track 3 preparing to continue its trip northward.

Rule 963 provides that enginemen must keep a constant and vigilant lookout, carefully note all signals, and call the indications of fixed signals affecting the movement of their trains.

Rule 968 requires enginemen to keep in mind the location of all fixed signals in order that the absence of a signal may be noted and action taken in accord with rule 27 which requires that a signal improperly displayed or the absence of a signal where one is usually displayed be regarded as giving its most restrictive indication.

Because of his condition no statement could be obtained from the engineman of train 905, but the fireman of that train stated that as they approached the head end of Extra 1554 their view was obstructed by the glare of the headlight of that train, and after passing the headlight there was so much steam, fog and smoke that the crossover switches could not be seen. Assuming that the engineman of the passenger train could not see the indication of the switches it was his duty to stop, but there is a possibility that the front indication of the caboose marker was mistaken for the switch light.

In the case of this accident a condition was set up by the crew of Extra 1554 which placed both their train and passenger train 905 in jeopardy. The crew of the extra were provided with a method of insuring safety to both trains by the terms of rule 99, and the observance of this rule is mandatory.

To depend for protection upon the observance of switch signal indications leaves much to chance. Enginemen are not required to run expecting to find all main-track switches improperly lined and while it is required that they closely observe the indication of switches as an additional safety provision, non-observance of rule 99 in even the slightest degree should not be encouraged by shifting any part of the responsibility placed by that rule. The accident could have been averted by observance of the terms of rule 99 by the crew of Extra 1554.

Conclusion

This accident was caused by the failure of the crew of Extra 1554 properly to protect their train while making a cross-over movement on the time of a first-class train.

Respectfully submitted,

W. J. PATTERSON,

Director.