## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE LINE OF THE SOUTHERN PACIFIC COMPANY AT ULMORIS, N. M., ON MAY 5, 1924.

May 24, 1924.

To the Commission:

On May 5, 1924, there was a derailment of a passenger train on the line of the Southern Pacific Company at Ulmoris, N. M., which resulted in the death of one employee, and the rinjury of two passengers and one employee.

Location and method of operation

This accident occurred on the Lordsburg Subdivision of the Tuscon Division, extending between Lordsburg and Rio Grande, N. M., a distance of 144.6 miles, which is a single-track line over which trains are operated by timetable and train orders, no block-signal system being in The accident occurred at the west passing-track switch at Ulmoris, a blind siding 4.7 miles east of Lordsburg; approaching this point from the west the track is tangent for a distance of about 4 miles, followed by a 30' curve to the right 3,627 feet in length, the accident occurring about 535 feet west of the eastern end of this The grade for eastbound trains is practically level or slightly ascending at the point of accident. The track in this vicinity is laid with 90-pound rails, 33 feet in length, with an average of 20 ties to the rail-length, single-spiked, and ballasted with gravel. well maintained. The west switch of the passing track is a facing-point switch for eastbound trains, and leads off the main track through a No. 10 turnout to the north to a passing track which is 3,694 feet in length. The switch stand, of the Star circle type, is 6 feet 22 inches in height, and is located on the fireman's side of an eastbound train; it bears a red disk, 16 inches in diameter, which is invisible except when the switch is open, at which time its broad side is toward an approaching train. A dirt embankment east of the switch on the north side of the track, together with six outfit cars, painted red, which stood on a spur track, about in a direct line with the switch, tended to interfere with the view of the The weather was clear at the time of the accident, which occurred about 8.45 a.m.

## Description

Eastbound passenger train No. 4 consisted of one mail car, one baggage car, one coach, one Pullman tourist car, one dining car, five Pullman sleeping cars, and one observation car, in the order named, hauled by engine 4300, and was in charge of Conductor Gooding and Engineman Thumm. This train left Lordsourg, 4.7 miles from Ulmoris, at 8.38 a.m., 4 minutes late, headed in the west switch of the passing track at Ulmoris and continued on the passing track for a distance of 156 feet where it was derailed at a Hayes derailer while traveling at a speed estimated to have been about 30 miles an hour.

Engine 4300, together with its tender, came to rest on its right side about 420 feet from the main-track switch parallel with and north of the passing track and was but slightly damaged. The first two cars and the forward truck of the third car was derailed, but remained upright. The track was torn up for a distance of about 200 feet, starting from a point about 60 feet east of the derailer. The employee killed was the engineman.

## Summary of evidence

Signalman Wall said he was in charge of three men doing block signal pole foundation work at Ulmoris, and on the morning of the accident he left Lordsburg with his gang on a motor car with cement and tools and upon arrival at the home signal foundation form located about 60 feet west of the west passing-track switch at Ulmoris, the car was stopped, and while the cement and tools were being unloaded at the form, he walked ahead to the switch and after unlocking it, he lined it for the passing track preparatory to showing the motor car into clear on the passing track. He then returned to the form expecting that when the men returned from the passing track they would close the switch, although he said he did not direct them to do so. The men returned to the form and he then had occasion to leave the work for a short time and on his return he saw train No. 4 approaching and witnessed the subsequent derailment. Signalman Wall admitted that according to the rules he should have closed the switch after the motor car had entered upon the passing track, and admitted that he did not do this. He further said that he was not familiar with the rule requiring that cars be lifted over switch points instead of using the switches, but had seen the work done both ways. The statements of Assistant Signalmen Clark, Chlarson and Adams corroborated those of Signalman Wall, and were to the effect that although they passed the open writch returning to the form after placing the motor car on the passing track, they did not notice the position of the switch and Signalman Wall did not tell them to close it. Assistant Signalman Clark said it was customary for the one who opened the switch to close it.

Fireman Mowrey said the usual air-brake test was made at Lordsburg, together with a running test after leaving that point, and that the brakes worked properly. then attained a speed of about 50 miles an hour. At a point about a mile west of Ulmoris, speed was reduced to about 15 miles an hour for a slow flag and then increased and the train was moving at a speed of about 30 miles an hour when the engineman shouted and applied the air brakes in emergency at a point about 900 or 1,000 feet west of the west passing-track switch at Ulmoris. He was unable to see ahead but upon leaning out of the cab window he was able to see the position of the switch target and saw that the switch was lined for the passing track. The speed of the train when the engine headed in upon the passing track had been reduced to 20 or 25 miles an hour and he estimated that the train was moving at a speed of about 15 miles an hour when the engine ran over the derailer and he jumped as the engine started to overturn.

Conductor Gooding and Brakeman Long said their first intimation of the accident was when the air brakes were applied in emergency at which time the speed of the train was about 30 miles an hour. They examined the switch after the accident and found the switch lined for the passing track, the switch points being snug against the stock rail, the switch lever half seated in the socket, the switch unlocked and the lock hanging by the chain.

Using an engine of the same type as was involved in this accident, a test was made to ascertain the extent of the view an engineman of an eastbound train would have approaching the west passing-track switch, the test being made about at the same time of day and under similar weather conditions as existed on the date of the accident, and it was developed that the switch target, when the switch was lined for the passing track, could be seen on the engineman's side from a point approximately 1,011 feet, and on the fireman's side from a point 680 feet, distant from the switch.

## Conclusions.

This accident was caused by an open switch, for which Signalman Wall is responsible.

Signalman Wall, who possessed the only switch key in the crew, opened the switch, and after the motor car had been placed on the passing track he returned to his work without having closed and locked the switch. He admitted he failed to perform his duty properly in failing to close the switch immediately after the motor car had passed through it, and accepted full responsibility for the accident.

Signalman Wall entered the service in construction work in February, 1923, and had been a signalman since March, 1923.

None of the employees involved had been on duty in violation of any of the provisions of the hours of service law.

Respectfully submitted,

W. P. BORLAND,

Birector.