

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 AT TATANKA,
S. D., ON SEPTEMBER 7, 1926.

October 27, 1926.

To the Commission:

On September 7, 1926, there was a derailment of a passenger train on the Chicago, Milwaukee & St. Paul Railway at Tatanka, S. D., resulting in the death of two employees and the injury of one employee.

Location and method of operation

This accident occurred on that part of the Trans-Missouri Division extending between Hobridge, S. D., and Marnarth, N. D., a distance of 190.1 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 east switch of the passing track at Tatanka, approaching this point from either direction the track is tangent for 1 mile or more, while the grade at the point of accident is 0.33 per cent ascending for westbound trains.

The switch is a facing-point switch for westbound trains and leads off the main track through a No. 10 turnout to the left to the passing track, which parallels the main track. The switch stand is on the engineman's side of a westbound engine. The vertical switch target is 30 inches in height and 15 inches in width, fish-tail shaped at the top and pointed at the bottom, the point being at the center of the shaft; the target is painted with alternate red and white stripes, which stripes point diagonally downward and inward, starting from the outside edges of the target. The switch lamp is located immediately above the target; night indications are white when the switch is lined for the main track and red when lined for the siding.

The main track is laid with 90-pound rails, with about 20 to 21 ties to the rail-length, single-

spiked, and tie-plated, rail braces are used at the switch. The track is ballasted with gravel to a depth of 12 to 15 inches, and is well maintained.

The weather was clear at the time of the accident, which occurred at about 12.40 a. m.

Description

Westbound passenger train No. 15 consisted of one mail and express car, one baggage and express car, two coaches, one tourist car, one dining car, four sleeping cars, and one observation car, in the order named, all of steel construction, hauled by engine 6369, and was in charge of Conductor Tarbox and Engineman Freenore. This train left McLaughlin, 21.2 miles east of Tatanka and the last open office, at 12.06 a.m., four minutes late, and was derailed at the east switch at Tatanka while traveling at a speed estimated to have been between 35 and 40 miles an hour.

Engine 6369 came to rest on its left side, in line with and between the main and passing tracks, with its head end 385 feet from the switch points. The tender was opposite the engine cab and lying diagonally across the passing track, leaning at an angle of about 45°. The first five cars and the forward truck of the sixth car were derailed, but the cars remained upright. The employees killed were the engineman and fireman.

Summary of Evidence

Conductor Tarbox stated that he was riding in the forward end of the first coach at the time of the derailment; there was a severe shock followed by a rolling motion of the car, after which there was another severe shock and then the car stopped. About 25 minutes later he examined the switch and its appurtenances, the switch points were set for the passing track, the switch lever about midway between the notches, the target about half around, the switch light extinguished, and the lock suspended from the chain, unlocked. Conductor Tarbox said that the north switch point was tight against the rail but that it was broken, the tread of the point being partly broken off, starting at the tip of the point, he did not examine the opposite switch point. The rear truck of the dining car was standing on the switch points and consequently the switch lever could not be moved. Conductor Tarbox was of the opinion that the switch stood about half open when the engine encountered it. Conductor Tarbox further stated that the headlight on the engine was burning properly the last time he noticed it, at McLaughlin, and that the air brakes had been

tested and worked properly, he estimated the speed to have been about 40 miles an hour at the time of the derailment. Flagman Hillman immediately went back to flag, while the statements of Brukenan Pochan and Baggageman Bishop practically corroborated those of the conductor.

Section Foreman Dinoff stated that on Saturday, September 4, the fount of the switch lamp was filled with oil, these founts being filled twice a week, while he also inspected the switch and found it to be in good condition. He last tested the switch on Wednesday, September 1, at which time the points fitted properly and the switch operated easily. He arrived at the scene of the accident about 1.15 a.m. September 7, about 35 minutes after the derailment occurred, and at that time the switch was unlocked, the switch light extinguished, and the switch lever about 6 or 3 inches from the closed position, with the wheels of a car standing on the switch points. The bolts of the push rods and the bridle rods were in proper place.

Section Laborer Bailey stated that he filled the lamp on September 4, and lighted it at that time. He lives in the section house, located about 1,700 feet west of the switch, and at about 11.15 p.m. September 6, he observed the switch light from the house but noticed nothing wrong with it.

Examination of the switch and its appurtenances by the Commission's inspectors disclosed that the lock was in good condition and operated easily, the latch would not stay in position unless it was locked. The bolts and connecting rods were in proper condition. A piece of metal was broken off from the north switch point, the break being about 15 inches in length and $1\frac{1}{2}$ inches in depth. The south switch point remained intact.

The last train to use the switch prior to the accident was eastbound passenger train No. 6, at about 11.45 a.m. September 6 in connection with meeting a westbound passenger train. Head Brukenan Wright stated that he opened the switch for his train to pull out of the passing track and then closed and locked it after his train was out on the main track, and as customary, tested the lock by pulling on it. Members of the crew of train No. 6 testified that they saw Head Brukenan Wright close and lock the switch.

Westbound freight train extra 8007 passed over the switch at about 6.10 p.m. September 6, approximately

6½ hours prior to the derailment, at a speed of about 30 miles an hour, while eastbound freight train No. 78 passed over the switch at about 9.25 p.m., approximately 3¼ hours prior to the accident, at a speed of about 25 miles an hour. Members of these crews stated that they noticed nothing unusual while passing over the switch and they also said that the switch light was burning properly. Each of these freight trains consisted of about 70 cars. In addition, two other eastbound trains and three westbound trains had passed over the switch during the afternoon.

Careful inspection of engine 6369 disclosed no defect that would have caused or contributed to the derailment. Both right engine-truck wheels clearly showed an abrasion on the running side of the flange where they came in contact with the switch point.

Conclusions

This accident was caused by a cocked or partly-open switch, apparently due to malicious tampering.

The investigation indicated that the switch light was extinguished and the switch partly opened within less than 1½ hours of the time of the accident, probably by some one in possession of a switch key. At the time of the investigation, however, it was not definitely determined who opened the switch.

Under the rules a signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, must be regarded as the most restrictive indication that can be given by that signal. Apparently no signal was displayed when train No. 15 approached, but the reason why Engineman Freeman did not comply with the rule is not known, as he was killed in the accident.

All of the employees involved were experienced men, at the time of the accident they had been on duty less than 2 hours and 45 minutes, prior to which they had been off duty 13 hours or more.

Respectfully submitted,

W. P. Borland,

Director.