

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT NO. 632

THE BUREAU OF CAR AND TRUCK INSURANCE

IN THE STATE OF

MISSISSIPPI

JUNE 28, 1955

SUMMARY

Date: June 28, 1955

Railroad: New York Central

Location: Syracuse, N. Y.

Kind of accident: Side collision

Equipment involved: Locomotive with : Freight
cars

Train number: : Extra 1098 West

Engine numbers: Diesel-electric : Diesel-electric
unit 855 units 1098, 3365,
and 3316

Consists: 2 coaches : 44 cars, caboose

Speeds: Standing : Less than 10 m. p. h.

Operation: Interlocking

Tracks: Double; tangent; 0.11 percent descending
grade westward

Weather: Clear

Time: 4:21 a. m.

Casualties: 28 injured

Cause: Failure to operate freight train in
accordance with signal indications

INTERSTATE COMMERCE COMMISSION

REPORT NO. 3638

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

THE NEW YORK CENTRAL RAILROAD COMPANY

August 10, 1955

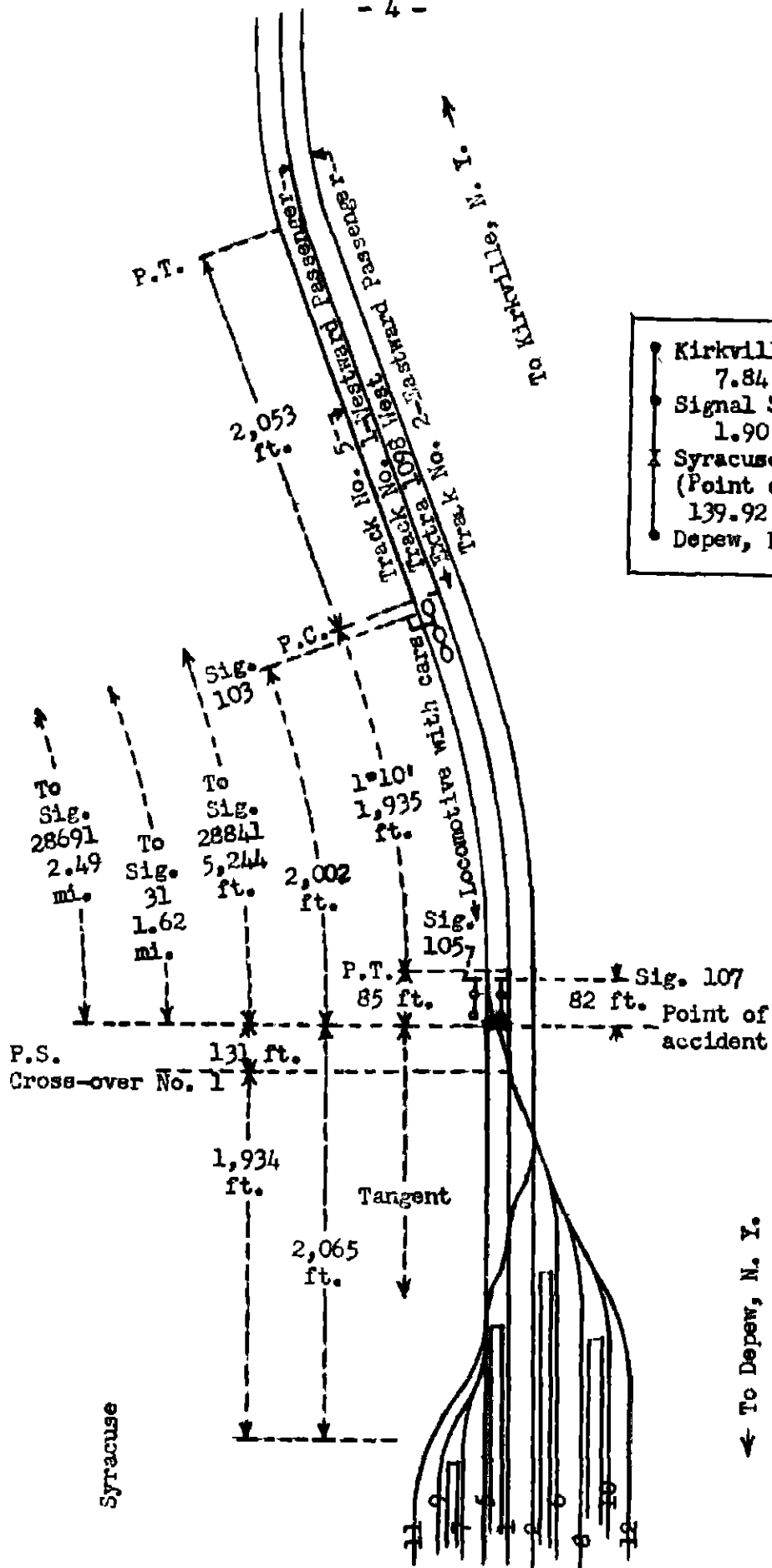
Accident at Syracuse, N. Y., on June 28, 1955, caused by
failure to operate the freight train in accordance
with signal indications.

REPORT OF THE COMMISSION¹

CLARKE, Commissioner:

On June 28, 1955, there was a side collision between a locomotive with cars and a freight train on the New York Central Railroad at Syracuse, N. Y., which resulted in the injury of 27 passengers and 1 train-service employee. This accident was investigated in conjunction with a representative of the New York Public Service Commission.

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.



•	Kirkville, N. Y.
•	7.84 mi.
•	Signal Station 48
•	1.90 mi.
•	Syracuse
•	(Point of accident)
•	139.92 mi.
•	Depew, N. Y.

Report No. 3638
 New York Central Railroad
 Syracuse, N. Y.
 June 28, 1955

← To Depew, N. Y.

Location of Accident and Method of Operation

This accident occurred on that part of the Syracuse Division extending between Kirkville and Depew, N. Y., 149.66 miles. In the vicinity of the point of accident this is a double-track line, over which trains moving with the current of traffic are operated by signal indications supplemented by an intermittent inductive automatic train-stop system. From north to south the main tracks are designated as No. 1, westward passenger, and No. 2, eastward passenger. At Syracuse, 9.74 miles west of Kirkville, eight tracks in addition to tracks Nos. 1 and 2 extend through the station. With the exception of track No. 5, which parallels track No. 1 on the north, these tracks diverge from tracks Nos. 1 and 2 a short distance east of the east ends of the station platforms at Syracuse and within interlocking limits at Signal Station 1. Track No. 5 extends eastward a considerable distance beyond the interlocking limits. At a point 1,934 feet east of the station a crossover connects tracks Nos. 1 and 5. This crossover, which is designated in this report as crossover No. 1, is trailing-point for west-bound movements on track No. 1 and is within interlocking limits at Signal Station 1. The accident occurred 131 feet east of the west switch of crossover No. 1, at the fouling point of the crossover and track No. 1. From the east on track No. 1 there are, in succession, a tangent 2,053 feet in length, a 1° 10' curve to the right 1,935 feet, and a tangent 65 feet to the point of accident and a considerable distance westward. From the east the grade is, successively, 0.32 percent ascending a distance of 2,780 feet, level 1,470 feet, 0.08 percent descending 1,540 feet, and 0.11 percent descending 1,260 feet to the point of accident.

Semi-automatic signal 105, governing west-bound movements from track No. 5 through crossover No. 1, is located 82 feet east of the point of accident. Automatic signal 28691, semi-automatic signal 31, automatic signal 28841, and semi-automatic signals 103 and 107, governing west-bound movements on track No. 1, are located, respectively, 2.49 miles, 1.62 miles, 5,244 feet, 2,002 feet, and 82 feet east of the point of accident. These signals are of the searchlight type. Signals 105 and 107 are two-unit dwarf signals. These signals are continuously lighted, and the other signals are approach lighted. Aspects applicable to this investigation and the corresponding indications are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>
105	Green-over-red	PROCEED; SLOW SPEED WITHIN INTERLOCKING LIMITS.
28691	Green-over-yellow staggered	PROCEED APPROACHING SECOND SIGNAL AT MEDIUM SPEED.
31	Green-over-yellow-over-red	PROCEED APPROACHING SECOND SIGNAL AT MEDIUM SPEED.
28841	Yellow-over-yellow staggered	PROCEED PREPARING TO STOP AT SECOND SIGNAL. TRAIN EXCEEDING LIMITED SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO LIMITED SPEED MUST COMMENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION.
103	Yellow-over-red-over-red	PROCEED PREPARING TO STOP AT NEXT SIGNAL. TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED. REDUCTION TO MEDIUM SPEED MUST COMMENCE BEFORE PASSING SIGNAL AND BE COMPLETED BEFORE ACCEPTING A MORE FAVORABLE INDICATION.
107	Red-over-red	STOP.

The controlling circuits are so arranged that when the blocks of signals 28691, 31, and 28841 are unoccupied, the block of signal 103 is occupied, and the route is lined for a west-bound movement, signal 28691 indicates Proceed-approaching-second-signal-at-medium-speed, signal 31 indicates Proceed-prepared-to-stop-at-second-signal, signal 28841 indicates Proceed-preparing-to-stop-at-next-signal, and signal 103 indicates Stop. When the blocks of signals 28691, 31, 28841, and 103 are unoccupied and the route is lined for a west-bound movement from signal 28691 to signal 107, signal 28691 indicates Proceed, signal 31 indicates Proceed-approaching-second-signal-at-medium-speed, signal 28841 indicates Proceed-preparing-to-stop-at-second-signal, and signal 103 indicates Proceed-preparing-to-stop-at-next-signal. Signal 31 is controlled from Signal Station 48, 1.90 miles east of Syracuse. Signals 103, 105, and 107 are controlled from Signal Station 1.

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

SIGNAL DEFINITIONS

Limited Speed.--A speed not exceeding forty-five miles per hour.

Medium Speed.--A speed not exceeding thirty miles per hour.

Slow Speed.--A speed not exceeding fifteen miles per hour.

34. The engineman and fireman must, and when practicable the trainmen will, communicate to each other the indication of all signals affecting the movement of their train.

The maximum authorized speed for freight trains is 60 miles per hour, but it is restricted to 50 miles per hour in the immediate vicinity of the point of accident.

Description of Accident

About 4:20 a. m. locomotive 383, coupled to the east end of two occupied coaches, moved westward on track No. 5 from a point a short distance east of signal 105. This movement passed signal 105, which indicated Proceed-slow-speed-within-interlocking-limits, entered crossover No. 1, and stopped with the coaches on the crossover. The more westerly coach was struck by Extra 1098 West either immediately before or immediately after it stopped.

Extra 1098 West, a west-bound freight train, consisted of Diesel-electric units 1098, 3365, and 3316, coupled in multiple-unit control, 44 cars, and a caboose. This train passed Signal Station 44 at Kirkville at 4:10 a. m., passed signal 28891, which indicated Proceed-approaching-second-signal-at-medium-speed, and passed signal 51, which indicated Proceed-approaching-second-signal-at-medium-speed, at 4:13 a. m. It passed signal 28841, which indicated Proceed-preparing-to-stop-at-second-signal, passed signal 103, which indicated

Proceed-preparing-to-stop-at-next-signal, passed signal 107, which indicated Stop, and while moving on track No. 1 at a speed of less than 10 miles per hour it struck the coach on crossover No. 1.

The more westerly coach was derailed to the north and stopped against the side of the locomotive of Extra 1098 West. It leaned to the north at an angle of approximately 45 degrees. This coach was somewhat damaged, and the other coach was slightly damaged. Extra 1098 West stopped with the front of the locomotive 92 feet west of the point of accident. The front of the first Diesel-electric unit was slightly damaged.

A passenger brakeman who was in the derailed coach was injured.

The weather was clear at the time of the accident, which occurred about 4:21 a. m.

Discussion

About 20 minutes before the accident occurred No. 35, a west-bound passenger train, stopped on track No. 1 at the station at Syracuse. The train consisted of a locomotive and 19 cars. The fourteenth to the seventeenth cars, inclusive, were to be set off at Syracuse. Locomotive 855 was coupled to the rear end of the train, the fourteenth to the nineteenth cars, inclusive, were detached, and the locomotive moved through crossover No. 1 to track No. 5 with these cars. The fourteenth to the seventeenth cars, inclusive, were placed on track No. 5 west of crossover No. 1, and the locomotive then moved east of signal 105 with the rear two cars. The fireman, a qualified engineer, was operating the locomotive. The locomotive was headed westward. After the route was lined for movement from track No. 5 to track No. 1 a westward movement was started. As the cars were moving through crossover No. 1 one of the yard brakemen observed that Extra 1098 West was approaching on track No. 1 and would not stop short of signal 107. He gave a stop signal, and at the same time the engineer observed the approaching train and called a warning. The fireman immediately made an emergency application of the brakes. The more westerly coach was struck by Extra 1098 West either immediately before or immediately after the movement was stopped.

West

As Extra 1098/ was approaching the point where the accident occurred the speed was approximately 60 miles per hour. The enginemen and the front brakeman were maintaining a lookout ahead from the control compartment at the front of the locomotive. The headlight was lighted. The brakes of the train had been tested at Selkirk, 141.6 miles east of Kirkville, and had functioned properly when used in controlling the speed at Utica, 42.2 miles east of Kirkville. The block of signal 103 was occupied by a preceding train at the time Extra 1098 West approached signal 28691, and signal 28691 indicated Proceed-approaching-second-signal-at-medium-speed. The indication was called by the employees on the locomotive, and the engineer made a service application of the brakes before the locomotive passed the signal. When the speed had been reduced to about 40 miles per hour the engineer released the automatic brakes and applied the dynamic brake. Signal 31 indicated Proceed-approaching-second-signal-at-medium-speed, signal 28841 indicated Proceed-preparing-to-stop-at-second-signal, and signal 103 indicated Proceed-preparing-to-stop-at-next-signal. The indication of each signal was called by the employees on the locomotive. The engineer said the locomotive passed signal 103 at a speed of about 25 miles per hour. After the locomotive passed the signal he made a 7-pound brake-pipe reduction and then released the dynamic brake and increased the brake-pipe reduction to about 15 pounds. When the locomotive reached a point about 1,000 feet east of signal 107 the fireman and the front brakeman saw that the signal indicated Stop. They called the indication, and the engineer responded. The engineer said he thought at this time that the speed was being so controlled that the train would be stopped short of the signal. Because of curvature of the track and the locomotive and cars on track No. 5, signal 107 did not become visible to the engineer until the locomotive reached a point which he thought was about 450 feet east of the signal. When he saw the signal he became aware that the train would not stop before passing it, and he then moved the brake valve to emergency position. The train stopped with the front of the locomotive 174 feet west of the signal. The engineer said he thought an emergency brake application at the time the fireman and front brakeman called the indication might have stopped the train short of the signal, but at that

time he misjudged the speed and the distance and did not consider an emergency application necessary. The fireman and the front brakeman said that until the engineer made the emergency application of the brakes they thought the speed of the train was being properly controlled. According to the tape of the speed-recording device, the speed of the train was reduced from 60 miles per hour to 50 miles per hour as the train approached signal 28691. The speed was 50 miles per hour at signal 28691, 35 miles per hour at signal 31, 30 miles per hour at signal 28841, 25 miles per hour at signal 103, and was reduced from 25 miles per hour to less than 10 miles per hour within a distance of approximately 1,000 feet immediately east of the point of accident. The device does not record speeds of less than 10 miles per hour.

Cause

This accident was caused by failure to operate the freight train in accordance with signal indications.

Dated at Washington, D. C., this tenth day of August, 1955.

By the Commission, Commissioner Clarke.

(SEAL)

HAROLD D. MCCOY,
Secretary.