

TH RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED OF THE ST. LOUIS-SAN FRANCISCO RATIWAY NEAR WHITE OAK, OKLA., OR MAY \$1, 1920.

July 22, 1920.

On May 51, 1920, there was a head-end collision between two passenger trains on the St. Lewis-San Francisco Railway near white Car, Onla, which resulted in the death of 1 passenger, 2 employees, and 2 persons corried under contract, and the injury of 120 passengers and 14 employees. After investigation of this accident the Chief of the Bureau of Safety reports as follows:

Subdivision of the Southwestern Division which extends between Monett, Me., and Sapulpa, Okla., a distance of 155.3 miles. With the exception of two short double-track sections this is a single-track line over which trains are operated by time-table and train orders transmitted by telephone, no block-signal system being in use. Eastbound trains are superior by direction with a few exceptions, noted in the time-table, none of which have any bearing on this accident.

The accident occurred on single track. Approaching the point of accident from the east the track is tangent for nearly 2,000 feet, followed by a 3-degree curve to the right 1,000 feet in length; the accident occurred near the center of this curve. Approaching the curve from the west the track is tangent for 1 mile. The grade is 1 per cent descending for eastbound trains. The curve on which this accident occurred is laid around the base

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of a hill, resulting in the view being materially restricted. At the time of the accident the weather was clear.

Eastbound passenger train No. 112 consisted of 1 mail and baggage car, 1 baggage car, 1 combination baggage car and coach, 1 coach, 1 chair car, and 4 Pullman sleeping cars, in the order named, hauled by engine 1049, and was in charge of Conductor Goodspeed and Engineman Dunham. At Claremore the crew of train No. 112 received a copy of train order No. 86, form 31, reading as follows:

"No. 112, engine 1049 weit at White Oak until 12:17 a. m. for No. 403 engine 1330."

Under its time-table schedule train No. 112 would have passed White Oak at 12.12 a.m. At Chelsea, 12.4 miles west of White Oak, the crew received a copy of train order No. 88, form 19, reading as follows:

Worder No. 34 and 86 annulled. No. 403 wait White Cak until 12.36 a.m. W1tt 12.44 a. m. Catale 12.50 a.m. Ohelsea 1.00 a.m. Bushyhead 1.10 a.m. Foy11 1.14 a.m. 1.20 a.m. Sequoyah 1.25 a.m. Degroat

As the train-order board at White Oak was clear, train No. 112 passed that point without stopping, at 12:12 a.m., on time, and at 12:14 a.m. collided with train No. 403 at a point about 1-1/8 miles east of White Oak while traveling at a speed estimated to have been about 40 or 45 miles an hour.

Westbound passenger train No. 403 consisted of 3 baggage cars, 1 coach, 2 chair cars, and 1 Pullman sleeping car, in the

erder named, hauled by engine 1330, and was in charge of Conductor Putnam and Engineman Ferguson. Train No. 403 left Monett, the initial station on this subdivision, at 7.55 p. m., I hour and 25 minutes late, and on its arrival at Afton the crew received a copy of train order No. 86, form 19, previously quoted. It arrived at Vinita, 7 miles east of White Cak, at 11:50 p. m., 2 hours late, at which point a copy of train order No. 88, form 31, quoted above, was delivered to Conductor Putnam. The engine crew of this train was changed at Vinita, Engineman Randall relieving Engineman Ferguson. Train No. 403 left Vinita, the last open telegraph office, at 12:05 a. m., I hour and 55 minutes late, and at 12:14 a. m. collided with train No. 112 while moving at a speed estimated to have been between 40 and 45 miles an hour.

both engines came to rest in an upright position across the track, headed east, in a badly damaged condition. The first ear in train No. 112, an all-steel car, came to rest on the west side of the track and was practically demolished. The next car in that train came to rest on the east side of the track and was slightly damaged. The first four cars of train No. 403 were telescoped, the third, a wooden car, being practically demolished and the others badly damaged. The employees killed were the enginemen of both trains.

Approaching the point of accident the firemen of train

No. 112 looked out and saw a headlight about 4 car-lengths distant.

He at once called to the engineman, who was on the outside of the curve, and jumped from the engine. He did not know whether the

engineman made an application of the air brakes. The fireman of train No. 403 said that the first he knew of the approach of train No. 112 was when the engineman remarked "He is over there," at the same time looking at his watch and saying that it was about 30 seconds after 12.13 a. m. The engineman then said that train No. 112 was coming and twice told the fireman to jump, at the same time applying the air brakes in emergency.

Conductor Putnam went into the telegraph office when train No. 403 arrived at Vinita, where he signed for train order No. 88, and he claimed to have read it back to the operator, although the operator denied that this was done. Conductor Putnam said he then went to a restaurant near the station, where he delivered a copy of train order No. 88 to Engineman Randall, who relieved Engineman Ferguson at Vinita. In one statement he said the engineman read the order to him. in another that he read it to the enginemen and that the enginemen took it and started toward the engine without saying anything. He did not compare any of his orders with Engineman Randall and did not at any time show train order No. 88 to the brakemen or train porter, or say anything to them about it. At 12.04 s. m., or about 1 minute before the departure of his train, he went to the engine and according to his own statement told the engineman to pull up and back in at the west switch or to go as far as he could. After departing fram Vinita. Conductor Putnam was engaged in taking up tickets and did not notice the movement of his train until it had gotten beyond the west end of the yard, when he pulled the air-whistle signal

cord, but got no response. He then thought that the engineman was going to Nemo, the station between Vinita and White Oak, for train No. 112, although he knew that the siding at Nemo was nearly always blocked and was very seldom used for meeting trains. He heard the noise of his train passing some tank cars on the siding at Nemo, and realizing that his train was passing that point on the time of train No. 112, it being 12.13 or 12.14 a. m., he pulled the air-whistle signal cord, but got no response. He claimed that he pulled the signal cord three times in all, and then opened the conductor's emergency valve, which had no effect, the train continuing until it collided with train No. 112 at a point nearly 2 miles beyond Nemo. He was very much excited, and did not know exactly where his train was when he opened the conductor's valve.

Randall, stated that the engineman manded him three train orders; train order No. 88 was not among them, and he did not think the engineman received that order. Fireman Walsh did not see the clearance card. He supposed that his train had until 12.17 a.m. to reach White Cak for train No. 112 and was satisfied that the engineman was of the same opinion.

According to the porter of train No. 403, the conductor entered the restaurant and said that his train would leave Vinita at 12.05 a.m. and had until 12.17 a.m. to reach White Oak.

Neither the brakeman or porter knew anything about the conductor signalling for the engineman to stop, or of the conductor opening

the emergency valve, their first knowledge of anything wrong being when they felt the brakes applied just before the accident occurred.

Engineman Ferguson said that he handed the orders he received prior to arriving at Vinita to Engineman Randall and talked with him about them, he was sure Engineman Randall understood them as he remarked that if his train left Vinita by 12.05 a.m. it would be able to reach White Oak by 12.17 a.m. Engineman Ferguson did not know anything about train order No. 88.

A passenger stated he saw Conductor Putnam deliver an order or orders to Engineman Randall in the restaurant. Conductor kandall, a half-brother of Engineman Randall, stated that the orders taken from the clothes of Engineman Randall were given to him by another engineman and that they consisted of the orders and clearance card issued to Engineman Perguson at Afton.

This accident was caused by train No. 403 occupying the main track on the time of train No. 112, a superior train, due to the failure of Conductor Putnam to be governed by train order No. 88, which annulled a previous order giving his train time against train No. 112, and to the failure of Engineman Randall either to be governed by the same order or to remain at Vinita until he had received the proper clearance on the train-order board.

Conductor Putnam claimed to have delivered the order to Engineman Randall, but said that he did not compare with the engineman any of the orders which had been issued prior to the arrival of the train at Vinita and that he did not show train order No. 88 either to his brakeman or train porter. According to his

own statement he told Engineman Randall, just before the train started, either to back into the yard at Vinita or to go as far as he could against train No. 112, but said nothing to the brakeman or porter about being ready to handle the switches in case the train backed into clear for train No. 112. Although a statement was made that the air-whistle signal cord had not worked properly on the preceding trip, there is no evidence supporting Conductor Putnam's claim that he pulled the signal cord on three different occasions and that the engineman paid no attention to his signals, or that Conductor Putnam tried to stop the train by opening the emergency valve when he realized that it was passing Hemo, but there is evidence which indicates that the air brakes were first applied by Engineman Randall after he had seen train Nc. 112 approaching. It is believed that Conductor Putner's attitude toward the operation of his train is fully covered by his own statement that he left with Engineman Randall the entire responsibility of clearing train No. 112. Conductor Putnam was extremely negligent for his failure to compare orders with Engineman Randall and to have a definite understanding with him as to where his train would meet train No. 112. He was fully aware that his train was leaving Vinita only 7 minutes before train No. 112 was due to leave White Oak. 7 miles distant, and had he shown a proper regard for the eafety of his train he would not have permitted it to depart from Vinita until train No. 112 arrived. For these reasons primary responsibility for this accident rests upon Conductor Putnam.

From the fact that Engineman Randall left Vinita at 12.05 a. m., and proceeded beyond Nemo toward White Oak on the time of train No. 112, it seems apparent that he did not know the contents of train order No. 88; there is considerable doubt whether Engineman Randall received train order No. 98 and therefore knew that the order giving his train until 12.17 a. m. to reach White Oak for train No. 112 had been annualled. If he received the order, then he is equally responsible with Conductor Putnam for operating his train on the time of train No. 112; if he did not receive the order, then he is at fault for leaving Vinita without a clearance card, form 2041, as the evidence indicates that the train-order board was displayed while train No. 403 was standing at the station.

Fireman Walsh was also negligent in failing to see that Engineman Randall had the proper clearance card before leaving Vinita. Had he made an attempt to see the clearance card required at Vinita he would easily have discovered whether Engineman Randall had received the proper clearance eard and orders, and if these had not been delivered to the engineman the error would have been discovered and the accident probably prevented.

Engineman Randall entered the service of this railroad was as wiper in July, 1891. promoted to fireman in 1992, and to engineman in 1900. His record was good. Conductor Putnam entered the service in 1883, and in 1893 was discharged for responsibility in connection with a rear-end collision. In May, 1901. he was reemployed as a brakeman and in October of the same year was

promoted to conductor. In 1910 he was promoted to passenger conductor. His record was good. Fireman Welsh was employed as a fireman in 1913 and promoted to engineman in February, 1920. At the time of the accident Conductor Putnam had been on duty 6 hours and 14 minutes after having been off duty for over 29 hours, while Engineman Randall and Fireman Walsh had been on duty 24 minutes after an off-duty period of almost 15 hours.

This accident developed that the transfer of train orders from one engineman to another when changing engine erews at Vinita is done in a careless manner, the engineman going off duty often giving orders to the new fireman instead of handing them to the new engineman personally, as required by the rules.