

INTERSTATE COMMERCE COMMISSION

WASHINGTON

REPORT OF THE DIRECTOR

BUREAU OF SAFETY

ACCIDENT ON THE

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC R.R.

ROCKTON, ILL.

FEBRUARY 21, 1937

INVESTIGATION NO. 2150

SUMMARY

Inv-2150

Railroad: Chicago, Milwaukee, St. Paul & Pacific
Date: February 21, 1937
Location: Rockton, Ill.
Kind of accident: Derailment
Train involved: Passenger
Train number: No. 26
Engine number: 6125
Consist: Four cars
Speed: 50-60 m.p.h.
Track: Straight and practically level
Weather: Heavy rainfall during night, but clear
at time of accident
Time: 7:30 a.m.
Casualties: 18 injured
Cause: Washout

April 3, 1937.

To the Commission:

On February 21, 1937, there was a derailment of a passenger train on the Chicago, Milwaukee, St. Paul & Pacific Railroad near Rockton, Ill., which resulted in the injury of 12 passengers, 1 mail clerk and 5 employees.

Location and method of operation

This accident occurred on that part of the Second District of the Milwaukee Division extending between Kittredge, Ill., and Sturtevant, Wis., a distance of 112.2 miles; in the vicinity of the point of accident this is a single-track line over which trains are operated by time table, train orders and a manual block-signal system. The derailment occurred about 1.5 miles west of Rockton, at a point approximately 10 feet east of bridge E-238; approaching this point from either direction the track is tangent for several miles. The grade is practically level, being 0.1 percent ascending for eastbound trains at the point of accident. The maximum authorized speed for passenger trains is 60 miles per hour.

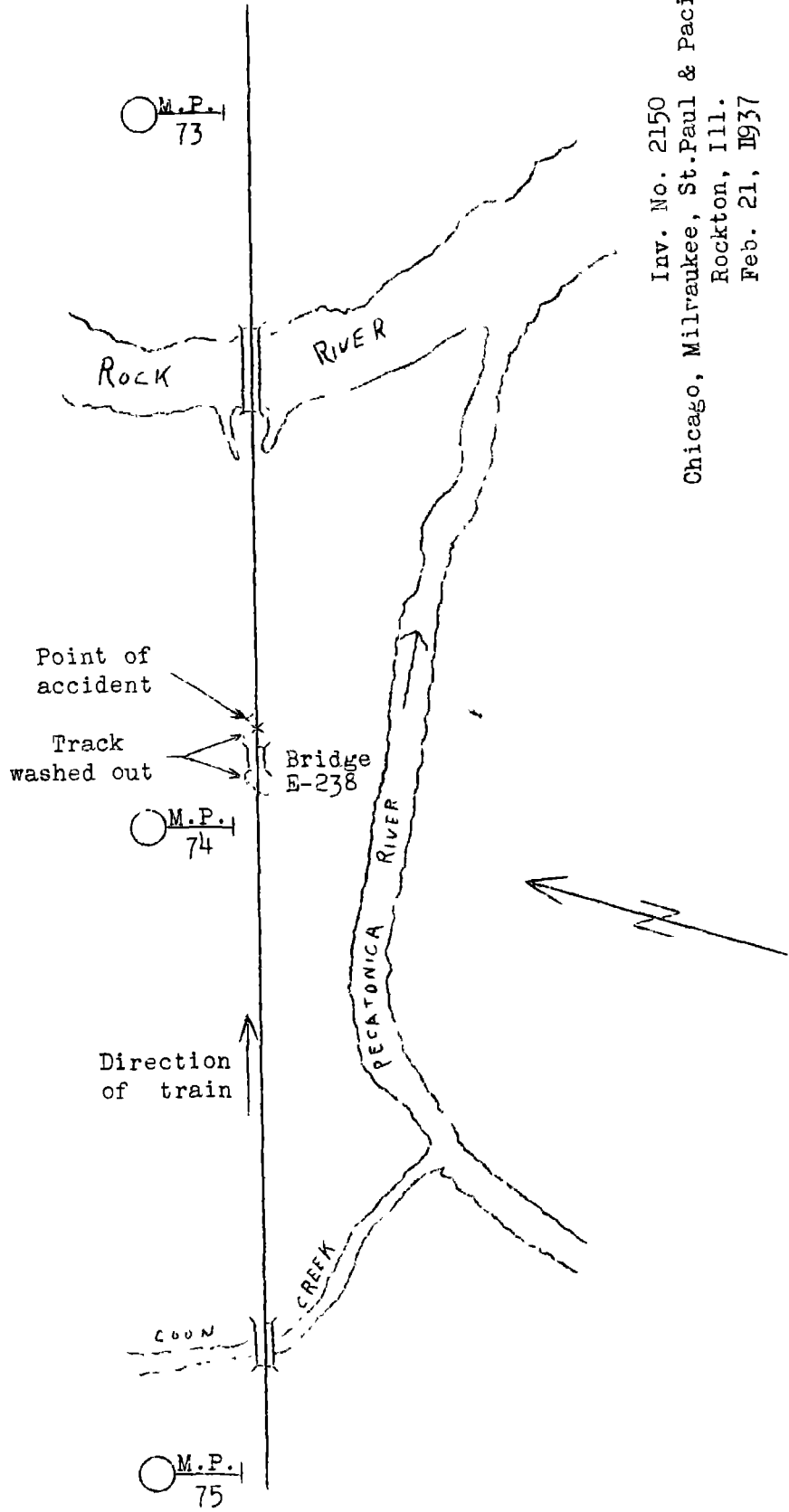
The track is laid with 90-pound rails, with an average of about 20 ties to the rail length, single-spiked, tieplated and ballasted with gravel to a depth of about 12 inches; the track is well maintained. Bridge E-238 is a two-span pile bridge 28 feet in length; under normal conditions no water flows under this bridge. There are three streams in the near vicinity; two of these streams, Coon Creek and Rock River, flow under the track at points approximately 3,650 feet west and 3,250 feet east, respectively, from bridge E-238, and empty into Pecatonica River which parallels the track on the south.

Prior to the accident a heavy rainfall took place during the night, but the weather was clear at the time of the accident, which occurred about 7:30 a.m.

Description

Train No. 26, an east-bound passenger train, consisted of 1 baggage-express car, 1 coach, 1 sleeping car and 1 observation car, in the order named, all of steel construction, hauled by engine 6125, and was in charge of Conductor Stiles and Engineman Woodward. This train passed Durand, the last open office, 13.6 miles west of Rockton, at 7:12 a.m., according to the train sheet, 29 minutes late, and while approaching Rockton it was derailed while traveling at a speed estimated to have been about 50 miles per hour.

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|---------------------|
| ○ Sturtevant, Wis. |
| 42.7 mi. |
| ○ Darien |
| 2.5 mi. |
| ○ Bardwell |
| 16.2 mi. |
| ○ Beloit, Wis. |
| 3.0 mi. |
| ○ Rockton, Ill. |
| 1.5 mi. |
| X Point of accident |
| 5.2 mi. |
| ○ Shirland |
| 6.9 mi. |
| ○ Durand |
| 4.4 mi. |
| ○ Davis |
| 29.8 mi. |
| ○ Kittredge, Ill. |



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Engine 6125 and its tender were not derailed; the first car remained coupled to the tender and only the rear pair of wheels of its forward truck was derailed. This portion of the train stopped on the steel-span bridge over Rock River. The second, third and fourth cars were derailed and separated from each other, but remained upright and stopped with their front ends at points about 690 feet, 610 feet and 210 feet, respectively, east of the point of derailment; the second and fourth cars were headed south-east, while the third car was in line with the track. The employees injured were the conductor, brakeman, flagman, baggageman and a chef.

Summary of evidence

Engineman Woodward stated that he received copy of train order 250, form 19, at Kittredge, reading: "account water reported running over track run carefully at all points where track is liable to be washed." The track involved, however, was within high speed territory and it looked all right to him in every respect; therefore, he saw no occasion for reducing speed as the order applied only to such points as were liable to become affected by high water. There was water adjacent to the track for a distance of 15 to 20 miles in this locality and more or less water is generally encountered between Durand and Rockton, but he did not receive any slow order covering the point where the derailment occurred. He thought that the bridge must have been washed out beneath the surface of the water which was about 2 or 3 feet below the rails on the north side of the track. After the accident the roadmaster told him that the roadbed was washed out for about 20 feet on each side of the point of derailment. Engineman Woodward was of the opinion that his engine would not have gotten over the point where the cars were derailed had he been operating the train at a speed of 10 or 15 miles per hour, and he attributed the safe passage of the forward portion of the train over that point as being due to the speed at which the train was traveling. It was daylight and the speed of his train was about 60 miles per hour; the first he knew of anything wrong was on feeling the engine surge, and he thought that probably a rail had broken; the train separated and the forward portion continued down the track and stopped a considerable distance beyond the point of derailment.

Fireman Smerz stated that a lookout for high water was maintained en route and speed was reduced at points where water was on the track. Approaching bridge E-238 the sun was shining, the way was clear and there was no water near the rails. The speed of the train was about 50 miles per hour when suddenly there was a jolt felt on the engine and the brakes were applied. North of the railroad in the vicinity of the point of accident the fields were flooded, the water reaching to within about 3½ feet of the rail. The track was dry between the rails and from

the engine cab there was no visible indication of a washout. He had passed over this piece of track on the same engine the night before and there was no indication of water trouble. No dangerous condition was encountered en route prior to the accident, and there was no water running over the track. Previous water trouble, however, had been experienced in this vicinity, several years ago.

Assistant Superintendent Thurber at Beloit stated that at about 9:00 p. m., February 20, hard rains were reported over the entire division and all of the section foremen were ordered on duty. One section foreman reported from Shirland, 6.7 miles west of Rockton, that the track was washing at milepost 84 and between mileposts 81 and 82, west of Shirland; the point of accident was just east of milepost 74. It continued to rain very hard and the sectionman again reported that the condition of track was getting serious between mileposts 81 and 82. A crew was then run west with gravel and all known bad spots were repaired. Track conditions were very bad, and the track was washing badly in two places between mileposts 81 and 82, about 800 feet of track being washed out. Bridge E-238 was crossed on the westward trip and also when returning eastward and all waterways were examined, as well as could be done under the circumstances, while en route in both directions; it was dark and raining hard but nothing wrong was found. The water along the fill from bridge E-238 to Rock River was then from 2 to 3 feet below the shoulder of the roadbed on both sides of the track. The gravel train returned to Beloit, 3 miles east of Rockton, at 4:05 a. m., February 21, followed by Train No. 64, an east-bound freight train, which arrived at 4:40 a. m. Train No. 61, a west-bound freight train, passed over bridge E-238 about 5:00 a. m., and that crew reported that they noticed nothing wrong with the bridge when their train passed over it; Train No. 65, another west-bound freight train, also passed over the bridge about 6:00 a. m. In the meantime reports were received that the track was washing on the Beloit-Janesville line, also that the main line was washed 20.7 miles east of Beloit. While en route with cinders to repair the damage at the latter point and on arrival at Bardwell, 16.2 miles east of Beloit, he learned of the accident to Train No. 26; the cinders were then left at Bardwell for another crew, and he immediately returned to Beloit. Assistant Superintendent Thurber then proceeded to the scene of the accident and at this time there was no water within 2 feet of the shoulder of the fill nor had it reached the fill at any time; there was also no indication of water having been on the track prior to the accident. Examination of bridge E-238 showed that it was not then in condition for use and a pile driver was immediately ordered.

Superintendent Valentine stated that Train No. 26 had but four cars on the trip in question, instead of the usual train of six cars.

According to the train sheet this train left Freeport at 6:50 a.m., and the accident occurred about 7:30 a.m., the distance of approximately 30.5 miles between those points being covered at an average rate of speed of 45.75 miles per hour.

Measurements taken by the engineering department of the railroad showed that the high water line reached a point 1 foot below the top of rail at bridge E-238; the track was washed out at each end of the bridge, for a distance of 10 feet at the west approach and about 20 feet at the east approach. The derailment occurred on the washed out track of the east approach, at a point approximately 10 feet east of the east end of the bridge. From the point of derailment eastward the track was torn up for a distance of about 175 feet, then it was intact for about 150 feet, following which there was about 340 feet of track destroyed.

Discussion

During the night a hard rain had fallen over the division, necessitating calling out the sectionmen. At several points within a distance of 18 miles west and 25 miles east of the point of accident the track was badly washed and repairs were made. In order to move the gravel westward to the washed track between mileposts 81 and 82, it was necessary to cross bridge E-238, a two-span pile bridge located just east of milepost 74, and this bridge was again crossed about 4:00 a.m., when returning eastward after these repairs were made. Train No. 64, an east-bound freight train, passed over it about 4:30 a.m., and Trains Nos. 61 and 65, west-bound freight trains, passed over it about 5:00 a.m. and 6:00 a.m. Nothing wrong with the bridge was reported by members of those crews. The water along the fill from bridge E-238 to Rock River was about 2 or 3 feet below the shoulder of the roadbed on each side of the track. Measurements disclosed that the high water line reached a point 1 foot below the top of the rail at the bridge. The engine, tender and forward wheels of the front truck of the first car remained on the rails; the couplings on this portion of the four-car train were not broken. Therefore, it is obvious that the rails and ties were in place at the point of accident when the derailment occurred. High water washed out the track on both sides of bridge E-238, for a distance of about 10 feet on the west side and 20 feet on the east side, and the derailment occurred at a point approximately 10 feet east of the bridge.

Conclusion

This accident was caused by a washout.

Respectfully submitted,
W. J. PATTERSON,
Director.