

Inv-2399

INTERSTATE COMMERCE COMMISSION
WASHINGTON

REPORT OF THE DIRECTOR
BUREAU OF SAFETY

ACCIDENT ON THE
UNION PACIFIC RAILROAD

RICHLAND, NEBR.

DECEMBER 20, 1939

INVESTIGATION NO. 2399

SUMMARY

Inv-2399

Railroad: Union Pacific
Date: December 20, 1939
Location: Richland, Nebr.
Kind of accident: Derailment after striking automobile
Equipment involved: Mail-and-express train : automobile
Train number: First 6
Engine number: 7C06
Consist: 14 cars
Speed: 70-75 miles per hour : standing
Operation: Timetable, train orders and
automatic block system
Track: Double; a middle siding; tangent;
0.12 percent descending grade
eastward
Highway: Tangent; crosses tracks practically
at right angles. Crossing protected
by wigwag signal
Weather: Cloudy and dark
Time: 6:25 p. m.
Casualties: 2 killed, 2 injured
Cause: Automobile becoming stalled on
highway grade crossing in front
of an approaching train .

Inv-2399

January 19, 1940.

To the Commission:

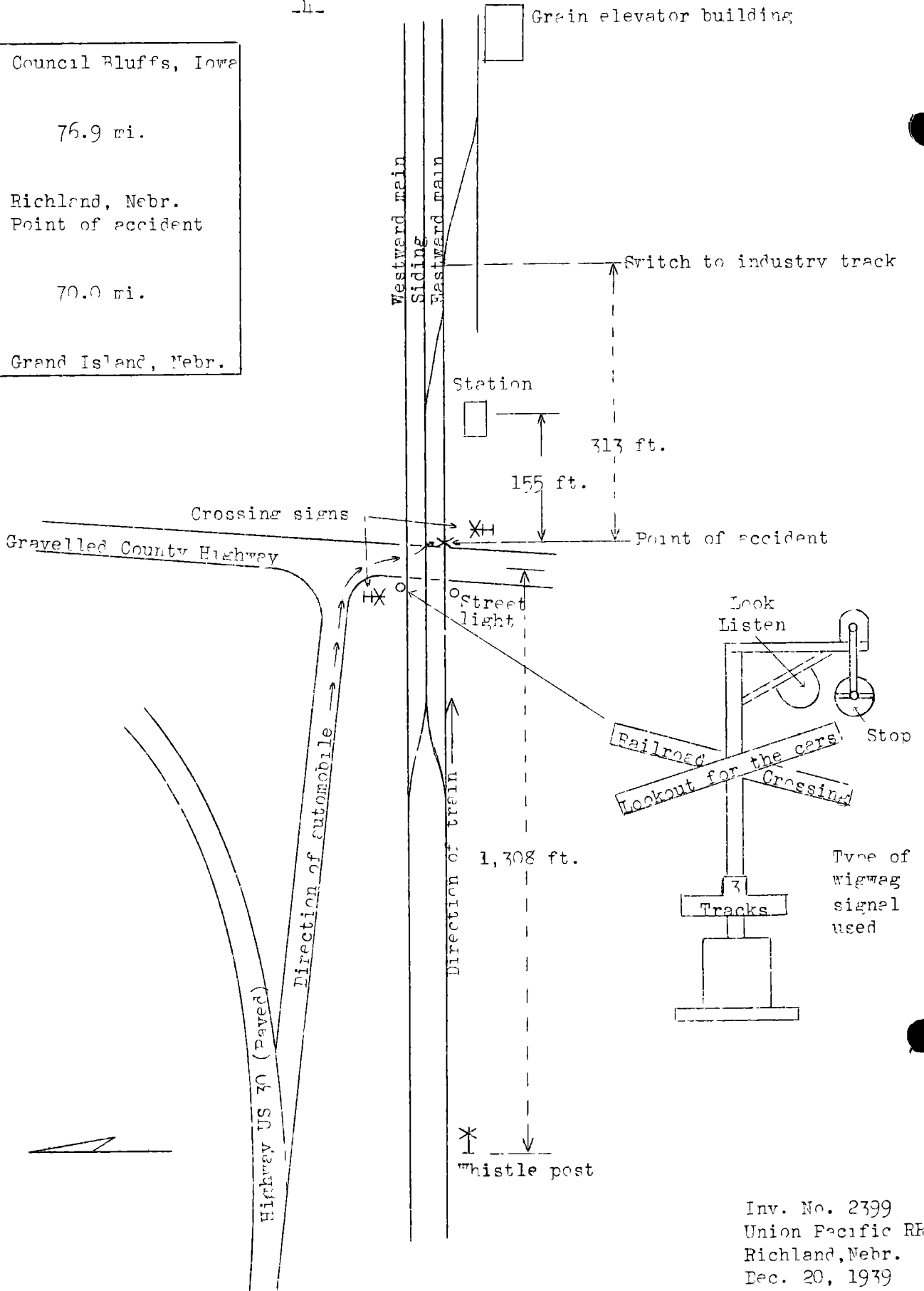
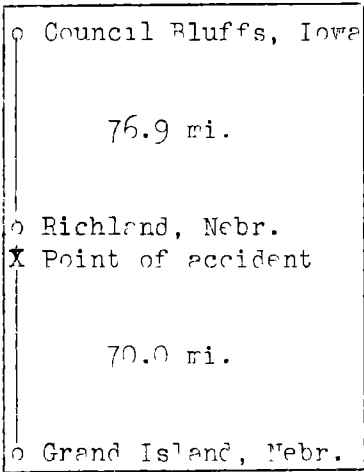
On December 20, 1939, there was a derailment of a mail-and-express train on the Union Pacific Railroad, after striking an automobile at a highway grade crossing at Richland, Nebr., which resulted in the death of two train-service employees and the injury of one passenger and one express employee.

Location and Method of Operation

This accident occurred on that part of the Nebraska Division designated as the First Subdivision which extends between Council Bluffs, Iowa, and Grand Island, Nebr., a distance of 146.9 miles. In the vicinity of the point of accident this is a double-track line over which trains are operated by timetable, train orders and an automatic block system. The accident occurred on the eastward main track at a highway grade crossing which is located 155 feet west of Richland station. Approaching from the west the track is tangent more than 10 miles to the crossing and several miles beyond. The grade for east-bound trains is 0.12 percent descending at the point of accident. At the crossing involved a siding lies between the eastward and the westward main tracks; the center-to-center distance between tracks is 13 feet. A facing-point switch, with a right-hand turnout leading to an industry track, is located on the eastward track 313 feet east of the crossing.

Highway U. S. 30 lies north of the tracks; a county road, practically parallel to the railroad, diverges from this highway and extends eastward a distance of about 950 feet, where it connects at a point about 40 feet north of the railroad with a graveled highway extending north and south and crossing the tracks practically at right angles. At the crossing the graveled highway is 20-1/2 feet in width and the gravel is practically level with the top of the rails. For south-bound highway traffic there is a slightly ascending grade to the crossing; the highway is level over the westward main track and the siding and then is slightly ascending between these and the eastward main track.

The crossing is protected by Union Pacific standard cross-buck signs on each side of the tracks and to the right of the direction of traffic bearing the words, "RAILROAD CROSSING;" a horizontal bar beneath the cross-buck bears the words, "3 TRACKS." In addition, there is a wigwag crossing-signal located at the northwest corner of the crossing and to the right of a south-bound vehicle. The wigwag signal is suspended from a horizontal bar extending from a mast 17-1/2 feet high and is held



Inv. No. 2399
Union Pacific RR
Richland, Nebr.
Dec. 20, 1939

behind a shield when not actuated. When actuated the wigwag is 14 feet above the ground level and displays the word "STOP", and also displays a red light, the lens of which is 6-1/2 inches in diameter. A bell is located on the bar above the wigwag signal. Also on the mast there is a cross-bar sign, the center of which is 12 feet above the ground, bearing the words, "LOOKOUT FOR THE CARS," and "RAILROAD CROSSING," and a horizontal sign, which is about 4 feet above the ground, bearing the words, "3 TRACKS." There is an electric light on a pole at the southwest corner of the crossing. The operation of the signal and the bell is controlled by means of track circuits; the circuit in the eastward track extends 4,042 feet west of the crossing.

Throughout a distance of approximately 100 feet north of the crossing, the view eastward is unobstructed. From a south-bound vehicle, as it nears the crossing, an approaching east-bound train can be seen for several miles.

Rule 14(1) and 14(u) of the operating rules, amplified by 14(w) of the special time-table instructions, provide that two long and two short blasts of the engine whistle shall be sounded approaching public crossings at grade; the sound must be clear and distinct and the last blast prolonged until reaching the crossing; the duration of the total signal shall be not less than 10 seconds.

A whistle post for east-bound trains is located 1,308 feet west of the crossing.

Section 39-1136 of the Motor Vehicle Laws of Nebraska reads:

Whenever any person driving a vehicle approaches a highway and interurban or steam railway grade crossing and a clearly and visible and positive signal gives warning of the immediate approach of a railway train or car, it shall be unlawful for the driver of the vehicle to fail to bring the vehicle to a complete stop before traversing such grade crossing.

The maximum authorized speed for first-class trains other than streamline trains is 70 miles per hour.

It was dark and the weather was cloudy at the time of the accident, which occurred at 6:25 p. m.

Description

First 6, an east-bound first-class mail-and-express train, with Conductor Beach and Engineman Jones in charge, consisted of engine 7006, one baggage car, three storage mail cars, eight express cars, one deadhead Pullman sleeping car, and one coach, in the order named. The first four and the last two cars were of all-steel construction and the other eight cars were of steel-underframe construction. This train left Grand Island, 70 miles west of Richland, at 4:55 p. m., according to the train sheet, 2 hours late, left Columbus, 7.6 miles west of Richland, at 6:15 p. m., 2 hours 15 minutes late, and, when approaching Richland and while moving at a speed estimated at 70 or 75 miles per hour, struck a stalled automobile at a highway grade crossing.

The automobile was a 1929 Chevrolet coupe and was driven by Martin D. Wilson, owner and sole occupant. It was driven eastward on the county road and made a right turn to the railroad tracks; in moving over the crossing it veered to the left or east side of the road, ran off the shoulder, became stalled between the rails of the eastward main track, and was struck by First 6.

The automobile was demolished and carried ahead of the pilot of the engine a distance of 313 feet, at which point it encountered the industry-track switch and caused such damage to the switch that the engine was diverted toward the industry track. The engine stopped on its left side, on the industry track, 726 feet east of the crossing. The tender, in reverse position, stopped 109 feet east of the engine on its left side and with its rear end fouling the eastward main track. The engine and the tender were badly damaged. The first car, and the third to seventh cars, inclusive, stopped practically at right angles across the siding and the main tracks, in upright position, except the fifth car which lay on its left side. The fourth car stopped between the tender and the first car. The second car was hurled over the engine, crashed through the northeast corner of a wooden grain-elevator building, situated south of the industry track, and stopped in upright position at an angle of 45 degrees to the industry track. All these cars were badly damaged. The eighth car and the front truck of the ninth car were derailed but remained in general line with the track. Parts of the front end of the automobile were entangled in the engine pilot, which was torn loose and stopped about 6 feet in front of the engine. The main frame of the automobile was under the fifth car of the train and about 40 feet west of the engine.

The employees killed were the engineman and the fireman.

Summary of Evidence

Conductor Beach stated that a test of the air brakes was made at Grand Island, a running test was made leaving that point, and the brakes functioned properly en route. Approaching Richland the train was moving at a speed of at least 70 miles per hour when he felt an emergency application of the air brakes, which was followed immediately by a crash. He said that the accident occurred at 6:25 p. m. He was in the rear car of the train and at that distance from the engine he was unable to hear the engine bell or whistle. After the accident he inspected the crossing and found it in good condition. The wigwag signal was operating and the street light was burning.

Front Brakeman Papst stated that when approaching Richland he was in the rear car. He felt an emergency application of the air brakes and the train started to lunge. He did not hear a whistle signal sounded but he stated that he would be unable to hear the sound at the rear of the train. The speed of the train was about 70 miles per hour at the time of the accident.

Flagman Caywood corroborated the statement of the front brakeman and added that the weather was clear and he could see a headlight at Columbus.

Express Messenger Helper Jacobsen stated that when approaching Richland he was in the first car of the train. He was unable to say whether the whistle signal had been sounded, although he had heard it sounded at intervals after leaving North Platte. He felt a heavy application of the air brakes an instant before the car started to leave the track.

Baggageman Kruse added nothing of importance.

Martin D. Wilson, the driver of the automobile involved, stated that en route to Schuyler, approximately 8 miles east of Richland, in order to avoid the heavy highway traffic he turned from the main highway to the south road, and when he turned southward toward the crossing he saw the headlight of First 6. After looking carefully and determining the exact location of the headlight he thought that he had ample time to cross before the train reached the crossing. At the time of the investigation he remained convinced that he did have ample time. However, in watching the train he veered the automobile to the left, or east, so far that the left wheels ran off the gravel shoulder as he was moving over the middle track. He then felt a jolt caused by the left front wheel climbing the north rail of the eastward main track and the car became stalled with the front wheel against the south rail of the eastward main track. Being unable to start the motor, he got out on the left side, passed around the rear of the

automobile and opened the door on the right side to search for his electric lantern, but in his excitement he was unable to locate it. Aware that the train was approaching the crossing closely at a high rate of speed, he left the car and walked westward toward the right-of-way fence and when he was about 60 or 30 feet distant the automobile was struck by the train. He did not think that the engineman saw the automobile, and he thought the engine was working steam. He did not recall hearing the engine whistle sounded, and he did not observe whether the wigwag signal was operating, but he did not think as he drove upon the crossing the train had entered the circuit controlling the signal. The driver stated that he was physically and mentally normal. He is 67 years of age, has been in the service of the Chicago, Burlington & Quincy Railroad for about 50 years and at the present time is employed as a conductor. His last physical examination was in October, 1939. He has driven an automobile since 1910 and this was his first accident.

Julius Johnson stated that just prior to the accident he stopped his automobile, which was headed southward, at the north-west corner of the intersection of the highways just north of the crossing to watch a train as it entered the siding just west of the crossing, and the wigwag signal was operating at that time. After this train passed he turned to the right, or westward, on the county road; as he was turning the corner he thought the wigwag signal started to operate again, although he was not certain. Soon afterward he met an automobile coming from the west and about the same time he saw a second train, apparently about 1/4 mile distant and approaching at a high rate of speed. He did not see the automobile turn and move upon the crossing. He was aware of nothing wrong until he saw sparks and fire flying from the wheels of the train, the greater portion of which was east of the crossing, and the train stopped suddenly.

General Roadmaster Overman stated that he arrived at the scene of accident about 9 p. m. and inspected the track. He found that the automobile had been carried ahead of the pilot of the engine until it reached the facing-point switch leading to the industry track. The wreckage of the automobile sheared off the rivets of both lugs on the left or open point of the switch; this condition permitted the left switch point to close against the north stock rail and the engine wheels were diverted to the turnout. The lead rails were turned over and broken at a point about 6 feet west of the frog and the right wheels of the engine became derailed to the south at that point and ran on the ties a distance of 32 feet, then dropped off the ends of the ties. The engine continued a distance of 50 feet before turning over on its left side.

Superintendent Flesher stated that he arrived at the scene of accident at 9 p. m. He inspected the crossing and found marks in the loose gravel east of the crossing which indicated that the wheels of an automobile had been off the crossing and had passed over the north rail of the eastward main track. On December 18 the gravel had been dug out at the crossing for rail inspection, but it was restored on the same day and the crossing was in good condition.

According to data furnished by the railroad, during the 30-day period preceding the day of the accident there was a daily average of 35.7 trains over the crossing involved.

Observations of Commission's Inspectors

The Commission's inspectors inspected the track a distance of more than 1 mile west of the crossing and found it in good condition; there was no indication of dragging equipment. On the ties between the rails of the eastward main track at a point about 2 feet east of the crossing there were scars, which continued eastward a distance of 313 feet to the industry-track switch. The damage to the switch and the marks from that point eastward were found to be as described by the general roadmaster. The crossing was in good condition and on the east side of the crossing in line with the scars on the ties there was evidence of an automobile wheel-mark. During their inspection, the wigwag signal was observed to be operating properly when trains passed over the crossing.

A check of traffic for a 24-hour period disclosed that 252 motor vehicles, 6 horse-drawn vehicles, and 34 trains passed over the crossing.

Discussion

According to the evidence the driver of the automobile saw the train approaching some distance away but thought that he had ample time to clear the crossing before its arrival; however, as he was moving over the crossing he continued to watch the train and veered his car to the left; the left wheels dropped off the shoulder and the automobile became stalled on the eastward main track with the front wheels against the south rail. The driver jumped out, passed around the rear of the automobile, and opened the other door to search for his electric lantern, but was unable to locate it. The train then was closely approaching the crossing and he ran to a point of safety.

The evidence indicates that the wigwag signal was working properly at the time of the accident, but according to the state-

ment of the driver he did not see it and believed that he had moved upon the crossing before the train entered the track circuit controlling the signal. He was not certain that the engine whistle was sounded approaching the crossing. The whistle post for east-bound trains is located 1,308 feet west of the crossing, and since the driver saw the approaching train at a much greater distance it is obvious that the whistle signal for this crossing had no bearing on the accident. The crossing throughout its width of 20.5 feet was in good condition. Undoubtedly this accident would have been averted if the driver had not inadvertently veered to the left and caused the left wheels of the automobile to drop off the crossing.

The wreckage of the automobile was carried on the pilot of the engine and, as the wreckage encountered a facing-point switch 313 feet east of the crossing, it so damaged the switch that the engine was diverted toward the turnout and became derailed.

Conclusion

This accident was caused by an automobile becoming stalled on a highway grade crossing in front of an approaching train.

Respectfully submitted,

S. N. MILLS

Director.