

INTERSTATE COMMERCE COMMISSION

WASHINGTON

- - - - -

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

INDIANA HARBOR BELT RAILWAY

GIBSON INDIANA

JANUARY 31, 1936

INVESTIGATION NO. 2039

SUMMARY

Railroad: Indiana Harbor Belt
Date: January 31, 1936
Location: Gibson, Ind.
Kind of accident: Rear-end collision
Trains involved: 2 Light engines : Freight
Train numbers: West-bound extra : West-bound extra
Engine numbers: 252 - 313 : 419
Consist: 2 Light engines : 62 cars and caboose
Speed: 6 or 8 m. p. h. : Standing
Track: Tangent; grade practically level
Weather: Clear and cold
Time: 4:10 a.m.
Casualties: 2 injured
Cause: Failure properly to control speed and to maintain proper lookout, coupled with the fact that double-heading cock on towed engine was open.

April 1, 1936.

To the Commission:

On January 31, 1936, there was a rear-end collision between two light engines, coupled, and a freight train, on the Indiana Harbor Belt Railway at Gibson, Ind., which resulted in injury to two employees. This accident was investigated in conjunction with the Indiana Public Service Commission.

Location and method of operation

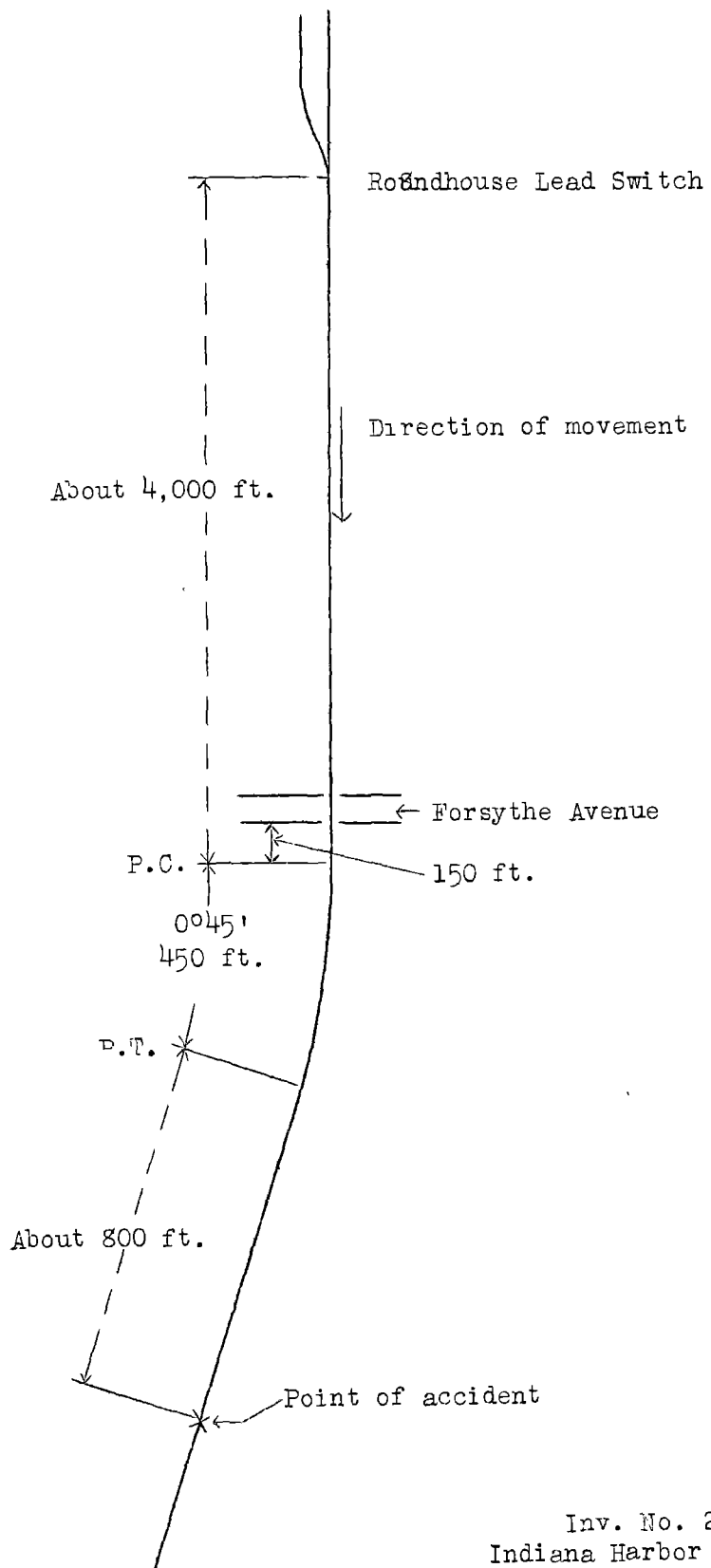
The track involved is a double-track line extending east and west between Gibson Tower, Gibson, Ind., and Columbia Ave., Hammond, Ind., and is operated by the Indiana Harbor Belt Railway, hereinafter referred to as the I.H.B.Ry., in accordance with the book of rules and special instructions contained in the time-table, no train orders being issued and no form of block-signal system being in use. These tracks are entirely within yard-limits, designated as the east-bound and west-bound Gibson Yard main tracks, and extend along the north side of Gibson yard of the I.H.B.Ry. The rules provide that within yard-limits the main track may be occupied protecting against first-class trains, and all except first-class trains must move prepared to stop unless the main track is seen or known to be clear; time-table speed restrictions provide for a maximum speed of 20 miles per hour for class U engines.

The accident occurred about 1,300 feet west of Forsythe Ave.; approaching this point from the east, the track is tangent from the roundhouse lead switch, a distance of 4,000 feet, to a point 150 feet west of Forsythe Ave., followed by a 45' curve to the right 450 feet in length and then tangent track to and beyond the point of accident, which was approximately 800 feet west of the curve; the grade is practically level, while the view is unobstructed from the right side of west-bound engines.

The weather was clear and the temperature about 10° below zero at the time of the accident, which occurred about 4:10 a.m.

Description

Extra 419, a west-bound freight train, consisted of 61 cars, 1 deadhead caboose, and 1 working caboose, hauled by engine 419, and was in charge of Conductor Rack and Engineman Earner. This



Inv. No. 2039
Indiana Harbor Belt Ry.
Gibson, Ind.
Jan. 31, 1936

train left Michigan Ave. Yard of the I.H.B.Ry. at 3 a.m. and at about 4 a.m. it stopped with its rear end at a point west of Forsythe Ave., on account of train movements at the west end of Gibson Yard; while standing at this point it was struck by light engines 252 and 313, coupled.

Engines 252 and 313 were being moved from the engine house to the west end of Gibson Yard, and were in charge of Hostler Toyias and Hostler Helper Chamberlain. These engines left the roundhouse lead switch about 4 a.m. and struck the rear end of Extra 419 while running at a speed estimated at 6 or 8 miles per hour.

Both engines remained upright and on the rails; the front end of engine 252 was considerably damaged. The bodies of the two cabooses were thrown to the north across an adjacent track and were practically demolished, while their trucks were shoved under the rear of the car ahead of the cabooses. The employees injured were the conductor and the flagman of Extra 419.

Summary of Evidence

Hostler Toyias stated that about 3:45 a.m. he prepared to move engines 252 and 313 to the west end of Gibson Yard; he found the engines coupled, and he then coupled the air hose between them and opened the angle cocks, but did not close the double-heading cock under the brake valve of the second engine. The air pumps were working on both engines and proper pressure was attained, but no air-brake test was made prior to departure. He left the coal dock about 3:55 or 3:58 a.m., entered the west-bound main track at the roundhouse lead switch and proceeded west; when in the vicinity of Forsythe Ave., traveling at a speed he estimated at 20 or 22 miles per hour, he saw the markers of Extra 419 about 25 or 30 car lengths distant, and immediately closed the throttle and applied the independent brake and then the automatic brake, in emergency, after which he reversed the engine and opened the sanders, but was unable to stop and struck the rear end of Extra 419 at a speed he thought was 6 or 8 miles per hour. Hostler Toyias believed that his inability to stop was due to the failure of some part of the brake apparatus to function, as a result of the extreme cold; he also was of the opinion that the throttle of the second engine had in some manner become opened and that as a result the second engine was using steam and helped to shove the lead engine into the rear end of the preceding train; about 3 minutes after the collision he boarded engine 313 and found the reverse lever in full forward motion position and the

throttle open; he could not say whether it was fully or partially open nor whether the cylinder cocks were open, although instructions require that the cylinder cocks on all towed engines be open. Some time afterwards he moved the two engines back to the roundhouse, operating them from engine 313, and during this movement he experienced no trouble with the throttle or brakes. Hostler Toyias further stated that in movements similar to that which he was making at the time of the accident it had been the practice originally to close the double-heading cocks on all but the leading engine, but that some time during the past summer this practice was discontinued under oral instructions from the roundhouse foreman.

The statements of Hostler Helper Chamberlain regarding movements prior to leaving the roundhouse, agreed with those of Hostler Toyias. When approaching the point of accident he was sitting on the fireman's seat box, with Engineman May sitting in front of him on the brakeman's seat, and another employee, a fireman, also was on the engine. At Forsythe Ave., while running at a speed of about 25 miles per hour, Hostler Toyias shut off steam, but the view from the left side was somewhat restricted at this point and he did not see the markers of Extra 419 until they were about 175 yards distant. Engineman May saw the markers at the same time and called a warning, at which time Hostler Toyias applied the brakes, reversed the engine, and opened the throttle. The brakes did not seem to hold as well as they should, and they struck the rear end of Extra 419 while moving at a speed of 6 or 8 miles per hour; he did not think that engine 313 had been shoving engine 252 prior to the collision.

Engineman May stated that he was on the brakeman's seat on the left side of engine 252, and owing to the fact that the clear-vision and side windows were closed, and also because of frost and steam, he was unable to see ahead clearly, but was of the opinion that Hostler Toyias, who had his side window open, should have been able to see the markers of Extra 419 a distance of at least 40 car lengths. According to his statements, the hostler shut off steam and applied the independent brake at Forsythe Ave., and he judged they were about 15 car lengths from the rear end of Extra 419 when he first saw it and called a warning, and immediately moved to get off the engine as there was some doubt whether they would be able to stop in time to avoid a collision. He got off at a point 4 or 5 car lengths from the rear end, at which time he estimated the speed at about 10 miles per hour, and he estimated that they had attained a maximum speed of from 25 to 27 miles per hour while en route. Engineman May did not notice engine 313 working steam at any time, and stated that while he was not partial to the type

of throttle with which this engine was equipped, he knew of no instance where one of them had come open without manual assistance.

Fireman Mauck, who had been relieved from duty and was riding to the west end on his way home, said he was standing in the deck of the engine talking with Engineman May. At Forsythe Ave., at which point he estimated their speed to have been from 20 to 25 miles per hour, Hostler Toyias shut off steam and directed his helper to put on the blower, and shortly thereafter the hostler made an application of the independent brake, followed closely by an emergency application, and at that time Engineman May put his head out of the window and immediately afterward started to leave the engine on the left side. Fireman Mauck then prepared to get off on the right side, and on seeing the markers of Extra 419 plainly, at a distance of 4 or 5 car lengths, he got off, at which time the speed was 6 or 8 miles per hour. Fireman Mauck could not remember having noticed the second engine working steam, and had no opinion as to the degree of efficiency of the brakes on the engines.

Conductor Rack and Flagman George, of Extra 419, stated that their train had been standing about 10 minutes when the collision occurred; they did not hear the engines approaching or see the headlight, nor did they have any warning of danger prior to the accident, and each of them said the markers on the caboose were burning brightly, while the conductor said that afterwards he asked the hostler why he did not sound the whistle, and the hostler replied that he did not think of it.

Engineman McKenna stated that at the time of the accident he was handling an east-bound train on a passing track to the north of the west-bound yard main track; his train was standing and he heard the crash and saw the demolished cabooses land on the passing track about 5 or 8 car lengths ahead of his engine, and immediately went to the scene. At that point he encountered Hostler Toyias, who told him that engine 313 had shoved him into the rear end of Extra 419. He and Hostler Toyias then boarded engine 313 and found the reverse lever in full forward motion position and the throttle wide open; later Engineman McKenna moved engine 313 back out of the wreckage, and he said that the latch spring and teeth on the throttle ratchet and quadrant seemed to be in good condition and that the throttle stayed in position after it was closed. He believed the throttle could have come open without manual assistance, and his opinion of the particular type of throttle with which engine 313 was equipped was not favorable, but he could give no

particular reason for this opinion. Engineman McKenna said visibility was fair at the time and place of accident, although a south wind was carrying smoke and steam across the tracks.

Terminal Outside Air Brake and Cab Inspector Ketel stated that it is his duty to prepare engines for towing. Until about 2 years ago it had been the practice to couple air hose and open the angle cocks between engines, and also to close the double-heading cocks on all except the lead engine; about 2 years ago however, this practice of closing double-heading cocks was discontinued as a result of bulletin instructions issued by Master Mechanic Wray, and from that time until after the occurrence of this accident double-heading cocks on all towed engines were left open except where the movement was a long one, as from Gibson, Ind., to Norpaul, Ill., a distance of 35 miles.

Assistant Master Mechanic Reid stated that on January 3, 1933, P. C. Wray, who was master mechanic at that time, issued a letter to all foremen on the I.H.B.Ry., instructing them to issue orders to discontinue the practice of closing double-heading cocks on towed engines; subsequently Mr. Davidson, who then was road foreman of engines, pointed out the danger of this practice to Mr. Wray, and the latter under date of February 5, 1934, cancelled those instructions, and issued orders to the foremen that thereafter all double-heading cocks should be cut out except on the leading engine, and that hostlers would be responsible for again turning the double-heading cocks back to service position when the engines were delivered. On February 9, 1934, a bulletin was posted on the enginemen's bulletin board, calling attention to the fact that hostlers were handling engines with all double-heading cocks cut out except on the leading engine, and pointing out that enginemen should be extremely careful to know that the double-heading cock was returned to service position and the automatic brake valve again operative before leaving the terminal.

General Foreman Fromm stated that engine 313 was examined immediately after the accident, and that while the latch spring was slightly shorter than standard, it was found impossible to open the throttle without using the hand release latch; trouble had been experienced, however, with this type of throttle, and when engines were shopped the balance chambers were being bored out and bushed to standard size and new balance and pilot valves applied.

Enginehouse Foreman Fisher stated that the practice of cutting out double-heading cocks on towed engines had been discontinued over a year ago, but that no instructions had been

given to hostlers in this connection, and that at one time they received instructions to cut them in and at another time to cut them out, and that the present practice is not to couple up the air between engines that are being towed.

Discussion

The evidence indicates that the speed of the two light engines was in the vicinity of 25 miles per hour at Forsythe Ave., and that Hostler Toyias shut off at this point, but that he did not apply the brakes in emergency until somewhere in the neighborhood of 15 car lengths from the standing train; and it is believed that the failure of Hostler Toyias to apply the brakes as soon as the rear end of Extra 419 came within his range of vision, coupled with the speed at which the engines were being operated and the fact that engine 313 was being towed with the double-heading cock open and the pumps working, is adequate to account for the occurrence of this accident.

Hostler Toyias said that shortly after the accident he found the throttle open on engine 313, and Engineman McKenna also said it was open when he boarded the engine with Hostler Toyias; he did not notice anything wrong with it, however, and General Foreman Fromm said that when the engine was examined it was found to be impossible to open the throttle without using the hand-release latch. Neither the engineman nor the fireman riding on engine 252 at the time of the accident noticed engine 313 working steam, and in view of the conflicting statements no definite opinion on this point can be expressed.

From the record in this case there appears to be considerable misunderstanding as to ^{proper procedure} when engines are towed. Instructions issued under dates of February 5 and 9, 1934, required that when engines were being towed the air hose should be coupled, the angle cocks opened between all engines, the pumps working, and that double-heading cocks on all but the lead engine be cut out, and there is nothing in the record which indicates that these instructions were since changed or rescinded; nevertheless it is apparent from the statements of the various employees and officials, that these instructions were not being properly carried out and that there was not a uniform understanding as to how towed engines should be handled. There is little excuse to be offered for the existence of such a confused situation as was found to exist in this case, and it is incumbent on responsible operating officials to see to it that hereafter instructions having to do with the operation of engines or trains are fully understood and that they are being rigidly enforced and obeyed.

Conclusions

It is believed that this accident was caused by the failure of Hostler Toyias to properly control the speed of the light engines while moving over the main track within yard-limits, by his failure to maintain a proper lookout, and by the fact that the double-heading cock was open on the engine being towed.

Respectfully submitted,

W. J. PATTERSON,

Director.