Inv-2409

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

NEW YORK CENTRAL RAILROAD

WICKLIFFE, OHIO

JANUARY 19, 1940

INVESTIGATION NO. 2409

SUMMARY

Inv-2409

Railroad:	New York Central	
Date:	January 19, 1940	
Location:	Wickliffe, Ohio	
Kind of accident:	Rear-end collision	
Trains involved:	Passenger	: Passenger
Train numbers:	Extra 5444 East	: Extra 5440 East
Engine numbers:	5444	: 5440
Consist:	8 cars	: 6 cars
Speed:	Standing	: 22 m. p. h.
Operation:	Automatic block-signal and automatic train-stop system	
Track:	Four; tangent; 0.12 percent ascending grade eastward	
Weather:	Clear	
Time:	10 p. m.	
Casualties:	10 injured	
Cause:	Failure to provide adequate flag protection for preceding train and failure to operate following train in accordance with signal indications	

Inv-2409

March 25, 1940.

To the Commission:

On January 19, 1940, there was a rear-end collision between two passenger trains on the New York Central Railroad at Wickliffe, Ohio, which resulted in the injury of three passengers, four dining-car employees, one Pullman employee and two train-service employees. This investigation was made in conjunction with representatives of the Public Utilities Commission of Ohio.

Location and Method of Operation

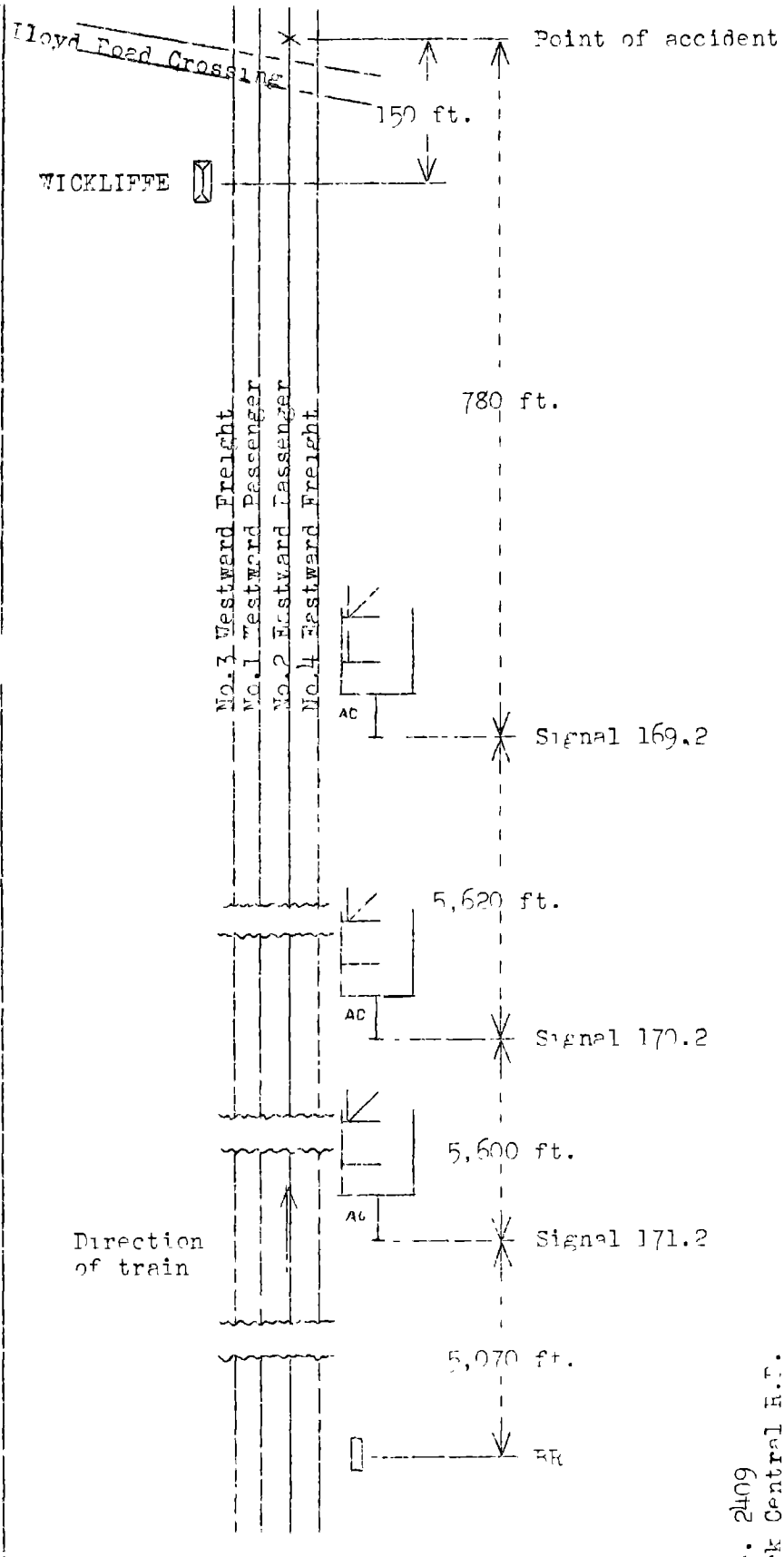
This accident occurred on that part of the Erie Division which extends between BR Signal Station, Ohio, and Bay View, N. Y., a distance of 163.4 miles. In the vicinity of the point of accident this is a 4-track line over which trains moving with the current of traffic are operated by an automatic block-signal and automatic train-stop system; signal indications supersede time-table superiority. The main tracks from south to north are: No. 4, eastward freight; No. 2, eastward passenger; No. 1, westward passenger, and No. 3, westward freight. The accident occurred on track No. 2 at a point 150 feet east of Wickliffe station. Approaching this point from the west there is a tangent which extends approximately 3 miles to the point of accident and 4 miles beyond. The grade is 0.12 percent ascending eastward at the point of accident.

The signals which govern eastward movements on track No. 2 are QD home signal, automatic-block signals 175.2, 174.2, and 173.2, BR home signal, automatic-block signals 171.2, 170.2, and 169.2, and are located, respectively, approximately 6 miles, 5.3 miles, 4.6 miles, 3.9 miles, 3.2 miles, 2.25 miles, 1.21 miles, and 780 feet west of the point of accident. All signals are approach-lighted one block in advance; the signals for tracks Nos. 2 and 4 become lighted simultaneously. The aspects and the indications of signals involved in this accident are as follows:

Aspect	Indication
Red-over-red-over-yellow	Proceed at restricted speed
Yellow-over-red-over-red	Proceed preparing to stop at next signal. Train exceeding medium speed when indication is seen must at once reduce to that speed.

- Buffalo, N.Y.
- 8.75 mi.
- Bay View
- 160.32 mi.
- Wickliffe (P.of A.)
- 3.08 mi.
- BR
- 3.00 mi.
- Collinwood
- 9.96 mi.
- Cleveland, Ohio

- Point of accident
- 780 ft.
- Sig. 169.2
- 5,620 ft.
- Sig. 170.2
- 5,600 ft.
- Sig. 171.2
- 5,070 ft.
- Home Sig. BR
- 3,565 ft.
- Sig. 173.2
- 3,835 ft.
- Sig. 174.2
- 3,650 ft.
- Sig. 175.2
- 3,840 ft.
- Collinwood



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New York Central R.R.
Wickliffe, Ohio
January 19, 1940

Yellow-over-green	Proceed approaching next signal at medium speed.
Yellow-over-red	Proceed preparing to stop at next signal. Train exceeding medium speed when indication is seen must at once reduce to that speed.
Red-over-red	Stop; then proceed at restricted speed.

Medium speed is defined as a speed not exceeding thirty miles per hour.

Restricted speed is defined as a speed not exceeding that which will enable a train to stop short of train ahead, obstruction, or switch not properly lined, and look out for broken rail.

The automatic train-stop system is of the intermittent-inductive type and engines are equipped with forestalling devices. When a brake application is forestalled by an engineman, the train may proceed under his control in accordance with operating rules.

Rules for the operation of the automatic train-stop system provide as follows:

> Rule 6. Enginemen must not forestall until after signal indication has been observed and is being obeyed.

Rules 16, 16 (k), 99, and D-251 of the operating rules and time-table special instruction D-251 read in whole or in part as follows:

> 16. Communicating Signals. Note. The signals prescribed are illustrated by "o" for short sound: "_____" for longer sounds.
>
> * * *
>
> 16 (k). Sound._____: Indication. When running - brakes sticking; look back for hand signals.
>
> * * *
>
> 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 full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusees. * * *
> * * *
>
> 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.
> * * *
>
> D-251. On portions of the road so specified on the timetable, trains will run with the current of traffic by block signals whose indications will supersede time-table superiority.
>
> D-251. Special time-table instructions.
> Rule D-251 governs:
> Between BV and BR.
> * * *

Bulletin instructions to employees, dated November 17, 1931, read as follows:

> Effective 12:01 AM, November 20th, 1931, on the Main Line between Chicago and Buffalo, discontinue displaying signals for additional sections, and instead, run them Extra.

The maximum authorized speed for the trains involved is 80 miles per hour.

The weather was clear and the temperature was approximately zero at the time of the accident, which occurred about 10 p. m.

Description

Extra 5444, an east-bound passenger train, with Conductor Purdy and Engineman Anderson in charge, consisted of engine 5444, one baggage car, three Pullman sleeping cars, one Pullman club car, two Pullman sleeping cars, and one dining car, in the order named; all cars were of steel construction. This train departed

from Collinwood, 6.08 miles west of Wickliffe, at 9:45 p. m., according to the evidence, passed BR, about 3.2 miles west of Wickliffe, at 9:54 p. m., stopped with its rear end 780 feet east of signal 169.2 because the brakes on the fourth car did not release, and the rear end was struck by Extra 5440 East.

Extra 5440, an east-bound passenger train, with Conductor Eppler and Engineman Hunt in charge, consisted of engine 5440, one passenger-baggage car, one coach, two Pullman sleeping cars, one Pullman club car, and one Pullman sleeping car, in the order named; all cars were of steel construction. This train departed from Collinwood at 9:48 p. m., according to the evidence, passed BR at 9:56 p. m., passed signal 170.2 displaying a yellow-over-red aspect, passed signal 169.2 displaying a red-over-red aspect, and, while moving at a speed of 22 miles per hour as indicated by the tape of the speed recorder with which engine 5440 is equipped, collided with the rear end of Extra 5444.

The impact shoved Extra 5444 ahead a distance of 21 feet. The engine and first four cars broke away from the rear portion and stopped 70 feet east of the fifth car. The rear pair of wheels of the front truck of the first car was derailed. The west truck of the rear car was derailed to the north side of the track. Engine 5440 telescoped the rear end of the rear car of the preceding train a distance of 8 feet and the wreckage fouled tracks Nos. 1 and 4. The front end of engine 5440 was considerably damaged. Because of a broken knuckle, the following train became parted between the second and third cars and the two portions stopped about 6 feet apart; the rear end of the second car was off center.

The employees injured were the conductor and the baggageman of Extra 5444.

Summary of Evidence

Engineman Anderson, of Extra 5444, stated that an air-brake test was made at Collinwood, and the brakes were reported as functioning properly. At Nottingham, about 1-1/2 miles east of Collinwood, he made a running air-brake test by means of a 15-pound brake-pipe reduction, after which he thought the brakes released properly. Soon after the train passed BR, when the speed was about 50 miles per hour, he heard one long blast sounded on the train air-signal whistle. He looked toward the rear of his train but, because of trailing smoke and steam obscuring his view, could not see signals. Just west of signal 169.2 he heard another long train air-signal whistle signal and at that time observed a fusee displayed toward the rear of the train by a member of the crew. He made a service application of the brakes and

the train stopped with the rear end standing just east of Wickliffe station. The brakeman told him that the brakes of a car were sticking, but he did not signal out the flagman because he expected the stop to be of short duration. He said that his train stopped at 9:55 p.m. and the accident occurred about 1 minute later. After stopping, he saw the headlight of Extra 5440 approaching from the rear but thought it was moving on track No. 4. He did not see his flagman at this time. A light snow was falling but it did not restrict his vision; signal aspects could be seen a distance of about 1 mile. All signals passed were displaying proceed indications for his train.

Fireman Bender, of Extra 5444, corroborated the statement of his engineman in all essential details.

Conductor Purdy, of Extra 5444, stated that an air-brake test was made at Collinwood. He did not know the reason for his train stopping at Wickliffe until after the accident occurred, when he was informed that the brakes on the fourth car would not release. He had just entered the rear car when he felt the brakes become applied, and he saw the flagman get off the rear of the train while it was moving at a speed of 5 or 6 miles per hour. The flagman started back immediately, waving stop signals with a lighted fusee. At this time the conductor observed the headlight of Extra 5440 about 1-1/2 miles distant and then started toward the front end of the train to ascertain the reason for the delay. He said that his train stopped about 9:55 p. m. and the collision occurred about 1-1/2 minutes later.

Brakeman Page, of Extra 5444, stated that when his train was approaching Wickliffe he was maintaining a lookout and discovered that the brakes on the fourth car had not released. He sounded one long blast on the train air-signal system to signal the engineman to look back for a hand signal. There being no response to the first signal, he lighted a fusee to signal the engineman and repeated the signal on the train air-signal system and with the fusee gave "brake sticking" signals to the engineman. The brakes were applied and the train stopped. He immediately got off the west end of the fourth car and observed that the brakes were released on the rear truck of that car but apparently were applied on the front truck. While examining the brakes he observed the headlight of Extra 5440 about 5 or 6 car lengths distant from the rear of his train and his flagman waving a lighted fusee. He said that visibility was unrestricted and a headlight could be seen a distance of several miles. He was of the opinion his train was stopped about 1 minute before the accident occurred. No previous difficulty with the brakes had been experienced during the trip from Toledo, Ohio, 122.64 miles west of Wickliffe.

Baggageman Hazen, of Extra 5444, stated that when his train stopped at Wickliffe he looked out the south vestibule door of the second car and saw a lighted fusee at the rear of his train. At the same time he saw the reflection from a headlight to the rear of his train and soon afterward the collision occurred.

Flagman Hoffman, of Extra 5444, stated that prior to the accident he experienced difficulty in keeping the south marker lighted and he placed it on the rear platform. When his train passed BR he was on the rear platform of the rear car and at that time became aware of an odor such as is given off when brake shoes are hot. Because there was no door at the south side of the rear platform he went to the front end of the car to inspect the south side of the train. He looked ahead and saw a "brake sticking" signal being given with a lighted fusee. When the brakes were applied he returned to the rear platform to provide flag protection and observed the headlight of an approaching train which he thought was about 3 miles distant. He immediately lighted a fusee and jumped off; at this time the speed of his train was about 8 miles per hour. Proceeding toward the approaching train, he waved stop signals with the fusee, but did not receive any acknowledgment. He succeeded in going back only 1 car length from the point where he alighted before Extra 5440 passed him. He stated that after the collision, which occurred about 45 seconds after he got off his train, he was standing about 1-1/2 car lengths ahead of the rear end of Extra 5440. He observed that the north marker on his train was still burning after the accident but he was unable to locate the south marker. He said that in most instances when the brakes are applied to release sticking brakes, it is unusual for the train to stop; consequently, in this instance, he did not anticipate that his train would be stopped and did not throw off a fusee. He understood that the automatic block system did not relieve a flagman from complying with the flagging rule; however, it was his opinion that, because of the density of traffic, many trains would be stopped if fusees were dropped off each time the brakes became applied.

Dining Car Steward Davenport, of Extra 5444, stated that after his train stopped at Wickliffe he observed the flagman waving a lighted fusee from a point about 5 car lengths west of the rear of the train; he also observed the headlight of an approaching train at a point very close to the flagman.

Engineman Hunt, of Extra 5440, stated that after he took charge of engine 5440 at Collinwood engine-house the automatic train-stop device was tested and it functioned properly. Before departure from Collinwood an air-brake test was made and the

brakes functioned properly. About 2 or 3 minutes after Extra 5444 departed, his own train departed from Collinwood. The first automatic signal passed was displaying a yellow-over-red aspect and at that time the speed of his train was about 20 miles per hour. The next signal was displaying a yellow-over-green aspect and he increased the speed to about 30 miles per hour, then made a running test of the brakes, which reduced the speed to 20 miles per hour. Yellow-over-red aspects were displayed at the next three signals and an automatic train-stop application of the brakes was forestalled at each of these signals. He was of the opinion that the speed of his train when passing these signals was between 40 and 45 miles per hour, and that he had ample distance in which to stop his train at any signal in advance. Because he was maintaining a constant lookout ahead for restrictive signal indications, he was unable to watch the speed as indicated by the speed recorder. Signal 170.2 was displaying a yellow-over-red aspect, which he acknowledged by forestalling, and his train passed it at a speed of about 45 miles per hour. He said that he understood a restrictive signal indication required a train to be operated at a speed not exceeding 30 miles per hour; however, he did not reduce speed as he thought Extra 5444 would gradually outdistance his train. Immediately after passing signal 170.2 he saw the red signal ahead but he took no action to reduce speed as he expected it to change to yellow; however, when his train had traversed about one-third of the distance between signal 170.2 and signal 169.2, he became apprehensive that signal 169.2 would not change from red to yellow and he applied the brakes, making two brake-pipe reductions which totaled 15 pounds. As he thought the service application did not retard the speed of the train properly, he placed the brake valve in emergency position and opened the sanders; at this time he was still west of signal 169.2. When his engine was about 15 car lengths west of signal 169.2 he observed the rear end of Extra 5444 and, a short distance to its rear, its flagman who was holding a red light. In another statement he said that his light could have been a fusee. Since the brakes were applied in emergency there was no further action he could take to avert the collision, which he said occurred at 10:02 p. m. He thought that he misjudged the distance required for stopping his train of 6 cars, because of underestimating the speed and the fact that he was accustomed to handling trains of not less than 10 cars. Weather conditions did not restrict visibility and he saw the aspect of signal 169.2 when his train was passing signal 170.2. He was familiar with the rule which required that an automatic train-stop application of the brakes should not be forestalled until action had been taken to obey the requirements of the signal indication.

Fireman Gorman, of Extra 5440, stated that the air brakes were tested at Collinwood. A running test of the brakes was made soon after departing from Collinwood and the brakes controlled the speed of the train properly. All signals from CD to signal 170.2, inclusive, were displaying yellow lights at the top; signal 169.2 was displaying a red-over-red aspect. When approaching signal 170.2 the engineman made a light brake-pipe reduction; which seemed to reduce the speed to about 30 miles per hour. Immediately after the train passed signal 170.2 the fireman observed the red-over-red aspect displayed by signal 169.2 and called it to the engineman, who repeated it as he had done at all signals. About midway between signals 170.2 and 169.2 the engineman closed the throttle and made two more brake-pipe reductions, equivalent to a full-service reduction. He heard the automatic train-stop device click when passing signal 169.2. Because of trailing smoke obscuring his view ahead, he did not see either the rear end of Extra 5444 or its flagman. He stated that engine 5440 had been out of the shop only a few days and rode so smoothly it was difficult to estimate the speed. He did not think the speed of his train was in violation of the definition of medium speed and estimated it to be 6 or 7 miles per hour at the time of the accident. He stated that the engineman was normal and was maintaining a constant lookout ahead. He thought the engineman might have misjudged the braking power on the short train.

The statement of Conductor Eppler, of Extra 5440, contained no additional information of importance.

Baggageman Hanley, of Extra 5440, stated that approaching the point of accident he was in the baggage car. He thought the brakes on his train were applied about 1 minute prior to the time of the collision.

Brakeman Gaerttner, of Extra 5440, stated that at the time of the accident he was in the first car. He felt a light application of the brakes shortly before the collision occurred.

Flagman Nocera, of Extra 5440, stated that after his train left Collinwood the brakes functioned properly when the running test was made. He was in the rear car at the time of the accident and did not feel a brake application just prior to the collision.

Car Foreman Westall stated that subsequent to the accident the equipment of Extra 5440 was tested at various locations and the air brakes were found to be working properly.

Signal Engineer Wiegand stated that inductor, relay, and signal tests at signals 169.2 and 170.2, made subsequent to the accident, disclosed all values were within the limits prescribed by the New York Central System Signal and Train Control Committee. The signals operated as intended.

Officials of the railroad stated that according to the speed-recorder tape of engine 5444, the speed of Extra 5444 was 40 miles per hour when passing BR and from that point the speed was gradually increased until a speed of 50 miles per hour was attained at a point approximately 528 feet west of signal 169.2, and then it was reduced rapidly throughout a distance of 2,110 feet to the point where the train stopped. The speed-recorder tape of engine 5440 disclosed that after leaving Collinwood Extra 5440 increased speed to 30 miles per hour and then a brake application reduced the speed to 22 miles per hour. The speed then increased gradually until it attained 48 miles per hour when passing BR, and at a point about 1,056 feet west of signal 171.2 a speed of 54 miles per hour was attained; this speed was maintained until the train reached a point 803 feet west of signal 169.2, then there was a deceleration from 54 to 22 miles per hour within a distance of 1,583 feet to the point of collision.

According to surprise-test efficiency records of the railroad, which pertained to compliance with signal indications, Engineman Hunt was given four tests in 1938, and one on January 19, 1939, and in each instance his performance was satisfactory. He was last given a vision test April 18, 1939, and was certified as qualified for service. He was last examined on operating and signal rules on September 28, 1939.

Observations of the Commission's Inspectors

The Commission's inspectors observed the performance of signals 169.2 and 170.2, on January 20, 21, and 23, 1940; in each instance the signals functioned as intended. All inductor values were within the prescribed limits.

An examination of engine 5440 at Collinwood enginehouse, made January 24, 1940, disclosed that its automatic train-stop device functioned properly. The air brakes on the engine and the tender were in suitable condition for service.

According to information furnished by the railroad officials to the Commission's inspectors, this carrier has under way a program for installing apparatus in connection with the valve pilot and speedometer equipment on locomotives which will indicate on the speed-recorder tape each time the automatic

train-stop acknowledging-whistle sounds. At the time of this accident only eight locomotives were so equipped, and neither of the locomotives involved was included in this number. This program embraces the equipping of at least fifty locomotives for test purposes, to ascertain the action taken by enginemen in restrictive blocks to reduce speed in compliance with the rules. The device will indicate when an inductor in restrictive condition is acknowledged and whether or not the speed of the train is reduced within a reasonable interval thereafter.

Discussion

According to the evidence, Extra 5444 was approaching Wickliffe when the brakeman discovered that the brakes of the fourth car were sticking, and the train was stopped with the rear end 780 feet east of signal 169.2; it had been standing at this point about 1 minute when the rear end was struck by Extra 5440.

There was considerable discrepancy in the testimony as to the time the accident occurred. Three members of the crew of the first train said their train stopped at 9:55 p. m. and two of these said the accident occurred about 9:56 p. m., while the other said it occurred about 9:56;30 p. m.; the engineman of the second train said the accident occurred at 10:02 p. m. The first train passed BR at 9:54 p. m. At this point the speed, as indicated by the speed-recorder tape, was 40 miles per hour and it gradually increased to 50 miles per hour at a point approximately 528 feet west of signal 169.2, and the train stopped at a point, 2,110 feet beyond; therefore, it appears that approximately 5 minutes were used by this train from BR to the point of accident, a distance of 3.2 miles, which would establish the stopping time at 9:59 p. m. The second train passed BR at 9:56 p. m. At this point the speed, as indicated by the speed-recorder tape, was 48 miles per hour, and it increased to 54 miles per hour at a point about 1,000 feet west of signal 171.2; this speed was maintained until this train reached a point about 800 feet west of signal 169.2 where rapid deceleration began and, within a distance of 1,583 feet, the speed was reduced to 22 miles per hour, from which speed an abrupt stop was made at the point of collision. At the speed maintained, approximately 3 minutes 50 seconds running time would be consumed from BR to the point of accident, which would establish the time of collision at approximately 10 p. m.

The flagman of the first train was stationed at the rear end of the rear car and had maintained a lookout. When approaching Wickliffe he smelled the odor of heated brake shoes and, because there was no side door to the south at the rear end, he

proceeded to the front end of the rear car to look out the side door. He saw the brakeman giving "brake sticking" signals with a fusee; the brakes were applied and the train stopped. He did not drop off a lighted fusee, as he said it is unusual for a train to be stopped in instances when the brakes are applied heavily to release sticking brakes, but as soon as he became aware that his train would stop, he lighted a fusee, and, holding it in his hand, dropped off his train which was then moving at a speed of about 8 miles per hour. At that time he saw the headlight of the following train and, running toward that train, he gave stop signals with the fusee. He had proceeded only about 1 passenger car length westward when the following train passed him at a speed which he estimated at 25 miles per hour. The flagman said he was 1-1/2 car lengths east of the rear end of the following train just after the collision occurred. The flagman said the collision occurred about 45 seconds after he alighted; the conductor of his train thought the train had been standing about 1-1/2 minutes before the accident occurred and other witnesses thought it had been standing about 1 minute. Under the rules, the flagman was required to throw off lighted fusees when the speed of his train was reduced just prior to stopping at Wickliffe. If he had dropped off lighted fusees as soon as he felt the speed being reduced, the engineman of the following train would probably have been warned in sufficient time to take necessary action to avert the accident. As the preceding train moved more than 2,100 feet after the brakes were applied before the train stopped, it appears that the flagman should have been able to drop a fusee a considerable distance west of the point where the rear of his train stopped.

The engineman of the following train said that visibility was good and each signal in advance could be seen as it became lighted. For a distance of approximately 6 miles all signals passed en route to the point of accident were displaying restrictive indications. He operated the forestalling device at all signals except signal 169.2, and, being aware that the preceding train was close ahead, he maintained a constant lookout. He thought the preceding train would gradually outdistance his train; therefore, he did not reduce to medium speed. He did not relax his lookout ahead to observe the speed indicated on the speed recorder and did not know it was in excess of 50 miles per hour; he thought that the maximum speed attained by his train was about 45 miles per hour and from that speed he would have ample stopping distance. As he passed signal 170.2 he saw signal 169.2 displaying a red-over-red aspect; however, notwithstanding the fact that he was running under a yellow aspect and that he could see the red aspect ahead he did not at once reduce speed as he thought signal 169.2 would change to a more favorable indication before his train reached it. According to

his statement, when he had traversed about one-third of the distance between signals 170.2 and 169.2 he thought the signal might not change and he made two brake-pipe reductions which totaled 15 pounds, and then, becoming alarmed that his train would not stop short of signal 169.2 he applied the brakes in emergency. The speed-recorder tape indicated that deceleration started at a point only 803 feet west of signal 169.2, but making allowance for the time required for the brakes to apply, it appears that the application was started at a point about 1,100 feet west of signal 169.2. The engineman said that the brakes did not seem to hold as well as on other occasions, but he thought this was because he was accustomed to handling longer trains. Just after making the emergency application of the brakes, the engineman saw the rear end of the preceding train and also its flagman, who was swinging a red light, a short distance to its rear; since the brakes were already applied in emergency there was no further action the engineman could take to avert the accident. The rules require that enginemen must not forestall an automatic train-stop application of the brakes until after a restrictive signal has been observed and is being obeyed, and the engineman so understood. If he had not operated the forestalling device when passing signal 170.2 or if he had properly controlled the speed of his train after forestalling as required by the indication of signal 170.2, undoubtedly the train could have been stopped in time to avert the accident. This engineman also understood that under the rules he was required to reduce speed to not exceeding 30 miles per hour at signal 170.2 and to approach signal 169.2 prepared to stop; however, his train passed signal 170.2 at a speed of about 54 miles per hour, or 24 miles per hour in excess of the speed authorized, and this excessive speed was maintained to within a short distance from signal 169.2.

Tests which were made subsequent to the accident disclosed that the signals involved functioned properly and all values were within the limits prescribed by this railroad. A test of the air brakes of engine 5440 and the cars in its train disclosed that the brakes functioned properly. The automatic train-stop device on engine 5440 met the prescribed requirements.

In reports of this Bureau covering accidents which occurred on the New York Central, at Orugers, N. Y., on August 31, 1934, at North Germantown, N. Y., on April 17, 1938, and at Rocky Ridge, Ohio, on July 31, 1938, the attention of officials of the New York Central Railroad was directed to the dangerous practice of operating trains under restrictive signals

without reducing speed as required by the rules; it was stated that consideration should be given the question whether forestalling devices should be continued as a part of the automatic train-stop system, and if supervising officials cannot enforce compliance with the rules for the control of speed and the operation of the automatic train-stop devices, in the interest of safety serious consideration should be given to such modification of the automatic train-stop devices as will insure that the speed of trains will be automatically controlled in conformity with restrictive signal indications. It appears from the record that in order to obtain more effective enforcement of the rules governing operation under restrictive signal indications, a short time before this accident occurred this carrier had started a program of equipping at least fifty locomotives with apparatus in connection with the valve pilot and speedometer equipment to record the action taken by enginemen in restrictive blocks to reduce speed in compliance with the rules. This device will indicate when an automatic train-stop inductor in restrictive condition is acknowledged, and whether the speed of the train is thereafter reduced within a reasonable interval. Neither engine involved in this accident was equipped with this recording device.

Conclusion

This accident was caused by failure to provide adequate flag protection for the preceding train and failure to operate the following train in accordance with signal indications.

Recommendation

It is recommended that responsible officials of this railroad take steps immediately to correct lax observance of rules disclosed by this investigation.

Respectfully submitted,

S. N. MILLS,

Director.