

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 3685

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC
RAILROAD COMPANY

IN RE ACCIDENT

AT DUPLAINVILLE, WIS., ON

MAY 7, 1956.

SUMMARY

Date: May 7, 1956

Railroad: Chicago, Milwaukee, St. Paul
and Pacific

Location: Duplainville, Wis.

Kind of accident: Collision

Equipment involved: Passenger train : Motor-truck

Train number: Third 4 :

Locomotive number: Diesel-electric :
units 22B and 10B

Consist: 16 cars :

Estimated speeds: 70 m. p. h. : 35 m. p. h.

Operation: Timetable, train orders, and automatic
block-signal and cab-signal system

Tracks: Double; tangent; 0.28 percent descend-
ing grade eastward

Highway: Tangent; crosses tracks at angle of
61°23'; level

Weather: Cloudy

Time: 11:37 a. m.

Casualties: 114 injured

Cause: Failure to stop motor-truck short of
train moving over rail-highway grade
crossing

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3685

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

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC
RAILROAD COMPANY

June 25, 1956.

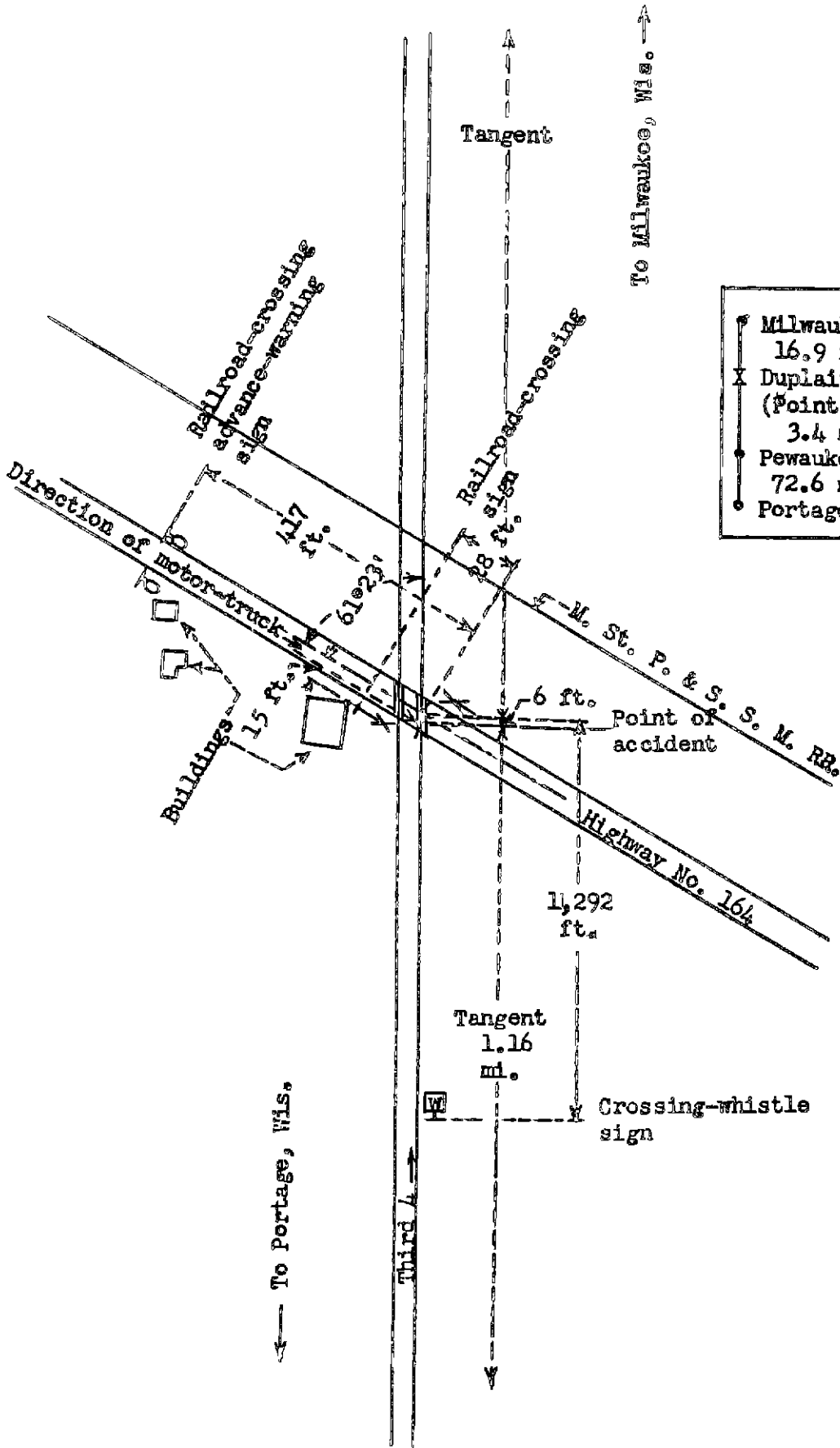
Accident at Duplainville, Wis., on May 7, 1956, caused by
failure to stop a motor-truck short of a train moving
over a rail-highway grade crossing.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On May 7, 1956, there was a collision between a passenger train on the Chicago, Milwaukee, St. Paul and Pacific Railroad and a motor-truck at a rail-highway grade crossing at Duplainville, Wis., which resulted in the injury of 112 passengers, the driver of the motor-truck, and 1 train-service employee.

¹Under 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.



•	Milwaukee, Wis.
	16.9 mi.
X	Duplainville (Point of accident)
	3.4 mi.
•	Pewaukee
	72.6 mi.
•	Portage, Wis.

Report No. 3685
 Chicago, Milwaukee, St. Paul and Pacific Railroad
 Duplainville, Wis.
 May 7, 1956

Location of Accident and Method of Operation

This accident occurred on that part of the LaCrosse and River Division extending between Portage and Milwaukee, Wis., 92.9 miles, a double-track line, over which trains moving with the current of traffic are operated by timetable, train orders, and an automatic block-signal and cab-signal system. The accident occurred on the eastward main track at Duplainville, 76.0 miles east of Portage, where the railroad is crossed at grade by Wisconsin State Highway No. 164. The main tracks are tangent throughout a distance of 1.16 miles immediately west of the crossing and a considerable distance eastward. The grade is 0.28 percent descending eastward at the crossing. At a point 519 feet east of this crossing the tracks are crossed at grade by a single-track line of the Minneapolis, St. Paul & Saulte Ste. Marie Railroad. In the vicinity of the latter crossing the tracks are laid on a fill from 6 to 7 feet in height.

Wisconsin State Highway No. 164 is surfaced with bituminous material to a width of 22 feet. The northeast angle of the intersection of the highway and the tracks is $61^{\circ}23'$. The crossing is 40 feet in width. A plank is laid on each side of each rail throughout the width of the crossing, and the remaining area of the crossing is surfaced with bituminous material. The highway is tangent throughout a distance of approximately 0.50 mile immediately north of the crossing and a considerable distance southward. Between points 300 feet and 100 feet north of the crossing the grade is 0.28 percent ascending southward, and it is practically level throughout a distance of 100 feet immediately north of the crossing.

A circular railroad-crossing advance-warning sign is located on each side of the highway at a point 417 feet north of the eastward main track. Each of these signs is mounted on a post and bears two diagonal lines intersecting at right angles and the letters "RR" in black on a yellow background. A railroad-crossing signal of the wig-wag type is located 15 feet west of the center-line of the highway and 28 feet north of the eastward main track. The banner is 8 feet above the level of the highway. A standard cross buck is mounted on the mast below this signal. It bears the words "RAILROAD CROSSING" in black on a white background. Below the cross buck there is a sign which bears the figure "2" and the word "TRACKS" in white on a black background. The warning aspect

is displayed by the swinging of the banner and the illumination of a hooded red light at its center. A similar signal is located in the southeast angle of the intersection. The latter signal is equipped with a warning bell. These signals are arranged for automatic operation when an east-bound train occupies any portion of the eastward main track throughout a distance of 2,801 feet immediately west of the crossing. A crossing-whistle sign for east-bound trains is located 1,292 feet west of the crossing.

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

14. ENGINE WHISTLE SIGNALS

* * *

The signals prescribed are illustrated by "o" for short sounds; "--" for longer sounds. * * *

* * *

Sound. Indication.

* * *

(1) -- -- o -- Approaching public crossings at grade * * *

17 (C). On * * * diesel-electric * * * powered trains, when full power headlight is not required it must be burning dim during daylight hours * * *

30. The engine bell must be rung * * * while approaching and passing public crossings at grade * * *

Motor vehicle laws of the State of Wisconsin read in part as follows:

85.92 Stop at railroad crossing. (1) No operator of a vehicle shall drive on or across a grade crossing with the main line tracks of any railroad * * * while any warning device signals to stop * * *

* * *

The maximum authorized speed for passenger trains in the vicinity of the point of accident is 90 miles per hour.

Description of Accident

Third 4, an east-bound first-class passenger train, con-

sisted of Diesel-electric units 22B and 10B, coupled in multiple-unit control, and 16 coaches. The cars were of light-weight construction. This train passed Pewaukee, 2.7 miles west of Duplainville and the last open office, at 11:34 a. m., 6 hours 20 minutes late. While it was moving at a speed of approximately 70 miles per hour the rear end of the locomotive and the front end of the first car were struck by a motor-truck at the intersection of the railroad and Wisconsin State Highway No. 164 at Duplainville.

The vehicle involved was a 1953 Mack dump truck, model B-42S, owned by John DeWar of Waukesha, Wis. It bore Wisconsin 1956 license XE-82. It was powered by a 6-cylinder 152-horsepower engine and was equipped with air brakes and with tandem axles and dual tires at the rear. At the time of the accident it was loaded with between 10 and 12 cubic yards of gravel. The driver was the sole occupant. This vehicle was moving southward on Wisconsin State Highway No. 164 at an estimated speed of 35 miles per hour when it entered the crossing and struck the side of Third 4.

The first 10 cars of Third 4 were derailed. Separations occurred at each end of the first, fourth, fifth, sixth, and seventh cars. The locomotive, which was not derailed, stopped with the front end 1,353 feet east of the crossing. The first car stopped on its left side at a point approximately 600 feet east of the crossing and 50 feet south of the tracks. The second and third cars stopped approximately in line with the tracks. The front end of the second car was 1,110 feet east of the crossing. The fourth car stopped with the front end on the track structure of the eastward main track and the rear end about 30 feet north of the track. The fifth car stopped on its left side, about 40 feet north of the eastward main track and parallel to it. With the exception of the first and fifth cars, none of the derailed cars overturned. The sixth and seventh cars stopped in diagonal positions across both main tracks. The eighth, ninth, and tenth cars stopped approximately in line with the tracks. The first, second, and fifth cars were badly damaged; the third, fourth, sixth, seventh, and eighth cars were considerably damaged; and the ninth and tenth cars were somewhat damaged. The rear end of the second Diesel-electric unit was slightly damaged. The motor-truck was demolished.

The conductor of Third 4 was injured.

The weather was cloudy and visibility was good at the time of the accident, which occurred at 11:37 a. 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 27.5 trains. During the 24-hour period beginning at 4 p. m., May 15, 1956, 1814 automobiles, 788 trucks, 9 buses, and 9 other vehicles passed over the crossing.

Discussion

As Third 4 was approaching the point where the accident occurred the speed was about 80 miles per hour. The engineer, the fireman, and a traveling engineer were in the control compartment at the front of the locomotive. The members of the train crew were in the cars of the train. The headlight was lighted dimly. The brakes of the train had been tested and had functioned properly when used en route. The engineer said that as the train was approaching the crossing-whistle sign west of Wisconsin State Highway No. 164 he made a 10-pound brake-pipe reduction to reduce the speed in compliance with a speed restriction of 70 miles per hour over the M. St. P. & S. S. M. crossing at Duplainville. He started the locomotive bell and began to sound the grade-crossing whistle signal when the locomotive was in the vicinity of the crossing-whistle sign. At about the same time he saw a motor-truck moving southward on Highway No. 164 at a distance which he thought was about 1/4 mile north of the crossing. He said that the truck was moving rapidly. The truck then disappeared from his view behind buildings along the highway. When the locomotive reached a point about 600 feet west of the crossing the truck again became visible to the employees on the locomotive through an opening between buildings. The engineer saw that the speed of the truck had not been reduced, and he moved the brake valve to service position and began to sound a series of warning blasts on the pneumatic horn. The truck then disappeared from his view behind a building, and he did not again see it before the collision occurred. According to the tape of the speed-recording device, the speed of the train was approximately 70 miles per hour when the collision occurred.

The driver of the truck said that as he approached the crossing there were no vehicles either close ahead or close behind him. He did not remember the speed at which he was driving nor the point from which he first saw the approaching train. He saw that the warning signals were in operation and that the train was approaching at approximately the same time, but he did not hear the signal bell, the locomotive bell, nor the pneumatic horn at any time. When he saw the train he immediately applied the brakes, and he thought that the speed of the truck had been reduced to about 35 miles per hour when the

collision occurred. The driver had had approximately 11 years experience as a truck driver. He was thoroughly familiar with the crossing involved.

The engineer of Third 4 said that when the train was in the vicinity of the crossing-whistle sign he saw that the warning signals at the crossing were in operation, but he did not again notice them. The train stopped with the rear end on the crossing, and the signals were in operation after the train stopped. When inspected after the accident occurred the warning signals functioned properly.

As a vehicle approaches the crossing from the north, the driver's view of an approaching east-bound train is obstructed intermittently by buildings and vegetation. Between points 200 feet and 50 feet north of the crossing, the distance at which an approaching east-bound train can be seen varies between 90 feet and 500 feet. After the vehicle reaches a point 40 feet north of the crossing the driver has an unobstructed view of an approaching east-bound train throughout a distance of 3,000 feet immediately west of the crossing.

Cause

This accident was caused by failure to stop a motor-truck short of a train moving over a rail-highway grade crossing.

Dated at Washington, D. C., this twenty-fifth day of June, 1956.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. McCOY,

Secretary.