

INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE GREAT NORTHERN RAILWAY NEAR SINGLESNOT, MONT., ON MARCH 4, 1929.

June 20, 1929.

To the Commission:

On March 4, 1929, there was a derailment of a mail train on the Great Northern Railway near Singleshot, Mont., which resulted in the death of one mail clerk and two employees and the injury of three mail clerks and two employees.

Location and method of operation

This accident occurred on the First Sub-division of the Kalispell Division, extending between Blackfoot and Whitefish, Mont., a distance of 101.04 miles; in the 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, which is so arranged that a full block overlap is provided. The accident occurred at a point approximately 3,150 feet east of the station at Singleshot; approaching this point from the east there is a series of curves and tangents, followed by a 7° curve to the left 543.3 feet in length, on which this accident occurred. There is a snowshed, known as No. 6, located at the eastern end of this curve; this snowshed is 246.4 feet in length, and at a point 190 feet east of it there is located another snowshed, No. 5, which is 191.7 feet in length; the accident occurred just west of snowshed No. 6. The grade is descending for westbound trains and varies from 1.48 per cent to 1.80 per cent, being 1.52 per cent from the center of snowshed No. 6 to the end of the 7° curve. The track is laid with 130-pound rails, 33 feet in length, with 20 ties to the rail-length, fully tie-plated and double-spiked; rail anchors are also used. The track is ballasted with about 3 feet of gravel on a rock and dirt foundation and is maintained in excellent condition.

At the point of accident there is a fill on the south side of the track about 20 feet in depth and approximately 1,000 feet in length; to the north of the track there is a mountain about 500 feet in height with a slope of about 40°. This mountainside is very sparsely covered with fire-killed timber and has very little vegetation of any kind. The soil is rather sandy, mixed with small rocks, and in some places on the mountainside there are small outcroppings of rocks.

The weather was clear and warm at the time of the accident, which occurred at about 11.10 a.m.

Description

Westbound mail train No. 27 consisted of one storage mail car, two baggage cars, one storage mail car, one mail car, and four baggage cars, in the order named, hauled by engine 2502, and was in charge of Conductor Bailey and Engineman Hove. All of the cars were of wooden construction with the exception of the fifth, eighth and ninth cars, which were of steel construction. This train passed Summit, the last telegraph office, 9.89 miles from Singleshot, at 10.40 a.m., six minutes late, and was stopped by a track watchman at snowshed No. 6, warned of snowslides at some points beyond, and had just started ahead and was traveling at a speed of about 10 or 15 miles per hour when it was struck by a snowslide at the west end of snowshed No. 6.

The six rear cars were pushed from the track, turned on their left sides and carried down the bank with the slide. The rear car came to rest at a point about 165 feet from the tracks with the other cars fairly well in alignment at lessening distances from the track, so that the head car that was derailed remained foul of the eastbound track; the first three cars and the engine were not derailed nor damaged. The employees killed were the section foreman and the track watchman.

Summary of evidence.

Engineman Hove, of train No. 27, stated that they stopped for two red signals east of snowshed No. 5, encountered two caution torpedoes just before entering this snowshed, a stop torpedo at a point about halfway between snowsheds Nos. 5 and 6, and the watchman with a red fusee about 5 or 6 car-lengths beyond snowshed No. 6. On stopping his train, with part of the tender outside of snowshed No. 6, the watchman informed him of a large snowslide west of the station at Singleshot and said that he did not know whether or not they could go through it, but that train No. 4 had just passed through part of it. The watchman also informed him of a small slide just east of tunnel No. 1 $\frac{1}{2}$, which is located at a point about 1,008 feet west of snowshed No. 6. In the meantime a small slide came down just ahead of the engine and Engineman Hove said he attempted to back the train into the snowshed but was unable to do so; he then pulled ahead, passing through the small slide and had entered the second one when a large slide struck the rear of the train.

The statements of Fireman Cookingham and Conductor Bailey practically corroborated those of Engineman Hove. Conductor Bailey further stated that upon stopping at the snowshed he went to the head end of the train and was standing in the gangway of the engine when the accident occurred. He did not see the slide strike the train but did see the cars go down the bank. He also stated that Track Watchmen Tanas, who flagged them, and Section Foreman Mazos were standing opposite the gangway of the engine when it stopped just outside of snowshed No. 6. Conductor Bailey estimated the speed to have been about 10 or 15 miles per hour when the accident occurred.

Head Brakeman Eschwig stated that he went to the head end of the train behind Conductor Bailey but could reach only the rear of the tender before the train started, and was riding there when he looked back and saw some of the cars going down the embankment. He was of the opinion that the slide struck the rear portion of the train, which pulled the other cars off the track before the train broke in two.

Flagman Clarke stated that he was back flagging when he noticed the train moving ahead; he was not able to get into the car through the side door but entered the small door at the rear. Shortly afterwards he noticed the forward end of the car move toward the left and he thought that this car left the rails first and pulled the other cars down with it as it tipped over and slid down the embankment. He was able to get out of the car through a hole in the roof and immediately went back to flag.

District Foreman of Telegraph Blodgett, who was making repairs to the lines torn out by a slide which had occurred between snowsheds Nos. 5 and 6 during the night of March 2, stated that he saw train No. 27 leave the rails, the rear car hitting the west center timber of the shed and then turning over and sliding down the bank; the other cars appeared to turn over in succession and follow the rear car. The testimony of signal maintainers and linemen who were working in that vicinity and witnessed the accident, revealed nothing additional of importance, nor did the testimony of Express Messenger Simmonson.

Superintendent LaBertew stated that he arrived at the scene of the accident at about 4 p.m., and his observations disclosed that the slide came down from the north, part of it striking the snowshed and part striking the rear cars in the train. He was of the opinion that the equipment remained upright until it came in contact with the north rail of the eastbound track, when it overturned and was carried down the bank, the rear portion of the train pulling the other cars with it until the coupling broke between the third and fourth cars; the other couplings remained intact. The north rail of the eastbound track had been torn loose for a distance of about 600 feet, and

the south rail for a distance of about 130 feet. The depth of the snow left on the tracks by the slide was about 7 or 8 feet. Superintendent LaBertew stated that it is the policy of the company to erect suitable sheds at points where slides occur with any regularity and which are of any considerable size. Rotary and dozer service is maintained in the snow territory, and in addition patrols are made by trackmen. The track watchmen are supplied with spring clamps, connected with wire, which are fixed to staggered joints, to enable them to operate block signals if trouble is found, and it was his opinion that either the track watchman or the section foreman had used these clamps in the immediate vicinity, which would account for the position of the two signals which train No. 27 found in the stop position when approaching the point of accident. In recent years there had been small slides of snow at the west end of shed No. 6, but no heavy slides except at times when the snow could not be taken care of by the shed, in which event it would be forced off the end of the shed for a distance of 40 or 50 feet. Within the 48 hours preceding the date of the accident there had been small slides of snow of varying depths which the rotary had passed through, and on March 2 a small slide came down between sheds Nos. 5 and 6. Superintendent LaBertew further stated that during the 10 years that he had been in charge of this division, this was the first time that a moving train had been struck by a slide.

With the exception of the sixth car in the train, which was broken in two, none of the derailed cars were greatly damaged by the derailment, but their position at a great distance from the track made it difficult to recover them and they were so badly damaged in the handling that two of them were practically destroyed.

Conclusions

This accident was caused by a snowslide.

The evidence indicates that precautions had been taken to prevent an accident of this nature. The track was being patrolled and the track watchman flagged the train at snowshed No. 6 for the purpose of warning the crew of slides just ahead. In recent years, however, there had been small slides of snow at the west end of snowshed No. 6 and within the 48 hours preceding the date of the accident there had been small slides of varying depths which caused no serious trouble at the time but necessitated the use of

snow-removing machinery to clear the tracks, and during the night of March 2 a slide of some extent occurred between sheds Nos. 5 and 6. In view of these facts, and in view of the policy of the company to erect sheds at points where slides occur with any regularity, it would appear that the erection of a snowshed to connect sheds Nos. 5 and 6, and an addition of about 400 feet at the west end of shed No. 6, should be provided for in order to furnish protection against further trouble at this point.

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.