

## INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY CONCERNING AN  
ACCIDENT ON THE PENNSYLVANIA RAILROAD AT DELPHOS, OHIO,  
ON FEBRUARY 26, 1934.

May 3, 1934.

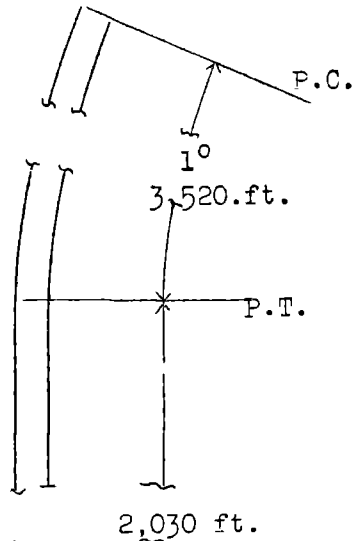
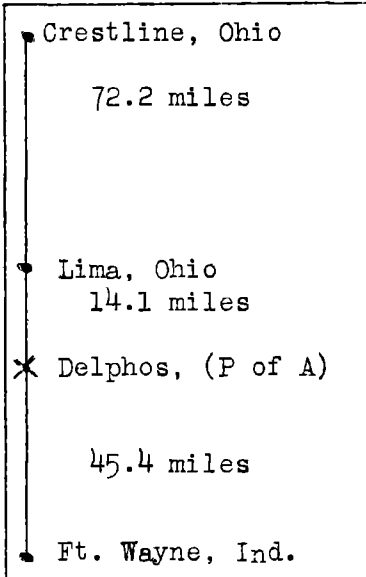
To the Commission:

On February 26, 1934, there was a collision between a passenger train and a motor truck at a grade crossing on the Pennsylvania Railroad at Delphos, Ohio, which resulted in the death of 2 employees and the driver of the truck, and the injury of 4 passengers, 1 employee, and the relief driver of the truck. This accident was investigated in conjunction with the Public Utilities Commission of Ohio.

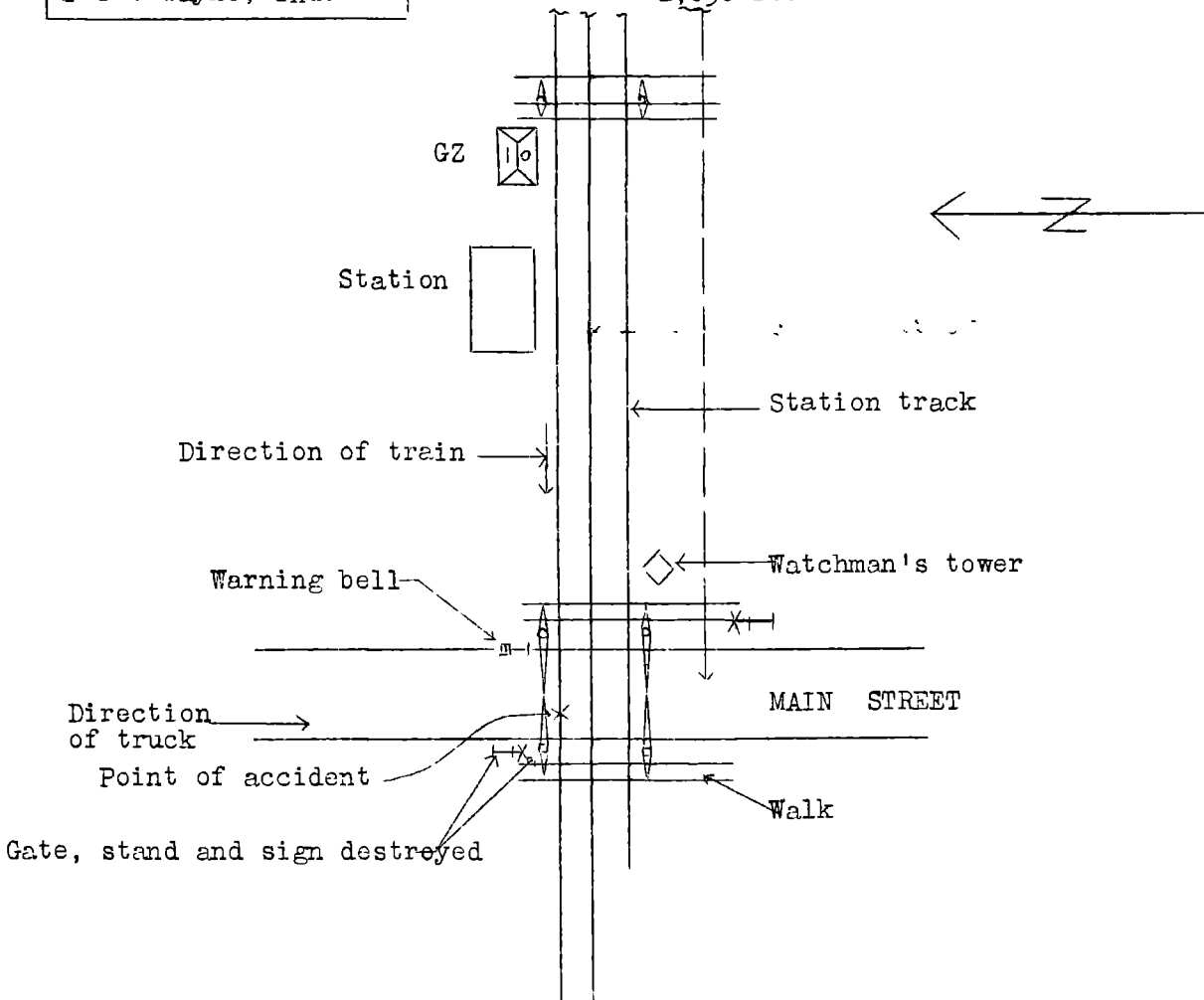
## Location and method of operation

This accident occurred on that part of the Fort Wayne Division extending between Crestline, Ohio, and Fort Wayne, Ind., a distance of 131.7 miles; in the vicinity of the point of accident this is a double-track line over which trains moving with the current of traffic are operated by time table and an automatic block-signal system. The accident occurred on the west-bound track at a point about 165 feet west of the station at Delphos, where U. S. Route 30-S (Main Street) crosses, from north to south, first the west-bound track, then the east-bound track and then a station track. Approaching the crossing from the east on the railroad, there is a 1° curve to the left about 3,520 feet in length, followed by about 2,030 feet of tangent to the crossing, this tangent extending west of Main Street an additional distance of about 940 feet. The grade is 0.33 percent ascending at the point of accident.

Main Street extends north and south and crosses the tracks at right angles; it is straight from a point about  $\frac{1}{2}$  mile north of the railroad to a point several hundred feet south thereof. The street is practically level until a point about 150 feet north of the crossing is reached; starting at that point a south-bound vehicle encounters an ascending grade, first traveling up 100 feet of 2.1 percent grade, and then 30 feet of 5.1 percent grade and 15 feet of 7.15 percent grade to within about 5 feet of the north rail of the west-bound track, following which the street is practically level across the tracks.



Inv. No. 1896  
Pennsylvania Railroad  
Delphos, Ohio  
Feb. 26, 1934



Between the hours of 4:30 a.m. and 10:30 p.m., the crossing is protected by gates, and also by a warning bell located north of the tracks and on the east side of the crossing, both gates and bell being operated by a crossing watchman from a tower located south of the tracks and on the east side of the crossing. From 10:30 p.m. to 4:30 a.m., within which period this accident occurred, the gates are not in use and the warning bell is operated from an interlocking tower at a railroad crossing about 285 feet east of Main Street. In addition to these forms of protection, there are combination railroad crossing and danger signs on each side of the tracks between the street curb and sidewalk. There is no special restriction on the speed of passenger trains at this point, the general restriction in effect in this vicinity being 70 miles per hour.

The rules of the Public Utilities Commission of Ohio governing motor common carrier transportation companies, effective January 1, 1934, provide as follows:

Drivers shall make a complete stop, open the door, in order that they may plainly hear, then look and listen before crossing the tracks of any steam or electric interurban railway, such stop to be made at a point where the clearest view is obtainable. If the view of the track is in any way obstructed they must leave the truck to make sure that the crossing is safe. While crossing the track the vehicle shall be driven in low or second gear and no shift shall be made within twenty-five feet of or upon the crossing. This rule does not apply when crossing the tracks of municipal street railways within municipalities. In special cases, private motor carriers may upon written application, obtain authority to make exceptions.

On the north side of the tracks there is a vacant lot which extends 41 feet east from the highway; between this lot and the station there is a hotel which very materially restricts the view to be had from a south-bound vehicle of a train approaching from the east. In addition to the hotel building, the view is interfered with by a pole line and occasionally by baggage trucks on the station platform. Due to these obstructions it is necessary to approach close to the track before a west-bound train can be seen, and at a point 30 feet from the track the train can be seen when it is 3,000 feet distant. The pole line then practically cuts off the view until a driver is only 15 feet from the tracks, and then he has a good view of the tracks.

At the time of the accident, which occurred about 3:53 a.m., the weather was cloudy and loose snow was being blown about by the wind, while the highway was covered with ice and snow.

### Description

West-bound passenger Train No. 75 consisted of 2 express cars, 1 passenger-baggage car, 1 coach and 6 Pullman sleeping cars, all of steel construction, hauled by engine 5492, and was in charge of Conductor Howley and Engineman Lehman. This train passed Lima, 14.1 miles east of Delphos, at 3:40 a.m., according to the train sheet, 9 minutes late, passed Delphos tower at 3:53 a.m., 7 minutes late, and struck the motor truck on the crossing at Main Street while traveling at a speed estimated to have been about 65 miles per hour.

The motor truck involved consisted of a White tractor and semi-trailer en route from Chicago, Ill., to Lima and Columbus, Ohio, hauling a load of mixed freight. It was owned by the Bates Motor Transport Lines, Inc., Chicago, Ill., and at the time of the accident was being driven by Driver Philip Lang, while Relief Driver Earl J. Swanson was sleeping in the space provided for that purpose in the rear of the cab. On arrival at Delphos it moved south on Main Street, and was proceeding over the crossing when it was struck by Train No. 75.

The indications were that only the engine truck was derailed from a point about 8 feet west of the crossing until a facing-point cross-over switch 250 feet west of Main Street was encountered; at this point the derailed wheels broke the north switch point and tie rods and resulted in the derailment of the engine, tender, and the first eight cars in the train. They stopped in general line with the tracks and the engine was overturned; it stopped on its right side with the front end about 1,150 feet west of the point of accident. The truck was demolished, the body stopping against a building north of the tracks and west of the crossing, while the truck frame and motor were on the east-bound track about 100 feet west of the crossing; the contents of the truck were scattered about between the tracks and the building adjacent thereto. The railroad crossing and danger sign on the north side of the tracks was destroyed as well as the west gate and gate stand of the two gates guarding the crossing on that side of the tracks. The employees killed were the engineman and fireman, while the employee injured was the conductor.

### Summary of evidence

Conductor Howley, who was riding in the third car, thought the air brakes were applied in emergency just before the engine struck the truck, and estimated the speed to have been about 65 miles per hour at the time of the impact. As a result of the accident the gasoline in the tank of the truck caught fire and it was necessary to summon the fire department to extinguish the

blaze in the wreckage of the truck. Brakeman Gatchell also was riding in the third car, and it seemed to him that the crash and the air brake application came at the same moment, and a sheet of flame seemed to envelop the train. Immediately after the accident he went out to protect the head end while Flagman Corneilus, who was riding in the rear car, went back to protect the rear end, and on his way back the flagman noticed that the crossing warning bell at Main Street was ringing; later on, after Brakeman Gatchell was relieved from protecting the head end, he also went back to Main Street and at that time the crossing warning bell was still ringing. All three of these employees heard the road crossing whistle signal sounded as their train approached Delphos.

Relief Driver Swanson stated that his truck left the terminal at Chicago about 6 p.m., February 25, and that he drove it from 71st Street and Cottage Grove, Chicago, to Fort Wayne; on reaching this latter point he and Driver Philip Lang had something to eat and then left Fort Wayne about 1:45 a.m., February 26, with Driver Lang at the wheel while Relief Driver Swanson got up in the bunk and went to sleep, covering up his head with a coat to avoid being in a draft. Relief Driver Swanson said that the first he knew of anything wrong was when he heard Driver Lang shout and the next thing the relief driver knew, he had been thrown out of the truck and was walking around in the ice and snow. Relief Driver Swanson could not say whether or not a stop was made for the crossing as he was asleep at the time. He further stated that neither he nor Driver Lang had anything to do with loading the truck, that work having been performed by others and that prior to this particular trip they had been off duty since about midnight, Friday, February 23, going on duty on Sunday, February 25, at 6 p.m., while the truck left the terminal at approximately 6:10 p.m.; in this connection it was understood that the truck was loaded with 22,000 pounds of mixed freight. Relief Driver Swanson said that Driver Lang appeared to be in good condition and well rested, neither of them being sleepy, and that Driver Lang had rested on the bunk part of the way between Chicago and Fort Wayne. So far as weather conditions were concerned, vision was good; however, ice conditions were encountered in the towns and at a few places on the road, and while there was no snow falling there was quite a bit of snow being blown around by the wind. The brakes and motor of the truck were in good condition. Relief Driver Swanson also said that he and Driver Lang had driven over the route between Chicago and Columbus five or six times during the month of February and he considered that they were thoroughly familiar with the route. He had been the relief driver with Driver Lang since about the first of the year and said that Driver Lang always had been in the habit of stopping for all crossings; otherwise the relief driver said that he would not have slept very well while Driver Lang was at the wheel. He also said that Driver Lang

generally did the driving in each direction between Delphos and Lima, provided it could be arranged without breaking into their respective rest periods too much, but he did not know why Driver Lang always wanted to drive over this particular territory. In this connection, it is noted that U.S. Route 30-S crosses the railroad at grade five times within this highway distance of 16 miles.

Telegraph Operator Foster, on duty in the tower at Delphos about one city block east of Main Street, stated that the proper crossing whistle signals were sounded and that the headlight on the engine was burning; when he saw the train coming around the curve, about 1 mile distant, he operated the knife switch on the wall which started the crossing warning bells to ringing and in the excitement after the accident he forgot to turn off the switch. He did not see the accident, but heard the crash and then saw the fire.

After the accident Supervisor of Telegraph and Signals Wallace tested the crossing warning bell at Main Street and found it to be in proper working order.

Several witnesses, including residents, a garage man and a policeman, stated that they heard the whistle sounded for the crossing, that the crossing warning bell was ringing prior to the accident, that the headlight of the engine was burning, and that as a result of the accident gasoline from the tank of the truck was ignited and threw a sheet of flame upon the train and the driver of the truck. One of these witnesses, a section man, also said that the air brakes on the train were applied and sparks were flying from the wheels before the truck was struck. The garage man said that he was in his garage office about half a city block north of the crossing and saw the truck when it passed at a speed of about 15 miles per hour, with the lights burning on the truck, at which time the crossing warning bell was ringing. The truck seemed to be reducing speed and the garage man went to the door to watch it, having remarked to a taxicab driver who was in the garage that if the truck did not stop for the crossing there would be an accident, and the crash occurred just as he put his hand on the door in order to open it and look out toward the crossing. The garage man was not positive whether the truck stopped for the crossing, but did not think the truck could have done so in the short space of time that elapsed before the accident occurred.

Vice President Luken, of the Bates Motor Transport Lines, Inc., stated that both the driver of the truck and the relief driver were licensed motor vehicle operators. Driver Lang had been in the service of this and its predecessor company about 6 years, while Relief Driver Swanson entered the service in August, 1933, after 4 years of service with another trucking company; both of these drivers were men of good habits and with

good records, and they had not been involved in any previous accidents while in the service of the Bates Lines. Driver Lang had been driving over the route in question about 1 year and Relief Driver Swanson was familiar with the route. The driver of the truck is held responsible for the operation and movements of the truck and has authority to vary the movements of the vehicle and the driving hours under any circumstances that in his judgment may warrant such action, but the general rule is for each man to perform 4 hours of driving and then to take 4 hours of rest. The weight of the tractor of the truck was 8,160 pounds, while the weight of the refrigerator trailer was 10,100 pounds; the weight of the load was 22,000 pounds. Both the tractor and the trailer were equipped with dual rear axles, a total of 10 wheels on the tractor and 8 on the trailer, and the vacuum brakes operated on all 18 wheels. The equipment was practically new and the tractor had been in service only about 2 months. Vice President Luken also said that on regular runs the state authorities do not allow their trucks to use any route other than U.S. 30-S between Delphos and Lima, but since the accident they have been using U.S. Route 30-N and State routes 115 and 65 between those two points, which eliminates crossing the Pennsylvania tracks at several points, including the crossing where this accident occurred.

The Bates Motor Transport Lines, Inc., operates 24 trucks, the majority of which are leased, between Chicago and points in Indiana, Ohio and Kentucky. The equipment used is all of comparatively recent construction, principally from 1931 to 1934, and is in good condition. The operation of the trucks is checked as to violations of highway laws by a service company which trails the trucks en route, and in the event of violations by drivers discipline is administered accordingly; a supervisor of the Bates Company also makes a similar check on each route about once each 2 weeks. All of the trucks regularly used on long runs are equipped with sleeping accommodations in the cab and two drivers accompany each truck on every trip. Before employing a driver the company requires that he shall have had at least 1 year's previous experience as a driver, and the applicant must furnish at least four satisfactory character and ability references. No age limit is set, nor is any physical examination, vision or hearing test required, the entire interview with the applicant being oral. Upon being employed the driver is required to serve a probationary period of from 3 to 6 months as a helper before being permitted to take charge of a truck, but during this probationary period he acts as relief driver while en route on trips. The company has nothing to do, however, with hiring the drivers or helpers of the trucks under contract to them, but does furnish supervision. The company has no formal book of rules, nor does it instruct its men concerning the laws of the various states in which they operate; the officials are not familiar with

these laws and except as new laws come to their attention no instruction is given to the drivers. When a law is enacted and brought to the attention of the officials, notice is given to the drivers by posting a bulletin on the board in the terminal. The schedule of the company requires drivers to cover the distance from Chicago to the following named points in the number of hours shown; to Louisville, Columbus or Cincinnati in 14 hours; to Dayton in 12 hours; and to Indianapolis or Fort Wayne in 8 hours. Return trips are required to be made in similar times and penalties are said to attach to drivers for every hour by which they fail to make the scheduled times. According to Supervisor Eppley of the Bates Company, examination of the truck after the accident disclosed that the transmission was in low-low gear, indicating that the truck either had stopped or reduced to very low speed before starting to cross the tracks.

According to the record of the railroad company there have been three other accidents at this crossing between automobiles and trains, all of them occurring during the hours when the crossing gates were not in use; the dates on which they occurred were September 28, 1929; October 16, 1932; and March 26, 1933. In the first case a train struck a passenger automobile; in the second case a stolen automobile was abandoned on the crossing, and in the third case a passenger automobile ran into the side of the train involved in the present accident.

A check of railroad and vehicular traffic over the crossing made from 10:30 p.m., March 4, to 4:30 a.m., March 5, showed a total movement of 9 trains and 125 motor vehicles. These trains consisted of 6 passenger trains, 1 of which stopped at Delphos, 2 freight trains and 1 light engine; the motor vehicles consisted of 4 busses, 3 of which stopped before crossing; 6 trucks, 2 of which stopped and 1 of these not only stopped but was flagged over the crossing, and 115 passenger automobiles, 37 of which were stopped before being driven over the tracks.

### Conclusions

This accident was caused by a motor truck being driven upon a railroad crossing at grade directly in front of an approaching passenger train.

The evidence was to the effect that when the truck was about one-half a city block north of the crossing it was proceeding at a speed of about 15 miles per hour, with the lights burning, and apparently the speed was then being reduced. The evidence also indicated that at this time the crossing warning bell was ringing, and that in addition the engine whistle was being sounded and that the headlight was burning. It could not be definitely ascertained, however, whether the truck stopped for the crossing



as required by the regulations of the Public Utilities Commission of Ohio, although the supervisor of the motor transport company said that examination of the transmission after the accident disclosed it to be in low-low gear, indicating that the truck either had been stopped or reduced to very low speed before attempting to cross the tracks. Under the regulations above referred to, it was the driver's duty to stop at the point where he could obtain the clearest view of the tracks, and in the case of this particular crossing observance of the regulations, as well as the dictates of sound judgment, required that he stop close to the tracks and ascertain beyond any question that there was no train coming from either direction before attempting to cross the tracks. The driver was familiar with the crossing and had he stopped at the proper point it is probable he would have heard the crossing warning bell and also would have seen the headlight of the approaching train, in which event the accident could have been avoided. Why he did not do so can not be stated, as he is not known to have said anything prior to his death; the shout heard by the relief driver immediately prior to the crash, however, suggests that the driver did not realize the danger until his truck actually was on the crossing. Both the driver of the truck, who was 37 years of age, and the relief driver were licensed operators, married men of good habits and with good records, and had not been involved in previous accidents; they had both been off duty for more than 1½ days prior to reporting for duty on the trip on which this accident occurred. These drivers apparently were well rested and were familiar with the route in question, while the truck was in good condition, the tractor being practically new.

There is no restriction on the speed of trains in this vicinity other than the general speed restriction of 70 miles per hour, while the view to be had of approaching west-bound trains by drivers of south-bound vehicles on the highway is very poor. There is a point 30 feet from the track from which a train can be seen when 3,000 feet distant but unless a driver is acquainted with this fact and is able to stop his vehicle at this particular point, he would not have any appreciable view of an approaching train until within 15 feet of the west-bound track. Any crossing where the view is so restricted and trains are operated at high speed may be classed as one of unusual danger. A check of motor traffic passing over the tracks at this crossing during the hours when the gates are not in use, 10:30 p.m. to 4:30 a.m., showed that only one-third of the trucks and one-third of the passenger automobiles stopped before crossing the tracks. A standard railroad crossing sign and crossing bells do not provide sufficient protection during these hours and the railroad company should give immediate attention to the necessity for providing such additional protection as will afford adequate warning of danger, either by installing flashing light signals or by such other means as may appear desirable.

U.S.  
Between Delphos and Lima the highway distance via/Route 30-S is about 16 miles, and the highway crosses the Pennsylvania tracks no less than five times, including the one here involved. The vice-president of the motor transport company said that when the trucks of his company were on their regular trips they were not allowed to use any other route between the two cities. It is understood, however, that there is another route available, although somewhat longer, which would eliminate all five of these crossings so far as vehicles under 11 feet in height are concerned, and as to vehicles of greater height it would be necessary to cross the tracks only once. Grade crossing accidents are of sufficiently frequent occurrence and are often attended with such serious results as to justify every reasonable effort to correct the situation and if it is at all practical to avoid such crossings by adopting an alternate route such a procedure should be followed with the least possible delay. The results of the check made of night traffic over the highway at the point where this accident occurred, showing that only about one-third of the vehicles are stopped before passing over the crossing, is indicative of the failure of the drivers of motor vehicles to take necessary precautions and serves only to emphasize the necessity for taking every practicable step to improve conditions.

Respectfully submitted,

W. J. PATTERSON,

Director.