RAILROAD ACCIDENT INVESTIGATION

Report No 3792

THE PENNSYLVANIA RAILROAD COMPANY

OIL CITY, PA

NOVEMBER 21, 1957

INTERSTATE COMMERCE COMMISSION

Washington

SUMMARY

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DATE	November 21, 1957	
RAILROAD	Pennsylvania	
LOCATION	Oil City, Pa	
KIND OF ACCIDENT	Rear-end collision	
EQUIPMENT INVOLVED	Work train	Locomotive and caboose
TRAIN NUMBER	Work Extra 8711	
LOCOMOTIVE NUMBER	Diesel-electric unit 8711	Diesel-electric units 8718 and 8716
CONSISTS	12 cars, caboose	Caboose
ESTIMATED SPEEDS	Standing	10 - 20 m p h
OPERATION	Interlocking	
TRACKS	Double, tangent, 0 52 percent descending grade southward	
WEATHER	Clear	
TIME	8 24 a m	
CASUALTIES	1 killed, 1 injured	
CAUSE	Failure to operate southbound movement in accordance with signal indication	

INTERSTATE COMMERCE COMMISSION

REPORT NO 3792

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

THE PENNSYLVANIA RAILROAD COMPANY

June 27, 1958

Accident near Oil City, Pa , on November 21, 1957, caused by failure to operate the southbound movement in accordance with a signal indication

REPORT OF THE COMMISSION[1]

TUGGLE, Commissioner

On November 21, 1957, there was a rear-end collision between a work train and a southbound movement on the Pennsylvania Railroad near Oil City, Pa , which resulted in the death of a maintenance-of-way foreman, and the injury of one train-service employee

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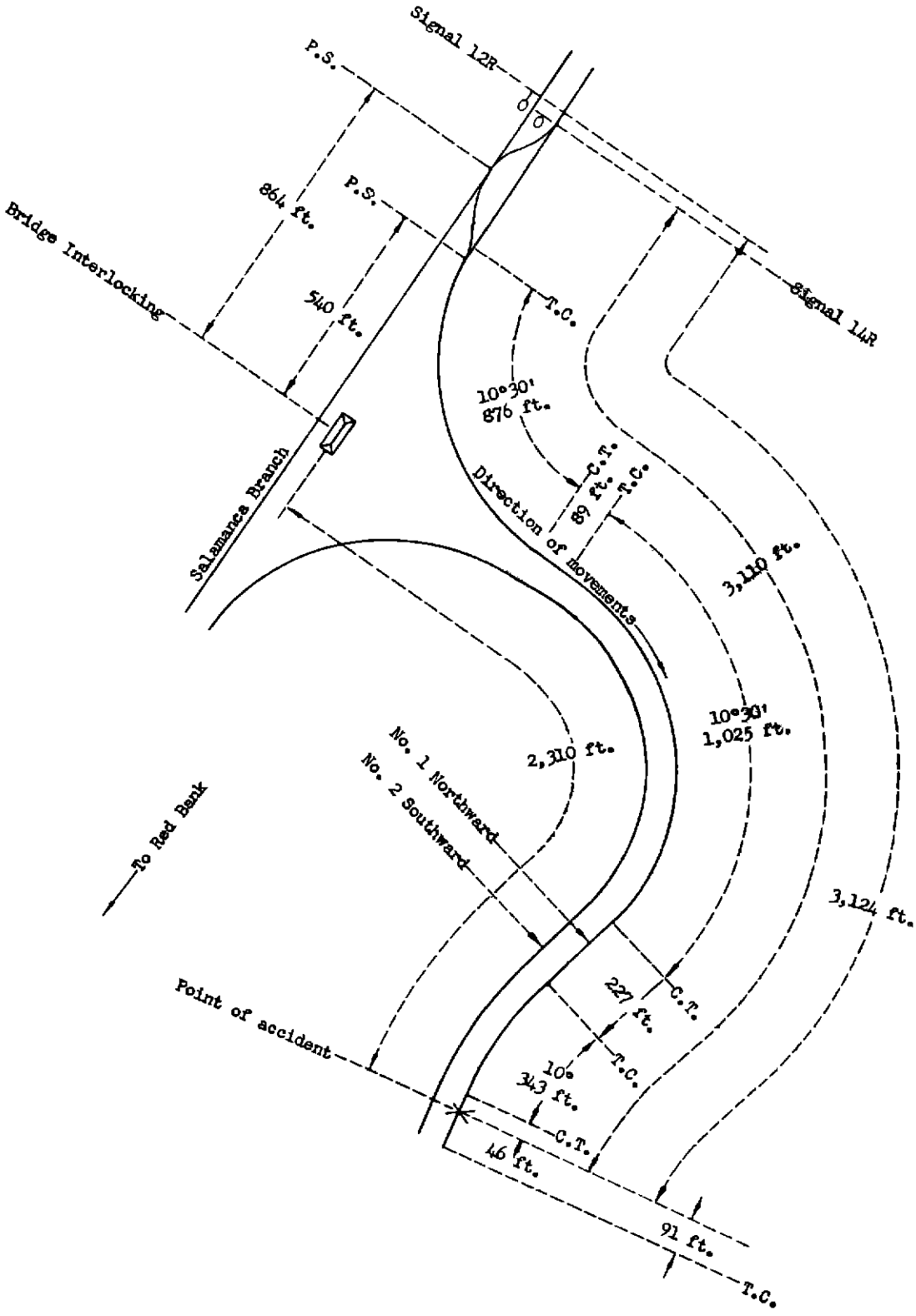
[1] Under authority of section 17 (2) of the *Interstate Commerce Act* the above-entitled proceeding was referred by the Commission to Commissioner Tuggle for consideration and disposition



X Bridge, Pa.
(Point of accident)
68.8 mi.
o Red Bank, Pa.

The Pennsylvania Railroad
Oil City
November 21, 1957

Location of Accident and Method of Operation

This accident occurred on that part of the Allegheny Branch of the Northern Region extending between Briage, Pa , near Oil City, and Red Bank, Pa , 68 8 miles In the vicinity of the point of accident this is a double-track line over which trains are operated by signal indications From east to west the main tracks are designated as No 1 northward and No 2 southward The accident occurred within interlocking limits on track No 1 at a point 2,310 feet south of Bridge Interlocking Station The interlocking station is located adjacent to the main track of the Salamanca Branch Timetable directions on both the Allegheny and the Salamanca Branches are north and south Track No 1 parallels a portion of the main track of the Salamanca Branch north of the interlocking station Within interlocking limits these tracks are connected by two crossovers which are trailing-point and facing-point, respectively, for southbound movements on the Salamanca Branch The south switches of these crossovers are located, respectively, 864 feet and 540 feet north of the interlocking station From the north on track No 1 there are, in succession, a 10°30′ curve to the left 876 feet in length, a tangent 89 feet, a 10°30′ curve to the right 1,025 feet, a tangent 227 feet, a 10°00′ curve to the left 343 feet, and a tangent 46 feet to the point of accident and 91 feet southward The grade is 0 52 percent descending southward at the point of accident

The view of the track ahead from the control-compartment of a southbound locomotive on track No 1 is materially restricted in the vicinity of the point of accident by hills, vegetation, buildings, and curvature of the track

Semi-automatic interlocking signal 12R, governing southbound movements on the Salamanca Branch main track over the facing-point crossover to track No 1, and semi-automatic interlocking signal 14R, governing southbound movements on track No 1, are located, respectively, 3,124 feet and 3,110 feet north of the point of accident These signals are of the position-light type, are continuously lighted, and are controlled from Bridge Interlocking Station Signal 14R is of the dwarf type Signals 12R and 14R display 3 aspects and 2 aspects, respectively Aspects applicable to this investigation and the corresponding indication and names are as follows

Signal	Aspect	Indication	Name
12R	Three amber lights in horizontal position over three amber lights in diagonal position to the right	Proceed prepared to stop at next signal Slow speed within interlocking limits	Slow-approach
14R	Two white lights in diagonal position to the left	Proceed at Restricted speed	Restricting

The controlling circuits are so arranged that when the route is lined for a southbound movement on the main track of the Salamanca Branch over the facing-point crossover to No 1 track, signal 12R will indicate Proceed-prepared-to-stop-at-next-signal, provided the block of that signal is unoccupied When the route is lined for a southbound movement on track No 1 signal 14R will indicate Proceed-at-restricted-speed provided the first track section in advance of that signal is unoccupied

This carrier's operating rules read in part as follows

DEFINITIONS

SPEEDS

RESTRICTED SPEED—Not exceeding 15 miles per hour prepared to stop short of train obstruction or switch not properly lined and to look out for broken rail

INTERLOCKING RULES

605 Interlocking signals govern the use of the routes of an interlocking, and as to movements within interlocking limits that are protected by home signals and distant signals, their indications supersede the superiority of trains, and engine and train crews are relieved from observing Rule 99 * * *

The maximum authorized speed for trains within the interlocking limits is 20 miles per hour

Description of Accident

Work Extra 8711, a southbound maintenance-of-way work train, consisted of diesel-electric unit 8711, 12 cars, and 2 cabooses This train departed southward on the main track of the Salamanca Branch from a yard track north of Bridge, passed signal 12R, which indicated Proceed-prepared-to-stop-at-next-signal, entered the facing-point crossover, entered track No 1, passed the interlocking station at 8 19 a m , and stopped south of the first track circuit in advance of signal 14R with the rear end 2,310 feet south of the interlocking station About 3 minutes later the rear end of this train was struck by a southbound movement

The southbound movement, consisting of diesel-electric units 8718,and 8716, coupled in multiple-unit control, and a caboose, departed from a yard track north of Bridge, entered track No 1, passed signal 14R, which indicated Proceed-at-restricted-speed, passed the interlocking station at 8 22 a m , and while moving at an estimated speed of 10 to 20 miles per hour it struck the rear end of Work Extra 8711

A separation occurred between the cabooses of Work Extra 8711, and both cabooses were were derailed The front truck of the first caboose and the rear truck of the second caboose stopped on the track structure The rear truck of the first caboose and the front truck of the second caboose stopped approximately 15 feet east of track No 1 The rear platform of the first caboose was crushed inward Both cabooses were heavily damaged and the 11th and 12th cars were slightly damaged The first diesel-electric unit of the southbound movement was slightly damaged

The front brakeman of Work Extra 8711, was injured

The weather was clear at the time of the accident, which occurred about 8 24 a m

Discussion

The crew of Work Extra 8711 was assigned to perform work south of the interlocking station This train proceeded southward from the yard in which it was assembled and was stopped on track

No 1 to permit a maintenance-of-way force to board the train When the train stopped, the engineer, the fireman, and the conductor were in the control compartment of the diesel-electric unit, a maintenance-of-way foreman was in the first caboose, and the front brakeman and the flagman were in the second caboose The conductor alighted on the east side to determine from the section foreman of the maintenance-of-way force the location where work was to be performed He said that he was proceeding to a telephone to inform the operator of that location when the collision occurred The engineer and the fireman said that the first they became aware of anything being wrong was when the collision occurred The engineer said that the independent brake of the locomotive was applied but that he had released the automatic brake shortly before the collision occurred Immediately before the collision occurred, the maintenance-of-way foreman, who was killed, was on the rear platform of the first caboose, the flagman was on the front platform of the second caboose, and the front brakeman was on the rear platform of the second caboose The flagman said that he observed the southbound movement approaching and called a warning to the foreman He then alighted immediately The front brakeman said that he observed the southbound movement approaching when it was about 70 feet distant He said he thought that the movement was approaching at a speed at which it could be stopped short of Work Extra 8711 The collision occurred before he could alight

The equipment of the southbound movement arrived at Bridge in a freight train The cars of this train were set out in a yard north of the interlocking station The locomotive was then coupled to the caboose, and this movement was to proceed to the enginehouse located west of track No 2 and south of the interlocking station After Work Extra 8711 passed signal 12R and cleared the first track section in advance of signal 14R, the operator lined the route for the southbound movement to proceed southward on track No 1 As this movement proceeded southward on track No 1, the engineer and the fireman were in their respective positions in the control compartment of the first diesel-electric unit, and the other members of the crew were in the caboose The headlight was lighted The brake-pipe air hose between the second diesel-electric unit and the caboose were coupled, and the members of the crew said that the brakes of the locomotive and caboose were functioning The engineer observed that signal 14R indicated Proceed-at-restricted-speed He said that the speed of the movement was about 5 miles per hour when it passed the signal He said that he observed Work Extra 8711 about 50 feet distant when it came into view as the movement proceeded on the curve immediately north of the point of collision He initiated an emergency brake application but the speed of the movement was not materially reduced before the collision occurred The fireman said he did not observe signal 14R but he assumed that it indicated Proceed-at-restricted-speed He said it was customary for a member of the train crew to alight in the vicinity of the crew dispatcher's office located near the point of collision and as the movement was approaching that point he was looking to the rear for a Stop signal He said he looked forward immediately before the collision occurred and observed Work Extra 8711 when it was about 50 feet distant The conductor said he observed Work Extra 8711 as the southbound movement was closely approaching it and called a warning The conductor, the front brakeman, and the flagman alighted immediately before the collision occurred

After the accident occurred observations were made to determine the distance a caboose standing at the point of collision could be seen from the control compartment of an approaching southbound diesel-electric unit of the same type as the first unit of the southbound movement It was found that the caboose first became visible from the engineer's side at a point 927 feet north of the point of collision and was then visible throughout a distance of 229 feet It again became visible at a point 89 feet north of the point of collision The caboose was visible from the fireman's side throughout a distance of 698 feet immediately north of the point of collision

The brakes of the equipment of the southbound movement were tested after the accident occurred and were found to function as intended

The engineer of the southbound movement said he understood that the restricting aspect displayed by signal 14R required the movement to be operated in such manner that it could be stopped short of a train

Cause

This accident was caused by failure to operate the southbound movement in accordance with a signal indication

Dated at Washington, D C , this twenty-seventh day of June, 1958

By the Commission, Commissioner Tuggle

(SEAL)

HAROLD D McCOY,

Secretary