INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 3001

MISSOURI PACIFIC RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT WASHINGTON, MO., ON

JULY 10, 1946

SUMMARY

Railroad:	Missouri Pacific	
Date:	July 10, 1946	
Location:	Washington, Mo.	
Kind of accident:	Side collision	
Trains involved:	Engine	: Passenger
Train numbers:		: 9
Engine numbers:	2215	: 5340
Consist:		: 16 cars
Estimated speed:	2 m. p. h.	: 35 m. p. h.
Operation:	Signal indications	
Track:	Double; tangent; 0.05 percent descending grade westward	
Weather:	Clear	
Time:	1:20 a. m.	
Casualties:	1 killed	
Cause:	Engine fouling main track immediately in front of approaching train	
Recommendation:	That the Missouri Pacific Railroad Company install electric switch-locking at hand-operated switches controlling movements between sidings and main tracks on lines where trains are operated by signal indication only	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 3001

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

MISSOURI PACIFIC RAILROAD COMPANY

August 28, 1946.

Accident at Washington, Mo., on July 10, 1946, caused by an engine fouling the main track immediately in front of an approaching train.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On July 10, 1946, there was a side collision between an engine and a passenger train on the Missouri Pacific Railroad at Washington, Mo., which resulted in the death of one employee.

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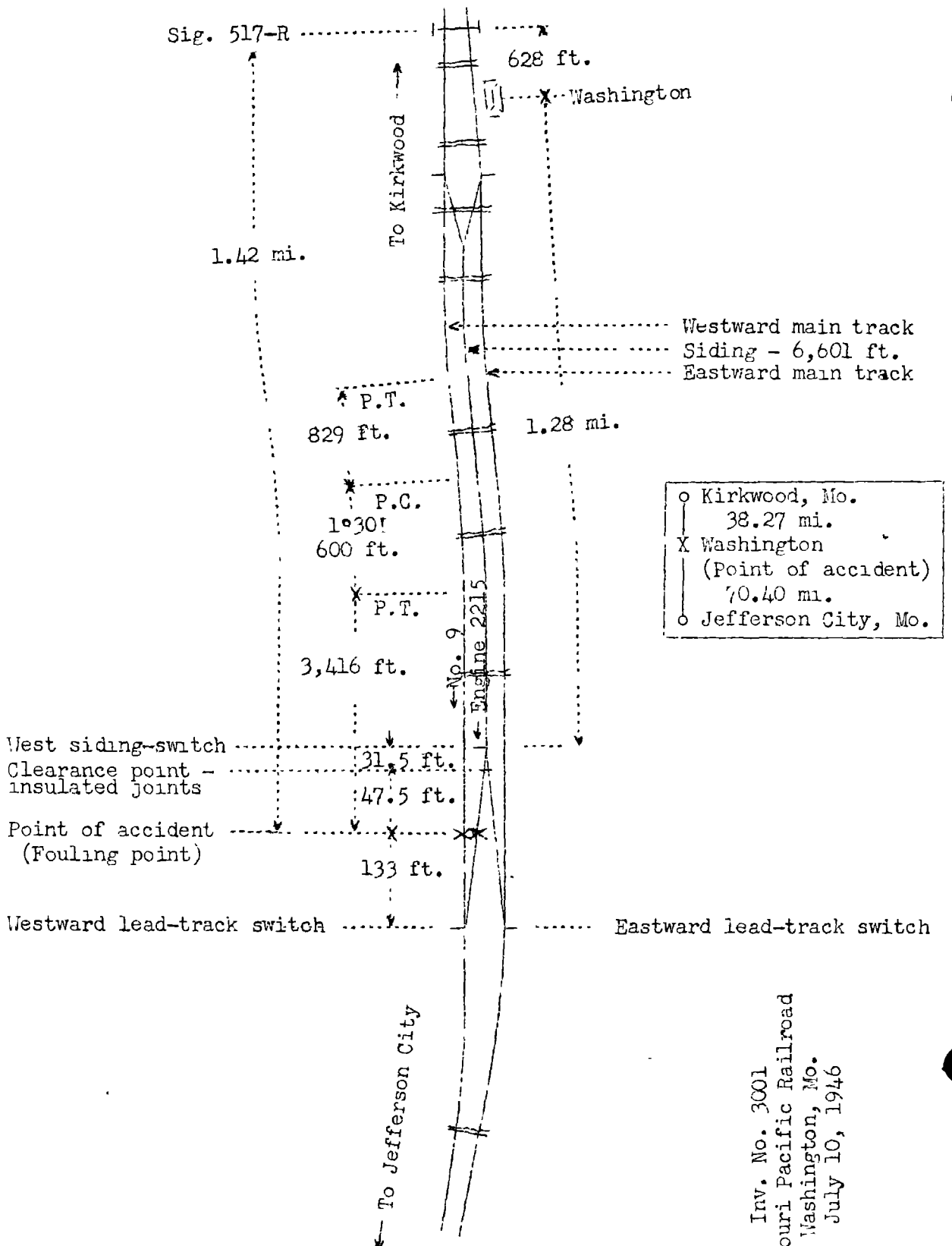
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 3001
Missouri Pacific Railroad
Washington, Mo.
July 10, 1946

Location of Accident and Method of Operation

This accident occurred on that part of the Eastern Division extending between Kirkwood and Jefferson City, Mo., 108.67 miles. In the vicinity of the point of accident this is a double-track line over which trains moving with the current of traffic are operated by signal indications. At Washington, 38.27 miles west of Kirkwood, a siding 6,601 feet long lies between the main tracks. The west switch of the siding is 1.28 miles west of the station. Two lead tracks, each of which is 212 feet long, extend from the west end of the siding to the main tracks. The siding turnouts are No. 7 and the main-track turnouts are No. 10. The clearance point at the east end of the westward lead track is 31.5 feet west of the west siding-switch. The accident occurred at the fouling point of the westward main track and the westward lead track, at a point 47.5 feet west of the clearance point and 133 feet east of the westward lead-track switch. From the east on the westward main track there are, in succession, a tangent 829 feet in length, a 1°30' curve to the right 600 feet, and a tangent 3,416 feet to the point of accident and some distance westward. The grade is 0.05 percent descending westward.

The switch-stand of the west siding-switch is between the south rail of the westward main track and the north rail of the siding and is of the hand-operated two-position ground-throw low-stand type. It is not provided with a target, a switch lamp or a lock. The switch-stands of the lead-track switches are of the hand-operated ground-throw low-stand type, and each is provided with one red oval-shape target. When the lead-track switches are lined for entry to the main track the targets are displayed at right angles to the track.

Automatic signal 517-R, governing west-bound movements on the westward main track, is 1.42 miles east of the point of accident. This signal is of the color-light type. The track circuit of the fouling section of the westward lead track extends 180.5 feet east of the lead-track switch. The controlling circuits of the automatic signals are so arranged that when any portion of the fouling section of the westward lead track is occupied signal 517-R displays stop.

Operating rules read in part as follows:

DEFINITIONS.

* * *

Restricted Speed.--Proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train or engine to be reduced.

* * *

104. * * *

* * *

A train or engine must not foul a track until switches connected with the movement are properly lined * * *

* * *

513 (a). A train or engine having accepted a Proceed indication and is delayed in the block, must proceed at restricted speed to the next signal.

581. Trains or engines must not enter or foul main track, or re-enter main track after having cleared it, to move in specified direction by indication of block signals, except on signal indication governing movement onto main track, or,

* * *

(b) At Non-electrically locked hand operated switches, where there is no signal indication governing movement onto main track, train or engine may enter main track upon authority of Train Dispatcher, then waiting in clear of main track three minutes after switch is opened.

This will not relieve employes from the duty of promptly and properly protecting the movement as required by Rule 99.

* * *

The maximum authorized speed for the passenger train was 75 miles per hour.

Description of Accident

No. 90, an east-bound second-class freight train, consisting of engine 2215, 83 cars and a caboose, stopped about 1:10 a. m. between the siding switches on the eastward main track at Washington. About 10 minutes later, during switching operations, after the engine had moved westward in backward motion on the siding and had stopped on the westward lead track with the tender fouling the westward main track 31.5 feet west of the west siding-switch, and while an attempt was being made to

move the engine into clear on the siding, the tender was struck by No. 9.

No. 9, a west-bound first-class passenger train, consisted of engine 5340, one express car, four mail cars, two baggage cars, one dining car, three coaches and five Pullman sleeping cars, in the order named. All cars were of steel construction. This train passed signal 517-R, which displayed proceed, stopped at the station at Washington, and departed at 1:15 a. m., 8 minutes late. About 5 minutes later, while this train was moving on the westward main track at an estimated speed of 35 miles per hour it struck the tender of engine 2215.

The engine of No. 9 was derailed to the north and stopped on its right side about 19 feet north of the westward main track, with the front end 221 feet west of the point of accident. The first five cars were derailed and stopped in various positions. The engine and the first four cars were badly damaged. The tender of the engine of No. 90 was slightly damaged.

The weather was clear at the time of the accident, which occurred about 1:20 a. m.

The engineer of No. 9 was killed.

Discussion

No. 90, an east-bound freight train, stopped between the siding switches on the eastward main track at Washington about 1:10 a. m. Soon afterward the engine was detached. It entered the siding at the east end and moved westward on the siding to the west siding-switch, in order to switch out from the rear of the train a car with a hot journal. The engine stopped on the siding about 1:17 a. m., with the west end of the tender standing immediately east of the west switch. About 3 minutes later, after the conductor had erroneously operated the west siding-switch for movement to the westward lead track instead of the eastward lead track, the engine entered the westward lead track. While an attempt was being made to move the engine eastward into clear on the siding, it was struck by No. 9, a west-bound passenger train.

When No. 9 passed signal 517-R, the last automatic signal, 1.42 miles east of the point of accident, this signal displayed proceed. No. 9 stopped at 1:04 a. m. at the station at Washington, which is 628 feet west of signal 517-R, and departed at 1:15 a. m. As this train was approaching the west siding-switch the speed was about 35 miles per hour. The headlight was lighted brightly, and the enginemen were maintaining a lookout ahead. The fireman said that he first saw engine 2215 moving westward from the siding to the westward lead track when his

engine was about 400 feet east of the west siding-switch, and he immediately called a warning to the engineer, then jumped from the engine. He did not observe what action was taken by the engineer. The engineer was killed. The members of the train crew said they did not know of anything being wrong until the collision occurred. Examination after the accident disclosed that the throttle lever was in closed position, the reverse lever was in position for about 20 percent cut-off in forward motion, the independent brake valve was in running position, and the automatic brake valve was on the bridge between running and lap positions. However, debris in the cab of the engine near the automatic brake valve indicated that as a result of the accident this valve may have been forced from emergency position to the position in which it was found. The brakes of this train had been tested and had functioned properly en route.

When the accident occurred the enginemen and the flagman of No. 90 were on the engine. The front brakeman was in the vicinity of the front end of the train. The conductor said that when he lined the west siding-switch he thought he operated the switch from position for movement from the siding to the westward lead track to position for movement from the siding to the eastward lead track. There is no switch lamp or target provided on the switch-stand of this switch. The conductor did not observe the position of the switch points. Immediately after he operated the west siding-switch, the conductor proceeded to the eastward lead-track switch and lined this switch for movement from the lead track to the eastward main track, and, after an interval of about 3 minutes, he gave hand signals for his engine to move westward. The conductor did not realize until immediately prior to the collision that he had improperly lined the west siding-switch. The enginemen and the flagman said they did not observe the position of this switch, and they did not realize that it was improperly lined until the engine entered the westward lead track. Then the engineer immediately reversed the movement in an unsuccessful attempt to move the engine into clear.

During the 30-day period preceding the day of the accident, the average daily movement on this district was 29.53 trains. Maximum authorized speeds in this territory are 90 miles per hour for streamlined passenger trains, 75 miles per hour for conventional passenger trains and 55 miles per hour for freight trains. Since there was no target or switch lamp provided at the west siding-switch, it was necessary to observe the position of the switch points to determine the alinement of the switch. Other than the conductor of the freight train, no member of the crew could see the position of the switch points, because it was dark and the headlight was shining in the opposite direction. No means had been provided at the west siding-switch for preventing the fouling of either main track immediately

in front of an approaching train. In view of the nature and volume of traffic on this line, all available facilities for adequate protection should be provided. If the west siding-switch at Washington had been provided with adequate safeguards to prevent a train or engine from entering or fouling the main track immediately in front of an approaching train this accident would not have occurred.

Cause

It is found that this accident was caused by an engine fouling the main track immediately in front of an approaching train.

Recommendation

It is recommended that the Missouri Pacific Railroad Company install electric switch-locking at hand-operated switches controlling movements between sidings and main tracks on lines where trains are operated by signal indication only. An order to show cause why it should not do so will be served on said carrier.

Dated at Washington, D. C., this twenty-eighth day of August, 1946.

By the Commission, Commissioner Patterson.

W. P. BARTEL,

(SEAL) Secretary.