INTERSTATE COMMERCE COMMISSION

WASHINGTON

INVESTIGATION NO. 2818

THE NORFOLK & PORTSMOUTH BELT LINE RAILROAD COMPANY

REPORT IN RE ACCIDENT

NEAR BERKLEY, VA., ON

AUGUST 23, 1944

SUMMARY

Railroad:	Norfolk & Portsmouth Belt Line
Date:	August 23, 1944
Location:	Berkley, Va.
Kind of accident:	Derailment
Train involved:	Freight
Train number:	Extra 21 South
Engine number:	21
Consist:	Caboose, 16 cars
Estimated speed:	10 m. p. h.
Operation:	Yard
Track:	Single; tangent; level
Weather:	Clear
Time:	12:40 a. m.
Casualties:	3 killed; 1 injured
Cause:	Accident caused by failure to provide adequate safeguards for movements approaching drawbridge
Recommendation:	That the Norfolk & Portsmouth Belt Line Railroad Company provide adequate safeguards for movements over the drawbridge involved

INTERSTATE COMMERCE COMMISSION

INVESTIGATION NO. 2818

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

THE NORFOLK & PORTSMOUTH BELT LINE RAILROAD COMPANY

September 21, 1944.

Accident near Berkley, Va., on August 23, 1944, caused by failure to provide adequate safeguards for movements approaching drawbridge.

REPORT OF THE COMMISSION[1]

PATTERSON, Chairman:

On August 23, 1944, there was a derailment of a freight train on the Norfolk & Portsmouth Belt Line Railroad near Berkley, Va., which resulted in the death of three employees and the injury of one 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 Chairman Patterson for consideration and disposition.

To Port Norfolk
250 ft.
277 ft.
250 ft.
RIVER BRIDGE
Position in which equipment stopped
To Port Norfolk, Portsmouth
P.C.
Baugh's Siding-
1,715 ft. long
Track No. 2
Track No. 1
1°20'
3,101 ft.
South
siding-switch
924 ft.
P.T.
611 ft.
Switch 1 (End of double track)
Extra 21 South
393 ft.
Point of accident
North end
of draw-span
ELIZABETH
RIVER
Draw-span
(Southern
Branch)
Inv-2818
Norfolk & Portsmouth Belt Line Railroad
Berkley, Va.
August 23, 1944
0.46 mile
to Berkley
To Berkley
Port Norfolk,
Portsmouth, Va,
3.66 mi.
Baugh's Siding
0.41 mi.
Point of accident
0.46 mi.
Berkley, Va.

Location of Accident and Method of Operation

This accident occurred on that part of the railroad extending southward from Port Norfolk, Portsmouth, to Berkley, Va., 4.53 miles. Between Port Norfolk and a point approximately 4 miles southward this was a double-track line, and the remainder was a single-track line. The tracks of the double-track line from east to west are hereinafter referred to as tracks No. 1 and No. 2, and the switch at the south end of the double track is hereinafter referred to as switch 1. The entire line was within yard limits and trains were operated by yard rules. The accident occurred on the single-track line 0.46 mile north of Berkley at a draw-span of a bridge, designated as River Bridge, which spanned the Southern Branch of Elizabeth River. From the north there was a 1°20' curve to the left 3,101 feet, which was followed by a tangent 611 feet to the north end of the draw-span and 1,359 feet southward. The grade for south-bound movements was 0.462 percent ascending throughout a distance of 2,200 feet to the north end of the bridge, and was level over the bridge.

The railroad crossed the river at approximately right angles. The draw-span was of the single-track, steel, through-truss, swing type, and was 277 feet in length. The central pier was of concrete construction, and was 26 feet in diameter. At each end of the draw-span there was a steel truss-span 250 feet in length. The mean low level of the water under the draw-span was 20.5 feet below the base of the rails, and the water was approximately 40 feet deep. The draw-span was in the charge of a bridge tender, and was operated from a cabin located on the draw-span near the central pier. The draw-span mechanism was operated by an electric motor. The normal position of the draw-span was for movement on the railroad. At the time of the accident the draw-span was open for river traffic and was at right angles to the track. There was no sign or signal provided to indicate to trains the location or the position of the draw-span.

In the vicinity of the point of accident a siding, 1,715 feet long and designated as Baugh's Siding, paralleled track No. 2 on the west. The south switch of the siding was 924 feet north of switch 1, and 1,317 feet north of the north end of the draw-span.

DEFINITIONS

* * *

Yard Speed.--A speed that will permit stopping within one-half the range of vision.

Operating rules read in part as follows:

14. Engine Whistle Signals

Note--The signals prescribed are illustrated by "o" for short sounds; "___" for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

Sound	Indication
* * *	
(g) o o	Answer to * * * any signal not otherwise provided for.
* * *	
(j) o o o o	Call for signals.
* * *	

93. Within yard limits the main track may be used without protecting against third class, extra trains and engines.

Third class, extra trains and engines must move within yard limits at yard speed unless the main track is known to be clear.

98. Trains must approach * * * draw bridges, prepared to stop, unless * * * signals indicate proceed, and track is clear. * * *

Special instructions governing movements over River Bridge read as follows:

Approach under control prepared to stop and come to a stop unless a proceed signal is received from the drawbridge tender with a green flag by day or green light by night. After proceed signal is given proceed at 10 miles per hour until engine has passed over drawbridge, when regular speed may be resumed.

Description of Accident

Extra 21 South, a south-bound freight train, consisted of engine 21, headed northward, a caboose and 16 cars, in the order named. This train was assembled on Baugh's Siding, and, about 12:35 a. m., it moved to track No. 2 at the south siding-switch, then entered the single-track line at switch 1. It had proceeded southward a distance of about 1,300 feet and was moving at an estimated speed of 10 miles per hour when the engine,

the caboose and the first three cars dropped into the river.

The engine and tender stopped practically upright on the river bed. The caboose and the first three cars stopped in various positions against the top of the engine. The engine and the caboose were badly damaged, and the first three cars were considerably damaged.

It was clear at the time of the accident, which occurred about 12:40 a. m.

The conductor, the engineer and the fireman were killed. The front brakeman was injured.

During the 32-day period preceding the day of the accident there was an average daily movement of 35.75 trains and 38.43 ships at the bridge involved.

Engine 21 was equipped with a headlight on the rear of its tender.

Discussion

The rules governing operation on this line provide that all trains must approach drawbridges prepared to stop unless the signals indicate proceed and the way is clear. Special instructions provide that all trains must stop short of the drawbridge involved unless a proceed signal is given by the bridge tender with a green flag by day or a green light by night, then the train may proceed over the drawbridge at a speed not exceeding 10 miles per hour.

Extra 21 South was en route from Baugh's Siding to Berkley, and had proceeded a distance of about 1,300 feet when the engine, the caboose and the first three cars dropped into the river. The draw-span was in open position for the passage of a tugboat. The train was moving at a speed of about 10 miles per hour, and the engine was moving in backward motion and working steam when the accident occurred. The headlight on the rear of the tender was lighted. The front brakeman and the flagman said that as the train was proceeding from the siding four short blasts of the engine whistle were sounded, then immediately afterward two short blasts were sounded. These signals indicated to them that the engineer had called for a signal from the bridge tender and had received a signal indicating that the draw-span was in position for the train to move over the bridge. The first they knew of anything being wrong was when the accident occurred. At the time of the derailment the flagman was on the sixth car and the conductor and the front brakeman were in the caboose. Since the conductor and the enginemen were killed in the accident, it could not be determined if they were aware at any time that the draw-span was not in position for movement of the train over the bridge.

The investigation disclosed that about 3 minutes prior to the accident the bridge tender placed the control lever of the draw-span mechanism in position for the draw-span to open for river traffic. When the draw-span started to move he realized that his lighted green lantern, which was the prescribed night signal for use in signalling trains to proceed over the draw-bridge, was visible to the approaching train, and he moved the lantern to a position inside the cabin. A bridge guard who was standing on the east side of the track about 750 feet north of the center of the draw-span and the bridge tender said that immediately before the lighted green lantern was moved they heard four short blasts sounded by the whistle of the engine of Extra 21, and when the lantern was moved two short blasts were sounded. At this time the engine was about 1,200 feet north of the center of the draw-span. Soon afterward Extra 21 proceeded upon the bridge, but these employees took no action to stop the train, as they expected it would stop short of the open draw-span. Since the engineer took no action to stop the train, it is apparent he interpreted the movement of the lighted green lantern as a signal indicating that the draw-span was in position for his train to proceed, and apparent also that the enginemen failed to observe the open draw-span.

There was no signal or sign provided to indicate to trains the location or the position of the draw-span, and operation of trains over the bridge depended entirely upon hand signals given by the bridge tender about 388 feet from either end of the bridge The draw-span was so arranged that it could be operated at any time except when a train was occupying it. If adequate safeguards for movements over the drawbridge had been provided, the members of the crew of Extra 21 would have received definite information that the draw-span was not in position for their train to proceed over the drawbridge, and this accident would have been averted.

Cause

It is found that this accident was caused by failure to provide adequate safeguards for movements approaching a drawbridge.

Recommendation

It is recommended that the Norfolk & Portsmouth Belt Line Railroad Company provide adequate safeguards for movements over the drawbridge involved.

Dated at Washington, D. C., this twenty-first day of September, 1944.

By the Commission, Chairman Patterson.

W. P. BARTEL,
Secretary.

(SEAL)