Inv. No. 2975

Illinois Terminal Railroad Company

Feb 21, 1946. Lead Works, Ill. Side collision on the St.Louis and Alton Division, which extends between Alton, Ill., and St.Louis, Mo., 24.6 miles.

Cause: Inferior train occupying main track on time of opposing superior train, and failure to operate superior train in accordance with signal displaying open-switch indication.

Recommendation: Carrier install an adequate block system on the line on which this accident occurred.

May 24, 1946. Inspectors as of this date, on advice of Supt. Byrnes, the issuance of CarrieR's Bulletin No. B-25, which is intended to establish as a block between Federal Tower and Wood River Junction in order to provide protection only for extra freight trains and yard engine movements as a temporary arrangement until an automatic block signal system can be installed. (Wood River Junction is 2.2 miles south of Lead Works and Federal Tower is 4,395 feet north of Lead Works.)

This temporary arrangement does not comply with the recommendation. Investigation disclosed that on several occasions since the installation of the manual block, scheduled passenger trains have met within the block and on one occasion an extra freight train met a scheduled passenger train within the block.

Inspectors report further, on advice of Electrical Superintendent Leissenring, that arrangements for plans and materials would be made as soon as possible and the installation of an automatic block signal system made with all possible dispatch.

Sept 4, 1946. Inspectors report as of this date, on advice of Supt. Dennis, that the manual block established by the carrier between Wood River and Alton, Ill., pursuant to the recommendation, was functioning properly up to the time the bridges of the Illinois Terminal steam line and the St.Louis and Alton electric line over the Wood River were washed out.

It is proposed to erect a temporary bridge over the Wood River and to gauntlet the tracks of the two lines over that bridge, protecting them by an automatic interlocking with a speed restriction of 10 miles per hour. Sig.Inspec. Cudworth advised that all materials for the proposed automatic block signal system

(OVER)

between Alton and Wood River had been ordered and that installation would follow the receipt of the materials. The materials should become available about the first part of 1947.

Mar 22, 1947. Inspectors report as of this date, that with the control line wires strung, signal foundations set and delivery of all remaining signal materials expected soon, Supt. McOwan thinks proposed automatic block will be completed about June 1, 1947.

July 30, 1947. Inspectors report as of this date that the manual block system in effect between Alton and Wood River was functioning properly when they inspected it on July 29, 1947. It is expected that the system of automatic blocking will be put in service about October 1, 1947.

Feb 4, 1948. Letter t o inspectors advising that further reports will not be required unless otherwise instructed.

Feb 16, 1948. Inspectors reported as of this date that automatic block signals have been installed between Wood River and Alton, Ill., but carrier does not want to put them into service now because it may abandon the line if an application to parallel the line by a bus company now pending before the Illinois Commerce Commission is approved. The manual block system which was put in service is being operated properly.

INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2975

ILLINOIS TERMINAL RAILROAD COMPANY

REPORT IN RE ACCIDENT

AT LEAD WORKS, ILL., ON

FEBRUARY 21, 1946

SUMMARY

Railroad:	Illinois Terminal	
Date:	February 21, 1946	
Location:	Lead Works, Ill.	
Kind of accident:	Side collision	
Trains involved:	Freight	: Passenger
Train numbers:	Extra 34 North	: 47
Engine numbers:	34	: Electric-traction car 122
Consist:	70 cars, caboose	: Electric-traction car
Estimated speed:	5 m. p. h.	: 10 m. p. h.
Operation:	Timetable and train orders	
Track:	Single; tangent; level	
Weather:	Clear	
Time:	10:35 p. m.	
Casualties:	15 injured	
Cause:	Inferior train occupying main track on time of opposing superior train, and failure to operate superior train in accordance with signal displaying open-switch indication	
Recommendation:	That the Illinois Terminal Railroad Company install an adequate block system on the line on which this accident occurred	

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO 2975

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

ILLINOIS TERMINAL RAILROAD COMPANY

April 8, 1946.

Accident at Lead Works, near Alton, Ill., on February 21, 1946, caused by an inferior train occupying the main track on the time of an opposing superior train, and by failure to operate the superior train in accordance with signal displaying an open-switch indication.

REPORT OF THE COMMISSION[1]

PATTERSON, Commissioner:

On February 21, 1946, there was a side collision between a freight train and a passenger train on the Illinois Terminal Railroad at Lead Works, Ill., which resulted in the injury of 13 passengers and 2 employees.

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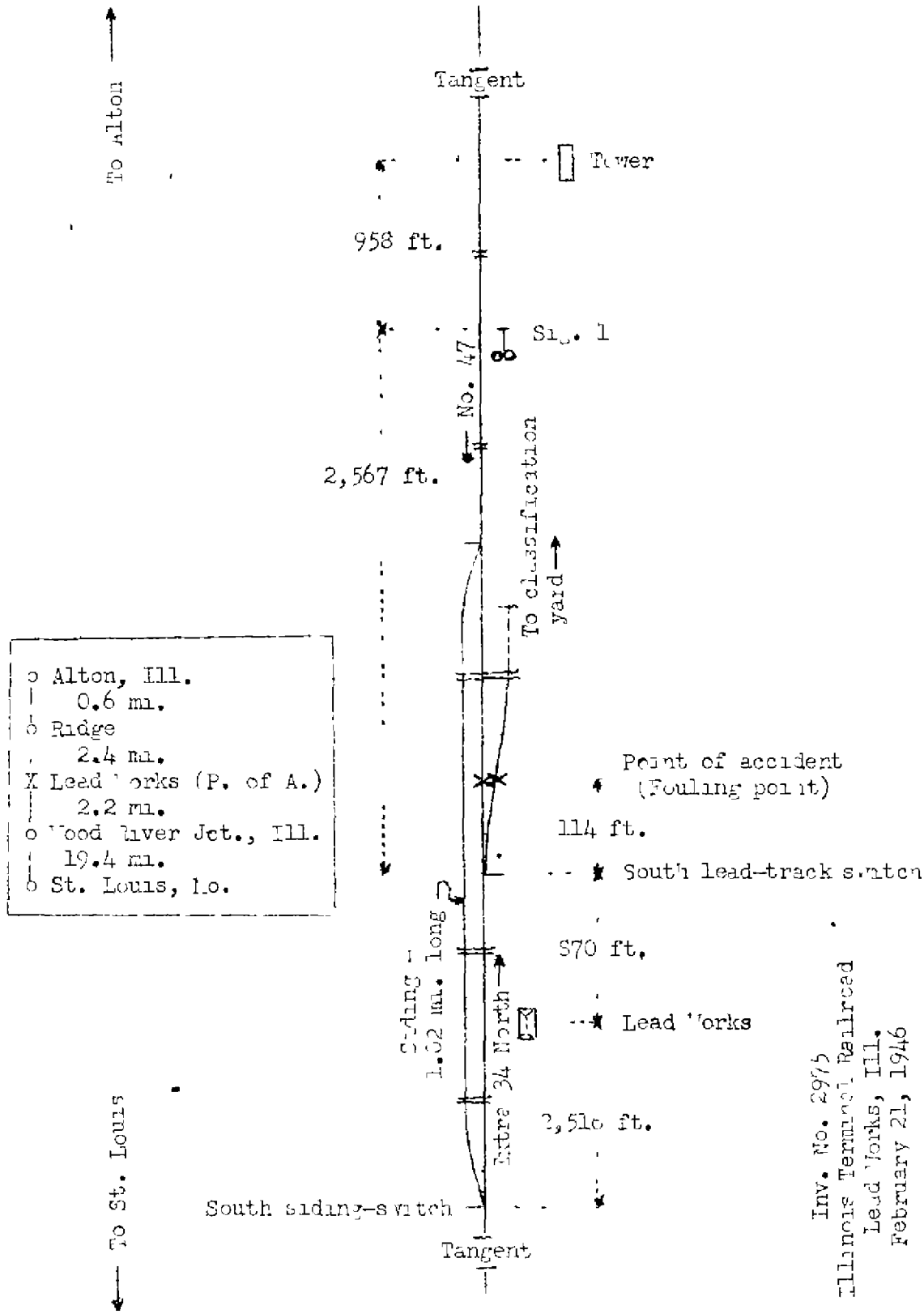
[1]Under authority of section 17 (2) of the Interstate Commerce Act the above-entitled proceeding was referred by the Commission to Commissioner Patterson for consideration and disposition.



Inv. No. 2975
Illinois Terminal Railroad
Lead Works, Ill.
February 21, 1946

Location of Accident and Method of Operation

This accident occurred on the St. Louis and Alton Division, which extends between Alton, Ill., and St. Louis, Mo., 24.6 miles, a single-track line equipped with an overhead trolley system for the electric propulsion of trains. In the vicinity of the point of accident trains are operated by timetable and train orders. There is no block system in use. At Lead Works, 3 miles south of Alton, a siding 1.02 miles in length parallels the main track on the west. The south switch of this siding is 2,516 feet south of the station. The south switch of a lead track, which connects the main track and a classification yard located east of the main track, is 3,386 feet north of the south siding-switch. The accident occurred at the fouling point of the main track and the turnout of the south lead-track switch, at a point 114 feet north of the switch. The main track is tangent throughout a considerable distance immediately north of the lead-track switch and some distance southward The grade is level.

The switchstand of the south lead-track switch is on the east side of the main track, and is of the hand-throw intermediate-stand type It is provided with two targets and a switch lamp. When the switch is lined normally a white arrow-shape target at right angles to the track and a green light are displayed. When the switch is lined for entry to the lead track a red oval-shape target at right angles to the track and a red light are displayed.

An open-switch protection signal, hereinafter referred to as signal 1, is located on the east side of the track at a point 2,567 feet north of the south lead-track switch, and is about 12 feet above the level of the rails. This signal is of the two-indication color-light type, and is continuously lighted. When the south lead-track switch is in normal position, signal 1 displays a green light in the direction of south-bound movements. When the switch is lined for movement from the main track to the lead track, signal 1 displays a red light in the direction of south-bound movements

Operating rules read in part as follows:

DEFINITIONS

* * *

Reduced Speed--Proceed prepared to stop short of train or obstruction.

* * *

5. * * *

The time applies at the switch where an opposing train clears; where there is no switch, it applies at the station.

* * *

10. COLOR SIGNALS

Color	Indication
(a) Red.	Stop.
* * *	
(c) Green	Proceed, * * *

* * *

11. A fusee burning red on or near the track of an approaching train must be extinguished. The train may then proceed at reduced speed

73. Extra trains are inferior to regular trains.

87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains must clear the time of opposing regular trains not less than five minutes unless otherwise provided, * * *

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 recalled and safety to the train will permit, he may return.

* * *

The front of the train must be protected in the same way when necessary by Trainmen.

* * *

Time-table special rules read in part as follows:

9. * * *

* * * Restricted speed * * * proceed prepared to stop short of train, obstruction, or anything that may require the speed of a train to be reduced.

24. * * *

* * *

b The switches * * * to the Lead Works have * * * protection of color light signals located * * * in advance of the switch. When the switch is lined for the main track these signals indicate "Proceed" (Green); when the switch is open, they indicate "Stop" (Red). They are switch signals only and are not affected by the main track being occupied by another train.

c When * * * signals display "Stop" * * * trains will stop, and then proceed at restricted speed * * * expecting to find the track occupied or a switch open * * *

* * *

No maximum authorized speed for trains was specified by rule or special instruction The maximum speed attainable by the electric-traction cars in use on this line is 40 miles per hour.

Description of Accident

Extra 34 North, a north-bound freight train, consisting of steam engine 34, 70 cars and a caboose, departed from Wood River Jct., the last open office, 2.2 miles south of Lead Works, at 10:17 p. m , passed the south siding-switch at Lead Works and stopped about 10:27 p m. on the main track, with the engine in the vicinity of the south lead-track switch. About 8 minutes later, while this train was proceeding from the main track through the south switch to the lead track and was moving at an estimated speed of 5 miles per hour, the fifty-fifth car was struck by No. 47 at the fouling point of the main track and the turnout of the south lead-track switch.

No 47, a south-bound first-class passenger train, consisted of electric-traction passenger car 122. The car was of all-steel construction. This train departed from Alton, the last open office, at 10:30 p. m., on time, passed signal 1, which displayed stop-then-proceed-at-restricted-speed, and while moving at an estimated speed of 10 miles per hour it struck Extra 34 North.

The front truck of the traction car of No. 47 and the front truck of the fifty-fifth car of Extra 34 North were derailed. The left side-sheet of the traction car was torn off throughout a distance of about 20 feet, and the interior of the car was badly damaged.

The weather was clear at the time of the accident, which occurred about 10·35 p. m.

The motorman and the conductor of No. 47 were injured.

During the 32-day period preceding the day of the accident, the average daily movement in the vicinity of the point of accident was 41.22 trains.

Discussion

The rules governing operation on this line provide that an inferior train must keep out of the way of opposing superior trains, and extra trains must clear the time of opposing regular trains not less than 5 minutes. If an inferior train fails to clear the time of an opposing superior train, flag protection must be provided.

No. 47, a south-bound first-class passenger train, was due to leave Ridge, 2 4 miles north of Lead Works, at 10:31 p. m., and Lead Works at 10:35 p. m. The south switch of the siding at Lead Works is 2,516 feet south of the station and, under the rules, the schedule time of regular trains at this point applies at the switch where an opposing inferior train enters the siding. No train order restricting the authority of No. 47 to proceed with respect to Extra 34 North had been issued No. 47 departed from Ridge at 10:31 p. m., on time, and about 10:35 p. m it struck the fifty-fifth car of Extra 34 North at the fouling point of the main track and the south lead-track switch, at a point 3,500 feet north of the south siding-switch at Lead Works

As No. 47 was approaching Lead Works the speed was about 35 miles per hour. The crew of this train consisted of a conductor and a motorman The headlight was lighted brightly, and the motorman was maintaining a lookout ahead from the control compartment at the front end of the traction car. The conductor was about midway of the car in the passenger compartment The motorman said that signal 1 displayed a green aspect when his train was a considerable distance north of the signal, but he did not again observe the indication displayed by the signal. When No. 47 was about 300 feet north of the point where the accident occurred the motorman saw cars on the turnout of the south lead-track switch, and he immediately moved the brake valve to emergency position. The speed of No. 47 was about 10

miles per hour when the collision occurred. The conductor was not aware of anything being wrong until the brakes were applied in emergency The conductor and the motorman said that no flagging signal was seen or heard prior to the collision.

Extra 34 North departed from Wood River Jct., 2 2 miles south of Lead Works, at 10·17 p. m The crew understood that if their train proceeded to the south lead-track switch at Lead Works for No. 47 it was required to be into clear not later than 10:26 p. m., and that flag protection was required to be furnished if their train was not clear of the main track at the required time The members of the crew had compared time, and there was a variation of only a few seconds in their watches. Extra 34 passed the south siding-switch at Lead Works and stopped about 10:27 p m. on the main track immediately south of the south lead-track switch. The front brakeman said he placed a lighted 5-minute fusee on the main track immediately north of the switch, then lined the switch for his train to enter the lead track. Soon afterward, this train entered the turnout and proceeded northward on the lead track and an assigned track in the receiving yard A cut of 10 cars was found to be occupying the assigned yard track. Then the engine was coupled to the south end of the cut of cars, and the front brakeman proceeded northward ahead of the movement to maintain a lookout for other cars on the yard track The conductor and the flagman were in the caboose. No member of the crew of Extra 34 North saw No. 47 approaching and they were not aware of anything being wrong until after the accident occurred These employees said they thought the fusee displayed by the front brakeman and the open-switch indication displayed by signal 1 provided sufficient protection against No. 47. The motorman of No. 47 was positive that no lighted fusee was visible immediately prior to the collision. Since the fusee placed by the front brakeman of Extra 34 was of the 5-minute type and was lighted about 10·27 p m , it is evident that this fusee had burned-out prior to the time the accident occurred, which was about 10:35 p. m.

An employee of the railroad who was in a tower, located to the east of the main track and 958 feet north of signal 1, said this signal displayed a red aspect continuously during an interval of at least 8 minutes prior to the time the accident occurred. The red aspect displayed by signal 1 for No 47 required that train to stop at the signal, then to proceed prepared to stop short of a train, an obstruction or an open switch

This accident might have been prevented if an adequate block system had been in use in this territory, since these opposing trains would not have been permitted to occupy the same block simultaneously.

Cause

It is found that this accident was caused by an inferior train occupying the main track on the time of an opposing superior train, and by failure to operate the superior train in accordance with signal displaying an open-switch indication

Recommendation

It is recommended that the Illinois Terminal Railroad Company install an adequate block system on the line on which this accident occurred.

Dated at Washington, D. C., this eighth day of April, 1946.

By the Commission, Commissioner Patterson.

(SEAL)

W. P. BARTEL,
Secretary