

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE
INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE
CHICAGO, MILWAUKEE & ST. PAUL RAILWAY NEAR RAHWAY,
MONT., ON APRIL 22, 1925.

August 29, 1925.

To the Commission:

On April 22, 1925, a passenger train of the Chicago, Milwaukee & St. Paul Railway was derailed near Rahway, Mont., resulting in the death of two employees, and the injury of one passenger and one railway mail clerk. This accident was investigated in conjunction with a representative of the Board of Railroad Commissioners of Montana.

Location and method of operation

This accident occurred on that part of the Musselshell Division extending between Miles City, and Melstone, Mont., a distance of 111.5 miles. 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 bridge 88 located about $1\frac{1}{2}$ miles west of Rahway, approaching this point from the west the track is tangent for several miles to a 2° curve to the left 1,055 feet in length, and is then tangent 2,926 feet to the point of accident and for some distance beyond. The grade in this vicinity is 0.5 per cent descending for eastbound trains. The weather was cloudy at the time of the accident which occurred at about 10.12 a.m.

Description

Eastbound passenger train No. 18, consisting of one mail car, one express car, one baggage car, two coaches, one tourist car, a dining car, and one sleeping car, in the order named, all of steel construction, hauled by engine 6345, was in charge of Conductor McGee and Engineman Bugby. This train left Melstone, its initial terminal on this subdivision,

at 8.45 a.m., left Ingomar, the last open office and approximately 16 miles from the point of accident at 9.42 a.m., on time, and was derailed at bridge 88 at 10.12 a.m., while traveling at a speed estimated to have been about 25 miles an hour.

The two west spans of the bridge, having been burned, collapsed under the weight of the engine, which sank to the bottom of the ravine, and came to rest in an upright position badly damaged. The forward end of the tank was forced into the cab of the engine, while the rear of the tank rose in the air derailing and slightly damaging the forward end of the mail car. The employees killed were the engineman and fireman.

Summary of evidence

Conductor McGee said he was riding in the front end of the first-class coach as his train approached the point of accident and his first knowledge of anything wrong was when the air brakes were applied in emergency and the train came to an abrupt stop. He went forward to the engine and perceiving the situation at once returned to the baggage car, obtained the emergency telephone apparatus and reported the accident. Conductor McGee said the engineman was "killing time" as the train passed Ahles, the last station west of bridge 88 and was running at a speed of about 20 miles an hour at the time of the accident which he said occurred at 10.12 a.m.

Head Brakeman Dutcher said he went forward immediately after the train came to a stop at the point of accident and in his examination found that the metal sheathing of the bridge, the west end of which had been burned out for a distance of about 10 feet, to be cold, indicating that that part of the bridge had burned out a considerable length of time prior to the arrival of his train.

Roadmaster Mattheisen was a passenger on the train at the time it was derailed; he found that about 25 feet of the south side of bridge 88 had been burned and that there was still some fire in the stringers and in one of the piling of the second bent. On the afternoon of the day preceding the accident he crossed over

bridge 88 three times, but observed nothing out of the ordinary either with the bridge or its surroundings. Roadmaster Mattneisen said section foreman are required to inspect their sections once in every twenty-four hour period, ordinarily the first thing in the morning, but that the railway maintains no other track patrol except under unusual conditions.

Section Foreman Knutson said three cars of cinders were unloaded in the vicinity of bridge 88 on the afternoon of the day preceding the accident, but there had been no evidence of live coals in any of the cars. Bridge 88 is located on the section of which Mr. Knutson is in charge, and he stated that he usually made his daily patrol of the section the first thing in the morning but postponed doing so on the morning of the accident in order to lay out work for new men in his gang, feeling assured that his section was in normal condition for the reason that the section crew of an adjoining section had passed over his entire section the previous evening and would have reported to him any condition requiring attention.

Section Foreman Schosbeck of the adjoining section stated that on the afternoon of the preceding day he passed over the entire section on which the accident occurred but noticed no fire or other unusual condition.

Bridge 88 was a 5-bent wooden trestle bridge, 78 feet in length, resting on untreated cedar piling, four piles being used for each of the dump bents and six for each of the intermediate bents. The structure was of fir, the caps were 14" x 14", the stringers were each composed of three pieces of 10" x 18" laced together with chord bolts 3/4" x 33 1/2", the bridge ties were 8" x 8" spiked 12" center to center; the 6" x 2" guard rails were notched and bolted to the bridge ties, no inner guard rails were used. The bridge was sheathed with 20-gauge galvanized iron as a protection against fire, this sheathing had been renewed in November, 1924, and both it and the unburned bridge material appeared to be in good condition. The bridge was originally constructed in 1903, but the piling had been renewed in 1915 and the decking in 1917. Each end of the structure was equipped with a water barrel and bucket. The record of the semi-annual inspection made on April 18, 1925, shows the bridge and equipment as being in good condition.

The last train to pass over this bridge prior to the accident was westbound passenger train No. 17, which passed this point about 10.55 p.m., on the night of April 21; the engineman said the speed of his train in this vicinity was about 35 miles an hour, and that it was raining at that time. He said there was no sign of smoke or fire in the vicinity of this bridge, and did not think the fire could have been set by sparks from his engine as the fireman used the ashpan sprinkler at frequent intervals and it was raining slightly when he passed over this bridge.

Conclusions

This accident was caused by a burned bridge.

The origin of the fire was not ascertained, but it appears unlikely that it was started either by the cinders unloaded near the bridge the previous day, or by the burned tie pile the remains of which were found smouldering near the bridge at the time of the accident, or by sparks from a preceding train. The cinders unloaded the previous day had been in the cars several days and were thoroughly rain soaked, examination of the burned tie pile showed that the grass west of the tie pile was burned for a considerable distance, but that the grass between the tie pile and the bridge was intact, indicating that the fire could not have spread from the tie pile to the bridge. As has been previously stated, the metal sheathing of the bridge was comparatively new and in good condition, which would make it unlikely that the fire was started by sparks from a passing train.

Engine 6341 was the last engine to pass over this bridge, crossing it more than 11 hours prior to the accident. This engine, in common with all other engines used on this division, is equipped with a spark arrestor, which makes it impossible for cinders larger than one-eighth of an inch in diameter to pass out through the stack. The spark arrestor on engine 6341 was new in October, 1924, and was in good condition when inspected after the occurrence of this accident.

While responsibility for the burning of bridge 88 was not determined by this investigation, it was admitted that the accident to train No. 18 would not have occurred had the track been patrolled according to what

is declared to have been the usual practice. The section foreman permitted the other duties of a less important nature to postpone that of patrolling his track. From a question of Superintendent Bowen, it is evident that he also assumed that the matter of daily track patrol was covered by the book of operating rules:

Q. What is your understanding of the Book of Rules with reference to a section foreman patrolling his track daily?

A. (Section Foreman Knutson) Supposed to patrol daily.

As a matter of fact, there is no such rule in the book; nor was Superintendent Bowen able to produce any bulletin or letter conveying such instructions. A portion of the responsibility for this accident must therefore rest with the railway company for failure to maintain adequate track inspection.

All of the employees involved were experienced men; at the time of the accident none had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,
Director.