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INTERSTATE COMMERCE COMMISSION

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REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE WESTERN PACIFIC RAILROAD AT SUNOL, CALIF., ON NOVEMBER 28, 1930.

December 31, 1930.

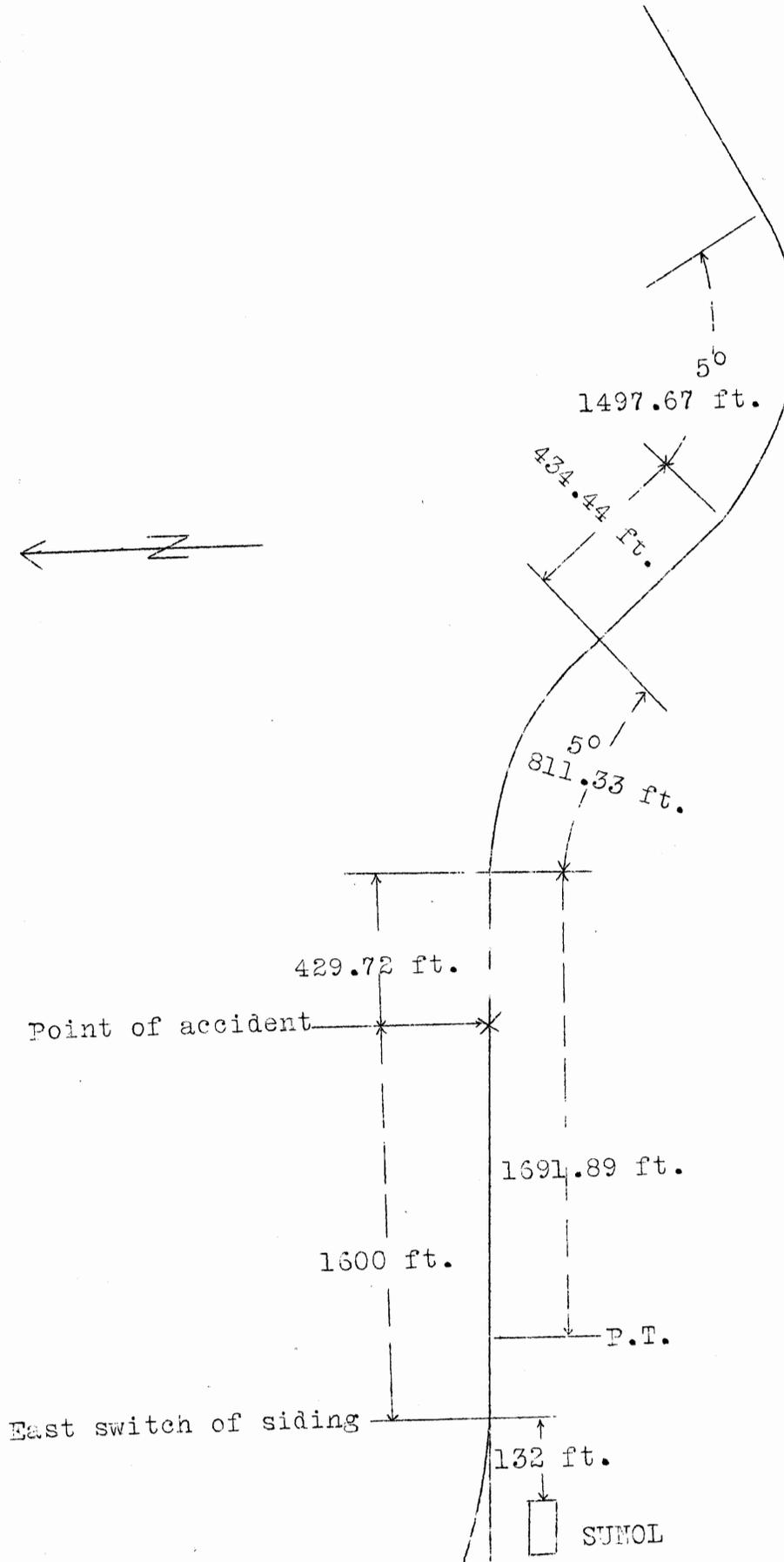
To the Commission:

On November 28, 1930, there was a rear-end collision between two freight trains on the Western Pacific Railroad at Sunol, Calif., which resulted in the death of four employees. The investigation of this accident was made in conjunction with a representative of the Railroad Commission of California.

Location and method of operation

This accident occurred on the First Sub-Division of the Western Division, extending between Stockton and San Francisco, Calif., a distance of 93.8 miles. In the vicinity of the point of accident, this is a single-track line over which trains are operated by time-table and train orders, no block-signal system being in use. The point of accident was 1,600 feet east of the east switch of the passing track, this switch being located approximately 132 feet east of the station. Approaching the point of accident from the east, there is tangent track for a distance of 1,960 feet, a 5° curve to the right 1,497.67 feet in length, including spirals, tangent track for a distance of 434.4 feet, and a 5° curve to the left 811.33 feet in length, including spirals, followed by 1,691.89 feet tangent track, the collision occurring on this latter tangent at a point 429.72 feet from its eastern end. The grade is descending for westbound trains for more than 2 miles approaching the point of accident, the accident occurring on a vertical curve at the bottom of this descending grade. The passing track parallels the main track on the north. The maximum speed for freight trains permitted by time-table rules is 40 miles per hour and 25 miles per hour between Niles, 6.3 miles west of Sunol, and Mile Post 37½, Sunol being located within this territory at Mile Post 36.

Approaching the point of accident from the east, a view of the markers on a caboose at that point could be had from the fireman's side of an engine for a distance of approximately 2,000 feet, and an entirely unobstructed view could be had from the fireman's side for a distance of 1,015 feet; a direct view could be had from the engineman's side for a distance of approximately 568 feet.



Inv. No. 1679
Western Pacific Railroad
Sunol, Calif.
November 28, 1930

The weather was clear at the time of the accident, which occurred between 9.43 and 9.45 p.m.

Description

Westbound second-class freight train No. 61 consisted of 31 loaded cars and a caboose, hauled by engine 41, and was in charge of Conductor Risk and Engineman Ferguson. At Stockton Yard, 56 miles east of Sunol, the crew received, among others, a copy of train order No. 37, Form 19, reading in part as follows:

"No. 4 wait at Niles Junction ten three 1003 pm,
Sunol ten fourteen 1014 pm."

The scheduled time of train No. 4 at Niles Junction is 9.45 p.m., and at Sunol it is 9.56 p.m. Train No. 61 is also due to leave Sunol at 9.56 p.m. having a time-table meet at that point with train No. 4. The crew of train No. 61 also received a clearance card calling attention to the orders received at this point. Train No. 61 departed from Carbona, the last open office, 35.8 miles east of Sunol, at 7.35 p.m., on time, and proceeded to Sunol, where the head end of the train was brought to a stop near the east passing-track switch preparatory to taking the siding for train No. 4. After a momentary stop for the purpose of opening the switch, train No. 61 proceeded but it had moved only two or three car-lengths when its rear end was struck by extra 37.

Westbound freight train extra 37 consisted of nine loaded and one empty cars and a caboose, hauled by engine 37, and was in charge of Conductor McCully and Engineman Middleton. The crew received, among others, a copy of train order No. 37, Form 19, previously mentioned, at Stockton Yard, together with a clearance card. This train passed Carbona at 8.42 p.m. and collided with the rear end of train No. 61 at Sunol while traveling at a speed estimated by the members of the crew to have been between 15 and 20 miles per hour.

The caboose of train No. 61 was demolished; the next car came to rest on its side down the embankment on the right or north side of the track, badly damaged, and the second car from the caboose received slight damage but was not derailed. The engine, tender and first car in extra 37 came to rest on their right sides down the embankment on the north side of the track, badly damaged, and the second car in extra 37 received slight damage but was not derailed. None of the remaining equipment of either train was derailed or damaged. The employees killed were the flagman of train No. 61, and the engineman, fireman and head brakeman, of extra 37.

Summary of evidence

Conductor Risk, of train No. 61, stated that his train was being operated on scheduled time, and that as it was brought to a stop at Sunol he looked at his watch and it was then about 9.44 p.m. At this time he was sitting in the left side of the cupola, while the flagman was on the right side. As his train started ahead, he looked back and saw the reflection of a headlight shining through the trees. He left the cupola, picked up a fusee, lighted it and stepped out on the rear platform of the caboose, swinging the fusee until the approaching train was on the tangent track; he then jumped to the ground, still swinging the fusee, and when he saw that the approaching train was not going to stop he started to run back, but had only gone about a car-length when the train passed him and the collision occurred about one minute after his train stopped, or at 9.45 p.m. Conductor Risk said that when he last saw the flagman he was still in the cupola, that the markers on the caboose were burning red and in good condition, and that upon approaching Sunol no fusee had been thrown off. He was thoroughly familiar with the requirements of the flagging and operating rules, but said that he did not consider it necessary to protect the rear of his train on this occasion, as there were no other scheduled trains due at Sunol, and, according to the rules, inferior or extra trains should be 10 minutes behind his train, and that extra 37 should not have departed from Pleasanton, 5.5 miles east of Sunol, before 9.43 p.m., or 10 minutes after the schedule leaving time of his own train.

The statements of Engineman Ferguson and Fireman Van Hoorbeke, of train No. 61, substantiated those of Conductor Risk as to the time of their arrival at Sunol, and that about one minute elapsed between the time the train stopped and the time it started again preparatory to entering the siding. Engineman Ferguson further stated that had he been operating extra 37, he would have complied with the rule requiring trains to run 10 minutes apart and would not have passed Pleasanton until 9.43 p.m., and also would have approached Sunol with his train under control, expecting to find train No. 61 heading into the siding for train No. 4. He would have also expected to find a burning fusee or some other form of flag protection east of Sunol, in case train No. 61 was still on the main track. The statements of Head Brakeman Smith brought out nothing additional of importance.

Conductor McCully, of extra 37, stated that the train orders received at Stockton Yard were delivered to his engineman, as well as a train-register check which included train No. 61. He talked with the engineman as to where they would meet train No. 4 and said that they would make Niles Junction for that train at 10.03 p.m. Their first

stop was made at Livermore, 11.6 miles east of Sunol, where a hot box was taken care of, consuming about six minutes, and they departed from that point at 9.28 p.m. Conductor McCully talked with the engineman while at Livermore and said something to the effect that they could not go to Niles Junction for train No. 4 at 10.03 p.m., and the engineman agreed with him. He did not know at what time they passed Pleasanton, although he realized that under the rules his train should not pass that point until 9.45 p.m. under the 10-minute spacing rule. After leaving that point, he was riding on the left side of the cupola, with the flagman on the right side, and at a point about 1 mile east of Sunol he looked at his watch and it was then 9.45 p.m.; he remarked to Flagman Miller that they had only 16 minutes to go to Niles Junction for train No. 4 and said that they could not make it. Upon rounding the curve just east of the tangent track on which the accident occurred, Conductor McCully saw the caboose of train No. 61, saw the two red markers, and the conductor standing on the rear platform holding a fusee which was still burning white, not having changed to red when he first saw it. He said that apparently no one on the head end of his train saw the train ahead before he did, as about the time he first saw it the engine must have been entering the tangent track, and he felt the air brakes applied in emergency after the engine had entered the tangent track. Due to the curve, the engineman could not have seen the caboose of train No. 61 until he reached the tangent track, while the fireman was practically a new man and the conductor thought the head brakeman must have been sitting at the feet of the fireman and so could not see ahead. Conductor McCully said that he did not think that the speed limit had been exceeded at any time, the speed permitted being 40 miles per hour up to within $1\frac{1}{2}$ miles of Sunol, within which territory the restriction is 25 miles per hour, and he thought that shortly after entering that territory the engineman reduced the speed from 40 miles to 25 or 30 miles per hour, and at the time of the collision he estimated the speed to have been between 15 and 20 miles, stating that when the engineman applied the brakes in emergency the engine was less than 600 feet from the caboose of train No. 61. Conductor McCully further stated that he expected train No. 61 to be at Sunol for train No. 4, and knew that his own train did not have time to go beyond that point for train No. 4, although he did not take any action to prevent the engineman from operating the train at an excessive rate of speed approaching Sunol, and he thought that had he had sufficient presence of mind to have applied the brakes by means of the conductor's valve in the caboose, when he first saw train No. 61, it might have lessened the disastrous results of the collision. Conductor McCully also stated that he heard the engineman sound a whistle signal approaching Sunol, but he could not say whether or not it was a restriction signal or a highway crossing signal.

The statements of Flagman Miller, of extra 37, practically corroborated those of Conductor McCully. On passing Pleasanton he looked at his watch and he remembered the time as 9.38 p.m., and while he mentioned to the conductor the fact that train No. 61 was due by there at 9.33 p.m., he did not mention to the conductor the further fact that his own train was less than 10 minutes behind the schedule of train No. 61, although they discussed the matter of where train No. 4 was to be met and the conductor stated that if they did not have time to go to Niles Junction they would pull by and back in at Sunol; nothing definite, however, was decided upon. He further stated that train No. 61 was mentioned upon approaching Livermore; Conductor McCully looked at the time card and said that that train was due at Pleasanton at 9.33 p.m., and upon passing Pleasanton, he thought the conductor said something about the fact that train No. 61 must have been run as an extra from Carbona. Flagman Miller further stated that when the engine entered the tangent track and he saw train No. 61 with the conductor of that train on the platform with a fusee, he left the cupola, and as he did so he grabbed a handhold with one hand in order to steady himself, and the brake-valve handle with the other hand, but found that the air brakes had already been applied. He also said that as his train was approaching the 5° curve just east of the point of accident, he saw Head Brakeman Gostlin standing in the gangway of the engine on the engineman's side, holding a white lantern.

Train Dispatcher Jorz, of Sacramento, who was handling the territory on which the accident occurred, stated that the first knowledge he had of anything wrong was at 9.43 p.m., when the telephone circuit developed a bad hum and shortly afterwards he was advised by the telegraph operator in an adjoining office that all wires were out west of Sacramento. His telephone did not fail completely but it was a difficult matter to communicate with any one over it. At about 9.50 or 9.55 p.m. Conductor McCully, of extra 37, called to report the accident.

Conclusions

This accident was due to the fact that the crew of extra 37 disregarded the schedule of train No. 61 and followed train No. 61 too closely in violation of the ten-minute spacing rule; Conductor McCully and Engineman Middleton were in charge of extra 37 and they are primarily responsible for the occurrence of the accident.

Rule 91, of the Rules and Regulations of the Transportation Department, provides that unless some form of block signal is used, trains in the same direction must keep 10 minutes apart except in closing up at stations. The evidence indicates that at least Flagman Miller, of extra 37,

was aware of the fact that his train passed Pleasanton, the first station east of Sunol, at 9.38 p.m., only five minutes behind the schedule of train No. 61. He mentioned to the conductor the time of train No. 61 at Pleasanton but did not warn him they were violating the 10-minute spacing rule; in fact, their principal discussion seemed to have concerned the question as to whether or not they had time to make Niles Junction for train No. 4. This also was the question discussed by the conductor with the engineman when the stop was made at Livermore for a hot box, and while what transpired on the engine is only a matter of conjecture, it seems more than probable that those employees also overlooked the schedule of train No. 61 and were concerned principally with going as far as possible for train No. 4. While it can not be definitely stated that the speed limits were not obeyed by the crew of extra 37, the high average attained between various points en route makes it appear that the estimates made by the surviving members of the crew were minimum figures, and it is more than probable that the limit was being exceeded as the train approached Sunol. Rule 85 authorizes extras to pass and run ahead of second class trains, but it does not authorize their crews to ignore schedules or to ignore Rule 91.

Fireman Reichenbach, of extra 37, had made only five round trips over this territory prior to the time of the accident, and it is very possible that he was not familiar enough with this territory to establish his location, which may explain his apparent failure to see the markers of train No. 61, provided he was on his seat box. Head Brake-man Gostlin, a promoted man with an excellent record, was last seen standing in the gangway on the engineman's side, as extra 37 rounded the second 5° curve east of the point of accident. If he remained on the engineman's side then he would not have been able to see the rear end of train No. 61 until it also could be seen by the engineman.

Rule 99 provides in part that when a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection; by night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals. Conductor Risk and Flagman Smith were in the cupola of their caboose when train No. 61 stopped preparatory to taking the siding and no action towards the protection of the rear end of the train was taken by either one of them. No other scheduled train was due, and the crew had a right to expect that any extra which was following them would respect their schedule. On the other hand, the view approaching the point of accident was considerably restricted on account of the curves just east of that point, and the use of a fusee might have prevented this accident, or at least have minimized its consequences.

All of the employees involved were experienced men, with the exception of Fireman Reichenbach, who entered the service of this railroad on October 16, 1930. None of them had been on duty in violation of any of the provisions of the Hours of Service Law.

Respectfully submitted,

W. P. BORLAND,

Director.