Inv-2263

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

LINE OF THE

SOUTHERN PACIFIC COMPANY

LOOMIS, CALIF.

MARCH 26, 1938

INVESTIGATION NO. 2263

SUMMARY

Inv-2262

Railroad:	Southern Pacific	
Date:	March 26, 1938	
Location:	Loomis, Calif.	
Kind of accident:	Rear-end collision	
Trains involved:	Freight	: Light engine
Train numbers:	533	:
Engine numbers:	4172	: 4152
Consist:	71 cars, caboose	:
Speed:	8-12 m.p.h.	: 10-25 m.p.h.
Track:	Straight; descending grade; automatic block signals	
Weather:	Clear	
Time:	1:25 p.m.	
Casualties:	1 killed; 2 injured	
Cause:	Failure properly to control speed of light engine, due to engineman falling asleep.	

Inv-2262

April 25, 1938.

To the Commission:

On March 26, 1938, there was a rear-end collision between a freight train and a light engine on the line of the Southern Pacific Company at Loomis, Calif., which resulted in the death of one employee, and the injury of one employee and one stock caretaker. This accident was investigated in conjunction with the Railroad Commission of California.

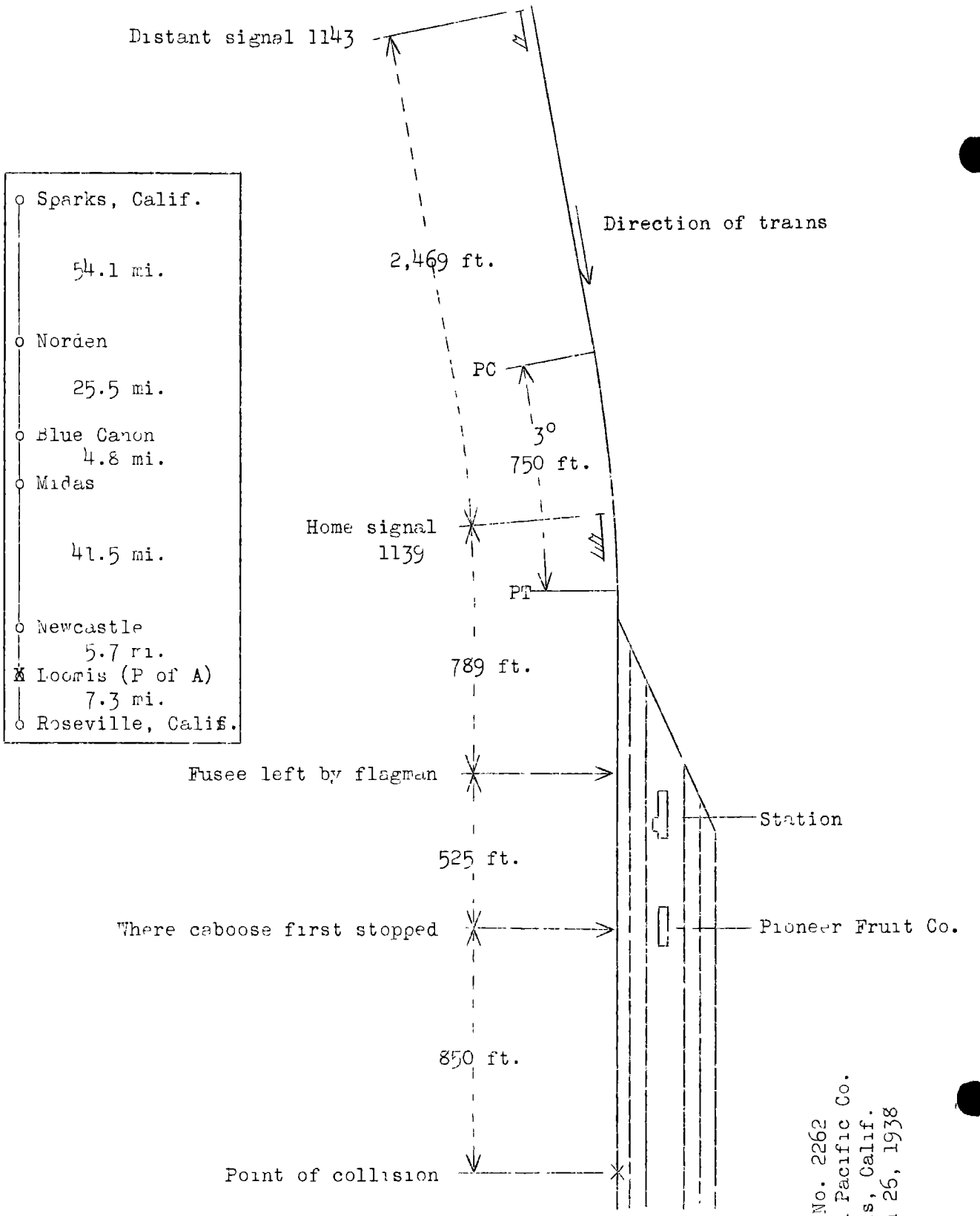
Location and method of operation

This accident occurred on that part of the Sacramento Division extending between Sparks, Nev., and Roseville, Calif., a distance of 138.9 miles; in the vicinity of the point of accident this is a double-track line, over which trains are operated by timetable, train orders and an automatic block-signal system. Because of grade variations, the westward and eastward main tracks are several miles apart at the point of accident, which was on the westward main track at a point 1,250 feet west of Loomis station. Approaching this point from the east the track is tangent for 2,311 feet, followed by a 3° curve to the right 750 feet in length, and then a tangent extending 2,094 feet to the point of accident, and for some distance beyond. The grade is descending for west-bound trains, ranging from 0.80 to 1.49 percent, and is at its maximum at the point of accident.

Distant signal 1143 and home signal 1139 are located 4,633 feet and 2,164 feet, respectively, east of the point of accident; they are semaphore signals, electrically lighted, and were displaying their proper indications. The view from signal 1139 to the point of accident is unobstructed.

Locomotive 4152, the light engine involved, burns oil and is arranged for running with the locomotive reversed; the cab is at the extreme front end, the smoke box and stack are thus at the rear, and the tender is coupled to the rear end of the locomotive. The engineman occupies a position to the right side of the track.

Rules 11, 99 and 509 of the rules and regulations of the transportation department provide in part as follows:



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11. Within block system or signal dispatching limits, a train finding an unattended fusee burning on or near its track may proceed without stopping, but must run with caution not exceeding fifteen miles per hour, for a distance of one-half mile.***.

99. When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure protection; one-fourth mile from rear of train, if such distance has been reached before being recalled, he must place one torpedo on the rail; one-half mile from rear of train, or at the point from which recalled if less than one-half and more than one-fourth mile, he must place two torpedoes on the rail two rail-lengths apart; if less than one-fourth mile, he must, if safety to train requires, leave a lighted fusee. If conditions, such as curves, foggy or stormy weather, or descending grade, require, he must continue back a greater distance, placing two additional torpedoes. He may then return to the single torpedo, where he must remain until relieved by another flagman or recalled by the whistle of his engine. When recalled he may remove the single torpedo and return, unless a following train be seen or heard approaching under conditions in which his train may be overtaken by such train, in which event he must go toward the approaching train displaying stop signals.

When a train is seen approaching closely before flagman has reached the required flagging distance, he must immediately place one torpedo on the rail, and continue in the direction of the approaching train, displaying stop signals. By night, or by day when conditions warrant, a lighted fusee must be displayed.

By night, or by day when conditions warrant, flagman must leave a lighted fusee to protect his train while returning.***.

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 protection. By night, or by day when the view is obscured, lighted fusees must be thrown off at proper intervals.***.

509. When a block signal indicates "stop", *** train, after stopping, will proceed *** on double track,*** at once with caution, not exceeding twelve miles per hour. The engineer of a train entering a block as prescribed by rule 509 will be held responsible for an accident caused by encountering a train or obstruction in the block.

The weather was clear at the time of the accident, which occurred about 1:25 p.m.

Description

No. 533, a west-bound freight train, consisted of 71 cars and an all-steel caboose, hauled by engine 4172, and was in charge of Conductor Marling and Engineman Hoehner. This train left Sparks at 3:45 a.m., according to the train sheet, 2 hours 15 minutes late, passed Newcastle, 125.9 miles beyond, at 1 p.m., and on arrival at Loomis, 5.7 miles distant, it stopped for about 3 minutes in order to turn down the retainers. It departed at 1:22 p.m., according to the statements of employees, and had traveled a distance of about 25 car lengths and attained a speed of 6 to 12 miles per hour when the caboose was struck by light engine 4152.

Light engine 4152 was in charge of Engineman Danforth and Fireman Hand. This engine left Norden, 77.5 miles east of Loomis, at 9:55 a.m., passed Newcastle at 1:05 p.m., passed distant signal 1143, which was displaying a caution indication, and stopped momentarily at home signal 1139, which was displaying a stop indication; shortly thereafter it overtook and collided with the caboose of No. 533 while traveling at a speed variously estimated at from 10 to 25 miles per hour.

Engine 4152 telescoped the rear end of the caboose for a distance of about 4 feet, and the front end of the caboose telescoped the car ahead for a short distance; the second car ahead of the caboose was slightly damaged. The employee killed was a brakeman of train No. 533, and the employee injured was the conductor of that train.

Summary of evidence

Flagman Kenerelly, of No. 533, stated that the trip from Sparks to Loomis was made without incident. At Loomis his train stopped with the caboose opposite the Pioneer Fruit Company house, and he walked back at a brisk pace and had reached a point about 600 feet behind his caboose when he was recalled. He then lighted a 10-minute red fusee and left it on the engineman's side of the track at that point which is just east of the station, but since rule 99 does not require the placement of torpedo unless the flagman has reached a point ¼ mile or more to the rear of the caboose before being recalled he did not put any down. When he returned to his caboose he boarded the rear platform. Up to this time he had not seen or heard anything of the following light engine, but he then looked back and saw it coming around the curve; he did not pay any attention to it at that time, as he expected that it would slow down and stop. The first intimation he had of impending danger was after his train had moved down the hill a distance of

about 1,000 feet, and had attained a speed of about 10 or 12 miles per hour; at that time engine 4152 was about 750 feet behind and continued to draw nearer when it got so close that he heard the noise of its wheels clicking on the rails, he realized that something was wrong, and he shouted a warning to those inside the caboose and jumped. When the light engine passed him it was working steam. He estimated that at the time of collision the speed of engine 4152 was about 25 miles per hour, and that of his train about 10 or 12 miles per hour. Flagman Kenerelly said that he had complied with the requirements of rule 99, and that for protection he was relying on the burning fusee and not on the stop indication of home signal 1139. After the accident he observed signal 1139 displaying a stop indication.

Engineman Hoehner, of No. 533, stated that Loomis is not an inspection station, but is the point where retainers are turned down at the foot of the grade. About 2½ minutes after stopping there he recalled the flagman, and when he had received a proceed signal he departed and was holding the speed down to about 6 miles per hour by means of the independent brake, as is customary, in order to give each brakeman an opportunity to inspect a portion of the train. After moving about 15 car lengths the air brakes became applied and he thought the train had broken in two. The brake-pipe pressure carried was 80 pounds, and the main reservoir pressure was 125 pounds. He stated that it is commonly understood that at Loomis the flagman will go back without being whistled out, but that he will be whistled in.

Fireman Denny, Head Brakeman Martin and Fourth Brakeman Conner, of No. 533, estimated that their train had moved about 20 to 25 car lengths, and that the speed was between 6 and 10 miles per hour, when the accident occurred.

Engineman Danforth, of light engine 4152, stated that he was thoroughly familiar with helper service conditions in the mountain territory. On the night of March 24 he obtained a good 10 hours sleep and he got up about 9 a.m., March 25. At 12 noon, March 25, he had a large tooth extracted from his upper jaw and because of difficulty encountered during the extraction it was found necessary to administer an overdose of novocaine. After the extraction he was unable to rest well, but he did get 3 hours sleep between midnight and the time of his call, and this 3 hours was the only sleep he had in the 28¾ hours preceding the time of the accident. When called at 3:15 a.m. he felt all right. His engine helped an eastbound freight train up the hill, to Norden, a distance of 84.8 miles, and he did not have any trouble staying awake. After arriving at Norden at 9:30 a.m. he cut in the double-heading cock, and departed on the return trip at 9:55 a.m. His engine carried 80 pounds brake-pipe pressure and 110 pounds main reservoir pressure. Several stops were made en route and the brakes operated satis-

factorily in each instance. On the way down the hill he became drowsy; hoarseness developed and also pains in his shoulders and chest. He had been instructed by the doctor to use aspirin in case a contingency of this kind arose and twice he took doses of two tablets each. Approaching Loomis, distant signal 1143 was displaying a caution indication, and home signal 1139 a stop indication. He stopped at the home signal and saw a caboose about ¼ mile west of the station and a man, whom he took to be the flagman, standing alongside it; he figured that the flagman had been called in and that the train ahead was just getting started after having turned down retainers. He did not see any fusee. While his engine was standing at the home signal, the fireman called the position of the train order signal. He started his engine by using a drifting throttle, and a very short time afterward, while the engine was drifting slowly, he lost consciousness and had no recollection whatever as to what occurred until his fireman awakened him when the engine was about 20 or 30 feet from the caboose ahead; at that time his engine was still working steam through the opening of the drifting throttle. He had just time to apply the independent brake when the crash occurred. He could not estimate the speed of his engine. He attributed his lapse to the effects of the novocaine and aspirin and to the fact that he had had insufficient sleep before going on duty.

Fireman Hand, of light engine 4152, stated that after going up the hill to Norden his engine was turned on the table there and started the return trip with the cab at the front end. At Loomis it stopped about 6 car lengths east of home signal 1139; at that point he started the injector and called the indication of the train order signal. As his engine started ahead he saw the burning fusee just east of the station, but did not say anything, as he thought the engineman also had seen it, and, too, the speed of his engine was only about 8 miles per hour when passing the station; at that time he shut off the injector, and he heard the release of the independent brake. When he noticed the speed increasing he cautioned the engineman to be careful, and then turned to close the water valve. On looking up again he noticed that the caboose was then only about 5 car lengths away, and that the speed of his engine had increased to 10 or 12 miles per hour; he shouted "hold her", and when the engineman did not respond to this warning, he jumped across the cab and shouted "look out for that caboose". At that time his engine was still working steam and the caboose was only about 2 car lengths away. The engineman grabbed for the brake valve, but it was then too late to avert the accident. Fireman Hand said that the engineman seemed to be looking straight ahead, but he did not know whether the engineman's eyes were open; he was not aware that there was anything wrong with the engineman or he would have stopped the engine, himself.

Superintendent Hack said that in his opinion rule 99 did not require Flagman Kenerelly to put down torpedoes in this instance.

Conductor Marlin, of No. 533, was seriously injured in the accident and it was impossible to obtain a statement from him.

Discussion

Loomis was a point at which trains usually stopped in order to permit the brakemen to turn down retainers, and at this place it is customary for flagmen to provide protection without being whistled out. When No. 533 stopped at Loomis the flagman followed the usual procedure, and after the train had been standing approximately 2½ minutes he was recalled; before returning to his train he placed a burning 10-minute red fusee at a point approximately 525 feet behind the caboose, but as he had not reached a point ¼ mile behind the caboose he did not put down torpedoes.

The engineman of engine 4152 had had a tooth extracted about noon of the day prior to the accident, and had obtained only 3 hours sleep during the 28-hour period preceding the accident. Difficulty experienced during the extraction made necessary the administration of an overdose of novocaine. He felt all right when he went on duty, but later on hoarseness and also pains in his shoulders and chest developed and he took aspirin. Approaching Loomis he stopped at home signal 1139; at that time he saw caboose and the flagman of No. 533. Shortly after re-starting his engine he lost consciousness, and had no recollection whatever as to what was happening until his fireman's third warning aroused him. At that time the light engine was about 20 or 30 feet from the caboose ahead, and was traveling at a speed variously estimated to have been between 10 and 25 miles per hour, and it was too late to avert the accident. The engineman of the light engine attributed his lapse to the effects of the novocaine and aspirin, and to the fact that he had not obtained sufficient sleep before starting this trip.

In this case the rules did not require the placing of torpedoes, but there is a possibility that had torpedoes been required and used, the accident would have been prevented.

Conclusion

This accident was caused by failure properly to control the speed of a light engine, due to the engineman falling asleep.

Respectfully submitted,

W. J. PATTERSON

Director.