# INTERSTATE COMMERCE COMMISSION WASHINGTON

INVESTIGATION NO. 2882
THE DENVER AND RIO GRANDE WESTERN
RAILROAD COMPANY

REPORT IN RE ACCIDENT NEAR GOMEX, UTAH, CN APRIL 5, 1945

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Railroad:

Denver and Rio Grande Western

Date:

April 5, 1945

Location:

Gomex, Utah

Kind of accident:

Head-end collision

Trains involved:

Freight

: Freight

Train numbers:

61

: Extra 543 East

Engine numbers:

Diesel-electric : Diesel-electric

550

543

Consist:

66 cars, caboose: 34 cars, caboose

Estimated speed:

25 m. p. h. : 25 m. p. h.

Operation:

Timetable, train orders and automatic block system

Track:

Double; 4° curve; 0.51 percent

descending grade westward

Weather:

Clear

Time:

10:50 a. m.

Casualties:

8 injured

Cause:

Failure of the Denver and Rio Grande Western Railroad Company to provide adequate safeguards for movement of trains against

current of traffic

Recommendation:

That the Denver and Rio Grande Western Railroad Company provide an adequate block system for operation of trains against the current of traffic

#### INTERSTATE COMMERCE COMMISSION

#### INVESTIGATION NO. 2882

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

THE DENVER AND RIO GRANDE WESTERN RAILROAD COMPANY

May 16, 1945.

Accident near Gomex, Utah, on April 5, 1945, caused by failure of the Denver and Rio Grande Western Rail-road Company to provide adequate safeguards for the movement of trains against the current of traffic.

# REPORT OF THE COMMISSION

# PATTERSON, Commissioner: .

On April 5, 1045, there was a nead-end collision between two freight trains on the Denver and Rio Grande Western Railroad near Gomex, Utah, which resulted in the injury of seven train-service employees and one Diesel-electric maintainer. This accident was investigated in conjunction with a representative of the Public Service Commission of Utah.

<sup>1</sup>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.

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# Location of Accident and Method of Operation

This accident occurred on that part of the Salt Lake Division designated as Sub-Division 6 and extending eastward from Salt Lake City to Helper, Utah, 119.6 miles, a double-track line in the vicinity of the point of accident, over which trains are operated by timetable, train orders and an automatic block-signal system. At the time of the accident the westward main track between Gomex and Castilla, respectively, 57.5 miles and 61.5 miles east of Salt Lake City, was out of service, and trains moving in either direction between these stations were being operated on the eastward main track. The accident occurred on the eastward main trock 59.77 miles east of Salt Lake City, at a point 1.27 miles east of the station at Gomex. From the west there are, in succession, a compound curve to the left 1,160 feet in length, the maximum curvature of which is  $3^{\circ}$ , a tangent 562 feet, a compound curve to the right 735 feet, the maximum curvature of which is 30, a tangent 361 feet and a compound curve to the left, the maximum curvature of which is 4°, extending 736 feet to the point of accident and 303 feet eastward. From the east there are, in succession, a compound curve to the right 959 feet in length, the maximum curvature of which is 40, a tangent 238 feet, a compound curve to the left 710 feet, the maximum curvature of which is 3°, a tangent 467 feet and the curve on which the accident occurred. At this point the grade is 0.51 percent descending westward.

Operating rules read in part as follows:

201. For movements not provided for by time-table, train orders will be issued by authority and over the signature of the Chief Dispatcher, and only contain information or instructions essential to such movements.

\* \* \*

FORMS OF TRAIN ORDERS

\* \* \*

#### FORM D-S

Providing for the Use of a Section of Two or More Tracks as Single Track

(1) No 1 (cr westward) track will be used as single track between F and G.

If it is desired to limit the time for such use, add:

From one naught one 1 01 P M to three naught one 3 01 P M.

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All trains must use the track specified between the stations named and will be governed by rules for single track.

Trains running against the current of traffic on the track named must be clear of the track at the expiration of the time named, or protected as prescribed by Rule 99.

\* \* \*

The maximum authorized speed for the trains involved was 40 miles per hour.

# Description of Accident

At Thistle, 7.7 miles east of Gomex, the crew of No. 61, a west-bound freight train, received copies of train order No. 529, reading as follows:

From eight naught one 801am until six thirty 630pm westward main track between east cross over Castilla MP 684.1 and cross over Gomex MP 688.6 will be out of service during the specified times and between designated locations all trains will use eastward main track and will have no time table or train order superiority and trains moving between designated locations will be governed by instructions from conductor flagman located at east cross over Castilla MP 684.1 and cross over Gomex MP 688.5 after condr flagman has conferred with dispatcher.

No. 61, consisting of Diesel-electric engine 550, of the 4-unit type, 66 cars and a caboose, departed from Thistle, the last open office, at 10:27 a.m., 7 hours 55 minutes late. At Castilla the crew received a message signed by the conductor stationed at Castilla and reading as follows:

Conductor-Flagman at crossover Gomex M.P. 688.6 is nolding all eastward trains for your arrival.

No. 61 departed from Castilla on the eastward main track at 10:35 a.m., and while moving at a speed of about 25 miles per nour it collided with Extra 543 East.

At Provo, 13.6 miles west of Gomex, the crew of Extra 543 East, an east-bound freight train, received copies of train order No. 529. This train, consisting of Diesel-electric

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engine 543, of the 4-unit type, 34 cars and a caboose, departed from Provo at 10:15 a. n., and passed Springville, 8.2 miles west of Gomex and the last open office, at 10:28 a. m. At Gomex the crew received a message signed by the conductor stationed at Gomex and reading as follows:

Conductor-Flagman at East crossover M.P. 684.1, Castilla is holding all westward trains for your arrival.

Extra 543 departed from Gomex on the eastward main track at 10:45 a.m., and while moving at an estimated speed of 25 miles per hour it collided with No. 61.

The engine of each train, the first five cars of No. 31, and the first three cars of Extra 543 were denailed and badly damaged.

The weather was clear at the time of the accident, which occurred about 10:50 a.m.

The engineer, the fireman, the front brakeman and the conductor of No. 61, and the engineer, the fireman and the front brakeman of Extra 545 East were injured.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 42.2 trains.

# Discussion

The investigation disclosed that at the time of the accident track forces were engaged in relaying rail between Gomex and Castilla, and the westward main track throughout a distance of 4.5 miles between crossovers in the vicinity of these stations was out of service. Train order No. 529 establishing the enstward main track as single track was issued, and trains moving in either direction were being operated on this track. The train order also contained the provision that in this territory trains would not be governed by train-order and timetable authority, but would proceed in accordance with written instructions issued by conductors on duty at Gomex and Costilla. A telephone for communication on the train dispatcher's circuit was located 663 feet west of the west switch of the crossover at Gomex, and a similar telephone was located 2,805 feet west of the west switch at Castilla. The train dispatcher's circuit was not provided with equipment to ring these telephones, therefore, the only time one conductor could start a conversation with the other conductor was when the latter was listening on the telephone. The conductors were instructed orally by an assistant trainmaster to confer with the train dispatcher by telephone in regard to the approximate arriving time of trains,

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and, before either conductor authorized a train to proceed, the instructions provided that they would confer with each other and arrange movements in such manner that opposing trains would not be permitted to occupy the single-track territory simultaneously. The employees concerned in this investigation understood these provisions.

During a conversation about 10 a.m. the dispatcher informed the conductors that Extra 543 East would probably arrive at Gomex early enough for it to proceed to Castilla for Later, because Extra 543 East had been delayed, he announced on the telephone that No. 61 should be permitted to proceed to Gomex for Extra 543 East. The conductor at Gomex said that he did not hear the latter announcement made by the dispatcher, and he understood that Extra 543 East was to be permitted to proceed to Castilla for No. 61. The conductor at Castilla said he thought the conductor at Gomex was listening on the telephone when the dispatcher announced that No. 61 should be permitted to proceed to Gomex for Extra 543 East. Without communicating with the conductor at Gomex, about 10:35 a. m. the conductor at Castilla issued written instructions to No. 61 that opposing trains would be held at Gomex until No. 61 had arrived at that station, and, without communicating with the conductor at Castilla, about 10:45 a.m. the conductor at Gomex issued written instructions to Extra 543 East that opposing trains would be held at Castilla until Extra 543 East had arrived at that station. The crew of each train had no knowledge that the other train had been authorized to proceed on the eastward main track between Gomex and Castilla, and these trains entered this territory and proceeded in accordance with the instructions issued by the conductors. This resulted in an overlapping of authority of the trains involved. collision occurred on the eastward main track, 1.27 miles east of Gomex. Because of embankments adjacent to the track on the curve in this vicinity, the members of the crew on the engine of each train were unable to see the other train more than a few hundred feet. Action to stop their respective trains was taken by the engineers, but the collision occurred before either train was stopped. The last automatic signal which Extra 513 passed displayed approach, and the engineer assumed that another train was proceeding eastward in the block anead.

In the double-track territory on this line trains are operated frequently in either direction on the same track, and it has been the practice to authorize these movements in the manner in which the trains involved in this accident were being operated. The book of operating rules of this carrier provides that when one of two or more tracks is being used as single track, the movement of trains on such track will be governed by the rules applicable to operation on single track. Under the rules, Extra 543 East would have been required to clear

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the time of No. 61, unless train-order authority providing for the movement of Extra 543 East on the time of No. 61 was issued by the train dispatcher and copies of the order delivered to the crew of each train.

The automatic block-signal system in use in this territory does not provide protection for movements against the current of traffic. Although the eastward main track was being used as single track the operation of the trains involved simulated movement against the current of traffic, and the means provided to authorize such movements do not afford protection equivalent to that provided for movements with the current of traffic. If an adequate block system had been in use to provide protection for trains moving against the current of traffic in this territory, these opposing trains would not have been permitted to occupy the same block simultaneously.

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It is found that this accident was caused by failure of the Denver and Rio Grande Western Reilroad Company to provide adequate safeguards for the movement of trains against the current of traffic.

# Recommendation

It is recommended that the Denver and Rio Grande Western Railroad Company provide an adequate block system for operation of trains against the current of traffic.

Dated at Washington, D. C., this sixteenth day of May, 1945.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL, Secretary.