INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE CHICAGO, ROCK ISLAND & PACIFIC RAILWAY, AT BELLEVILLE, ARK., ON OCTOBER 21, 1931

December 4, 1931.

To the Commission:

On October 21, 1931, there was a side collision between two passenger trains on the Chicago, Rock Island & Pacific Railway at Belleville, Ark., which resulted in the injury of 2 passengers, 3 employees, and 1 dining-car employee

Location and method of operation

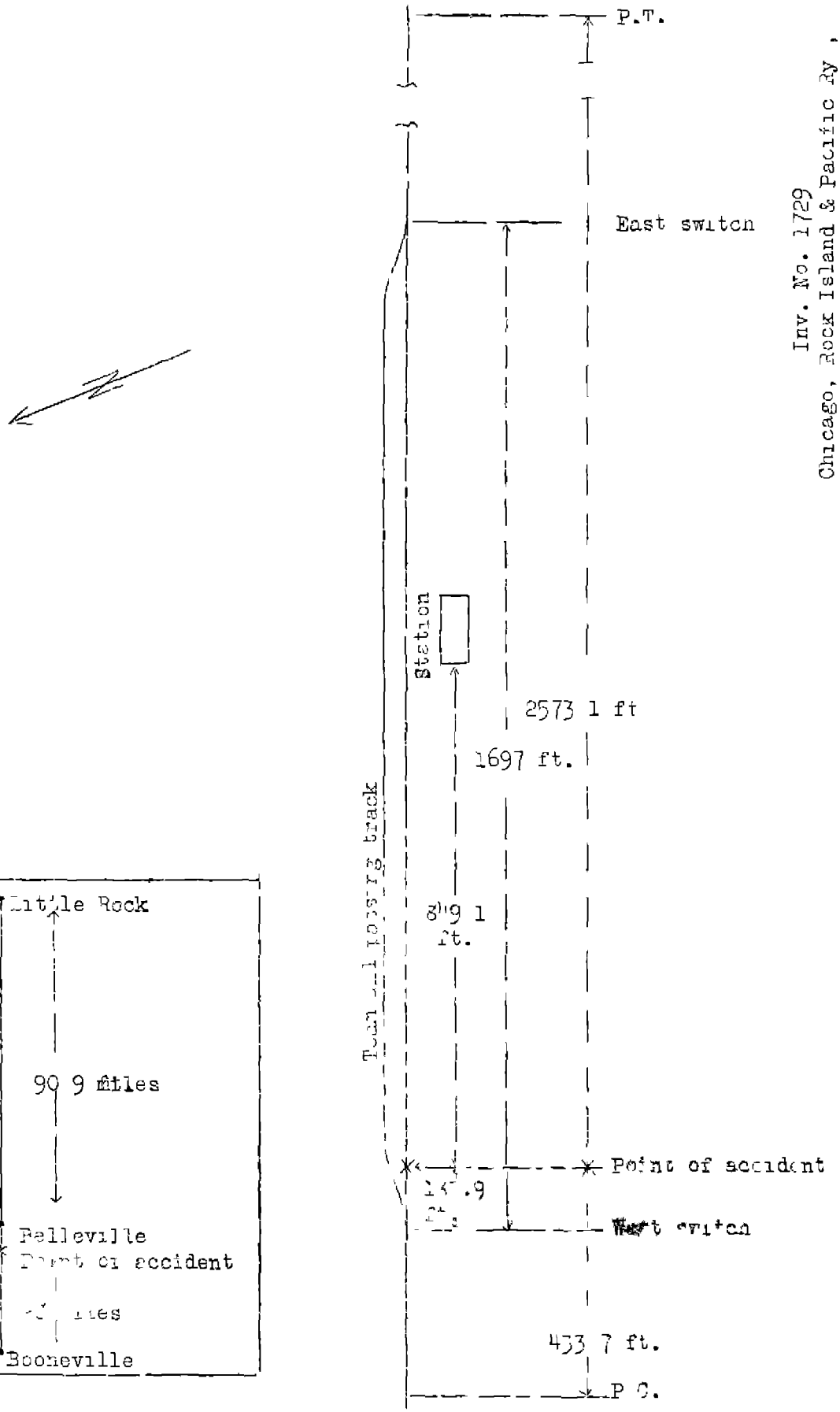
This accident occurred on Sub-division 51 of the Arkansas-Louisiana Division, which extends between Little Rock and Booneville, Ark., a distance of 118.9 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by time-table, train orders, and a manual block-signal system. The accident occurred at the fouling point of the team and passing track with the main track, 133.9 feet east of the west switch of the passing track and 849.1 feet west of the station at Belleville. Approaching the point of accident from the east, the track is tangent for a distance of 3,573.1 feet; approaching from the west, there is a 1° curve to the right 683.3 feet in length, followed by 453.7 feet of tangent track to the point of accident. The team track, 1,697 feet in length, parallels the main track on the north, and is frequently used for the meeting of the two trains involved in this accident. In the vicinity of the point of accident the grade is undulating, and it is 0.5 per cent descending at the point of accident for westbound trains.

The weather was clear at the time of the accident, which occurred at 5.32 a.m.

Description

Eastbound passenger train No. 43 consisted of 1 baggage and mail car, 2 coaches, 1 Pullman sleeping car, and 1 dining car, in the order named, all of steel construction, hauled by engine 853, and was in charge of Conductor Harris and Engineman Ivers. This train departed from Booneville, its initial terminal and the last open office, at 4.45 a.m., five minute late, according to the train sheet, with an order to meet train

Inv. No. 1729
Chicago, Rock Island & Pacific Ry.,
Belleville, Arkansas
October 21, 1931



No 111 at Belleville, train No 111 to hold the main track. Train No. 42 arrived at the west switch at Belleville about 5 27 a m , and was heading in on the passing track, having stopped momentarily after coupling to some cars standing on the track, when it was struck by train No. 111

Westbound passenger train No. 111 consisted of 1 baggage and mail car, 2 coaches, and 2 Pullman sleeping cars, in the order named, all of steel construction, hauled by engine 836, and was in charge of Conductor Dale and Engineman Scott The crew of this train also held a copy of the order fixing a meet with train No. 42 at Belleville, and at Darville, 4 4 miles east of Belleville, the last open office, they received another copy of the order, together with a clearance card calling attention to the fact that train No 42 was in the block Train No 111 passed Darville at 5 25 a.m., and collided with the side of train No 42 at Belleville while traveling at a speed variously estimated to have been between 8 and 18 miles per hour.

Engine 836 struck the right side of the second car in train No 42 at a point about 15 feet from its front end, scraping it from that point back to the rear end and then striking the right front corner of the vestibule of the third car, considerably damaging this car None of the equipment in train No 42 was derailed, although the entire train was driven back a distance of about 70 feet by the force of the collision. Engine 836 turned over on its left side and was considerably damaged, the tender was leaning at an angle of about 45° but remained coupled to the engine and the first car in the train None of the remaining equipment in train No. 111 was derailed or damaged The employees injured were the engineman, fireman and head brakeman of train No 111, while the injured dining-car employe was on train No. 42

Summary of evidence

Engineman Myers, of train No. 42, stated that his train stopped at the west switch of the passing track at Belleville, the head brakeman opened the switch and the derail, and he then started to head in on the passing track. A cut of three cars was standing near the derail and a short distance beyond was another car, his train coupled to the first cut of cars, proceeded and coupled to the fourth car, and was ready to proceed again when he saw the headlight of train No. 111 as it was coming around the curve, or about one-half mile distant. He heard two short blasts of the whistle, noticed that the engine was being given steam, and then sounded one long blast on the whistle of his own engine. In the meantime, after coupling to the cars the conductor

and head brakeman were four car-lengths ahead of his engine and had given him a "come-ahead" signal, but after the two short blasts of the whistle were heard from train No 111, both the conductor and the head brakeman gave that train stop signals Train No. 111 then was just west of the station, or 400 or 500 feet from the clearance point at the west end of the passing track Engineman Myers stated that his engine was into clear on the passing track about 150 feet, and when train No 111 was about 300 feet distant his fireman crossed over to the right side of the gangway and flagged train No 111 with a red lantern Engineman Myers estimated the speed of train No 111 to have been 15 or 18 miles per hour as it passed him, and said that he saw fire flying from under the wheels, his own train was standing with the brakes set lightly He further stated that he did not hear the meeting-point whistle signal nor a highway crossing signal sounded by the engineman of train No 111

Fireman Goodson, of train No. 42, stated that after his train was coupled to the cars on the passing track he looked out on the right side of the engine and saw train No 111 approaching He remarked to the engineman that he guessed that that train would not come down and hit them on account of their headlight being obscured by the box car, to which the engineman replied that he hardly thought so; however, he got his red lantern and flagged the approaching train from the right side of the gangway. Fireman Goodson stated that when he looked out after making the coupling he saw Conductor Harris give his engineman a come-ahead signal, and afterward turn around and walk eastward, and he then saw him give a stop signal to the approaching train, which at that time was about 500 or 600 feet distant He estimated the speed of train No. 111 to have been from 15 to 18 miles per hour at the time it passed him and did not think the speed had been reduced before the collision

Conductor Harris, of train No 42, stated that upon their arrival at Belleville, he and the head brakeman got off the front end of the first coach, the brakeman opened the switch and threw the derail and then got up on top of the cars for the purpose of releasing the hand brakes, while the conductor personally coupled the engine to the first out of cars. The brakeman made the second coupling and in the meantime the conductor walked eastward and was giving his engineman a slow proceed signal when he heard two short blasts of the whistle on train No. 111 and the sound of the engine working steam. He immediately jumped out in the center of the main track and flagged the approaching train with a white lantern, at which time it was between the east switch of the passing track and the station, or 15 to 18 car-lengths east

of him, and he estimated his own position as being about 500 feet east of the west switch He estimated the speed of train No 111 to have been about 20 miles per hour at the time it passed him, the brakes were applied and the speed had probably been reduced to from 10 to 15 miles per hour at the time of the accident. Conductor Harris further stated that he heard no whistle signals sounded other than the two short blasts at the time he first saw the train approaching

Head Brakeman Jones, of train No 42, stated that after making the couplings to the two cuts of cars he was on top of the fourth car when he heard the two short blasts of the whistle sounded by train No 111 and heard the engineman open the throttle and start to work steam, the train then being near the east switch of the passing track. He saw Conductor Harris go over to the main track and flag that train and he himself went over to the right side of the car and flagged it. He thought that the train reduced speed but was unable to state whether or not the brakes were applied when it passed him Brakeman Jones further stated that he heard the meeting-point signal sounded

The statements of Flagman Jamison, of train No. 42, who was riding in the rear end of the dining car, brought out nothing additional of importance, except that he heard the station and the meeting-point whistle signals sounded by train No 111 prior to the two short blasts of the whistle, and he heard his own engineman sound one long and one short blast on the whistle.

Engineman Scott, of train No. 111, stated that approaching Belleville he was operating his train at a speed of about 50 miles per hour, he sounded the station and meeting-point whistle signals and made a 10-pound brake-pipe reduction, entering Belleville with his train under control, at a speed of from 30 to 35 miles per hour, and was prepared to stop at least 600 feet from the clearance point of the west switch as required by the rules. Upon nearing the station, however, he saw some one give a proceed signal from a point about 300 or 400 feet east of the west switch, which signal he thought was intended for him, he acknowledged this signal with two short blasts of the whistle, released the brakes, and opened the throttle He then received a stop signal with a white lantern from the same person who gave the proceed signal, and immediately applied the air brakes in emergency, but by that time his train was too close to stop before the collision occurred. His fireman also called a warning to him, but he had already realized that train No. 42 was not into clear, and as he passed the engine of train No. 42 he saw a red light swing out from the gangway. Engineman Scott stated that after releasing the brakes his train attained a speed of about

35 miles per hour, but this had been reduced to about 8 miles per hour at the time of the accident. He thought his train was about 700 feet from the clearance point at the time he made the emergency application although later he modified this statement by estimating this distance to have been 400 feet, and 700 feet when he released the brakes. It was his opinion that a train traveling at a speed of 25 miles per hour could be stopped by an emergency application within 400 feet and he could only account for his failure to stop by the fact that the wheels must have skidded, he did not apply sand at any time. It further appeared from Engineman Scott's statements that his view was not obscured in any way approaching the point of accident, that the day was breaking but that it interfered very little with his vision, that had he noticed it he thought he could have seen an object as large as a coach fouling the track for a distance of one-fourth mile; that he saw the switch light at the east end of the passing track but did not see the light at the west switch; and that the absence of this light should have warned him that something was wrong. The air brakes had been tested before their departure from Little Rock and functioned properly en route, and Engineman Scott was of the opinion that the full effect of the emergency application was received on the cars at the time of the accident, as they were equipped with universal control valves, but not on the engine and tender, as they had only plain triple valves.

Fireman Thompson, of train No. 111, was riding on his seatbox on the left side of the cab until just prior to the collision, getting off once and going over to the engineman's side to identify train No. 42 when they were close to the station, and he remarked to the engineman that train No. 42 was heading in, taking it for granted that it was in the clear. At that time he saw a proceed signal given by some one standing between the passing track and the main track, but he said he would not have taken it for a "highball", but rather a medium go-ahead signal not intended for his train. He returned to his own seatbox, the engineman released the brakes, and in a very short time thereafter he saw the cars on the main line; he warned the engineman and about the same time the engineman applied the air brakes in emergency. Their train was then about three or four car-lengths from the side of train No. 43. Fireman Thompson jumped off the engine when it was about one and one-half car-lengths from the point of accident and the train was then traveling about 20 or 25 miles per hour, although he estimated the speed at the time of the accident to have been 5 miles per hour. He heard one blast of the whistle sounded for train No. 42 as they neared it. He had not noticed that the markers on the rear of train No. 42 and the switch light at the west end of the passing track were not visible, although he had seen the switch light at the eastern end of the passing track. The headlight on his own engine was burning and its rays extended a distance of about 800

feet, but at the time of the accident it was daybreak, which rendered the headlight ineffectual to some extent, and he thought a coach could not have been seen for a distance of more than four coach-lengths The headlight of train No 42 was not visible, as it was obscured by the cars on the passing track.

Conductor Dale, of train No. 111, stated that he was riding on the right side in the second car approaching Belleville, at the whistling post 1 mile east of Belleville he heard the station whistle sounded, then the meeting-point whistle signal, followed by a reduction in speed, and the train was under control approaching the east switch of the passing track He looked out at that point and saw some cars on the siding, but could not see any headlight or any other light. At some point between the east switch and the station he felt the brakes being released and supposed that train No. 42 was in the clear, but when they had reached a point just west of the statio the air brakes were applied in emergency. Conductor Dale estimated the speed of his train at the time they passed the east switch to have been 30 or 35 miles per hour, at the time the emergency application was made to have been 25 miles per hour, and at the time of the accident to have been 10 miles per hour. Conductor Dale further stated that the engineman should have been able to stop easily within 600 feet from the clearance point of the west switch, and due to the fact that he sounded the meeting-point whistle signal he fully expected him to stop, otherwise he would have been in position to open the conductor's valve; after he discovered that his train was not going to be stopped before striking train No. 42, it was too late for him to take any action.

Brakeman Goodwin, of train No. 111, stated that approaching Belleville he was riding in the second car and when he heard the meeting-point whistle signal, followed by a reduction in speed, he went to the front vestibule, looked out, and saw a proceed signal being given. He then heard his engineman sound two short blasts on the whistle, after having released the brakes and opened the throttle, and immediately after he heard the two blasts on the whistle he saw a stop signal being given. Brakeman Goodwin said that he then saw that train No. 42 was not into clear and he waited a few seconds expecting the engineman to apply the brakes, he started to go in the car with the intention of applying the brakes with the conductor's valve and as he turned around to enter the car he felt the brakes applied in emergency and at that time the engine was passing the station at a speed of 25 or 30 miles per hour. The statements of Flagman Rothwell, who was riding in the rear car of train No. 111, brought out nothing additional of importance except that after he felt the emergency application of the air brakes he looked out and saw a red light swing out across

the track, which appeared to be from the cab of the engine of train No. 43, and at that time the car in which he was riding was about one car-length west of the east switch; the rear end of his train stopped at a point about two or three car-lengths west of the station. He estimated the speed of his train at the time of the accident to have been 10 or 15 miles per hour.

Dispatcher Elwood, who issued the train orders to the crews of trains Nos. 43 and 111 on the day of the accident, stated that it is the regular practice to issue a train order for trains to meet at their time-table meeting point, and while train No. 43 is a superior train by direction, train No. 111 is the more important train and therefore the right to hold the main track is given to train No. 111. It is a common occurrence for these two trains to meet at Belleville instead of their regular meeting point. Dispatcher Elwood further stated that the siding at Belleville is not classed as a regular passing track and is usually blocked with cars, that crews of trains are aware of this fact and always expect to find it blocked, and it is therefore not deemed necessary to issue orders stating that the track is blocked with cars as is done when regular passing tracks are blocked.

Rule 17a provides that when an engine heads in to a siding to clear the main track for an opposing train, and for any reason its headlight can not be seen from the opposing train, a flagman must be sent ahead to stop the opposing train until the main track is clear but most of the members of the crew of train No. 43 were of the opinion that the rule would not apply in this instance. Engineman Ivers thought the provisions of this rule were effective only in case of a train making its own meeting point or time-table meeting point and that when the conductor and brakeman went ahead of his engine in heading in on a siding they were in his opinion complying with the provisions of rule 17a. Fireman Goodson was of the opinion that rule 17a enters into this case as a matter of extra precaution and that under the conditions as they existed it was the duty of the head brakeman to provide flag protection. Conductor Harris did not think that extra flag protection should have been given other than that which was given under the conditions as they existed at the time of the accident, and Head Brakeman Jones was of the same opinion as Conductor Harris. Engineman Scott, of train No. 111, stated that it was his opinion that rule 17a did not require a train to flag an opposing train at a positive meeting point and that he did not expect to be flagged in this instance; however, he said that sometimes flag protection is given and sometimes it is not. Fireman Thompson also of train No. 111, was of the opinion that the provisions of rule 17a required flag protection as provided by rule 99.

Trainmaster Dimrett made a statement with reference to rule 17a that employees have been instructed in the application of rule 17a that it is not necessary to protect as per rule 99 when the inferior train is heading into a siding and the headlight on their engine is obstructed by cars in such siding, when meeting an opposing superior train holding train orders covering the meet. They were further instructed that a flagman should precede any cars ahead of the engine and give a signal to the approaching train indicating that his own train is not in the clear. These instructions were issued to apply only at positive meeting points covered by train order

Conclusions

This accident was caused by the error of Engineman Scott, of train No. 111, in accepting a proceed signal not intended for the movement of his train, resulting in his failure to stop his train clear of the track used by an inferior train taking the siding at a train-order meeting point.

The evidence indicates that Engineman Scott brought his train under control upon approaching Belleville and was operating his train at a speed of from 20 to 25 miles per hour upon nearing the station, located 849 feet east of the fouling point of the west switch, when he saw a proceed signal being given by a member of the crew of train No. 42, he thought that this signal was intended for him and therefore released the brakes, opened the throttle and acknowledged this signal with two short blasts of the whistle. He then received a stop signal and immediately applied the air brakes in emergency, but by that time he was too close to stop his train before the collision occurred. The signal which Engineman Scott thought was for him was one being given by the conductor of train No. 42 to his own engineman to proceed on the passing track. Not only do the rules provide that trainmen of a train standing clear of the main track must not give proceed signals to an approaching train, but they also require a train to stop 300 feet from the clearance point of the facing-point switch used by the approaching train, also that an engineman, unless he knows a signal is intended for him, must not move his train until advised verbally. Engineman Scott did not obey the two rules last mentioned, and should not have accepted a signal apparently given in violation of the first-mentioned rule.

Rule 17a provides that when an engine heads into a siding to clear the main track for an opposing train, and for any reason its headlight can not be seen from

the opposing train, or when using an impaired headlight, a flagman must be sent ahead to stop the opposing train until the main track is clear. It would appear that rule 17a places a duty on the crew of a train heading into a siding under the conditions specified which is absolute and positive. Trainmaster Dimrett, however, stated that the employees of this railroad have been instructed that under rule 17a it is not necessary to protect as prescribed by rule 99 when meeting an opposing superior train holding train orders covering the fact, but that a flagman should precede any cars ahead of the engine and give a signal to the approaching train indicating that the train is not in to clear. Under such instructions the crew of train No. 43 is not responsible for the occurrence of this accident. However, it might be pointed out that officials whose duty it is to instruct employees on the rules and to see that they are observed are placing a very light interpretation on the word "flagman" when they give it enough elasticity to cover an employee giving a signal with a white light. The apparent purpose of the rule is to provide an additional safeguard when for any reason the headlight of the train taking siding is obscured, and in this instance, if the crew of train No. 43 had sent a "flagman" ahead immediately at the time their train stopped at the switch to head in, as required by the rule but not by the instructions, it is probable he would have had ample time to reach a point a sufficient distance away to insure the stopping of the opposing train. The officials should not allow the definition for the word "flagman" to mean any one except a man who is properly equipped as set out in the rule in which they define a flagman's signals, under rule 15c these signals, at night, consist of a red light, white light, torpedoes and fusees.

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.