

COMMISSIONER Anderson

CIRCULATED 7/1/18

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IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED
ON THE ILLINOIS CENTRAL RAILROAD NEAR APLINGTON,
IOWA, ON MAY 29, 1918.

June 22, 1918.

On May 29, 1918, there was a derailment of a passenger train on the Illinois Central Railroad near Aplington, Iowa, which resulted in the death of the engineman, fireman, baggageman, express messenger and two mail clerks, and the injury of five mail clerks and twenty-two passengers. After investigation the Chief of the Bureau of Safety reports as follows:

The Waterloo district of the Iowa division of the Illinois Central Railroad, upon which this accident occurred, is a single-track line extending between Waterloo and Fort Dodge, Iowa, a distance of 99.1 miles, over which trains are governed by time table and train orders transmitted by telegraph, there being no block system in use.

The derailed train was westbound passenger train No. 11, consisting of locomotive 1091, 1 mail car, 2 baggage cars, 2 coaches, and 3 sleeping cars, all of steel construction, and was in charge of Conductor Quinlan and Engineman Alderman. This train was en route from Chicago to Omaha, left Waterloo at 1.05 a.m., left Parkersburg at 1.54 a.m., and was derailed at Bridge W-307-7, 6.5 miles west of Parkersburg, or 1.6 miles west of Aplington, at about 2.10 a.m. while running at an estimated speed of 35 or 40 miles an hour.

The entire train, with the exception of the two

rear sleeping cars and the rear tracks of the third sleeping car, was derailed. The locomotive came to rest in an upright position on the west approach of the bridge and parallel with the track, and the tender was practically demolished. The mail car lay on its left hand side on the bottom of the creek and south of the center line of the track; the first baggage car lay on its right hand side at the foot of the west embankment of the creek and north of the track; the second baggage car lay in a diagonal position across the bottom of the creek and was practically demolished; the first coach was in an upright position on the south side of the track, its front end resting at the foot of the west embankment and its rear end remaining coupled to the second coach and resting on the mail car; the second coach was in an upright position south of the track, its forward end resting on the mail car and its rear end on the road bed at the east side of the creek.

The bridge at which the derailment occurred is a 20-foot span segmental concrete arch bridge, not reinforced, constructed in 1902, and spans a branch of Beaver Creek.

Approaching the scene of accident from the east and beginning at the station at Aplington, the track is tangent for 3,250 feet, then there is a 45-minute curve to the south for a distance of 406 feet, then a tangent 4,187 feet in length, and then a 45-minute curve to the north about

2,000 feet in length, the derailment occurring 655 feet from the east end of this curve. The view of an engineman approaching this bridge from the east at night is restricted to about 350 feet. At the time of the accident it was dark and a light rain was falling.

Conductor Quinlan of train No. 11 stated that after receiving a clearance card his train left Waterloo ten minutes late and he received no slow orders or notice of any severe storm west of Waterloo, although he overheard someone remark that it had rained quite hard at Iowa Falls, twenty miles west of Aplington. It was not raining at any time on this trip until he reached New Hartford, 13.5 miles east of Aplington, but there was nothing unusual or alarming in the rainfall at any time before the derailment. He said the speed of his train was between 30 and 40 miles an hour at the time it was derailed, and upon investigation he found that the track had been washed out at bridge W-307-7.

Flagman Dockeme stated that a car repairer at Waterloo told him that it had rained west of that place but it was not raining at Waterloo and there was no indication prior to the derailment of any unsafe condition on account of the rain.

Engineman Token of eastbound train No. 12 stated that when his train left Fort Dodge the weather was clear but when he reached Webster City, 49 miles west of Aplington, he encountered rain and it rained intermittently, but he did

not notice any unusual amount of water in the ditches along the right of way. He said his train passed over bridge W-307-7 at about 11.10 p.m. and he did not notice anything that would indicate that it was in an unsafe condition. Train No. 12 was the last train to pass over this bridge before the derailment.

Supervisor of Track Toohy stated that he rode over the track where the derailment occurred on May 27th on trains 27 and 28 and found it in good condition. He said no difficulty had been experienced at bridge W-307-7 on account of high water in the past, but upon examining the bridge after the derailment he said it was his opinion that the west approach of the bridge had been washed away before train No. 11 reached there.

Section Foreman Van Meter, in charge of the section of track where the accident occurred, stated that he had never seen a sufficient amount of water in the creek to cause any uneasiness as to bridge W-307-7, but during the night of the accident he considered the rain storm of sufficient severity to warrant him in patrolling the track east of Aplington and left Aplington at about midnight with three sectionmen and went to a bridge about two miles east of there. He said he considered that place the most dangerous and remained there with the sectionmen until about 2.30 a.m. He said he had never patrolled the track west of Aplington on

account of rainstorms since bridge W-307-7 had been put in. The section force in charge of this section of track consisted of seven section men and a foreman.

Supervisor of Bridges Jordan stated that he is required to make a quarterly inspection of all bridges under his jurisdiction and he inspected bridge W-307-7 in March, 1918, thoroughly inspected the bench and wing walls and foundations of the bridge and found them in good condition. He said he arrived at the scene of accident at 9 a.m., found the west approach of the bridge washed away from the foundation and west wall of the arch, and the south end of the foundation and wing wall of the arch had settled considerably. It was his opinion that the derailment was caused by a wash-out, and the arch collapsed under the force and weight of the derailment.

District Engineer Loden stated that he passed over bridge W-307-7 on train No. 14 about 5 p.m. on May 26th, riding on the rear platform of the rear coach for the purpose of making an examination of the track, and said he saw no indications of heavy rains. He arrived at the scene of accident about 3 a.m. and from his observations came to the conclusion that an extraordinary amount of water had been forced against the southeast wing wall of the bridge, which caused a very strong current against the west wall, and that caused the embankment immediately west of the arch to crumble

and wash out.

Roadmaster Rogers stated that it had been raining considerably but not to such an extent as to make it necessary to warn anybody about the weather conditions or against washouts, as he knew all bridges in that vicinity were of substantial construction. He arrived at the scene of accident about 3 p.m. and found a great amount of water at the opening where the derailment occurred. Upon further examination he was of the opinion that a large volume of water south of the track came down with great force and the southeast wing wall was undermined, and while being undermined by the swift current an eddy was formed against the bench wall and southwest wing wall, and part of the west bench wall and both wing walls were undermined a sufficient distance to cause the arch to settle a small amount. As this settlement took place the water ran behind the west wall and southwest wing wall, and almost immediately all of the embankment was washed out. When train No. 11 reached that place there was no embankment, and while the arch became separated some by the settlement, the force of the train falling on the arch broke it. The base of the arch being thrown to the east indicated to him that the force of the derailment broke it.

Several persons residing in the vicinity of Aplington stated that there were exceptionally heavy rain storms during the night of May 28th, which continued until after

midnight; that these rain storms were the heaviest they had seen for several years in that neighborhood, and all the creeks there were full of water.

This accident was caused by a washout at bridge #307-7.

Rule No. 16 of the book of rules covering maintenance of way and structures of the Illinois Central Railroad provides in part as follows:

In case of threatening or prevailing storms, track must be patrolled and all bridges, culverts or particular localities in track liable to be affected by such storms, must be closely watched. Force will be freely used to patrol the track under such conditions.

This investigation disclosed that there was an unusual rainfall in the vicinity of Aplington during the night of the accident, and Section Foreman Van Meter is at fault for not patrolling the section of which he had charge, as required by rule No. 16. He considered it necessary to patrol the track east of Aplington, using three of the seven section men for that purpose, and in view of the severity of the rain storms he exercised poor judgment in not utilizing his entire force if necessary and patrolling the track west of Aplington as well. This accident calls attention to the imperative necessity of strict compliance with all rules and regulations promulgated to provide proper safety in situations of this character, and had Section Foreman Van Meter complied with rule No. 16 the condition

of bridge W-307-7 would undoubtedly have been discovered in time to have averted the accident.

Section Foreman Van Meter was employed as a section laborer in 1898 and was appointed section foreman in 1908. He has been in charge of the section of track where the accident occurred since 1912, and is considered by his superior officers to be a competent and reliable employee.

At the time of the accident the engineman and fireman of train No. 11 had been on duty 2 hours and 25 minutes; the other members of the crew had been on duty 3 hours and 55 minutes.