# INTERSTATE COMMERCE COMMISSION WASHINGTON

REPORT NO. 3588

SOUTHERN PACIFIC COMPANY

IN RE ACCIDENT

NEAR ALBANY, OREG., ON

AUGUST 26, 1954

# SUMMARY

Date: August 26, 1954

Railroad: Southern Pacific

Location: Albany, Oreg.

Kind of accident Rear-end collision

Trains involved: Freight Freight

Train numbers: Extra 5228 East ; 705

Engine numbers: Diesel-electric : Diesel-electric

unit 5228 unit 5201

Consists: 8 cars, caboose : 23 cars, caboose

Speeds: Standing : 16 m. p. h.

Operation: Timetable and train orders; yard

limita

Track. Single; 2°30' curve; 0.76 percent

descending grade eastward

Weather: Clear

Time: 9 20 a. m.

Casualties. 1 killed, 2 injured

Cause: Failure properly to control speed of

following train moving within yard

limits

#### INTERSTATE COMMERCE COMMISSION

### REPORT NO. 3588

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

# SOUTHERN PACIFIC COMPANY

September 30, 1954

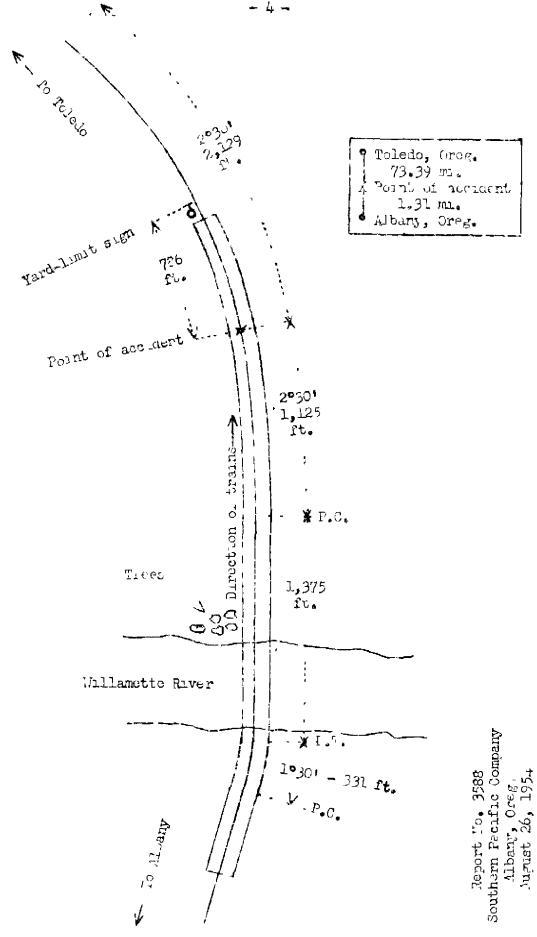
Accident near Albany, Oreg., on August 26, 1954, caused by failure properly to control the speed of the following train moving within yard limits.

# REPORT OF THE COMMISSION

# CLARKE, Commissioner

On August 26, 1954, there was a rear-end collision between two freight trains on the line of the Southern Pacific Company near Albany, Oreg., which resulted in the death of one train-service employee, and the injury of two train-service employees. This accident was investigated in conjunction with a representative of the Public Utilities Commissioner of Oregon.

Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Clarke for consideration and disposition.



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# Location of Accident and Method of Operation

This accident occurred on that part of the Portland Division extending between Albany and Toledo, Oreg., 74.7 miles, a single-track line, over which trains are operated by timetable and train orders. There is no block system in use. The accident occurred on the main track within yard limits at a point 1.31 miles east of the station at Albany and 786 feet west of the east yard-limit sign. From the west there are, in succession, a 1°30' curve to the left 331 feet in length, a tangent 1,375 feet, and a 2°30' curve to the left 1,125 feet to the point of accident and 2,129 feet westward. The grade is 0 76 percent descending eastward at the point of accident.

East of the station at Albany the railroad crosses the Willamette River on Bridge 691.65. This bridge consists of a 260-foot center Howe truss draw span flanked by two 140-foot through Howe truss spans. The west approach consists of an 820-foot open-deck pile trestle, and the cast approach consists of a 2,542-foot open-deck pile trestle. There are no walkways or railings on the trestles except at refuge bays. The accident occurred on the east approach to the bridge at a point 2,291 feet east of the center of the draw span. At this point the top of the trestle is 21.3 feet above the level of the ground.

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

## DEFINITIONS

Speeds:

\* \* \*

With Caution. To run at reduced speed, according to conditions, prepared to stop short of a train, engine, car, misplaced switch, derail, or other obstruction, or before reaching a stop signal. Where circumstances require, train must be preceded by a flagran.

11. \* \* \*

When an unattended fusee is burning on, or near, a track outside of block system limits, train must stop and not proceed until fusee has burned out.

\* \* \*

- 91. Outside of block system limits, trains in the same direction must keep not less than ten minutes apart. Lighted fusees must be thrown off for this purpose when necessary.
- 93. \* \* \* protection against second and inferior class trains, extra trains and engines is not required within yard limits.

Second and inferior class trains, extra trains and engines must move with caution on main track within yard limits unless track is known to be clear by signal indication.

# \* #

The maximum authorized speed for freight trains in the vicinity of the point of accident is 25 miles per hour.

# Description of Accident

Extra 5228 East, an east-pound freight train, consisted of Diesel-electric unit 5228, eight empty skeleton logging cars, and a caboose. This train departed from Albany at 9:05 a.m. and stopped on the main track within yard limits about 9:15 s.m. with the rear end 1.31 miles east of the station at Albany and 786 feet west of the east yard-limit sign. About 5 minutes later the rear end was struck by No. 706.

No. 706, an east-bound second-class freight train, consisted of Diesel-electric unit 5201, 23 cars, and a caboose. This train departed from Albany at 9:10 a.m., 1 hour 10 minutes late, and while moving at a speed of 16 miles per hour 1t struck the rear end of Extra 5228 East.

No. 706 stopped with the front of the locomotive 141 feet east of the point of accident. The front end of the locomotive was considerably damaged. The eighth car of Extra 5228 East dropped to the ground on the south side of the trestle. The rear end of the frame of the seventh car overrode the front platform of the caboose, passed completely through the caboose, and penetrated the front end of the locomotive of No. 706 to a depth of 18 inches. The third, fourth, and sixth

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cars were either derailed or off center. The center sills of the first, third, fourth, fifth, and sixth cars were tent, the rear end of the seventh car was damaged, and the eighth car and the caboose were destroyed.

The swing brakeman of Extra 5228 East was killed. The conductor and the flagman of Extra 5228 East were injured.

The weather was clear at the time of the accident, which occurred about 9:20 a.m.

The caboose of Extra 5228 East was constructed with a wooden superstructure and a steel underframe.

The Diesel-electric unit of No. 706 was of the roadswitcher type. The control compartment was located behind the engine compartment.

# Discussion

As Extra 5228 East was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment of the locomotive, the conductor and the swing brakeman were in the caboose, and the flagman was on the rear platform of the caboose. The train was stopped at a burning fusee which had been placed in the vicinity of the east yard-limit sign at Albany by the crew of a preceding train for the purpose of maintaining a 10-minute time interval behind their train. The flagman of Extra 5228 East said that soon after the train stopped he heard No. 706 approaching. When the locomotive of No. 706 became visible to him he gave stop signals from the steps of the caboose. His signals were not acknowledged, and when the locomotive of No. 706 reached a point about 450 feet west of the caboose he became concerned and warned the conductor and the swing brakeman. These employees stepped to the rear platform. No. 706 was moving at low speed, and until the locomotive was about 90 feet distant the employees on the caboose of Extra 5228 East did not realize that it would not stop short of the rear end of their train. Because of the height of the trostle, these employees did not attempt to descend to the ground. The swing brakeman and the flagman entered the caboose, and the conductor proceeded onto the cars ahead of the caboosc. The flagman said that as No. 706 was closely approaching he saw that the fireman was in his usual position in the control compartment of the locomotive and it appeared to him that the fireman was looking toward the north. The conductor of Extra 5228

East was so seriously injured in the accident that he was not questioned during this investigation. The employees on the locomotive of this train were not aware that anything was wrong until the collision occurred.

As No. 706 was approaching the point where the accident occurred the enginemen and the front brakeman were in the control compartment of the locomotive, the conductor was in the body of the caboose, and the swing brakeman and the flagman were in the cupola of the caboose. The brakes had been tested at Albany, the initial station for this train. As the locomotive was crossing Bridge 691.65 the fireman called the engineer's attention to two signalmen working on the trestle The engineer sounded a warning signal on the pneumatic horn, and the locomotive passed these men at a point about 1,600 fect west of the point of accident. After passing the men, the engineer reviewed the train orders in his possession. At this time the train was moving on a curve to the left. The engineer said that he was depending on the fireman to maintain a lookout shead and that the fireman appeared to be doing so. When he completed his review of the train orders he made a remark as to their contents. Almost immediately afterward he saw the caboose of Extra 5228 East ahead. made an emergency application of the brakes, and at approximately the same time the fireman called a warning. collision occurred before the speed of the train had been materially reduced. The fireman said that after the engineer sounded the warning signal he watched the men on the trestle until the front of the locomotive passed them. He said that the front brakeman then asked him the reason for the warning He turned to the brakeman and told him that there were men working on the trestle, and then turned toward the engineer when he heard him make a comment concerning the train When he looked ahead he saw the caboose of Extra 5228 East at a distance which he thought was about 250 feet. He immediately called a warning to the engineer. The front brakeman was unable to see the track ahead from his position on the brakeman's seat. The swing brakeman said that when the caboose reached a point about 1,800 feet west of the point of accident he observed the caboosc of Extra 5228 East. afterward there was a closure of slack in the train, and he assumed that the engineer was reducing speed preparatory to stopping short of the caboose. The locomotive had reached a point which he thought was about 200 feet west of the point of accident before he became aware that it would not stop short of the caboosc. He then called a warning to the flagman. The flagman immediately opened the conductor's valve, which was located on the right hand side of the cupola. The absence

of an exhaust indicated that the engineer had made an emergency application of the brakes at approximately the same time that the flagran opened the valve. All members of the crew of No. 706 estimated that the speed was between 10 and 12 miles per hour as the train approached the point of accident. According to the tape of the speed-recording device there was a gradual increase in speed from 12 miles per hour to 16 miles per nour throughout a distance of approximately 3,400 feet immediately west of the point of accident, and the speed was 16 miles per hour when the collision occurred.

After the accident occurred tests were made to determine the distance at which a caboose standing at the point of accident was visible from an approaching east-bound locomotive. A locomotive of the same type as Diesel-electric unit 5201 was used in these tests. It was found that a grove of trees north of the track obstructed the fireman's view of the caboose until the locomotive reached a point 1,331 feet west of the caboose. As the locomotive moved between this point and the point of accident the view of the caboose from the fireman's position in the control compartment was unrestricted. Because of curvature of the track, the caboose was not visible from the engineer's normal position in the control compartment until the front of the locomotive reached a point 142 feet west of the rear end of the caboose.

This accident occurred on a main track within yard limits. Under the rules of this carrier governing operation of trains within yard limits, No. 706 was required to be operated in such manner that it could be stopped short of a train or an obstruction

# <u>Cause</u>

This accident was caused by failure properly to control the speed of the following train moving within yard limits.

Dated at Washington, D C., this thirtieth day of September. 1954.

By the Commission, Commissioner Clarke.

(SEAL)

GEOPGE W. LAIRD.