

# INTERSTATE COMMERCE COMMISSION

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## REPORT OF THE CHIEF OF THE DIVISION OF SAFETY REGARDING THE INVESTIGATION OF AN ACCIDENT ON THE WESTERN MARYLAND RAILWAY, NEAR CUMBERLAND, MD, ON OCTOBER 12, 1916

OCTOBER 24, 1916

*To the Commission*

On October 12, 1916 there was a head-end collision between an excursion train and an employees' work train on the Western Maryland Railway, near Knobmount, W Va, resulting in the death of 2 employees and the injury of 13 passengers and 17 employees.

The investigation, which was conducted at the scene of the accident and at Cumberland, Md, was participated in by representatives of the Public Service Commission of West Virginia. As a result of the investigation of this accident, I beg to submit the following report.

The first district of the western division of the Western Maryland Railway, on which this accident occurred, is a single-track line except for short pieces of double track within yard limits, this district extends from Cumberland, Md, to Thomas, W Va, a distance of 77.2 miles, and trains are operated by the time-table and train-order system, no block signals being used.

The collision occurred on a stretch of straight, single track, within the limits of Knobmount yard, which yard is a part of Cumberland terminal. The point of collision was approximately 3.5 miles west of Cumberland passenger station, 1,382 feet west of Knobmount tower, and 5,790 feet east of the yard-limit board at Knobmount, which is located at the west end of Knobmount yard.

The track at this point is laid with 90-pound rail, 33 feet in length, with about 17 hardwood ties to the rail, single spiked, without tie-plates, and rock ballast is used. The track is maintained in good condition. In this vicinity, from Cumberland west, the Western Maryland Railway follows along the south bank of the Potomac River. At the place where the accident occurred the main track skirts the base of a small mountain, the other yard tracks lying between the main track and the river. Approaching the point of collision from the east the road is very crooked until Knobmount tower is reached, the track is then tangent for 2,746 feet. The yard

lies on practically level land of the river bottom, the grade being approximately 0.2 per cent descending eastward. Illustration No. 1 is a view looking toward the point of accident from the vicinity of Knobmount tower.

For a period of three years or more a train known as the employees' shop train has been operated for the purpose of distributing men at their places of employment between Cumberland and Knobmount. The train consists of a yard engine and two passenger coaches, its run lies entirely within yard limits, and it is operated under yard-limit rights. A bulletin has been issued giving notice of the time this shop train starts on each trip and reaches the points where it stops for employees to board or leave the train. This bulletin also provides that the employees' shop train must not be de-



No. 1—Knobmount tower and main track looking west toward point of accident.

layed by second-class, third-class, extra trains, or yard engines, but states that this provision does not relieve the crew in charge of the employees' shop train from complying with the time-table rule governing the use of main tracks within yard limits.

On the morning of the accident this train, consisting of engine 1010, running backward, and two coaches, with Engineman Haller and Conductor Porter in charge, was delayed owing to the breaking in two of a freight train on the main line at Cumberland, which prevented the shop train from reaching the passenger station in time to leave Cumberland at 6.45, the time published in the bulletin. On account of this delay the shop train followed passenger train No. 1 which is scheduled to leave Cumberland at 7 a. m. The shop train made its usual stops, the last stop prior to the collision being in the vicinity of Knobmount tower. It then proceeded westward on the

main track and had nearly reached its next regular stopping point when it collided with an excursion train, extra 157. The speed of the shop train at the time of the collision was estimated from 6 to 10 miles per hour. At the time and place of the accident a dense fog prevailed.

The excursion train consisted of locomotive 157 and six coaches, with Engineman Burkey and Conductor Mignot in charge, it was en route from West Virginia Central Junction, 28 miles west of Cumberland, and was run on account of the Hagerstown fair. It left its initial terminal at 6:13 a. m., being operated as an extra, and in possession of the following orders, as well as a meet order not concerned with this accident:

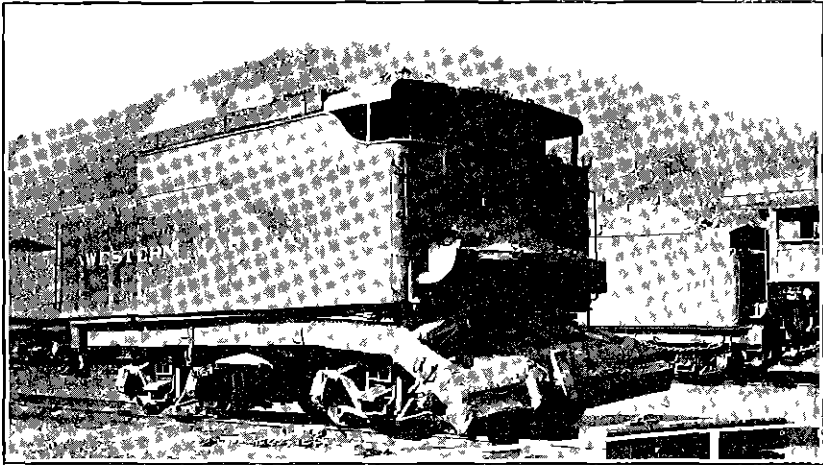
21 Engine 157 run extra W Va C Jet to Knobmount tower. Extra 157 east meet No. 1 engine 151, at Seymour. No. 1 take siding.

22 Extra 157 use passenger speed W Va C Jet to Knobmount tower.

This train made several stops at points advertised for taking on passengers. It passed Rawlings, W Va., the last open telegraph office, approximately 9 miles from the point of accident, at 7:05 a. m. The last stop for passengers was made at Pinto, 3.3 miles east of Rawlings. At Seymour, 3.2 miles east of Pinto, it met and passed trains Nos. 1 and 13, both of which were standing on the passing siding, the excursion train proceeding without stopping. Extra 157 passed the yard-limit board approximately half way between Seymour and Knobmount tower, and was proceeding toward the tower at an estimated speed of at least 15 miles per hour when the collision occurred, it being about 7:25 a. m.

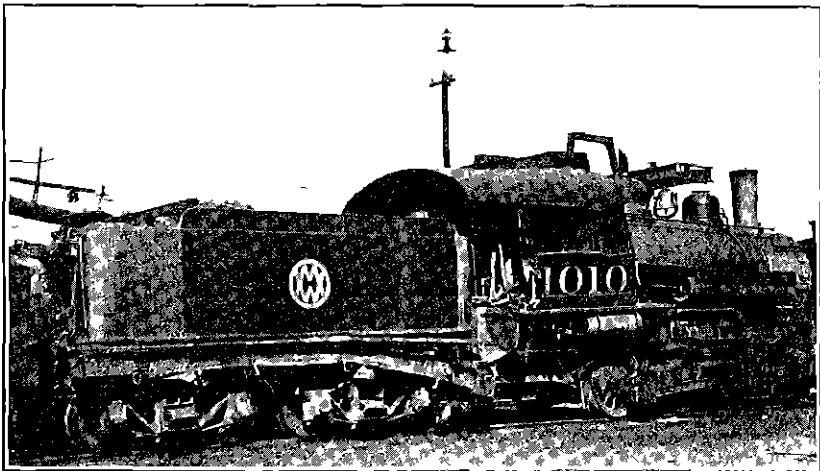
Both engines bore the brunt of the collision. The truck of engine 157 was practically destroyed, the engine frames were broken and badly bent, the engine was derailed with the exception of one pair of driving wheels, and the front portions of the steel tender frame, as well as the drawbar between the engine and tender, were bent and broken. This condition is shown by illustration No. 2. The cars of the excursion train were only slightly damaged. All of the passengers on the excursion train, 48 in number, were riding in the fourth and fifth cars, and none of them sustained serious injuries. Yard engine 1010 was broken loose from its tender, the tender being derailed and thrown at an angle across the roadbed near the point of collision. The locomotive and two coaches were driven backward a distance of 352 feet east of point of collision. The leading truck of the first car and the rear truck of the rear car were derailed, the cars coming to a stop in an upright position. The platforms of the leading car were crushed and the car body was slightly damaged. In clearing up the wreckage this car was lifted to one side of the roadbed and burned. The rear car was practically undamaged. All

passengers on this train, 8 or 10 in number, including the 2 employees who were killed, were in the rear car. When the collision occurred the two who were killed were standing close to the front end of the



No. 2—Tender of locomotive 157

car and were thrown to the floor or against the end of the car, all the passengers being thrown into the front end of the car. None of the other employees was seriously injured.



No. 3—Locomotive 1010 of employees' shop train

Illustration No. 3 is a view of locomotive 1010 after having been removed from the point of collision.

Conductor Porter, of the employees' shop train, stated that on the morning of the accident he checked the train register at Cumberland passenger station and made out a transcript for the engineman. He

said that there were no overdue superior trains when he left the station that morning. He stated that there was no bulletin notice regarding the excursion train, and he had no knowledge concerning it. The shop train was late leaving Cumberland station, and the last stop made prior to the accident was at Knobmount tower, at which point he looked at his watch for the purpose of ascertaining how late it was when the men arrived at their places of work, it was then 7:20. Conductor Porter stated that he was riding on the fireman's side of the locomotive. The shop train was running about 6 or 8 miles an hour, and he thought he could have stepped off at any point on account of the low rate of speed. He stated that the weather was foggy, and he thought that the excursion train was not more than four or five car lengths away when he first caught sight of it. He called out a warning to the engineman and fireman, and then jumped out the side window of the cab. Conductor Porter stated that he was familiar with the rules governing the operation of trains within yard limits and said that these rules were fully complied with by his train, as, at the rate they were running, he thought the employees' shop train could have stopped in a distance of two car lengths.

Engineman Haller, of the employees' shop train, stated that at the time of the collision his train was running at a very low rate of speed, and he thought he could have stopped his train in a distance of less than an engine length. When he first caught sight of the excursion train, however, it loomed up out of the fog directly ahead of his locomotive and he had time only to brace himself against the shock of collision, he did not know whether or not he applied the brakes or reversed his engine. He stated that he fully understood the rules governing operation of trains and engines within yard limits, and that on the morning of the accident he fully complied with those rules. Although the employees' shop train was late in leaving Cumberland passenger station on the morning of the accident, he stated that it was not customary for this train to make up any lost time, and in this case it was operated at its ordinary rate of speed, making its usual time and its usual stops. He thought the collision occurred at about 7:25 a. m. He stated that he did not know anything about the excursion train.

Fireman Murray, of engine 1010, stated that on the morning of the accident the weather was very foggy, the usual stops were made between Cumberland passenger station and Knobmount tower. He stated that when the conductor called out his warning he did not have time to get off before the collision occurred. He also stated that he did not know anything about this excursion train and had not even heard anyone talking about it.

Conductor Mignot, of the excursion train, stated that on the morning of the accident he was called for 3:30 a. m., and, with a

train consisting of a locomotive and three empty passenger coaches ran as an extra from Cumberland passenger station to West Virginia Central Junction, picking up three Cumberland & Pennsylvania coaches at Westport, W. Va. The engine was turned on a wye at West Virginia Central Junction, and at that point the orders were received for the eastbound trip. He asked the operator whether or not a schedule order had been issued, and the operator replied that the excursion train was to be run simply as an extra. He stated that he and the engineman read the orders in the station at West Virginia Central Junction, and that Train Master Dorsey was also in the station when they were getting their orders. Regarding order No. 22, authorizing extra 157 to use passenger speed West Virginia Central Junction to Knobmount tower, Conductor Mignot stated he understood that order meant just what it said, he believed under that order his train had a right to use passenger speed as far as Knobmount tower, he said that when the dispatcher gave him that order he supposed the dispatcher was protecting his train against yard engines, and he understood the order gave him right over yard engines. He did not notice the speed particularly when they entered Knobmount yard, but thought it was not more than 15 miles an hour. It was very foggy. He thought it was about 7:25 when the accident occurred. He stated that on this trip the excursion train left Westport at 6:30 a. m., he had no schedule, nor any bulletin or other special instructions, but passed the stations en route on the time shown in the public advertisement of the excursion train.

Engineman Bukey, of extra 157, described the operation of his train on the morning of the accident, and stated that the orders he received at West Virginia Central Junction consisted of an order to run extra to Knobmount tower, an order to use passenger speed to Knobmount tower, and an order fixing meeting points. He said that operating his train as an extra, without a speed order, the maximum speed limit would have been 20 miles per hour to yard limit at Knobmount, the speed order which he received increased the maximum speed limit to 40 miles per hour. He also said he was aware that running as an extra he had no rights superior to a yard engine while operating within yard limits, but with the order instructing him to use passenger speed to Knobmount tower he considered that he was protected to Knobmount tower against yard engines and was superior to them. He stated when he entered the yard he had the shop train in mind and noticed that the shop-train cars were not stored in their usual place at the conclusion of their trip, however, he did not feel greatly concerned on that account, even though he knew the shop train was somewhere in the yard, for the reason that the shop train sometimes used other tracks than the main track, and he believed he was protected against that train as far as Knob-

mount tower. For a considerable distance before reaching the place where the accident occurred the track was enveloped in fog, lying in banks of varying degrees of density. He encountered a particularly dense bank just before the accident occurred and could see for a distance of only 75 or 100 feet and in some places not that far. When he saw the shop train he applied the brakes in emergency, but did not have time to jump before the collision occurred.

Other railroad employees, including Engineman Rowan of passenger train No. 1, which left Cumberland Station just ahead of the shop train, and met extra 157 at Sevmou, Carl Foreman Rice, who was at Knobmount yard and was an eyewitness of the collision, as well as the operator at Knobmount tower, and railroad employees who were riding on the shop train to their places of employment, corroborated the statements that the weather was foggy, and several of them also made estimates of the rates of speed at which the trains were running, corroborating the statements of the train crews. Carl Foreman Rice stated that he was approximately 150 feet away from the scene of the accident when the collision occurred and he could see the trains through the fog for that distance.

Train Master Dorsey stated that on the morning of the accident he was on the excursion train and was familiar with the orders held by the crew in charge of that train. He stated that the orders issued for the movement of this excursion train did not constitute the safest method of operation that could have been afforded, although in this case the traffic in the distance operated was extremely light. He thought greater protection would have been provided if a schedule order had been issued in the form provided by the book of rules for the running of special passenger trains. He stated that at the time of the accident the fog was very dense, and he thought the excursion train was running at a rate of 15 or 18 miles per hour.

Superintendent Steiner, of the western division, stated that the demand for the arrangement of the special train was made upon him by the passenger department, and this was referred by him to the chief dispatcher, as is customary in such cases, with instructions to arrange for the necessary equipment and power and to run the train between the points designated by the passenger department. He stated that there have been times when trains of this character were handled by special schedules, and some have been handled simply as extras, but the usual practice of handling these trains is on special schedules. He said the purpose of putting out the speed order was to expedite the movement of the excursion train, but it was not intended to convey any other lights, when asked if he thought the speed order deceived or misled the crew on the excursion train, he replied "I don't think it should, although it might have."

Chief Dispatcher Abbott said that he had arranged a line-up, dated October 5, 1916, for the excursion train, and advised the train dispatcher by giving him a copy. He stated that during the present season excursion trains have been operated both under schedule orders and simply as extras, such trains having been operated simply as extras without schedule orders when traffic was light and when it was considered just as safe to operate them in that manner. In this case the excursion train was run without a schedule order by direction of the night chief dispatcher, for the reason that traffic was light, also on account of possibility of failure of either night or day yard engines to receive a copy of a schedule order should one be issued it was considered more expedient to operate this train as an extra without a schedule order, thereby compelling the crew to observe yard-limit rules and requirements.

Assistant Chief Dispatcher Smith, who was on duty at the time of the accident, stated that he instructed the truck dispatcher to run engine 157 extra from West Virginia Central Junction to Knobmount and to use passenger speed between those points. He stated that he did not know until after the accident that the running order and the speed order terminated at Knobmount tower instead of Knobmount, further that there would be no particular danger involved in the order as issued, if received by an engineman who understood and obeyed the rules. Some of the statements of Dispatcher Smith are directly contradictory, in one case he said the order as issued authorized extra 157 to use passenger speed between the points mentioned in the speed order, and that under the orders issued that train possessed the same rights as though a schedule order had been issued, while at another time he stated that the speed order was effective only to the west end of Knobmount yard and in yard limits this train should have been under control as required by yard-limit rules.

Dispatcher Critchfield, who issued the orders for the excursion train, stated that he was instructed by Assistant Chief Dispatcher Smith to run that train as an extra. They discussed the method in which to handle this train and decided it would be safer to run it simply as an extra, inasmuch as they could not be positive that they could get all yard engines without delaying them, and as the excursion train also came through the yard at a time when the day and night force was changing, it was a little doubtful whether it would be absolutely safe to provide for a schedule run through the yard, he said he felt that the excursion train would be safer as an extra, making its own way through under yard rules. He stated that they discussed the meeting points, but not the terminating point for the running orders. His reason for giving the orders to run to Knobmount tower was for the purpose of keeping that train from stop-



ping at west end of yard to call up and ask yardmaster if it was all right to get on main track. He made the speed order read Knobmount tower also for the purpose of paralleling the running order and avoiding confusion. When asked what right the speed order conferred he replied that it gave the right to use speed prescribed in time table laid down for passenger trains from east yard limit board at West Virginia Central Junction to yard limit board at west end of Knobmount yard, further that it did not give any authority to violate existing yard rules. He stated he considered he exercised good judgment in handling this train under the orders issued as a plain extra, he expected the engineman in charge of that train to observe yard rules, and he did not believe there was any possible chance of confusing the crew or leading them to believe they had a clear track through that portion of the yard covered by the order.

This investigation disclosed that the first misunderstanding leading up to this accident arose between the assistant chief dispatcher and the truck dispatcher on duty at the time of the accident. According to the statement of Assistant Chief Dispatcher Smith, it was his intention to terminate the running order and the speed order for extra 157 at the entrance to Knobmount yard and he was not aware until after the accident occurred that these orders had been terminated instead at Knobmount tower. Dispatcher Cutchfield stated that the terminating point for the orders was not discussed by Assistant Chief Dispatcher Smith and himself although the method of handling this train and the meeting points were discussed by them. Dispatcher Cutchfield stated that he issued the orders to Knobmount tower for the purpose of expediting the movement of the excursion train, without any intention of relieving that train from observing yard-limit rules and requirements, he expected the crew in charge of that train to be governed by rule 93 and time-table rule No. 25 within that portion of the yard covered by the running order and speed order.

There was a second point of misunderstanding which led directly to this accident. This was on the part of Engineman Burkey and Conductor Mignot of extra 157, who stated they understood that the speed order directed them to use passenger speed between the points specified and relieved them of the requirements of yard rules between the west end of the yard and Knobmount tower.

Rule No. 93 of the book of rules of the Western Maryland Railway Co. reads as follows:

Within established yard limits as designated in the time table the main track may be used, protecting against first and second class trains.

Third class and extra trains must move within such yard limits prepared to stop unless the main track is seen or known to be clear.

Time-table rule No 25 describes the yard limits and provides as follows

If necessary to occupy the main track all trains and yard engines must protect against first and second class trains. It will not be necessary to protect against third class trains. Third class, extra trains, and yard engines which are required to move within designated yards must do so under full control and able to stop when main track or siding which they are using is occupied by another train, yard engine, or cars.

The direct cause of this accident was the failure of the crew in charge of the excursion train to operate that train within yard limits in the manner prescribed by the rules for the operation of extra trains, this failure on their part resulting from a misunderstanding or an improper interpretation of the orders issued by the dispatcher. While probably the dispatcher technically made no positive error, he exercised exceedingly poor judgment in issuing orders which might easily mislead or confuse the crew in charge of extra 157. The train master, who was on the excursion train and whose paramount duty it was to insure its safe operation, admitted that the method provided for the operation of that train was not the safest one available, he is at fault for his failure, then, to take the necessary steps to provide the safest available method for operating that train, also for his failure to insure that the train crew properly understood the orders received by them and operated the train accordingly. The assistant chief dispatcher is also open to censure for permitting the excursion train to be operated in the manner prescribed.

The attitude of manifest indifference on the part of the operating officials of this railroad directly concerned with the operation of this excursion train and the lack of ordinary precautions and safeguards surrounding its operation are disconcerting and to be deplored. This excursion train, carrying passengers, was run simply as an extra, not only without the protection of a schedule, but also without even a bulletin notice to employees directly concerned. These conditions resulted in both the excursion train and the employees' shop train having equal rights to a piece of single track over a mile in length. Had the rules been adhered to, or had the weather been clear or if the bells and whistles had been used continually or frequently, the collision might have been averted or its severity mitigated, but the lax methods and practices followed must be considered the deep underlying causes of this accident, for which the operating officials can not evade direct responsibility.

The book of rules of the Western Maryland Railway Co which was in effect at the time of this accident prescribes a form of schedule order designed especially for cases of this character and identical with the form contained in the standard code of rules established by

the American Railway Association (February, 1911) An order of this form furnishes the train receiving it with the protection of a schedule, and under such an order the rights of a train are more clearly defined than under the orders issued in this instance Had an order of this form been used, a much greater degree of protection would have been afforded this excursion train, and it is only by utilizing the safest possible method of operation for trains of this character that the railroads can provide the measure of safety to which excursionists and other passengers are entitled

The operating rules require that train orders must be brief, clear, and in the prescribed forms when applicable In this case the schedule form of train order, which is intended particularly for the movement of trains of this character, was entirely applicable, and in view of the fact that preliminary arrangements were made for operating this excursion train more than a week in advance there can be no adequate excuse for failure to utilize that method Had the excursion train been surrounded with the safeguards afforded by a schedule order, this accident would undoubtedly have been averted

Within several years past there have been a number of accidents on the Western Maryland Railway which were due in large measure to bad operating practices and deficiencies in the methods employed in train operation While great improvements have been made under the present management, this accident discloses that further steps are necessary to insure that all of the safeguards afforded by the rules are utilized to the fullest possible extent and the forms and practices prescribed are rigidly adhered to

All employees involved in this accident were experienced men The crew in charge of the employees' shop train had been on duty 55 minutes, and the crew in charge of the excursion train had been on duty less than 5 hours

Respectfully submitted

H W BELNAP,  
*Chief Division of Safety*