

IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE  
 CHICAGO BURLINGTON & QUINCY RAILROAD NEAR BIRDS-  
 SELL, NEBRASKA, ON SEPTEMBER 10, 1918.

November 23, 1918

On September 10th, 1918, there was a collision between a passenger train and a work train on the Chicago Burlington & Quincy Railroad near Birdsell, Nebraska, resulting in the death of 11 persons and the injury of 27 persons. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

The Seneca and Alliance Subdivision of the Alliance Division, on which this accident occurred, extends between Seneca and Alliance, Nebraska, a distance of 107.89 miles. It is a single track line upon which trains are operated by time table and dispatcher's orders, supplemented by a manual block signal system.

The trains involved were westbound passenger train No. 43 and a work extra, which at the time of the collision was occupying the main track just east of Birdsell.

Train No. 43 was in charge of Conductor Contant and Engineman Fitzpatrick. It consisted of engine No. 2905 and eleven cars, in the following order from the engine back: 1 steel underfram milk car; 1 11 steel mail car; 1 steel underfram baggage car; 1 wooden baggage car and 1 wooden smoker; 1 steel underframe chair car and 1 wooden dining car; and 3 wooden Pullman sleeping cars. This train left Hoffland, the last open train order office, about five miles east of the point of collision, at 2.48 p.m. fifteen minutes late, and collided with work extra 714, which at the time was loading dirt on the main track, in a cut about 1,000 feet east of the east switch at Birdsell, closed train order office located between Hoffland and Alliance. At Hoffland train 43 received a clearance card and a permissive block card reading as follows:

Clearance Card (Form A)

Conductor and engineman No. 43:  
 I have no orders for your train.  
 You have received no orders.  
 Stop signal is displayed for following  
 trains. Block not clear.

Vincing, Operator.

Permissive Card (Form C)

Conductor and engineman, train 43 on main  
 track.

Proceed expecting to find a train in the block  
 between this station and Alliance.

Vincing, Signalman.

The collision occurred at 2.55 p.m. Engine 2905 was equipped with a speed recorder, which, when recovered from the wreckage, indicated that train No. 43 had attained a speed of 45 miles per hour between Hoffland and the point of collision, the limit for passenger trains on this division, and collided at a speed of 34 miles per hour, the reduction in speed being due to an emergency application of the brakes immediately preceding the accident.

Work Extra 714 consisted of engine No. 714, twelve ballast cars and a caboose. It was in charge of Conductor Penninger and Enginemen Ellis, and was engaged in hauling dirt between a cut just east of Birdsell and the east end of the yard at Alliance; the caboose and engine were attached to the east end of the train with the engine heading west. On the day of the accident this train was working under No. 28, reading as follows:

Engines 714 and 3172 work extra 7.30 a.m. until 7.30 p.m. between Alliance and Hoffland protecting against Extra 366 west meet work extra 714 at Birdsell. All until 10.30 a.m.

Extra 714 worked between Alliance and Birdsell in compliance with this order during the forenoon, and in the afternoon received an additional order, No. 64, reading as follows:

C. & E. Work Extra 714 at Alliance:

All Extras west except 5290 west wait at Hoffland until 5.01 p.m. No. 109 wait at Hoffland until 6.01 p. m.

These orders gave Extra 714 no rights against train No. 43, and under the rules Extra 714 should have been clear of the main track at Birdsell at 2.33 p.m., the leaving time of train No. 43 at Hoffland.

Approaching the point of collision from the east, beginning at mile post 358, the track is on an ascending grade of .5% for east-bound trains, and is tangent for a distance of 2200 feet; there is then a 2 degree curve to the left about 2,000 feet long, extending practically to the east switch at Birdsell. This curve extends through a cut about 900 feet long with a bank about 15 feet high on the left, or inside of the curve. The collision occurred about the middle of this cut. The enginemen of train No. 43 could have obtained a view of the work train as he approached it, from a point about 1,000 feet distant, but as he neared the curve upon which the work train was standing his vision was limited to a distance of about 400 feet. The fireman of train No. 43, however, could have obtained a good view of the work train nearly 2,200 feet distant, and a still better view from a point 1,550 feet away. At the time of the collision the weather was clear.

Engin 2905 was derailed and turned over on its right side; all the rest of the equipment involved remained upright and on the track. The damage to the track was slight. The wooden smoking car was telescoped by the baggage car ahead of it for a distance of 29 feet, all the fatalities with one exception occurring in this car. Neither the baggage car nor smoking was equipped with anti-telescoping devices; both were wooden cars, and were placed between steel underframe cars of much heavier construction.

Conductor Penninger of the work train stated that his orders required him to clear the time of all first class trains, and that his train should have been clear of the main track at Birdsall at 2.33. He admitted that he entirely overlooked train No. 43, saying it was "just a lapse of memory on my part." He said that when he received order No. 64, in the afternoon it was just about 2 o'clock; he delivered the order personally to Engineman Ellis, and notwithstanding it was then only approximately 33 minutes until his train was required to be in the clear for train 43 he had no talk with the engineman about that train. He had a telephone which he was intending to put up at the place where his train was working, and after handing the engineman the order he took the telephone and got on the way car; he did not consult his time car in checking the register at Alliance before leaving there, but depended on his memory, and so far as he could recall he did not use his time car at all on the day of the accident. When asked if that had been his practice in running a train he answered "Yes." and stated that on account of his failure to comply with the rules he felt that he was responsible for the accident. He said that he was working with the telephone and had that on his mind, and thought that if he had not had that to bother with he might have remembered 43, but when asked if he could give any reason why he overlooked that train he answered "No Sir, I can't."

Engineman Ellis of work extra 714 stated that he had a standard watch and compared his time with the standard clock before leaving Alliance on the date of the accident; he did not remember whether he compared time with the conductor or not, but thought he did. His fireman had no watch. He said that he worked both east and west out of Alliance, and that Central time was the standard east of Alliance and that Mountain Time west of that point. He carried a watch with two hour hands, one showing central time and one showing mountain time. He showed the orders he got in the morning to his fireman, but not to the head brakeman; the orders he got in the afternoon he did not show to either the fireman or head brakeman. His orders give him no right to use the main track on No. 43's time, and he said that he should have been clear of the main track at 2.33, when train No. 43 was due to leave Hoffland. His reason for not being in the clear was that he was figuring on mountain time. He said that they went to Alliance for dinner and had dinner on mountain time. After dinner he got water and coal, coupled onto the cars he was to take back to Birdsall, and backed out to the east end of the yard; the conductor

then gave him the orders after reading them to him, and then talked with the trainmaster who was standing near; he saw the conductor consult his watch while talking with the trainmaster and supposed they were figuring on No. 43. He then looked at his watch and noted that it was 1.15 mountain time, and recalled that 43 was due out of Hoffland at 2.33, and thought he had plenty of time. He then took his train out of Birsell, and as he passed over the west switch at this place he again looked at his watch and figured that if they stopped at the steam shovel they would have almost an hour to load their cars and get into clear at 2.33. While they were standing there loading the cars the conductor was fixing up a telephone, and he again looked at his watch and noted that it was 1.50 mountain time; he then figured that they had forty minutes to clear 43, and then then had two or three cars loaded. Very shortly thereafter his fireman said a train was coming; he looked at his watch and could not figure what it could be, as he did not realize that it was No. 43. He put the engine in the forward motion and opened the throttle, then looked at his watch a second time, and it came over him like a flash that he had mistaken the time. When he got his orders at Alliance after dinner he had had no conversation with the conductor about clearing 43; he said that that was not his usual practice, but the conductor was busy, and he handed up the order and went away. He said he could not account for misreading his time, but stated that this was not unusual, and mentioned two cases of enginemen who had taken siding one hour ahead of time to meet trains, and did not realize that they had an hour to spare until the conductor came ahead and told them about it. He had never had a previous experience of this kind. He thought there should be no change of time at an intermediate point like Alliance, from which men were required to work both ways, but that the change of time should be at the end of a division, from which men worked always in one direction. - In common with a great many other men on this sub-division he used a watch with two hands because that obviated the necessity of setting his watch each time he changed direction out of Alliance, and he did not like to set his watch himself, preferring to leave that to the watch inspector. He did not hear No. 43 whistle, and did not see that train until it was within about four car lengths of his engine, after his fireman had called his attention to the approach of a train; he had no idea how fast No. 43 was running when the collision occurred. His fireman had no watch, although he was supposed to have one; neither was he supplied with a time card. He did not recall having said anything to his fireman about No. 43. He said that if he were pulling a passenger train with a permissive block card he did not understand that the card would restrict his rights in any way, and it would not restrict his speed. The card would merely be notice to him that there was a train on the main line, and it would be up to them to get out of the way.

Fireman Peters of engine 714, said that he began work on August 20th, and had made ten trips; he had had no previous railroad experience. He was not furnished with a time card when he took his preliminary

examination, and had never been furnished with one, although he was given a book of rules. He did not see the time card which Engineman Ellis had, had no talk with Engineman Ellis about any trains they were to get out of the way of, and did not know what time train No. 43 was when he happened to look and saw the engine coming around the curve; the train was then about one hundred yards away. After the accident he asked Engineman Ellis what the trouble was and he said he was going on mountain time after dinner; nothing was said about mountain time previous to the accident.

Brakeman Howard of the work train said that he thoroughly understood that they were working on central time, and he knew that No. 43 was due out of Hoffland at 2.33. He did not see the orders, and had no talk with either the conductor or engineman about No. 43; at the time of the accident he was standing alongside his train about three cars from the engine, spotting cars for the steam shove. He was aware that his train was occupying the main track on the time of No. 43 but was depending entirely on the conductor and enginemen for protection, thinking that they had an order giving them some rights on 43. When his train left Alliance he thought they would head in at Birdsell and when they failed to do so he concluded they had an order giving them time on 43, and thought no more about it. The conductor and head brakeman were busy putting up a telephone, and he did not have a chance to talk to the conductor about his orders, but left everything to him and the engineman.

Brakeman Ogle of the work train said that he was making his second trip as a brakeman and had had no previous railroad experience, except six months in bridge department. He had no time card, and did not see the orders his conductor had; the engineman showed him the orders when they started out in the morning, but he did not know what orders they had in the afternoon. He did not know anything about train No. 43. When he took his preliminary examination the examiner gave him a book of rules, but did not give him a time card. He made two student trips, but got in so late that he had no time to read, and had not studied the rules which; he thought he ought to have a time card, but had never asked for one and did not know where to go to get it. At the time of the accident he was helping Conductor Penninger put up a telephone, and first saw train 43 when it was nine or ten car lengths away; after the accident he asked the conductor what the trouble was, and he replied that he forgot. He had no talk with the engineman after the accident.

Conductor Contant of train No. 43 said that his train left Hoffland about thirteen or fourteen minutes late, with no orders restricting its rights except a permissive block card. He had no intimation of the accident until he felt the brakes go on very suddenly at which time he thought his train was running right up to the speed limit, 45 miles per hour, and he did not think the speed could have been reduced very much at the time of the collision. He did not think there was any rule restricting the speed of a train running under permissive card, but thought an engineman having a permissive card should proceed with caution, particularly in approaching stations and where

the view was obscured. Engineman Fitzpatrick did not reduce speed at any place until he applied the emergency just before the collision.

Brakeman Ehrhardt of train 43 stated that after leaving Hoffland his train did not exceed the speed limit of 45 miles per hour; the first intimation he had of the accident was when the brakes went into emergency, and the collision followed a second or two later. He did not think it was the custom for enginemen to slow down because of running under a permissive card; the train occupying the block was supposed to flag, and it was his understanding that enginemen depended on that.

Flagman Dodd of train 43 stated that his train had a clearance and a permissive block card leaving Hoffland; he thought the speed was a little better than thirty miles per hour between Hoffland and the place of accident, and between 25 and 30 miles per hour when the collision occurred. He had no intimation of the accident before the brakes were applied in emergency. In running under a permissive card he understood that enginemen were supposed to approach places where the view was obscured so that they could stop within the range of vision; his train did not do that. After the collision he went back to flag, and did not see an member of the work train crew.

Engineman Fitzpatrick of train 43 stated that he left Hoffland a few minutes late and was running about 45 miles an hour when he came around the first curve east of where the steam shovel was working, at which time he could not see the cut where the work train was standing. When he first saw the work train it was only about 25 feet distant, and he was then running about 35 miles per hour, his speed having been reduced on account of the ascending grade at that point. He had his fireman been looking ahead and warned him of the presence of the train in the cut he thought he could have stopped his train within a distance of five hundred feet. His understanding about running under a permissive card was that both he and the fireman should keep a good lookout and still keep the train going in good shape; he showed the fireman the card after leaving Hoffland, but did not remember telling him to keep a good lookout around curves. He said that with a permissive card he did not think he would slow down when running into a sharp curve where the view was obscured; his understanding of the purpose of the card was that it was to give notice about a train in the block, and he would look for a flag or some other indication of the train. He said that at one time they absolutely slowed down at obscure places when running under a permissive card, and it resulted in constantly losing time on these trains, and they were instructed to go ahead with their trains and only look out for a flag or an indication from the train in the block.

Fire Ogden of train 43 stated that after leaving Hoffland he

judged the speed of his train to be about 35 miles per hour, and he thought it had slowed down to 20 miles per hour when the collision occurred. The work train was only about one hundred feet away when he first saw it. He did not see the train until his engineer called to him; the reason he did not see it sooner was because he went up in the tender to dig down coal as they were going around the curve. He knew his train was running under a permissive card from Hoffland and thought it his duty to keep a sharp lookout when going around curves, but did not do it in this case on account of having to get coal.

This accident was caused by work extra 714 occupying the main track on the time of passenger train No. 43, without authority and without protection, for which Conductor Penninger and Engineer Ellis are responsible.

Order No. 64, was made complete at Alliance at 2.11 p.m. yet it does not appear that Conductor Penninger made any inquiry regarding train 43 at the time he received the order, notwithstanding that under the rules he at that time had but 22 minutes to get his train into the siding at Birdsell, more than six miles distant. His failure to consult his time card when checking the register at Alliance, and his practice of depending on his memory alone in keeping track of schedule trains, was conducive to just such a situation as led to this accident.

Neither does there appear to be any excuse for the mistake of which Engineer Ellis was guilty, as had he consulted his time card it could not have occurred. The card showing the schedule of trains, east of Alliance is marked in prominent letters "Central Time," and that west of Alliance "Mountain Time." This must have attracted his attention had he consulted his card.

Contributing materially to the accident was the failure of Fireman Howard to call the attention of Conductor Penninger or Engineer Ellis to train No. 43 when he knew his train was using the main track on 43's time, and did not know what authority it had for doing so. He was familiar with the rules, and his lack of regard for the safety of his train, as exhibited in this instance, was inexcusable.

Attention is called to the fact that Fireman Peters and Brake-man Oale were inexperienced men, and were apparently working without proper supervision or instruction. Neither man had been supplied with a time card, nor did either one appear to know where to obtain

one. They had no information about train 43 and were without means of knowing that their train was occupying the main track improperly. Fireman Peters was not even supplied with a watch, although he had been working nearly three weeks. This indicated laxity in the supervision and training of employees which should be corrected.

The evidence also indicates that the manual block signal system as operated on this division, affords little or not protection against collision between trains moving in the same direction. Engineman Fitzpatrick of train No. 43 made no effort to reduce the speed of his train at points where his vision was obscured, nor to keep an extra sharp lookout on account of having been warned of a train in the block by the permissive card in his possession; neither did he instruct his fireman to keep a sharp lookout on account of holding a permissive card. He ran his train at top speed from Hoffland to the place of collision, relying entirely upon the train ahead to protect itself by flag, and in this he was apparently following the prevailing custom on this division.

Special time card rule No. 4 pertaining to the Alliance Division reads:

"Moving a train under caution or under control means that the speed must be such that the engineman shall be able to stop within the range of vision."

This rule obviously has application to the movement of a train when running under a permissive card notifying it of the presence of a train in the block ahead. There is urgent need of a change in block signal practice, as illustrated in this case, so as to make it conform to the principles of safety which are intended to be embodied in the block system.

Conductor Penninger and Engineman Ellis were experienced men with good records. At the time of the accident the members of the crew of extra 714 had been on duty 7 hours and 25 minutes. The train crew of train No. 43 had been on duty 8 hours and 15 minutes, and Engineman Fitzpatrick and Fireman Ogden 3 hours and 55 minutes.