

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT NO. 3620  
MISSOURI PACIFIC RAILROAD COMPANY  
IN RE ACCIDENT  
NEAR MELVA, MO., ON  
MARCH 22, 1955

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SUMMARY

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Date	March 22, 1955	
Railroad	Missouri Pacific	
Location	Melva, Mo.	
Kind of accident	Head-end collision	
Equipment involved	Track motor-car C-2995	Track motor-car CJ-521
Estimated speeds	10-20 m. p. h.	4-15 m. p. h.
Operation	Timetable and train orders	
Track	Single, spiral, 1.00 percent descending grade northward	
Weather	Clear	
Time	7.55 a. m.	
Casualties	1 killed, 8 injured	
Cause	Failure properly to control the speed of track motor-cars, probably due to the presence of ice on the rails	

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3620

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

MISSOURI PACIFIC RAILROAD COMPANY

May 9, 1955

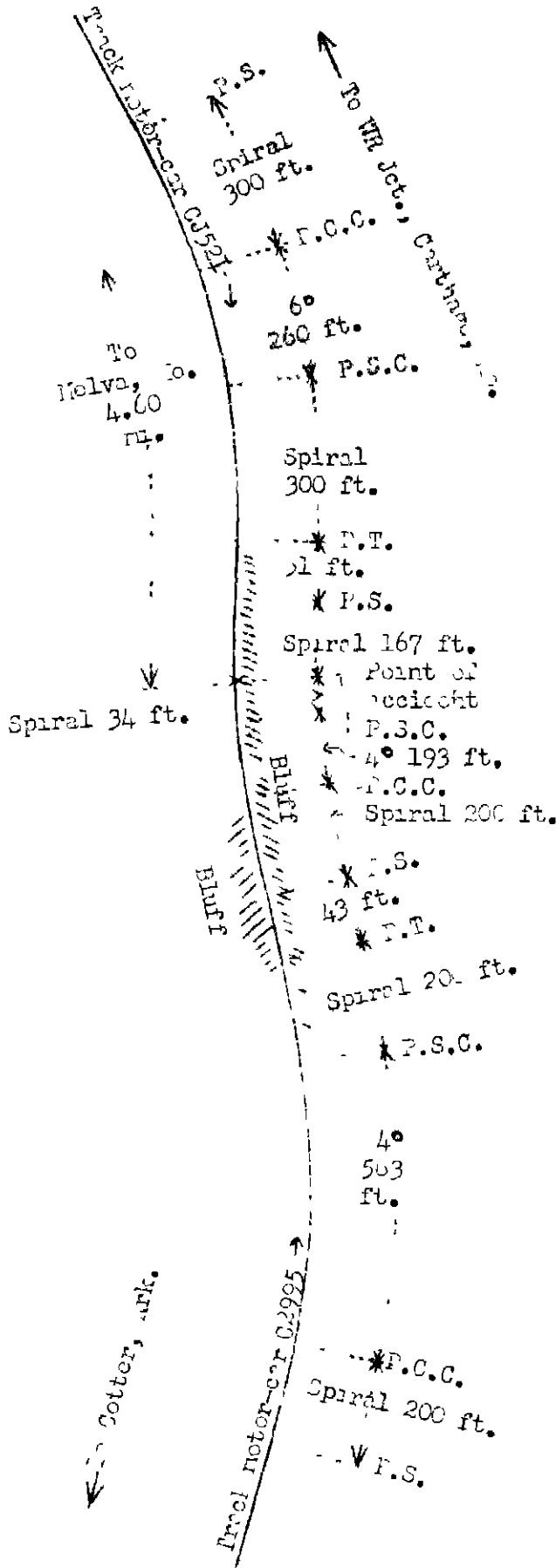
Accident near Melva, Mo., on March 22, 1955, caused by  
failure properly to control speed of track motor-  
cars, probably due to the presence of ice on the  
rails.

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REPORT OF THE COMMISSION

CLARKE, Commissioner:

On March 22, 1955, there was a head-end collision  
between two track motor-cars on the Missouri Pacific Rail-  
road near Melva, Mo., which resulted in the death of one  
bridge and building employee, and the injury of five bridge  
and building employees and three maintenance-of-way employees.

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Under authority of section 17 (2) of the Interstate Com-  
merce Act the above-entitled proceeding was referred by the  
Commission to Commissioner Clarke for consideration and  
disposition.



•	WR Jct., Carthage, Mo.
•	49.96 mi.
•	Crane
•	32.08 mi.
•	Hollister
•	3.44 mi.
•	Melva, Mo.
•	4.60 mi.
▲	Point of accident
•	5.01 mi.
•	Cricket, Ark.
•	51.11 mi.
•	Cotter, Ark.

Report No. 3620  
 Missouri Pacific Railroad  
 Melva, Mo.  
 March 22, 1955

Location of Accident and Method of Operation

This accident occurred on that part of the Joplin and White River Divisions extending between Cotter, Ark., and WR Jct., Carthage, Mo., 146.20 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 on the main track at a point 56.12 miles north of Cotter and 4.60 miles south of the station sign at Melva, Mo. From the south there are, in succession, a spiral 200 feet in length, a 4° curve to the left 563 feet, a spiral 200 feet, a tangent 43 feet, a spiral 200 feet, a 4° curve to the right 193 feet, and a spiral 34 feet to the point of accident and 167 feet northward. From the north there are, in succession, a spiral 300 feet in length, a 6° curve to the right 260 feet, a spiral 300 feet, a tangent 51 feet, and the spiral on which the accident occurred. Throughout a considerable distance on each side of the point of accident the grade is 1.00 percent descending northward.

In the immediate vicinity of the point of accident a bluff on the east side of the track restricts the range of vision between opposing movements to a distance of about 450 feet.

This carrier's rules for the operation of track motor-cars read in part as follows.

143. Speed.--The speed of motor cars must not exceed that at which the cars can be stopped within the limit of safety, and must not at any time exceed the speed given in the following table for the kind of cars and class of service indicated.

\* \* \*

Gang Cars without Trailers	20 miles per hour.
Gang Cars with Trailers	15 miles per hour.

Speed of cars must be such that the car can be stopped in less than one-half the distance track is seen to be clear.

\* \* \*

144. Protection against Trains and Other Cars.--

(a) Care and Caution.--In the operation of cars, foremen and others must move at all times with care and caution necessary for safety \* \* \* Care must be exercised to avoid collision with trains or other cars. \* \* \*

\* \* \*

#### Description of Accident

Track motor-car C-2995, coupled to an empty trailer, departed north-bound from Griekot, Ark., 9.61 miles south of Melva, about 7:30 a. m. The track motor-car was occupied by a bridge and building foreman and five carpenters. While it was moving at a speed variously estimated at from 10 to 20 miles per hour it collided with track motor-car CJ-521 at a point 4.60 miles south of Melva.

Track motor-car CJ-521, occupied by a section foreman and four sectionmen, departed south-bound from Hollister, 3.44 miles north of Melva, about 7:30 a. m., and while moving at a speed variously estimated at from 4 to 15 miles per hour it collided with track motor-car C-2995.

Both track motor-cars were somewhat damaged.

One bridge and building carpenter was killed. The bridge and building foreman, four carpenters, the section foreman, and two sectionmen were injured.

The weather was clear at the time of the accident, which occurred about 7:55 a. m.

Track motor-car C-2995 is powered by a 4-cylinder 36-horsepower engine and is equipped with a four-speed transmission. It has four-wheel brakes with metal brake shoes, and is equipped with a canvas windshield which extends 24 inches above the level of the seating deck. It weighs 1,800 pounds and has seating capacity for eight persons.

The trailer weighs 620 pounds. It is not equipped with a brake.

Track motor-car CJ-521 is of the belt-drive type and is powered by a 1-cylinder 8 to 13-horsepower engine. It has four-wheel brakes with metal brake shoes, and is equipped with a canvas windshield which extends 24 inches above the level of the seating deck. It weighs 950 pounds and has seating capacity for eight persons.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 4.9 trains.

### Discussion

On the day of the accident the bridge and building force reported for duty at Cricket at 7:30 a. m. The foreman obtained a line-up of train movements which contained the information that the first train in the vicinity would be a south-bound passenger train due to leave Hollister at 8:05 a. m. and Melva at 8:12 a. m. The members of the force then departed for Hollister on their track motor-car. There had been no train movements in the vicinity for several hours, and snow on the rails between Cricket and a tunnel located a short distance north of that point made operation of the track motor-car difficult and caused some delay while snow was removed. North of the tunnel the rails were clear of snow. There was ice on the rails in a cut north of the tunnel, but after passing through this cut no further difficulty was experienced in the operation of the car. The motor-car operator said that the brakes were used to control the speed of the car at various points and they functioned properly. Because of curvature of the track in the vicinity of the point of accident the occupants of the car were unable to see the south-bound track motor-car until the cars were about 450 feet apart. As soon as the opposing car came into view the operator applied the brakes, but because of ice on the rails the wheels locked and slid and there was no apparent reduction in speed before the collision occurred. Both the foreman and the motor-car operator said that until the operator attempted to stop the car they were unaware that there was ice on the rails at this point. Both of these employees estimated that the speed was about 15 miles per hour at the time of the collision. They said they thought the car could have been stopped within one-half their range of vision if the rails had not been slippery.

The section force reported for duty at Melva at 7:30 a. m., and the foreman obtained a copy of the same line-up of train movements that had been delivered to the bridge and building foreman. These employees then departed south-bound on their track motor-car. They said that the rails were slippery in the vicinity of Melva and they had some difficulty in starting the car, but after leaving Melva the wheels slipped only at intervals. The motor-car operator said that the brakes

were used to control the speed of the car at various points and they functioned properly. The occupants of the car estimated the speed at from 10 to 18 miles per hour as they approached the point where the accident occurred. When they saw the opposing track motor-car the operator immediately applied the brakes. The foreman said that the brakes were effective and would have stopped the car within one-half the distance at which he first saw the other car. He thought the other car had moved more than one-half that distance when the collision occurred. He said he alighted without difficulty immediately before the collision occurred and he estimated that the speed of his car was about 4 miles per hour. He was struck by some object which was thrown from one of the cars when the cars collided. Three of the sectionmen thought that because of ice on the rails the speed was not appreciably reduced before the collision occurred. The other sectionman alighted immediately after he saw the other car and did not make an estimate of the speed.

The temperatures as reported to the train dispatcher on the day of the accident were 18 degrees above zero at Crane, 35.52 miles north of Melva, at 12:01 a. m. and 24 degrees above zero at Cotter at 6 a. m. The track in the immediate vicinity of the point of accident is in the shade of the bluff during the morning and this condition may have resulted in the presence of more ice or frost on the rails at this point than at other points.

Foreman or other operators of track motor-cars on this line are provided with line-ups of train movements, but they are not provided with information concerning the movements of other track motor-cars. No provision is made to prevent collisions between opposing track motor-cars except the requirement that the operator of each car exercise care to avoid collision with other cars and operate the car at such speed that he can stop in less than one-half the distance at which the track is seen to be clear. In the present case the occupants of neither car were aware of the location of the other car until the cars were about 450 feet apart. The foreman in charge of the north-bound car said that until the operator applied the brakes he thought the car was being operated at a speed at which it could be stopped within one-half his range of vision, and the foreman on the south-bound car said that his car also could have been stopped within that distance.



Cause

This accident was caused by failure properly to control the speed of track motor-cars, probably due to the presence of ice on the rails.

Dated at Washington, D. C., this ninth day of May, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,  
Secretary.