INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2580

THE WESTERN PACIFIC RAILROAD COMPANY

REPORT IN RE ACCIDENT

NEAR ANTELOPE, NEV., ON

APRIL 14, 1942

SUMMARY

Railroad:	Western Pacific	
Date:	April 14, 1942	
Location:	Antelope, Nev.	
Kind of accident:	Head-end collision	
Trains involved:	Light engine	: Passenger
Train numbers:	Second 62	: Second 39
Engine numbers:	335	: 174
Consist:		: 9 cars
Speed:	17-18 m. p. h.	: Almost stopped
Operation:	Timetable and train orders	
Track:	Single; $2^{\circ}30'$ curve; 1 percent descending grade eastward	
Weather:	Clear	
Time:	About 5:05 p. m.	
Casualties:	1 killed; 41 injured	
Cause:	Accident caused by inferior train occupying the main track on the time of an opposing superior train	
Recommendation:	That the Western Pacific Railroad Company establish an adequate block-signal system on the line involved in this accident	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2580

IN THE MATTER OF MAKING ACCIDENT INVESTIGATION REPORTS
UNDER THE ACCIDENT REPORTS ACT OF MAY 6, 1910.

THE WESTERN PACIFIC RAILROAD COMPANY

June 10, 1942

Accident near Antelope, Nev., on April 14, 1942, caused by inferior train occupying the main track on the time of an opposing superior train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On April 14, 1942, there was a head-end collsion between a light engine and a passenger train on the Western Pacific Railroad near Antelope, Nev., which resulted in the death of 1 person carried under contract, and the injury of 27 passengers, 2 Pullman employees, 5 dining-car employees, 1 train porter, 1 section laborer and 5 train-service employees. This accident was investigated in conjunction with representatives of the Public Service Commission of Nevada.

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[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.

Inv-2580
Western Pacific Railroad
Antelope, Nev.
April 14, 1942

Location of Accident and Method of Operation

This accident occurred on that part of the Eastern Division designated as the First Subdivision, which extends between Portola, Calif., and Winnemucca, Nev., a distance of 210.9 miles. In the vicinity of the point of accident this is a single-track line over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred at a point 2.18 miles east of the station at Antelope. As the point of accident is approached from the west there are, in succession, a 5° curve to the left 1,504 feet in length, a tangent 641 feet, and a 2°30' curve to the right 2,936 feet in length. The accident occurred on the latter-mentioned curve at a point 45 feet east of its western end. As the point of accident is approached from the east there is a tangent 821 feet in length, which is followed by the curve on which the accident occurred. The grade for east-bound trains varies between 0.74 and 1 percent descending throughout a distance of 1 mile immediately west of the point of accident, and is 1 percent at the point of accident. The grade for west-bound trains varies between 0.89 and 1.03 percent ascending throughout a distance of 3,500 feet immediately east of the point of accident. Starting at a point 872 feet west of the point where the accident occurred and extending to a point 1,528 feet east of the point of accident, the track is laid in a rock cut, the walls of which rise to a maximum height of 26 feet.

Operating rules read in part as follows:

> 21. Trains will be identified by train indicators displayed on the engine when so equipped; when not so equipped, engine number must be used in train orders.
>
> S-87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.
>
> * * *
>
> S-89. At meeting points between trains of different classes the inferior train must take the siding and clear the superior train not less than five minutes, * * *

In the vicinity of the point of accident the maximum authorized speed for passenger trains is 50 miles per hour, and for light engines, 30 miles per hour.

Description of Accident

Second 62, an east-bound second-class train, consisted of engine 335. At Portola, 166.7 miles west of Antelope, the crew received, among others, a copy of train order No. 245, Form 19, which read as follows:

> First 39 run Two 2 hours and Forty 40
> mins late Winnemucca to Portola
> Second 39 run Eight 8 hours late
> Winnemucca to Portola

Second 62 departed from Portola at 11:55 a. m., according to the dispatcher's record of movement of trains, 6 hours 25 minutes late, and met First 39 at Bryant, 90.7 miles west of Antelope. At Gerlach, 49.8 miles west of Antelope, the crew received a copy of train order No. 288, Form 19, which read as follows:

> Third 39 run nine 9 hours and Thirty
> 30 mins late Winnemucca to Portola
>
> Made Complete Time 302 p.m.

This train departed from Gerlach at 3:45 p. m., 4 hours 55 minutes late, departed from Sulphur, 13.4 miles west of Antelope and the last open office, at 4:40 p. m., 4 hours 35 minutes late, and while moving at an estimated speed of 17 or 18 miles per hour it collided with Second 39 at a point 2.18 miles east of Antelope. The brakes of engine 335 functioned properly en route.

Second 39, a west-bound first-class passenger train, consisted of engine 174, 1 baggage car, 2 coaches, 1 Pullman tourist car, 1 Pullman sleeping car, 1 dining car, 1 Pullman tourist car, 1 Pullman sleeping car and 1 observation car, in the order named. All cars were of steel construction. At Elko, 177.3 miles east of Antelope, an air-brake test was made and the brakes functioned properly en route. At Winnemucca, 44.2 miles east of Antelope, the crew received, among others, copies of train order No. 245, Form 31, previously quoted, and train order No. 287, Form 19, which read as follows:

> Engs 174 and 333 run as Second and
> Third 39 Winnemucca to Portola
>
> Made Complete Time 255 p.m.

Second 39 departed from Winnemucca at 4:06 p. m., according to the dispatcher's record of movement of trains, 8 hours 1 minute late, passed Jungo, 8.7 miles east of Antelope and the last

open office, at 4:54 p. m., 8 hours 3 minutes late, and had almost stopped when it was struck by Second 62.

Because of track curvature and the rock cut, from the left side of a west-bound engine the view of the point where the accident occurred was restricted to about 400 feet, and from the right side of an east-bound engine, to about 800 feet.

Engines 335 and 174 stopped, badly damaged, upright and in line with the track. The front ends were telescoped together and all driving wheels except the rear pair of each engine were raised above the rails. The rear end of the first car of Second 39 telescoped the front end of the second car a distance of 10 feet, and both of these cars were considerably damaged.

The weather was clear at the time of the accident, which occurred about 5:05 p. m.

The train-service employees injured were the engineer and the fireman of Second 62, and the engineer, the fireman and the front brakeman of Second 39.

Data

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 15.36 trains.

Discussion

The rules governing operation on the line involved provide that an inferior train must keep out of the way of an opposing superior train and must clear the time of a superior train not less than 5 minutes. When engines are not equipped with train indicators, engine numbers must be included in the body of train orders so that trains may be identified. All employees involved understood these requirements.

Second 39, a section of a west-bound first-class schedule, was directed by train order to run 8 hours late from Winnemucca to Portola. Under the provisions of this order, Second 39 was due to leave Jungo, 8.1 miles east of Antelope, at 4:51 p. m., Antelope at 5:08 p. m., and Floka, 8.4 miles west of Antelope, at 5:17 p. m. No other train order restricting the movement of Second 39 had been addressed to Second 62. Second 39 passed Jungo at 4:54 p. m., and about 5:05 p. m., when it was 2.18 miles east of Antelope, it collided with Second 62.

As Second 39 was approaching the point where the accident occurred, the speed was about 25 miles per hour, and the

enginemen were maintaining a lookout ahead from their respective sides of the cab. Because of the curvature to the left, the first that the engineer was aware of anything being wrong was when the fireman called a warning, crossed over to the right side, moved the brake valve to emergency position and jumped off. The fireman said that because of the rock cut and the curvature he first observed Second 62 approaching at a distance of only about 400 feet. Both enginemen were of the opinion that their train was almost stopped at the time of the collision.

Under the rules, Second 62 was required to be clear at Jungo at 4:46 p. m. and at Antelope at 5:03 p. m., if it proceeded to either of these stations to clear for Second 39. The maximum authorized speed for this train was 30 miles per hour and, if it did not exceed the maximum authorized speed, the earliest time it could have arrived at Antelope was 5:06 p. m.; therefore, Second 62 had no authority to proceed beyond Floka for Second 39. Second 62 not only proceeded beyond Floka but also passed Antelope and collided with Second 39, 19 minutes after it was required to be into clear at Jungo, if it proceeded to that station for Second 39.

The crew of Second 62 consisted of the engineer and the fireman only. As their train was approaching the point where the accident occurred, the speed was about 25 miles per hour, and the enginemen were maintaining a lookout ahead. The engineer observed Second 39 approaching at a distance of about 300 feet, applied the engine and tender brakes, placed the reverse lever in position for backward motion, and jumped off. The engineer estimated that the speed of his engine was 17 or 18 miles per hour at the time of the collision. According to both enginemen they understood that their train was inferior to Second 39 and that their train was required to run with respect to Second 39 being 8 hours late on its schedule, as provided in the run-late order received at Portola. The engineer said that in accordance with this order his train could not proceed farther than Antelope and clear for Second 39 as required by the rules; however, when he received train order No. 288 at Gerlach, he misread this order as directing Second 39 to run 9 hours 30 minutes late, and failed to observe that this order directed Third 39 to run 9 hours 30 minutes late. On the basis of 9 hours 30 minutes added to the schedule of No. 39, he expected to proceed to Pronto, 26.1 miles east of Antelope, and to clear Second 39 at that station. He said that the copy of train order No. 288 was clear and legible, and he could not explain why he misread Third 39 as being Second 39. The fireman said that when train order No. 288 was received at Gerlach the engineer remarked that they had more time on Second 39. The fireman said that he also failed to observe that order No. 288 directed Third 39 to run 9 hours 30 minutes late and misread the

order as directing Second 39 to run 9 hours 30 minutes late. The fireman said that if the engine numbers had been included in train orders Nos. 245 and 288, the different engine numbers would have attracted his attention that a second and a third section of 39 had been authorized. The superintendent said that when engines are not equipped with train indicators, train orders affecting regular trains should include engine numbers also; however, when orders are transmitted a number of hours prior to the departure of the trains affected by such orders, sometimes it is not known which engines will be assigned to such trains. The investigation of this accident disclosed that train order No. 287, which authorized engines Nos. 174 and 333 to run as Second and Third 39, was made complete at 2:55 p. m. Order No. 288, which directed Third 39 to run 9 hours 30 minutes late, was made complete at 3:02 p. m. Since Second 62 did not depart from Gerlach until 3:45 p. m., a copy of train order No. 287 could have been issued to Second 62 to serve as a means of identifying Second and Third 39.

On September 22, 1941, a head-end collision resulting in the death of 3 and the injury of 33 persons occurred on the line of this carrier at Sunol, Calif. There was no block system in use on that part of the railroad. The report of the Commission covering the investigation of that accident stated that if an adequate block system had been in use on the line, the accident would not have occurred, and a rule to show cause why this carrier should not establish an adequate block-signal system on the line involved was served on this carrier. In the territory involved in the instant case, trains are operated by timetable and train orders only. If an adequate block system had been in use, this accident would not have occurred.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of a superior train.

Recommendation

The Western Pacific Railroad Company should establish an adequate block-signal system on the line involved in this accident.

Dated at Washington, D. C., this tenth day of June, 1942.

By the Commission, Commissioner Patterson.

W. P. BARTEL,
Secretary.

(SEAL)