

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE  
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON  
THE CHICAGO & NORTH WESTERN RAILWAY AT BARRINGTON,  
ILL , ON NOVEMBER 21, 1931

December 11, 1931.

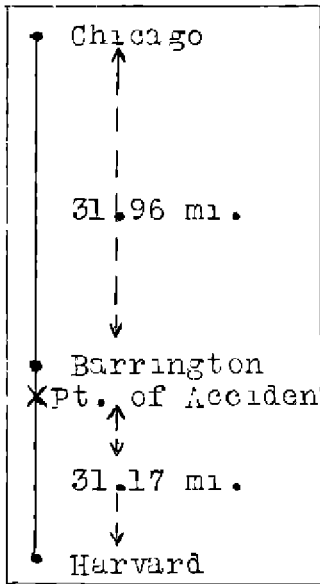
To the Commission

On November 21, 1931, there was a rear-end collision between a freight train and an empty coach train on the Chicago & North Western Railway at Barrington, Ill , which resulted in the death of one person carried under contract and the injury of two employees. This investigation was made in conjunction with a representative of the Illinois Commerce Commission.

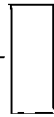
Location and method of operation

This accident occurred on Sub-division 4 of the Wisconsin Division, which extends between Chicago and Harvard, Ill , a distance of 63.13 miles. In the immediate vicinity of the point of accident this is a double-track line over which trains are operated by time-table, train orders, and an automatic block-signal system. Trains moving with the current of traffic keep to the left. At a point 1,950 feet west of the station at Barrington the main tracks of the Chicago & North Western Railway are crossed at grade by the main track of the Elgin, Joliet & Eastern Railway and the movements of trains over this crossing are controlled by means of a mechanical interlocking plant operated from a tower which is located at the southeastern corner of the track intersection. The accident occurred a short distance beyond the eastern limits of the interlocking plant, about 480 feet east of the crossing. Approaching the point of accident from the west, the track is tangent for several miles and the grade is 0.535 per cent ascending for eastbound trains.

The signal governing eastbound movements in the block in which the accident occurred is interlocking home signal 2, a three-panel color-light signal, located at a point 565 feet west of the EJ&E crossing. The block extends a distance of 5,020 feet to the eastbound interlocking home signal for the remote control interlocking plant at the beginning of the three-track line. The circuits are so arranged that when the block is occupied the bottom or call-on panel may show yellow with the two top panels



Station



1,950 ft.

Eastbound  
Westbound

Point of Accident

480  
ft



Interlocking Tower

Elgin  
Joliet  
& Eastern

565 ft.



Home Signal

3,359 ft.



Approach Signal

Inv. No. 1736  
Chicago & North Western Railway  
Barrington, Ill.  
November 21, 1931.

displaying red lights, thus indicating "proceed at restricted speed" The approach or distant signal for the Barrington plant, governing eastbound movements, is a lower-quadrant, lever-controlled, slotted semaphore signal, located 3,350 feet west of home signal 2. This signal will have the blade in the horizontal position, displaying red and green lights, indicating "prepare to stop at next signal; train exceeding 30 miles per hour must at once reduce to that speed," when the track in advance is occupied, or when home signal 2 displays stop indications on the two top panels with the call-on arm displaying either red or yellow indications.

The weather was clear and the moon was shining at the time of the accident, which occurred about 12.25 a.m.

#### Description

The trains involved were being operated as extra trains by signal indication, as provided by special time-table rule, in order to proceed without regard to their scheduled times. They were shown on the train sheet, however, under their respective scheduled train numbers, and these numbers are therefore used in this report.

Eastbound second-class freight train No. 594 consisted of 38 cars and a caboose, hauled by engines 2402 and 2396, and was in charge of Conductor Vothe and Enginemen Blawusch and Melzer. This train departed from Crystal Lake, 11.29 miles west of Barrington, at 11.43 p.m., November 20, according to the train sheet, arrived at Barrington at 12.13 a.m., November 21, where it set off five cars, and had just started eastward, traveling at a speed variously estimated to have been from 3 to 12 miles per hour, when its rear end was struck by train No. 698

Eastbound first-class equipment train No. 698 consisted of three deadhead coaches and one deadhead combination baggage and smoking car, in the order named, hauled by engine 2216, and was in charge of Conductor Condon and Engineman McClosky. This train departed from Crystal Lake at 12.10 a.m., according to the train sheet, and collided with the rear end of train No. 594 while traveling at a speed variously estimated to have been between 20 and 40 miles per hour.

The caboose in train No. 594 was telescoped its entire length by the car ahead of it, which, in turn, was partially telescoped by the second car from the rear, this latter car being practically demolished, and the third car was slightly damaged. Engine 2216, of train No. 698, was derailed and leaned to the left at an angle of about 33°. The person

killed was a stockman in the caboose of train No. 594, and the employees injured were the fireman and brakeman of train No. 698.

#### Summary of Evidence

Conductor Vethe, of train No. 594, stated that he instructed the rear brakeman to ride on the head end of the train from Cary, 3.69 miles west of Barrington and assist the head brakeman in setting off cars at Barrington, and that he himself assumed the duties of flagman. Upon arrival at Barrington he got off with his flagging equipment and walked back a distance of four or five car-lengths, the rear end of his train having stopped at a point between the home signal and the interlocking tower. He stated that he was watching the brakeman when they gave the signal for their train to proceed after setting out the cars and he then returned to the caboose. At that time he saw train No. 698 approaching, but did not think that it would overtake his own train and did not leave torpedoes or a lighted fusee on the track. Just as his train started he got up on the rear platform and stopped inside the caboose to set his lantern down, then, upon looking back he saw that train No. 698 was getting closer and he reached inside the door, got a fusee, lighted it, and dropped it off at a point he thought was between 10 and 15 car-lengths east of the EJ&E crossing. By that time train No. 698 had reached the crossing, with the engine working steam, and he realized that a collision would occur and jumped off. Conductor Vethe estimated the speed of train No. 698 to have been from 20 to 25 miles per hour and thought his own train was traveling at a speed of 6 or 10 miles per hour at the time of the accident. Conductor Vethe was thoroughly familiar with the rules requiring flag protection but he did not think it necessary to comply fully with the flagging requirements as he thought that the following train would see his own train, the marker lights on his caboose were burning brightly

Head Brakeman Biversi and Rear Brakeman Webster of train No. 594, stated that they performed the necessary work in setting off the cars at Barrington, and Brakeman Webster was walking back toward the rear of his train as it started to depart from Barrington and had reached a point about five car-lengths from his caboose when he saw the headlight of train No. 698 only a short distance from the caboose, he estimated its speed to have been from 20 to 35 miles per hour. Brakeman Biversi and Webster stated that their train had traveled a distance of about 15 car-lengths at the time of the accident and was traveling at a speed of 10 or 12 miles per hour.

Enginemen Blawusch and Ielzer, and Firemen Lichtenburg and Clare, of train No. 594, estimated the speed of their train at the time of the accident to have been from 3 to 5 miles per hour.

Engineman McClosky, of train No. 698, stated that upon approaching Berrington he observed the approach signal for the interlocking plant displaying an indication to prepare to stop at the next signal, while the home signal was displaying a stop indication, with a yellow light displayed by the calling-on signal, he called these indications to the fireman and the fireman repeated them. Engineman McClosky stated that he closed the throttle and at some point between the approach and the home signals he applied the air brakes, reducing the speed to between 25 and 35 miles per hour by the time he passed the home signal. As he approached the EJ&E crossing it appeared to him that everything ahead was clear and he released the brakes, at which time the speed had been reduced to between 20 and 25 miles per hour and the throttle was practically shut off, but just as he released the brakes he looked ahead again and saw some one with a white lantern. At first he could not tell where this person was located, and then he saw that he was on the rear platform of a caboose and he also saw him light a fusee and jump off. The engineman immediately applied the air brakes in emergency and called to the fireman to jump off. He did not pass over any torpedoes, nor did he see the marker lights on the caboose prior to the time he saw the white lantern. He was not able to state whether or not the headlight of an opposing train on the westbound track would interfere with his vision ahead, but admitted that later when train No. 698, his own train, was standing east of the crossing he could plainly see its markers from a point west of the home signal, even in the face of the headlight of a westbound train standing near the rear end of train No. 698. There was nothing about the weather conditions to interfere with his vision at the time of the accident, while an airbrake test had been made before departing from Crystal Lake and the brakes had functioned properly enroute. Engineman McClosky had received a copy of the latest supplement to the book of operating rules and fully understood its provisions, which included a requirement that a train finding an approach signal in the caution position must prepare to stop at the next signal and must reduce speed to not exceeding 20 miles per hour. He also understood that a calling-on signal permitted movements only at restricted speed, prepared to stop short of a train or obstruction. Engineman McClosky further stated that the fireman had been riding on the fireman's seat-box up to the time he released the brakes, and that the fireman then got down on the deck of the engine to attend to the fire. At the time of this investigation Fireman Ziano was in such condition as a result of injuries sustained in this accident that a statement could not be obtained from him.

Conductor Condon, of train No. 698, stated that he did not notice any application of the air brakes after making the proper running test upon leaving Crystal Lake until the rear car in which he was riding passed the interlocking tower at the EJ&E crossing, and at that time he thought the engineer either shut off steam or made a light application of the air brakes, and a few seconds later the collision occurred. He estimated the speed of the train to have been 35 or 40 miles per hour at the time it passed the home signal and did not think the speed had been further reduced at the time of the collision. Conductor Condon stated that on their outbound trip from Chicago to Crystal Lake the brakes functioned properly.

Head Brakeman Cohen, of train No. 698, who was riding in the first car in that train, stated that he felt a light application of the air brakes just before passing over the EJ&E crossing at Barrington. They were released after traveling a very short distance, being applied again, in emergency, about the time of the impact. He estimated the speed of the train to have been 40 miles per hour at the time the light application was made before passing over the crossing, and did not think that the speed had been reduced before the time of the collision. Brakeman Cohen further stated that he and the rear brakeman made a test of the air brakes before their departure from Crystal Lake, at which time they worked properly; there also was a running test made after leaving Crystal Lake, and a light application of the brakes when passing through Cary. The statements of Rear Brakeman Nason practically corroborated those of Head Brakeman Cohen, except that he did not know whether or not the brakes were released after he felt the light application made at a point about 20 car-lengths west of the crossing, nor did he feel an emergency application just prior to the time of the accident.

Leverman Serpf, of the EJ&E Ry, on duty at the interlocking tower at Barrington at the time of the accident, stated that when train No. 594 arrived, at 12.13 a.m., it stopped with its rear end east of the home signal, and after setting off cars it started to depart at 12.21 a.m., this being the time at which the caboose passed the tower. At the same time the annunciator rang indicating that train No. 698 had reached automatic signal 762, nearly 1 mile west of the approach signal, and he at once gave that train the calling-on signal. He then gave his attention to some other work and just as he completed it he noticed train No. 698 approaching, at a speed of 40 or 45 miles per hour, working steam. He picked up his lantern and ran to the outside platform but by that time the engine and two cars had passed the tower. He then looked toward the rear of train No. 594 and saw a fusee waved once and some one with a lantern jump from the rear of the caboose. He stated that at the time the caboose of train No. 594 passed the tower it was traveling at a speed of about 10 miles per hour and the marker lights were burning brightly.

### Conclusions

This accident was caused by the failure of Conductor Vethe, of train No. 594, to provide proper flag protection and by the failure of Engineeran McClosky, of train No. 698, to reduce the speed of his train in accordance with indications displayed by interlocking approach and home signals.

Rule 99a, of the Rules for the Government of the Operating Department, provides in part that when a flagman goes back to protect a train at night he will place a lighted fusee in the center of the track 500 feet back of the rear of the train, and proceed back until proper distance is reached to insure full protection. If a following train is in sight or hearing before the flagman has reached a point insuring full protection, he must at once place two torpedoes on the rail, and at night, he will, in addition, display a lighted fusee and continue toward the approaching train, displaying stop signals until they are answered. The evidence indicates that although Conductor Vethe, who was acting as flagman at the time of the accident, had ample time to provide proper flag protection for his train, he went back a distance of only four or five car-lengths, and when his train was ready to depart he returned to his caboose without leaving any torpedoes or a lighted fusee, even though he had seen train No. 698 approaching. The fact that his train was protected by automatic and interlocking signals, and that the track was straight and the weather clear, did not in any way justify the action of Conductor Vethe in failing to provide proper protection for his train. The requirements of the rules are plain, in fact, they are mandatory in their requirements regarding the use of fusees and torpedoes under the conditions as they existed at the time of the accident, and obedience to these rules upon the part of Conductor Vethe undoubtedly would have prevented the accident.

Engineeran McClosky stated that he observed the indications displayed by the approach and home signals, yet he failed to reduce the speed of his train as required. The approach signal displayed a caution indication which meant, "prepare to stop at the next signal; train exceeding 20 miles per hour must at once reduce to that speed", while the home signal showed two red lights over a yellow light indicating "proceed at restricted speed", and restricted speed is defined as requiring a train to proceed prepared to stop short of a train or obstruction. The engineeran's own statements indicate that he passed the home signal at a speed of between 25 and 35 miles per hour and that upon reaching the EJ&E crossing, 565 feet east of the home signal he thought the track ahead was clear, for some unexplained reason, and released the brakes; immediately afterwards he saw the train ahead and applied the brakes in emergency, but it was then too late to avert the accident. Regardless of the negligence

of the conductor of the first train, the signal installation was adequate to have prevented an accident of this character provided the indications displayed had been obeyed by the engineer of the following train.

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.