

INTERSTATE COMMERCE COMMISSION

WASHINGTON

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REPORT NO. 3499

ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY

IN RE ACCIDENT

NEAR CEDARS, OKLA., ON

DECEMBER 30, 1952

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SUMMARY

Date: December 30, 1952

Railroad: St. Louis-San Francisco

Location: Cedars, Okla.

Kind of accident: Head-end collision

Trains involved: Freight : Passenger

Train numbers: Extra KCS 1304 : 704  
South

Engine numbers: Diesel-electric : Diesel-electric  
unit 1304 unit 615

Consists: 10 cars, caboose : 3 cars

Estimated speeds: 40 m. p. h. : 45 m. p. h.

Operation: Timetable and train orders

Track: Single; 4° curve; 1.0 percent  
ascending grade southward

Weather: Cloudy

Time: 5:15 p. m.

Casualties: 1 killed; 28 injured

Cause: Copies of train order held by the  
crews of trains involved not  
reading alike

INTERSTATE COMMERCE COMMISSION

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REPORT NO. 3499.

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

ST. LOUIS-SAN FRANCISCO RAILWAY COMPANY

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February 24, 1953

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Accident near Cedars, Okla., on December 30, 1952, caused  
by copies of a train order held by the crews of trains  
involved not reading alike.

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

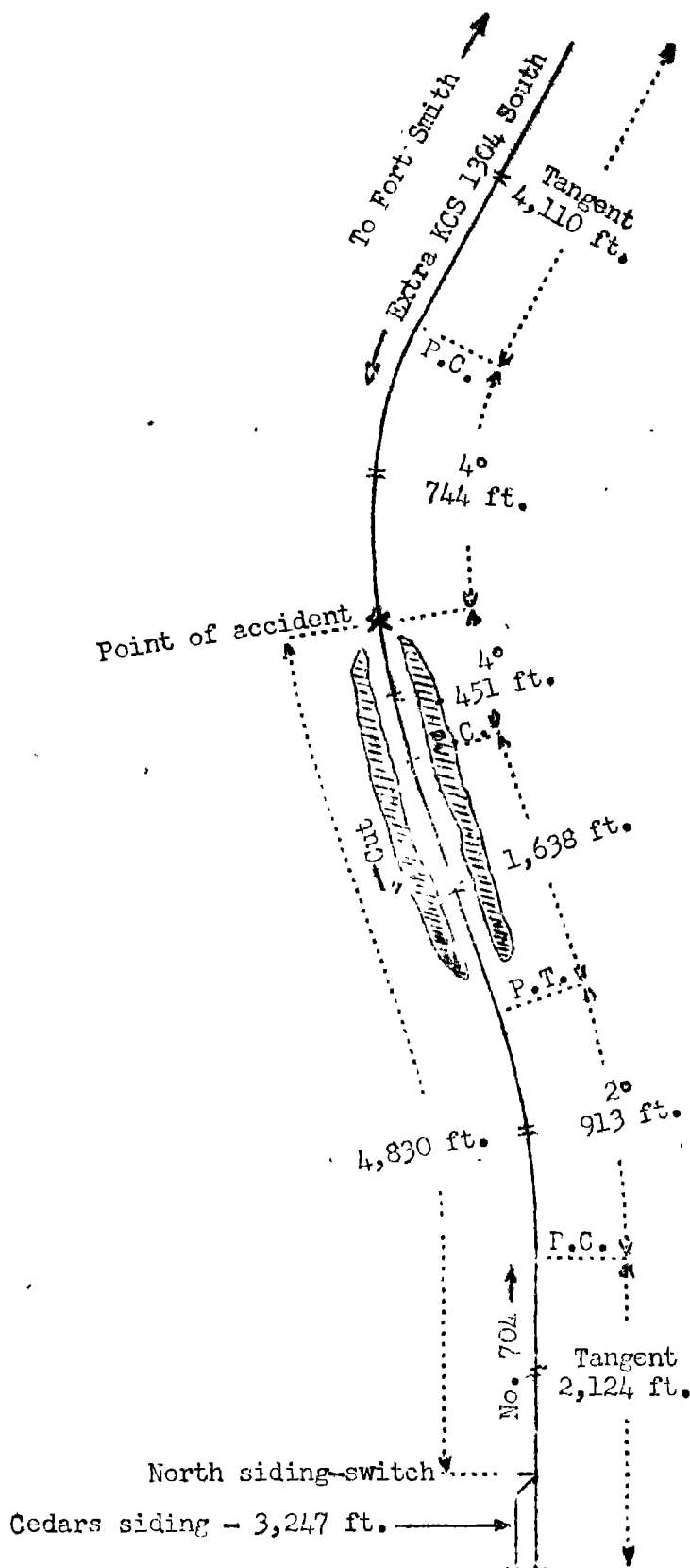
PATTERSON, Commissioner:

On December 30, 1952, there was a head-end collision between a freight train and a passenger train on the St. Louis-San Francisco Railway near Cedars, Okla., which resulted in the death of 1 train-service employee, and the injury of 18 passengers, 2 railway-mail clerks, 1 railway-express messenger and 7 train-service employees.

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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.



o	Fort Smith, Ark.
	1.60 mi.
o	S.F. Junction, Ark.
	5.68 mi.
X	Point of accident
	0.82 mi.
o	Cedars, Okla.
	2.80 mi.
o	Bonanza, Ark.
	10.30 mi.
o	Cameron, Okla.
	7.90 mi.
o	Poteau
	62.20 mi.
o	Clayton, Okla.
	52.30 mi.
o	Hugo, Tex.
	24.80 mi.
o	Paris, Tex.

Report No. 3499  
St. Louis-San Francisco Railway  
Cedars, Okla.  
December 30, 1952

Location of Accident and Method of Operation

This accident occurred on that part of the Central Division extending between Fort Smith, Ark., and Paris, Tex., 168.4 miles. Trains of the Kansas City Southern Railway, hereinafter referred to as the K.C.S., are regularly operated over that part of this division extending between S.F. Junction, Ark., and Poteau, Okla., located, respectively, 1.6 miles and 29.1 miles south of Fort Smith. 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. At Cedars, Okla., 8.1 miles south of Fort Smith, a siding 3,247 feet in length parallels the main track on the west. The accident occurred on the main track at a point 4,830 feet north of the north siding-switch at Cedars. From the north there are, in succession, a tangent 4,110 feet in length and a 4° curve to the left 744 feet to the point of accident and 451 feet southward. From the south there are, in succession, a tangent 2,124 feet in length, a 2° curve to the left 913 feet, a tangent 1,638 feet and the curve on which the accident occurred. At the point of accident the grade is 1.0 percent ascending southward. Immediately south of the point of accident the track is laid in a cut, the walls of which rise from about track level at the north end of the cut to a height of 16 feet above the level of the tops of the rails at a point 900 feet south of the point of collision.

This carrier's operating rules read in part as follows:

73. Extra trains are inferior to regular trains.

S-87. \* \* \*

Extra trains must clear the time of opposing regular trains not less than five minutes unless otherwise provided \* \* \*

\* \* \*

202. Each train order must be given in the same words to all employes or trains addressed.

205. Each train order must be written in full in a book provided for the purpose at the office of the dispatcher and with it recorded the names of those who have signed for the order; the time and signals which show when and from what office the order was repeated and the response transmitted, and the dispatcher's initials at top of each page in train order book. These records must be made at once and never from memory or memoranda.

206. \* \* \*

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In transmitting or repeating train orders by telephone, train and engine numbers will be pronounced, and each figure named separately, except numbers below 10 must be spelled, in addition to pronouncing them, the names of stations and numerals must be first pronounced plainly, then spelled, letter by letter,  
\* \* \*

\* \* \*

\* \* \* When transmitted by telephone, he must write the order as he transmits it and underscore each word and figure, including train order number and address at the time of each repetition.

208. A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. \* \* \*

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209. Operators receiving train orders must write them in manifold during transmission. \* \* \*

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#### FORMS OF TRAIN ORDERS

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E.

TIME ORDERS.

\* \* \*

(4) No 1 run 1 hour late A to G.

\* \* \*

This makes the schedule time of the train named, between the stations mentioned, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later time as before required to run with respect to the regular schedule time.

\* \* \*

The maximum authorized speeds in the vicinity of the point of accident were 55 miles per hour for passenger trains and 45 miles per hour for freight trains.

#### Description of Accident

Extra KCS 1304 South, a south-bound K.C.S. freight train, consisted of Diesel-electric unit 1304, 10 cars and a caboose. At Fort Smith on the K.C.S. line, 7.28 miles north of the point of accident and the last open office, members of the crew received, among others, copies of train order No. 56, reading as follows:

No 704 Eng 615 run 30 mins late  
Hugo to Fort Smith

This train departed from Fort Smith at 5 p. m., entered the St. L.-S.F. main track at S.F. Junction and proceeded southward, and while moving at an estimated speed of 40 miles per hour it collided with No. 704 at a point 4,830 feet north of the north siding-switch at Cedars.

No. 704, a north-bound first-class St.L.-S.F. passenger train, consisted of Diesel-electric unit 615, one baggage-mail car, one baggage car and one coach, in the order named. All cars were of conventional all-steel construction. At Hugo, Okla., 143.6 miles south of Fort Smith, members of the crew received copies of train order No. 56, reading as follows:

No 704 Eng 615 run  
20 mins late Hugo to  
Fort Smith

This train departed from Hugo at 1:58 p. m., 21 minutes late, departed from Cameron, 13.92 miles south of the point of accident and the last open office, at 4:54 p. m., 21 minutes late, passed Cedars about 30 seconds after 5:14 p. m., 20 minutes late, and while moving at a speed of about 45 miles per hour it collided with Extra KCS 1304 South.

The Diesel-electric unit of Extra KCS 1304 South, the first four cars and the front truck of the fifth car were derailed. The Diesel-electric unit stopped on its left side, south of the track and under the front of the locomotive of the opposing train. The first three cars stopped in various positions on or near the track. The fourth car and the front truck of the fifth car stopped in line with the track. The Diesel-electric unit and the first three cars were badly damaged. The fourth car was slightly damaged.

The Diesel-electric unit and the first car of No. 704 were derailed. The Diesel-electric unit overrode the frame of the locomotive of the opposing train and stopped about upright, with the front end on that unit. The first car stopped in line with the track. The rear drawbar of this car was damaged and a separation occurred between the first and second cars. The Diesel-electric unit and the first car were badly damaged. The second car was somewhat damaged and the third car was slightly damaged.

The engineer of Extra KCS 1304 South was killed. The fireman and the front brakeman of Extra KCS 1304 South, and the engineer, the fireman, the conductor, the flagman and the train porter of No. 704 were injured.

The weather was cloudy and it was dusk at the time of the accident, which occurred about 5:15 p. m.

During the 30-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 8.47 trains.

#### Discussion

The rules of this carrier provide that extra trains are inferior to regular trains. Extra trains must clear the time of opposing regular trains not less than 5 minutes unless otherwise provided. Each train order must be given in the same words to all employees or trains addressed. When train orders are transmitted by telephone, the dispatcher is required to write them in full during transmission in a book



provided for the purpose. Operators receiving an order must write it in manifold during transmission and then repeat it to the dispatcher, who must underscore in the train-order book each word and figure, including train order number and address at the time of each repetition. The time and signals which show when and from what offices the order was repeated, the responses transmitted, and the dispatcher's initials must be recorded. These records must be made at once and never from memory or memoranda.

The crew of Extra KCS 1304 South received copies of train order No. 56 from the K.C.S. operator at Fort Smith about 4:35 p. m. This train departed from Fort Smith at 5 p. m., entered the St.L.-S.F. main track at S.F. Junction and proceeded southward. As this train was approaching the point where the accident occurred the speed was about 45 miles per hour. The headlight was lighted brightly. The brakes of this train had been tested and had functioned properly when used en route. The engineer, the fireman and the front brakeman were maintaining a lookout ahead from the cab of the Diesel-electric unit. The conductor and the flagman were in the caboose. All members of the crew had read and understood the train orders. They had ascertained from the timetable that the regular schedule time of No. 704 at Cedars was 4:54 p. m. and understood from their copy of train order No. 56 that No. 704 was due to leave that station at 5:24 p. m. They had discussed order No. 56, and all were aware that their train was required to take the siding and to be clear of the main track at Cedars not later than 5:19 p. m. for No. 704. Because of track curvature, the walls of a cut and vegetation adjacent to the track, the view from the cab of a locomotive approaching the point of accident from either direction is restricted to a distance of about 1,200 feet. The fireman and the front brakeman said that they called a warning when they observed the headlight of No. 704. The engineer immediately made an emergency application of the brakes and the speed was reduced to about 40 miles per hour at the point of collision. The members of the crew in the caboose said that the brakes were applied in emergency immediately before the collision occurred. The conductor said that after the impact occurred he immediately observed that his watch indicated a few seconds after 5:15 p. m.

The crew of No. 704 received copies of train order No. 56 at Hugo about 3 hours 30 minutes before the accident occurred. All members of the crew read and understood the order. The engineer, the fireman, the conductor and the flagman said that

they had compared time when they went on duty at Paris about 12:20 p. m., and there was a variation of only a few seconds between their watches. The members of the crew said that their train proceeded with respect to the run-late order, and that the last stop south of the point of accident was at Bonanza, Ark., 2.8 miles south of Cedars. Station work was performed and the train departed from this point at 5:10 p. m., 20 minutes late. As this train was approaching Cedars the speed was about 45 miles per hour. The headlight was lighted brightly. The brakes of this train had been tested and had functioned properly when used en route. The engineer and the fireman were maintaining a lookout ahead from their respective positions in the cab of the Diesel-electric unit. The conductor was seated at the desk in the forward end of the coach. The flagman and the train porter were on the rear platform of the coach. The members of the crew said they observed that it was after 5:14 p. m. when their train passed Cedars. The flagman sounded the communicating signal to shut off train heat and opened the steam valve at the rear of the coach when the locomotive was in the vicinity of the north siding-switch. The engineer said that the fireman left the cab momentarily in response to the communicating signal and returned about the time that he observed the headlight of the opposing train about 400 feet distant. He said that he made an emergency application of the brakes and called a warning. The fireman said that he entered the forward compartment of the Diesel-electric unit only long enough to shut off the steam heat apparatus. When he returned to the cab he observed the headlight of a train closely approaching and heard the exhaust from the brake valve as the engineer applied the brakes in emergency. He thought the collision occurred before the speed of the train had been materially reduced.

Immediately after the accident occurred, members of the crew involved compared their copies of train order No. 56. It was discovered that the copies of the order delivered to the crew of Extra KCS 1304 South contained the instruction that No. 704 run 30 minutes late Hugo to Fort Smith but copies of the order bearing the same number delivered to the crew of the superior train at Hugo contained the instruction that No. 704 run 20 minutes late between the designated stations

The investigation disclosed that train order No. 56 was issued about 1:30 p. m. by the first-trick dispatcher. As recorded in the train-order book, the order read that No. 704 would run 20 minutes late from Hugo to Fort Smith. It was transmitted simultaneously by telephone to the operators at Hugo, Clayton and Cameron. The order was not transmitted

to the K.C.S. operator at Fort Smith at that time because Extra KCS 1304 South was not ready to depart. The order was transferred to the second-trick dispatcher when he went on duty at 4 p. m. The second-trick dispatcher said that he transmitted this train order to the K.C.S. operator when he was informed that Extra KCS 1304 South would be ready to depart about 5 p. m. He said that the order was transmitted by telephone exactly as it was written in the train-order book, that he clearly heard the operator correctly repeat the order over the loud-speaker in the dispatcher's office, and that he underscored, with slanting marks across previous underscorings, each word and figure of the order as it was repeated. The chief dispatcher said that he was engaged in other duties and he did not hear the order transmitted or repeated. The K.C.S. operator at Fort Smith said that he used a headset receiver and he copied the order without falling behind during transmission. He said that he immediately repeated the order exactly as he had written it, spelling out the names of stations and figures, letter by letter, and "Complete" then was given by the dispatcher at 4:30 p. m. The clerk on duty in the K.C.S. office said that he observed the operator copy the body of train order No. 56, and heard him repeat it from the manifold copy. The conductor of Extra KCS 1304 South said that he was in the office when the order was received but he was engaged in other duties and he did not hear the order repeated. He said that he read the order before he left the office and discussed with the operator the instruction that No. 704 run 30 minutes late between Hugo and Fort Smith. He consulted the timetable and informed the operator that his train probably would proceed to Cedars to clear No. 704.

Because the copies of the order delivered to members of the crew of Extra KCS 1304 South contained the instruction that No. 704 run 30 minutes late between Hugo and Fort Smith and those copies of the order delivered to members of the crew of No. 704 contained the instruction that No. 704 run 20 minutes late between the same stations, a lap of authority was created. Under these circumstances, both trains simultaneously had authority to occupy the main track at the point where the accident occurred.

Cause

It is found that this accident was caused by copies of a train order held by the crews of trains involved not reading alike.

Dated at Washington, D. C., this twenty-fourth day of February, 1953.

By the Commission, Commissioner Patterson.

(SEAL)

GEORGE W. LAIRD,  
Acting Secretary.