

**RAILROAD ACCIDENT INVESTIGATION**

**Report No 3796**

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CHICAGO & EASTERN ILLINOIS RAILROAD COMPANY

DANVILLE, ILL

JANUARY 7, 1958

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**INTERSTATE COMMERCE COMMISSION**

**Washington**

## SUMMARY

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DATE	January 7, 1958	
RAILROAD	Chicago & Eastern Illinois	
LOCATION	Danville, Ill	
KIND OF ACCIDENT	Head-end collision	
MOVEMENTS INVOLVED	Locomotive and caboose	Passenger train
TRAIN NUMBER		94
LOCOMOTIVE NUMBERS	Diesel-electric unit 206	Diesel-electric units 1609 and 1102
CONSISTS	Caboose	14 cars
SPEEDS	12 m p h	37 m p. h
OPERATION	Timetable train orders, and automatic block-signal system; yard limits	
TRACKS	Double, 3°02' curve, 0.29 percent descending grade northward	
WEATHER	Clear	
TIME	3:19 a. m.	
CASUALTIES	19 injured	
CAUSE	Failure properly to control speed of first-class train operating against current of traffic within yard limits	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3796

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

CHICAGO & EASTERN ILLINOIS RAILROAD COMPANY

August 1, 1958

Accident near Danville, Ill , on January 7, 1958, caused by failure properly to control the speed of a first-class train operating against the current of traffic within yard limits

REPORT OF THE COMMISSION<sup>1</sup>

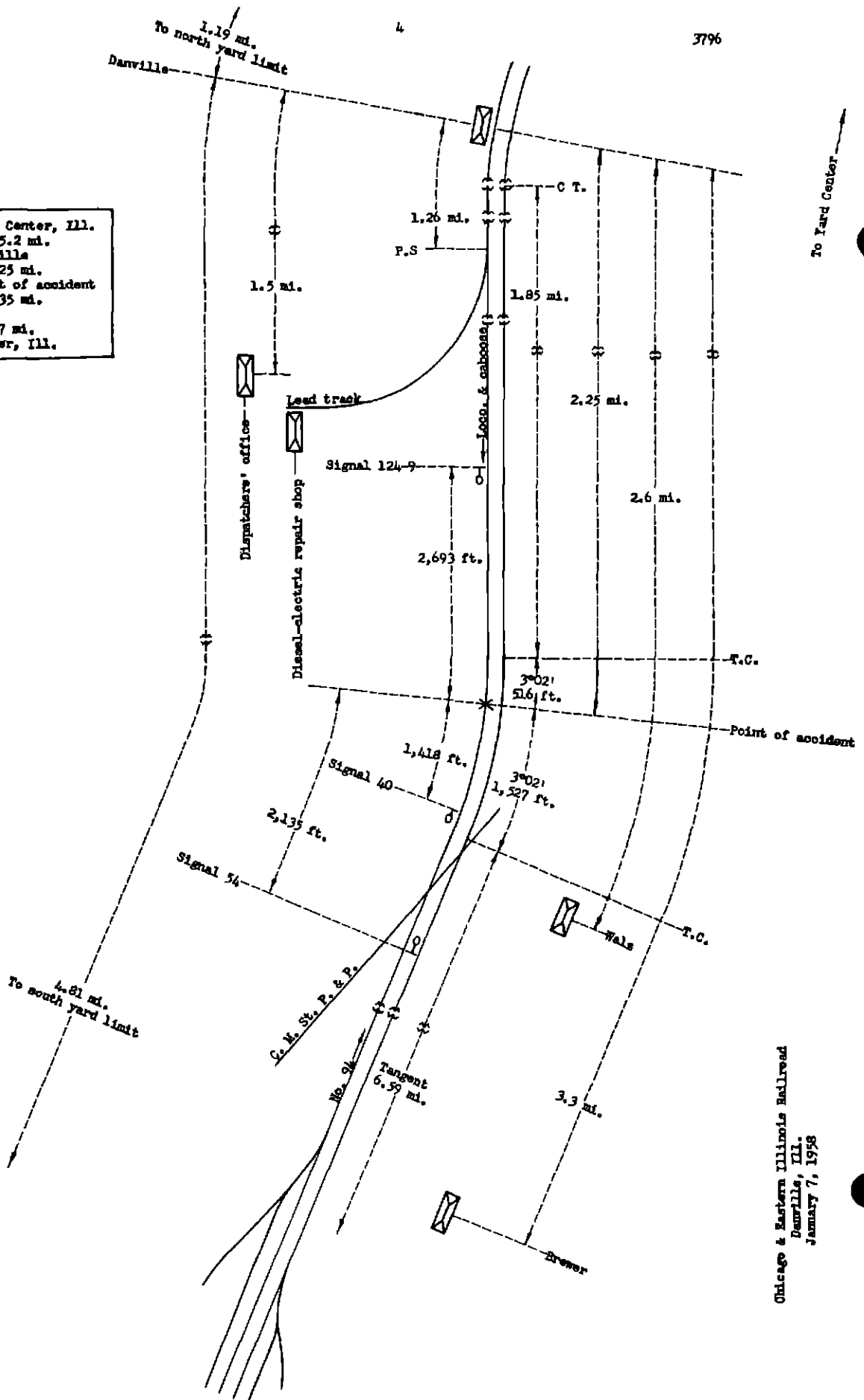
*TUGGLE, Commissioner*

On January 7, 1958, there was a head-end collision between a passenger train and a locomotive with a caboose on the Chicago & Eastern Illinois Railroad near Danville, Ill , which resulted in the injury of 9 passengers and 10 train-service employees. This accident was investigated in conjunction with a representative of the Illinois Commerce Commission.

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<sup>1</sup> Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Tuggle for consideration and disposition.

○	Yard Center, Ill.
○	105.2 mi.
○	Danville
○	2.25 mi.
×	Point of accident
○	0.35 mi.
○	Wals
○	0.7 mi.
○	Brewer, Ill.



### Location of Accident and Method of Operation

This accident occurred on the Danville Subdivision extending between Brewer and Yard Center, Ill., 108.5 miles, over which trains moving with the current of traffic are operated by timetable, train orders, and an automatic block-signal system supplemented by an intermittent inductive automatic train-stop system. Trains moving against the current of traffic are operated by train orders. Danville Station, 3.3 miles north of Brewer, is located within yard limits. The north and south yard limits are located, respectively, 1.19 miles north and 4.81 miles south of the station. A train dispatchers' office and a diesel-electric repair shop are located on the west side of the main tracks approximately 1.51 miles south of the station. A lead track connects the repair shop tracks with the southward main track. The lead-track switch, which is facing-point for southbound movements on the southward main track, is located 1.26 miles south of the station. Within interlocking limits at Walz, 2.6 miles south of Danville, a single-track line of the Chicago, Milwaukee, St. Paul and Pacific Railroad crosses the main tracks at grade. Movements over the crossing are controlled from an interlocking station at Walz. At Brewer several yard tracks parallel the main tracks on the east and west. The accident occurred within yard limits on the southward main track at a point 2.25 miles south of the station at Danville. From the north on the main tracks there are in succession, a tangent 1.85 miles in length, and a 3902' curve to the right 516 feet to the point of accident and 1,527 feet southward. From the south there are, in succession, a tangent 6.59 miles in length, and the curve on which the accident occurred. The grade is 0.29 percent descending northward at the point of accident.

Automatic signal 124-9 and interlocking signal 40, governing southbound movements on the southward main track, are located, respectively, 2,693 feet north and 1,418 feet south of the point of accident. Interlocking dwarf signal 54 governing northbound movements on the southward main track through the interlocking, is located 2,135 feet south of the point of accident. These signals are of the searchlight type and are continuously lighted. Aspects applicable to this investigation, and the corresponding indications and names are as follows:

Signal	Aspect	Indication	Name
124-9	Yellow	PROCEED PREPARING TO STOP AT NEXT SIGNAL TRAIN EXCEEDING MEDIUM SPEED MUST AT ONCE REDUCE TO THAT SPEED	APPROACH
40	Red	STOP	STOP
54	Green	PROCEED, SLOW SPEED WITHIN INTERLOCKING LIMITS	SLOW-CLEAR

The controlling circuits are so arranged that when the route is lined for a northbound movement on the southward main track through the interlocking, signal 54 displays a Slow-Clear aspect, signal 124-9 displays an Approach aspect, and signal 40 displays a Stop aspect. When a southbound movement occupies the interlocking approach circuit of the southward main track a light becomes lighted on the track diagram at Walz Interlocking Station and a bell sounds. The north end of the

approach circuit is located 2,015 feet north of the point of accident

This carrier's operating rules read in part as follows

### DEFINITIONS.

Slow Speed --A speed not exceeding 15 miles per hour

### OPERATING RULES.

#### Engine Whistle Signals.

NOTE --The signal prescribed are illustrated by "o" for short sounds, "---" for longer sounds

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Sound	Indication
(r) -- o	When running against the current of traffic (1) approaching stations, curves, or other points where view may be obscured * * *

93 --Yard limits are designated by special instructions in the time-table

Within yard limits, the main track may be used clearing first class trains when due to leave the last station where time is shown, but not less than five minutes \* \* \*

Within yard limits, second class, third class, extra trains and engines must move prepared to stop short of train, obstruction or switch not properly lined

Within yard limits, when running against the current of traffic, \* \* \* all trains and engines must move prepared to stop short of train, obstruction or switch not properly lined

The maximum authorized speed for passenger trains is 79 miles per hour

The locomotives of the trains involved in the accident, the dispatchers' office, and the yard office at Brewer are provided with two-way radio equipment for intercommunication

### Description of Accident

On the day of the accident diesel-electric unit 206, a road-switcher type, headed north and with a caboose coupled to the south end, entered the southward main track at the diesel-electric repair shop lead-track switch. This movement then proceeded southward, passed signal 124-9, which displayed an Approach aspect, and while moving at a speed of 12 miles per hour, as indicated by the tape of the speed-recording device it collided with No. 94 at a point 2.25 miles south of the station at Danville.

No. 94, a northbound first-class passenger train consisted of diesel-electric units 1609 and 1102, coupled in multiple-unit control, 1 baggage car, 1 refrigerator-express car, 6 baggage cars, 2 mail cars, 1 baggage car, 2 coaches, and 1 sleeping car, in the order named. The second car was of steel-underframe construction, and the other cars were of conventional all-steel construction. At Cayuga, 14.6 miles south of Brewer, the crew received copies of train order No. 14 reading as follows:

No 94 Eng 1609 has right over  
opposing trains on southward  
track Cayuga to Danville

This train passed Cayuga at 3 01 a m , 44 minutes late, where it was crossed from the northward main track to the southward main track, passed signal 54, which displayed a Slow-Clear aspect, passed Walz, the last open office, at 3 18 a m , 46 minutes late, and while moving at a speed of 37 miles per hour, as indicated by the tape of the speed recording device, it collided with the southbound locomotive and caboose

The north end of the diesel-electric unit of the southbound movement stopped with the front end 460 feet north of the point of accident. The truck at the south end of the unit and the caboose were derailed. The diesel-electric unit was heavily damaged and the caboose was demolished. The diesel-electric units and the 1st car of No 94 were derailed to the west. The front end of the 1st diesel-electric unit stopped approximately 280 feet north of the point of accident and 13 feet west of the track. The rear truck of this unit, the 2nd diesel-electric unit, and the 1st car stopped on the track structure. The diesel-electric units were heavily damaged, the 1st and 2nd cars were somewhat damaged, and the 10th car was slightly damaged.

The engineer, the fireman, the conductor, the front brakeman, and the flagman of the southbound movement, and a road foreman of engines who was in the caboose were injured. The engineer, the fireman, the conductor, and the front brakeman of train No 94 were injured.

The weather was clear at the time of the accident, which occurred about 3 19 a m.

#### Discussion

On the day of the accident an assistant chief train dispatcher, a south-end train dispatcher, and a north-end train dispatcher were on duty at the dispatchers' office. First-class trains operating between Danville and Evansville, 164 0 miles south of Danville, are under the jurisdiction of the south-end train dispatcher. Freight trains operating north of Brewer are under the jurisdiction of the north-end train dispatcher. About 2 40 a m , the yardmaster at Brewer requested the assistant chief train dispatcher to operate No 94 over the southward main track against the current of traffic between Cayuga and Danville in order to prevent a delay to a northbound freight train originating at Brewer Yard. The assistant chief train dispatcher instructed the south-end train dispatcher to issue a train order to that effect. The south-end train dispatcher then issued train order No 14 addressed to the operators at Cayuga, Walz, and Danville, the conductor and engineer of No 94, and the yardmaster and engines standing at Brewer. The order was made complete at 2 50 a m.

Crews of freight trains operating out of Brewer Yard obtain locomotives and cabooses for the trains in the vicinity of the diesel-electric repair shop. Movements consisting of locomotives and cabooses operating on the main tracks between the repair shop lead track and Brewer Yard are governed by the operating rules of the carrier pertaining to movements within yard limits. On the day of the accident a crew was called to report for duty at 3 00 a m to operate an extra northbound freight train from Brewer Yard. Diesel-electric unit 206 was assigned to this train. The road foreman of engines who accompanied the crew of diesel-electric unit 206 entered the dispatchers' office about 2 55 a m and had brief conversations with the dispatchers. The conductor of the crew entered the dispatchers' office about 3 00 a m to check the register for overdue first-class southbound trains. He greeted each of the dispatchers. None of the dispatchers informed either the road foreman of engines or the conductor that No 94 was authorized to operate over the southward main track.

Diesel-electric unit 206 coupled to the caboose entered the southward main track from the diesel-electric repair shop lead track about 3 16 a m. The brake-pipe hose between the diesel-electric unit and the caboose were coupled. A white light was displayed at the south end of the caboose. As the movement was approaching the point where the accident occurred the enginemen were in the control compartment of the diesel-electric unit, the conductor and the road foreman were in the caboose and the front brakeman and the flagman were on the platform at the south end of the caboose. Signal 124-9 displayed an Approach aspect and the fireman called the indication to the engineer. When signal 40 came into view the fireman observed that it displayed a Stop aspect. He called the indication to the engineer and the engineer then made an independent brake application. The fireman observed No. 94 approaching at that time but because of curvature of the track he was not aware that it was occupying the southward main track. He informed the engineer that No. 94 was approaching. The fireman said that he became aware that No. 94 was occupying the southward main track when it was approximately 100 feet distant and that he immediately braced himself. The engineer said that when he observed the fireman's actions he made a further independent brake application. He said he then operated the reverse lever, opened the throttle, and released the brakes in an attempt to stop the movement. The flagman said that he observed No. 94 approaching when it was approximately 150 feet distant and that he immediately called a warning. The train crew and the road foreman alighted before the collision occurred.

As No. 94 was approaching the point where the accident occurred the enginemen were in the control compartment of the diesel-electric unit, the conductor and the front brakeman were in the 12th car, and the flagman was in the 13th car. The brakes of this train had been tested and had functioned properly when used en route. The headlight was lighted brightly and the oscillating white headlight was lighted. The whistle signal indicating movement against the current of traffic was sounded frequently between Cayuga and the point of accident. The engineer said that he initiated a service brake application as the train was approaching the south yard-limit sign and that the speed of the train was reduced to about 30 miles per hour. He said he again initiated a service brake application as the train was approaching signal 54 and that the speed of the train was between 20 miles per hour and 25 miles per hour when it entered the curve on which the accident occurred. Both the engineer and the fireman said that they observed the southbound movement when it was approximately 300 feet distant. The engineer immediately initiated an emergency brake application. The first the other members of the crew became aware of anything being wrong was when the brakes became applied in emergency. The conductor said that as the train was approaching the point where the accident occurred he thought it was being operated in such manner that it could be stopped short of an obstruction.

After receiving train order No. 14, the operator at Walz lined the route for movement of No. 94 through the interlocking on the southward main track. Shortly after, he became engaged in obtaining fuel for the furnace. He said that when he returned the north-end telephone was ringing. He observed that the indicator light for indicating occupancy of the interlocking approach circuit of the southward main track by a southbound movement was lighted. He answered the telephone immediately. The north-end train dispatcher inquired about the location of No. 94 and the operator informed him that the train was moving through the interlocking and that a southbound movement was approaching the interlocking on the southward main track. The collision occurred immediately afterward.

The north-end train dispatcher said that when the road foreman and the conductor of the southbound movement were in the dispatchers' office he was unaware that No. 94 had been authorized to operate over the southward main track. He said that shortly after the south-end train dispatcher informed him of the arrangements for the movement of No. 94 he attempted to inform the crew of the southbound movement by use of radio but was unable to reach them. He then telephoned the operator at Walz.



Examination of the tapes removed from the speed-recording devices of diesel-electric units 1609 and 1102 after the accident occurred disclosed that the speed of No. 94 was reduced from approximately 65 miles per hour to 40 miles per hour in the vicinity of the south yard-limit sign by a service brake application. The speed of the train then decreased gradually from 40 miles per hour to 37 miles per hour throughout a distance of 2.2 miles to the point of accident. It is evident that the train was operated at excessive speed through the interlocking and that it was not being operated in such manner that it could be stopped short of a train or obstruction, as required by the rules, when the collision occurred.

#### Cause

This accident was caused by failure properly to control the speed of a first-class train operating against the current of traffic within yard limits.

Dated at Washington, D. C., this first  
day of August, 1958

By the Commissioner, Commissioner Tuggle

(SFAL)

HAROLD D. McCOY

Secretary

**Interstate Commerce Commission**

**Washington 25, D C**

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