SUPPLEMENTAL REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE ATCHISON, TOPEKA & SANTA FE RAILWAY NEAR CAJON, CALIF., ON JULY 15, 1923.

October 6, 1924.

To The Commission:

A supplemental investigation has been made in connection with the derailment of a freight train of the Los Angeles & Salt Lake Railroad, Union Pacific System, on the line of the Atchison, Topeka & Santa Fe Railway near Cajon, Calif., on July 15, 1923, which resulted in the death of two employees and the injury of one employee.

Summary of report of August 31, 1923

The accident occurred on that part of the Los Angeles Division extending between Barstow and San Bernandino, Calif., a distance of 81.6 miles. Beginning at Summit and proceeding westward to Cajon, a distance of 6.6 miles, the grade averages nearly 3 per cent descending. It was the duty of the Santa Feingprotes to be responsible for the condition of Los Angeles & Salt Lake equipment operated between Barstow and San Bernandino. Westbound freight train extra 6085 consisted of 30 loaded cars and a caboose, it reached the tracks of the Atchison, Topeka & Santa Fe Railway at Barstow, and departed from Summit with all retainers turned up. After proceeding about half a mile a stop was made, on the grade, on account of a brake beam being down; the train then started, got beyond control, and was derailed on a curve of 60 near Cajon while traveling at a very high rate of speed. On account of the lack of proper inspection and test it was impossible to determine definitely the exact condition of the air brakes at the time of the accident, while the conflicting nature of the evidence made it equally impossible to say whether or not the engineman manipulated the air brakes in a proper manner. The following statement was made in the conclusions of the original report concerning the conditions disclosed:

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"Rule 876, of the Rules and Regulations of the Operating Department, reads as follows:

> * When the engine is detached, or train is cut between air cars, or parts, or when cars are added, the brakes must be tried from the engine before proceeding.*

"Time -table rule 24 reads as follows:

'Rule 876: In making this test one of the trainmen will watch last car in train and if brakes apply and release properly, proceed signal may be given. Trains must be stopped and this test made on all trains immediately before departure from Summit'.

"The evidence clearly shows that the inspection and test of air brakes in this territory is not sufficient for the operation of trains over heavy mountain grades in safety. While it appears that an inspection and test is made at Yermo, on the tracks of the Los Angeles & Salt Lake Railroad, a train of that railroad only receives what amounts to a running inspection when it reaches the tracks of the Atchison, Topeka & Santa Fe Railway at Barstow, yet the engineman and conductor in charge of the train are required to be furnished with an air-brake elearance card which purports to give these employees accurate information as to the condition of the air brakes. Not only is the information thus given apt to be inaccurate. in view of the lack of a proper test, but even this sort of information is not furnished the conductor, a practice having developed of furnishing only one copy of the air-brake clearance, for the engineman's use. The distance from Barstow to Summit is 56.2 miles, and within this distance this train was cut on three different occasions; once to pick up some cars on the head end of the train, once to cut in a helper in the rear portion of the train, and once to cut out the helper at Summit. No test of the air brakes was made on the first two occasions, while on the third occasion the only test made, or required to be made under the rules above quoted, was the application of the air brakes by the engineman for the purpose of having the flagman or conductor

see if the brakes applied on the last car in the train; such a test only shows whether the train line is coupled. The distance from Summit to San Bernandino is 25.4 miles and there is a heavy descending grade over a substantial portion of this distance. The operation of trains on grades of this character requires the maintenance of a thorough system of inspection and test. Not only is there no adequate system, but the failure of the crew to make any tests after picking up cars or cutting in a helper, and the failure of the inspectors at Barstow to provide conductors with a copy of the air-brake clearance card, indicate that even such precautionary measures as are provided for are not enforced by the officials or obeyed by the employees. There is no excuse for the existence of such lax operating methods, and responsible officials of this railway should take immediate steps to remedy this dangerous situation."

Facts developed by supplemental investigation.

Under bulletin No. 22-, dated October 2, 1923, the rule requiring inspectors to furnish conductors with an air-brake clearance card is to be enforced in future, conductors at the same time being instructed by this bulletin to see that they get a copy. The conductors are required to mail these cards to the trainmaster at San Bernandino, thus providing a check on the work of the car department employees at Barstow, and a check made of the records for the month of July indicated that trains were in good condition leaving Barstow. It is also to be noted that under date of October 24, 1923, bulletin No. 239 was issued, requiring that the brake-pipe pressure on all freight trains running from Barstow to San Bernandino be increased from 80 pounds to 90 pounds.

There appears to have been no change in the method of handling trains with respect to the air brakes after their departure from Barstow. Cars are picked up and set cut, helpers are cut in at Victorville and cut out at Summit, but the employees still are governed entirely by rule 876 and time-table rule 24, previously quoted.

Conclusions

While steps have been taken at least to provide for adequate inspection and test of trains before their departure from the terminal at Barstow, if the rules are enforced, rothing has been done toward remedying the conditions existing west of that point. The necessity for proper inspection and test of air brakes is a matter of great importance, and has been pointed out again and again in various reports covering accident investigations. In mountainous sections of the country it is particularly negessary that every procaution be taken if trains are to be handled in safety. The accident at Cajon was destructive ooth in human life and in property, and it is difficult to understand why the officials of this railway are willing to continue taking chances with the operation of trains on such a heavy descending grade with no provision for knowing whether or not the air brakes are in working order and capable of controlling the speed of the train. With the continued use of such unsafe methods the razard of another accident of this character is always present, and if it is the desire of the officials to operate trains on this grade in safety they should take prompt steps to correct the situation.

Respectfully, submitted,

W. P. BORLAND,

Director.