

INTERSTATE COMMERCE COMMISSION  
WASHINGTON

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REPORT NO. 3605  
UNION PACIFIC RAILROAD COMPANY  
IN RE ACCIDENT  
NEAR HARRIMAN, WYO., ON  
JANUARY 14, 1955

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SUMMARY

Date:	January 14, 1955	
Railroad:	Union Pacific	
Location	Harriman, Wyo.	
Kind of accident:	Head-end collision	
Equipment involved:	Track motor-car 1023	Freight train
Train number:		: Extra 63 West
Engine number:		: Gas-turbine electric locomotive 63
Consist:		: 59 cars, caboose
Estimated speeds:	15 m. p. h.	: 3 m. p. h.
Operation:	Signal indications	
Tracks:	Three, 1°30' curve, 0.76 percent descending grade eastward	
Weather:	Clear	
Time	9.55 a. m.	
Casualties:	5 injured	
Cause:	Failure to protect authorized movement of track motor-car	

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3605

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

UNION PACIFIC RAILROAD COMPANY

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February 4, 1955

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Accident near Harriman, Wyo., on January 14, 1955, caused  
by failure to protect the authorized movement of a  
track motor-car.

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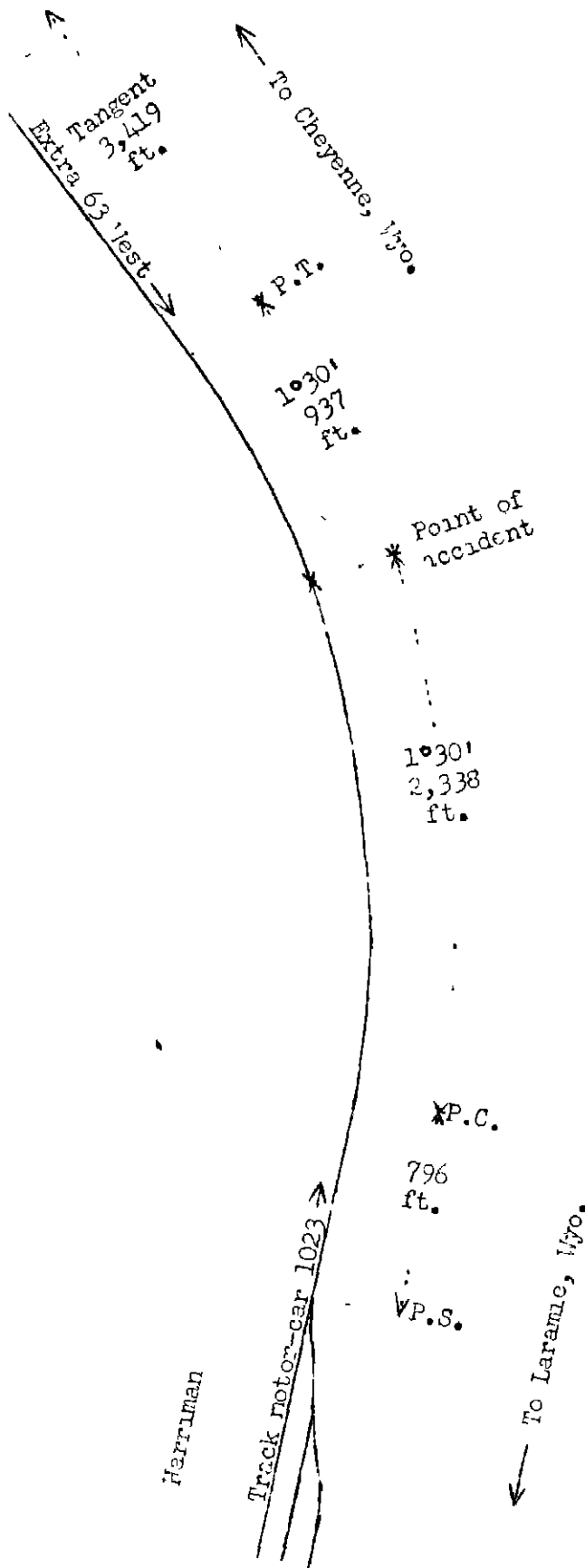
REPORT OF THE COMMISSION<sup>1</sup>

CLARKE, Commissioner.

On January 14, 1955, there was a head-end collision  
between a track motor-car and a freight train on the Union  
Pacific Railroad near Harriman, Wyo., which resulted in the  
injury of five maintenance-of-way employees.

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<sup>1</sup>  
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.



•	Cheyenne, Wyo.
	24.7 mi.
•	Lynch
	7.1 mi.
X	Point of accident
	1.4 mi.
•	Harriman
	32.8 mi.
•	Laramie, Wyo.

Report No. 3605  
 Union Pacific Railroad  
 Harriman, Wyo.  
 January 14, 1955

### Location of Accident and Method of Operation

This accident occurred on that part of the Wyoming Division extending between Laramie and Cheyenne, Wyo., 66.0 miles. In the vicinity of the point of accident this is a three-track line, over which trains are operated by block-signal and cab-signal indications. In this vicinity track No. 3 is several miles south of tracks Nos. 1 and 2, and is signaled for movements in both directions. Sidings for track No. 3 are located at Harriman, 32.8 miles east of Laramie, and at Lynch, 41.3 miles east of Laramie. The accident occurred on track No. 3 at a point 3,134 feet east of the east siding-switch at Harriman. Eastward from this switch there is a tangent 796 feet in length and a 1°30' curve to the left 2,338 feet to the point of accident and 937 feet eastward. From the east there is a tangent 3,419 feet in length and the curve on which the accident occurred. The grade is 0.76 percent descending eastward at the point of accident.

In the vicinity of the point of accident there is a series of alternate short cuts and fills. Walls of the cuts materially restrict the range of vision. At the point of accident the track is laid on a fill approximately 15 feet in height.

The signals in the vicinity of the point of accident form part of a traffic-control system. The control machine is located in the train dispatcher's office at Cheyenne. Miniature lamps on the control panel indicate track occupancy of OS sections, which extend between the opposing controlled signals at power-operated switch locations, and also track occupancy of the sections of track between adjacent OS sections.

Track-occupancy indicators for the information of maintenance-of-way employees and the operators of track motor-cars are located at the east siding-switch at Harriman and at various points between Harriman and Lynch. Operators of track motor-cars are instructed to disregard the indications of these indicators if the movements of their cars are authorized by motor car permits.

This carrier's rules for the Maintenance of Way and Signal Departments read in part as follows:

1502. In CTC territory, when necessary to operate a track car from a point where communication with train dispatcher is provided, track car operator or train order operator must call train dispatcher on telephone, state their name and location, and inform him of the move to be made. Care must be used to clearly state the point from where movement is to be started, the point to which car is to be moved, and time desired.

Such track car movement must be protected by train dispatcher by proper signal indications and Form 7546, Motor Car Permit, issued to track car operator authorizing movement between the designated points, on the designated track, until a specified time. Such permit must be repeated to train dispatcher.

Motor Car Permit will authorize movement of track car without flag protection until the specified time between the points named, but does not relieve track car operator from maintaining a careful lookout for other track cars \* \* \*

Instructions for Train Dispatchers read in part as follows.

119. In CTC territory, when necessary to operate a track car from a point where communication with dispatcher is provided, track car operator or train order operator must call dispatcher on telephone, state name of track car operator, the point from where movement is to be started, the point to which car is to be moved, and time desired.

120. Such track car movement must be protected by dispatcher by proper Stop signal indications, and levers controlling such signals must be blocked with red marker blocks, and Motor Car Permit issued to track car operator authorizing movement between the designated points until a specified time. Such permit must be repeated to dispatcher. This permit will authorize movement of track car without flag protection until the specified time between the points named.

121. Dispatcher must not remove marker blocks, or clear signals for a train to enter the specified territory, until advice has been received of the arrival of the track car at destination, or until after expiration of time limit shown in permit.

123. Dispatcher must keep record in train order book of Motor Car Permits issued by him. \* \* \*

The maximum authorized speeds are 50 miles per hour for freight trains and 20 miles per hour for track motor-cars.

Description of Accident

At 9:51 a. m., the section foreman at Harriman received a motor car permit issued by the train dispatcher and reading as follows:

This permit is authority for movement of your track car on No. 3 track between East Harriman and West Lynch until 10:05 a. m.

Track motor-car 1023, occupied by the section foreman and six sectionmen, departed east-bound from the east siding-switch at Harriman about 9:52 a. m., and while moving at a speed of about 15 miles per hour it collided with Extra 63 West at a point 3,134 feet east of the switch.

Extra 63 West, a west-bound freight train, consisted of gas-turbine electric locomotive 63, 59 cars, and a caboose. This train passed the controlled signal at the west siding-switch at Lynch, which indicated Approach, at 9:38 a. m., and while moving at a speed of about 3 miles per hour it collided with track motor-car 1023. There are no controlled signals between the signals at the west siding-switch at Lynch and the point of accident.

Extra 63 West stopped with the front of the locomotive about 25 feet west of the point of accident. The locomotive was not damaged. The track motor-car was demolished.

The section foreman and four sectionmen were injured

The weather was clear at the time of the accident, which occurred at 9:55 a. m.

Track motor-car 1023 was of the belt-drive type and was powered by a 1-cylinder 8 to 13 horsepower engine. It weighed 1,010 pounds and had seating capacity for eight persons. It was insulated to prevent the shunting of track circuits and was equipped with front, rear, and center hand railings and a canvas windshield.

Locomotive 63 is powered by electricity. The traction-motor generators are driven by a gas turbine.

During the 30-day period preceding the day of the accident the average daily movement in the vicinity of the point of accident was 23.1 trains.

### Discussion

The rules and instructions of this carrier provide that within traffic-control territory the movement of a track motor-car from a point at which communication with the train dispatcher is available must be authorized by a motor car permit. The train dispatcher is required to protect the movement by proper signal indications and to block the controlling levers with the proper appliances. He must not permit a train to enter the territory in which the movement of a track motor-car has been authorized until after the car has arrived at its destination or until after the expiration of the time limit stated in the permit.

On the day of the accident the section force at Harriman reported for duty at 7:30 a. m. About 7:35 a. m. the foreman called the train dispatcher from the west siding-switch and requested a permit to operate his track motor-car to a point about 1.75 miles east of the east siding-switch. The dispatcher issued a permit authorizing the movement of the track motor-car on the siding from the west siding-switch to the east siding-switch, and informed the foreman that he could not authorize a movement beyond the latter point until after several west-bound trains had passed. The section force proceeded to the east siding-switch and performed service at that point until about 9:40 a. m. The foreman then communicated with the train dispatcher, and the dispatcher instructed him to call again after the next west-bound train passed. Extra 1402 West, a west-bound freight train, passed the east siding-switch at 9:52 a. m., and as this train was passing the switch the foreman again communicated with the train dispatcher. The dispatcher then issued a motor car permit authorizing the movement of the track motor-car between the east siding-switch at Harriman and the west siding-switch at Lynch until 10:05 a. m. When the rear end of Extra 1402 West passed the switch, the section force immediately departed east-bound on the track motor-car. The foreman said that the track-occupancy indicator at the switch indicated track-occupied at the time he departed, but since he had received a motor car permit and the control circuits of the indicator extend eastward a considerable distance beyond his destination he did not mention this fact



to the train dispatcher. He said that the track motor-car approached the point where the accident occurred at a speed of about 15 miles per hour. He was unable to estimate the distance at which he first observed Extra 63 West approaching. He said that when he observed the train he immediately applied the brakes. He then saw that the track motor-car would collide with the train, and he instructed the sectionmen to alight from the car so that they would not be struck by flying tools. The ground was covered with snow, and the injuries to these employees were sustained as a result of sliding against rocks at the foot of the fill after they alighted from the car.

As Extra 63 West was approaching the point where the accident occurred the enginemen and the front brakeman were maintaining a lookout ahead from the control compartment at the front of the locomotive. This train was following Extra 1402 West closely, and the employees on the locomotive said that the controlled signal at the west siding-switch at Lynch indicated Approach, the first two signals west of Lynch each indicated Approach, and the third signal west of Lynch indicated Advance-approach. They said that they first saw the track motor-car at a distance of about 600 feet and that the engineer immediately made an emergency application of the brakes. They estimated that the speed of the train was between 8 and 10 miles per hour when they saw the track motor-car, and they thought that the locomotive did not move more than 25 feet after the collision occurred.

The train dispatcher said that when he issued the motor car permit authorizing the movement of track motor-car 1023 he overlooked the fact that Extra 63 West was following Extra 1402 West closely. Extra 1402 West passed the OS section at the west siding-switch at Lynch at 9:26 a. m., and Extra 63 West passed this point at 9:38 a. m. Occupancy of the section of track between the west siding-switch at Lynch and the east siding-switch at Harriman is indicated by the illumination of a miniature lamp on the control panel of the traffic-control machine, and the same aspect is displayed when the track is occupied by one train as when it is occupied by more than one train. When the front end of Extra 1402 West entered the OS section at the east siding-switch at Harriman, the dispatcher calculated that there would be sufficient time for the section foreman to make the track motor-car movement after Extra 1402 West had passed and before Extra 287 West, a west-bound freight train which was following Extra 63 West, reached Lynch. At this time the indicator lights on the traffic-control machine indicated that both the section of track between Lynch and Harriman and the section of track between the controlled signals

at the east siding-switch at Harriman were occupied. At the time he issued the motor car permit the dispatcher assumed that the section of track between Lynch and Harriman was still occupied by the rear end of Extra 1402 West, and since the track motor-car could not leave before the rear end of that train passed the switch he issued the permit without waiting until the indicator lights indicated that the track east of Harriman was unoccupied. He did not examine the traingraph of the traffic-control machine. He clocked the signal levers to protect the movement and made the proper entries in his train-order book, and until he was informed of the accident by the front brakeman of Extra 63 West he was not aware that he had overlooked that train when he issued the permit. On the day of the accident tracks Nos. 1 and 2 between Cheyenne and Borie, 9.6 miles west of Cheyenne, were out of service, and trains between these points were being operated over other tracks. The train dispatcher said that because of this circumstance he was busier than usual, and he thought his oversight may have been due, in part, to this fact.

Cause

This accident was caused by failure to protect the authorized movement of a track motor-car.

Dated at Washington, D. C., this fourth day of February, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

GEORGE W. LAIRD,  
Secretary.