REPORT OF THE CIRECTOR OF THE EUREAU OF SAFFTY IN PERIOD INVESTIGATION OF AN ACCIPENT WHICH OCCURRED ON THE PERE MARQUETTE FAILWAY AT ALEXIS, OHIO, ON JANUARY 13, 1923.

February 3, 1923.

To the Commission:

On January 13, 1923, there was a rear-end collision between a freight train and a passenger train on the Pere Marquette Pailway at Alexis, Ohio, resulting in the death of 2 employees and the injury of 4 employees.

Location and method of operation.

This accident occurred on that part of the Toledo-Lidington Division extending between Toledo, Ohio, and Saginaw, Mich., a distance of 135.4 miles; in the vicinity of the point of accident this is a double-track line over which trains are operated by time-table and train orders, with a manual block-signal system providing an absolute block benind passenger trains. Under the rules. an inferior train must clear the time of a superior train in the same direction not less than five minutes, and must be clear at the time a first-class train in the same direction is due to leave the next station in the rear where time is shown. The accident occurred on the southbound main track at a point about 1,550 feet south of the north switch of the southbound passing track at Alexis yard; this passing track is 5,196 feet in length. The tower at Alexis is located 5.600 feet south of this switch, while there is a telephone booth opposite the switch at each end of this siding. Approaching the point of accident from the north there is a 2-degree curve to the left 912 feet in length, followed by 5,813 feet of tangent, the accident occurring on this tangent at a point about 175 feet from its northern end. grade is practically level. The weather was clear at the time of the accident, which occurred at about 8.56

## Description.

Southbound freight train extra 1114 consisted of 79 cars and a caboose, hauled by engine 1114, and was in charge of Conductor Elliott and Engineman Salow. This train left Monroe, 14.4 miles from Alexis, at 4.58 a.m., passed Erie, 9 miles beyond, at 6.13 a.m., and on account of lack of steam came to a stop on the main track between switches of the southbound passing track at

Alexis at about 6.55 a.m. After standing at this point approximately to hours, without protection, the rear of the train was struck by train No. 32.

Southbound passenger train No. 32 consisted of one express car, two coaches, one cafe car, and one parlor car, in the order named, hauled by engine 192, and was in charge of Conductor Aselton and Engineman Murtsmith. The cars were of all-steel construction with the exception of the first car, which was of wooden construction. Train No. 32 left Erie, the last open office, at 8.48 a.m., 8 mimites late, and collided with the rear end of extra 1114 while traveling at a speed estimated to have been between 35 and 50 miles an hour.

The force of the impact drove extra 1114 ahead about 12 or 14 feet, the caboose and five rear cars being practically denolished. Engine 192 was derailed and badly damaged, thile slight damage was sustained by the first car in the passenger train. The employees killed were a brakeman, tho was in the caboose, and a student fireman, who jumped from engine 193.

## Surmary of evidence.

The crew of extra 1114 was called for duty at 3 p.m., January 12, and this train departed from Saginaw, 131.2 riles from Alexis, at 3.15 p. m. At Plymouth, 48.8 miles from Alexis, extra 1114 filled out to 79 cars, coal also being taken. Engineman Salow and Fireman Yerebeck stated their engine steamed properly until this point was reached; however, owing to the poor grade of coal received here, steam could not be generated properly, thereby causing considerable delay between this point and point of accident. As the crew of extra 1114 had received a train order advising that the north end of the siding at Alexis was not in serviceable condition, it was the intention of Engineman Salow to pull by the south switch of this track and then back the train into clear, but the train came to a stop, on account of low steam, when the engine reached a point about seven car lengths from the south end of the passing track. Engineman Salow then vent to the telephone booth located at this end of the siding, and communicated with Dispatcher Johnson, announcing the arrival of the freight train at Alexis yard, but said nothing about being on the main track, the conversation being confined to the condition of the engine and the reason as to the poor run made between Monroe and Erie; also advising that assistance would be required in order to get from Alexis yard to Ottawa yard, a distance of about 3 miles. Dispatcher Johnson arranged with the yardmaster at Ottawa yard to have an engine sent out at about 8 a. m., to tow extra 1114, and he informed

Engineman Salow accordingly. At 7 a. m. the crew of this train had been on duty 16 consecutive hours, and shortly afterwards Conductor Elliott and other members of the train crew went to bed in the caboose, without making any provisions for affording rear-end protection to their train, although the conductor had asked the head brakeman if the engineman notified the dispatcher of the arrival of the train at Alexis. The reason given for this train being left unprotected was the custom of crews voluntarily going off duty at the end of 16 hours service. Where possible their train would be placed on a side track, but where this could not be done the conductor would notify the dispatcher his train was tieing up on the main track and the dispatcher would provide the protection necessary.

At 8 a m. Dispatcher Johnson was relieved from duty by Dispatcher Carter, in making out the transfer Dispatcher Johnson left the train sheet open on extra 1114, but as the dispatcher assumed, not having any report to the contrary, that this train was into clear, he did not enter it in the transfer and said nothing to Dispatcher Carter in regard to Ithis train being at Alexis or the arrangements he had made for towing it in. Between 8.40 and 8.45 a. m., the operator at Ottawa yard telephoned Dispatcher Carter in regard to sending out a helper engine for extra 1114, but was informed he had nothing on it; this was the first time Dispatcher Carter noticed that extra 1114 was shown on the train sheet as not having arrived at Alexis or Ottawa yard. Dispatcher Carter then inquired of the towerman at Alexis if extra 1114 was in sight, and was informed that it was not, and that it must be a considerable distance north of that point. Dispatcher Carter then endeavored to communicate with Erie, about 8.47 or 8.48 a. m., to located train No 32, but was unsuccessful owing to wire trouble. Pispatcher Johnson stated that he was aware of the time the 16-hour period expired for the crew of extra 1114, but that he had not released them nor had he ever released a crew, as it has been the practice for creas to the up without instructions at the end of the 16-hour period; he also stated that while he had on different occasions made inquiray of crevs as to whether or not their trains were into clear, he did not do so on this occasion as he did not think it necessary, nothing being said to him to indicate that the train was standing on the main track.

Figureman Salow stated he whistled out a flag on coming to a stop at Alexis, and was of the impression protection was being afforded. Fireman Yerebeck stated it was recessary to stop four times between Plymouth and the point of accident to get up steam, and although he also made every effort to get up steam while standing at Alexis, at no time was there sufficient stear to move the train for the purpose of backing in at the south switch of the passing track. Fireman Yerebeck was fully arare that regardless of whether or not he remained on duty in excess of 16 hours, he was not to leave his post of duty until properly released. Conductor Elliott stated he was awarehis train was standing on the main track without protection, but assumed it would be taken care of by the 16-hour law, and as was his custom, he tied up without affording protection to the rear of his train, nor did he personally communicate with, or issue instructions to notify, the dispatcher that this had been done, and he said it was customary to the up at any point at the expiration of 16 hours service without getting in touch with the dispatcher. He said that although he imagined it was his duty to notify the dispatcher of his intention to the up on the main line, he would not walk any distance to perform this duty, after his 16-hour period expired. He said that during the five minutes at his disposal between the time of the arrival of his train at Alexis and the expiration of the 16-hour period he could have notified the dispatcher but he had other work to do: had he known that his train would still be occupying the main track when train No. 32 was due, he probably rould have made some provision for protection, however, it was his impression it would be towed in before that time Conductor Elliott further stated that had his time expired at any point en route to the terminal he would have tied up on the main line as he had done on several occasions, also it was his impression the employees were subject to a fine in connection with the railroad company if they remained on duty in excess of 16 hours. Furthermore, when the caboose of extra 1114 passed Erie, the train-order signal was placed in the stop position, and as it is not the practice to block freight trains, Conductor Elliott assumed this was done for their protection at the order of the dispatcher, and that all following trains would be held at that point. It is to be noted, however, that this was 42 minutes before the train reached Alexis, and that no one could have known at that time that the train would have to tie up before reaching the terminal.

Head Frakeman Brown stated that while approaching Alexis yard Engineman Salow said he would notify the dispatcher when they arrived. Later one, while in the caboose, Conductor Elliott inquired of him whether or not Engineman Salow was going to telephone the dispatcher

and has informed he was. It was the head brakeman's impression that the train would be afforded protection by the dispatcher after Engineeran Salow communicated with nim.

Fireman Ankoviak, of train No. 33, stated he had been instructing Student Fireman Mauzy as to his duties, approaching Alexis, and while looking ahead observed a freight train, about 1/2 mile distant, but thought it was standing on the southbound passing track, and was not aware that it was on the main track until it was only 350 feet distant, when he shouted to Engineman Murtsmith, who at once applied the air brakes in emergency.

Superintendent Swope stated that freight trains should clear superior trains according to the rules, or afford proper flag protection, also that conductors are required to report the arrival of their train at Alexis yard by means of the telephones provided for this purpose. He also stated he was aware employees were of the erroneous impression that they would be made co-defendants in suits brought against the railroad company if they continued on duty in violation of the 16-hour law, although no instructions to this effect or to correct this false understanding had been issued; there is a general notice to the effect employees must not exceed the 16-hour law without authority from the superintendent.

Assistant Superintendent Grigsvare stated he had no knowledge of any crew tieing up on the main line without affording proper flag protection, unless instructed by the dispatcher that protection would be afforded, in which event such instructions would supersede the rule requiring flag protection. He knew that the Federal hours of service laws limited the service of an employee. but did not serve to restrict this service in such a manner as to create a renace by compelling a train crew to leave a train standing on the main track, without protection, after being on duty 16 consecutive hours, although he was fully aware the employees did not have this understanding of the law, he said he had instructed them to protect their trains properly under all circumstances, unless released from this responsibility by instructions over the signature of the superintendent.

## Conclusions.

This accident was caused by extra 1114 occupying the main track on the time of train No. 52 without protection for which Conductor Elliott is primarily responsible, and Dispatcher Johnson is partly responsible.

The evidence indicates the existence of a practice

whereby a crew ties up its train and goes off duty at the end of 16 nours consecutive service, without instructions, and it also appears that occasionally trains are tied up on the main track, but when doing so it is the duty of the conductor to notify the dispatcher in order that the latter may arrange for the necessary protection. In this case, Conductor Elliott merely asked the head brakeman if the engineman was going to talk with the dispatcher, making no attempt to do so himself, although there was a telephone within a very short distance which could have been used for this purpose; as a matter of fact, the engineman did talk with the dispatcher, but discussed the condition of the engine, nothing being said to indicate that his train was occupying the main track, nor did the dispatcher make any inquiry, although he knew that the crew had then been on duty within a few minutes of 16 hours. of personally notifying the dispatcher and being definitely advised that his train would be protected by the dispatcher, the conductor proceeded on the assumption, first, that the engineman had fully advised the dispatcher of the situation, and, second, that the dispatcher would take necessary measures for the protection of his train. He was not justified in acting upon either assumption. It was his paramount duty to make certain that his train was properly protected before going off duty, and there can be no excuse for his failure to report to the dispatcher and to protect his train by flag as required by the rules unless relieved of that requirement by competent authority. Conductor Elliott's statements indicate that he had no proper realization of the responsibilities of his position, and that he paid practically no attention to providing for the safety of his train.

Dispatcher Johnson did not receive any report that extra 1114 was clear of the rain track at Alexis, but in the absence of any report to the contrary he assumed it was into clear when he learned from the engineman of its arrival at that point. This was not a safe assumption; until this train was reported into clear it was not safe for him to assume anything other than that it was on the main track and that the movement of other trains must be arranged accordingly. Under the circumstances, Pispatcher Johnson should have taken necessary steps for the protection of extra 1114, and in addition should have shown this train in his transfer to Pispatcher Carter, as well as advising Pispatcher Carter of the arrangements made for towing in the train.

The accident did not occur until nearly an hour after Dispatcher Carter went on duty; the last entry on the train sheet for extra 1114 indicated that it passed Erie at 6.13 a.m. Had Dispatcher Carter proper-

ly checked the train sheet he should have discovered that this train had not completed its run, in time to arrange for the safe movement of train No. 32, and thus have averted the accident.

The manual block-signal system as used on this part of the line provided an absolute block in the case of a train following a passenger train, but no block protection was provided for any class of train following a freight train. It was therefore possible for the passenger train in this case to enter the block section, under a clear signal, and without restriction when the section was occupied by the preceding freight train, and under the circumstances the form of block system in use was of no value whatever as a safeguard. Had an adequate block system, applying to all trains, been in effect on this line, this accident would undoubtedly have been prevented.

In the investigation of this accident it ampeared that the employees involved were of the impression that they would be made co-defendants with the company in case of a prosecution for violation of the Federal hours of service laws; the officials of the company knew of the existence of this erroneous impression but had not corrected it.

This investigation indicated lax operating methods and the absence of such a spirit of cooperation between officers and employees as is necessary for safe and efficient operation. The conditions disclosed by this investigation should be given thorough consideration by responsible officers of this company and proper corrective measures should promptly be taken.

The engine crew of extra 1114 had been on duty 17 hours and 56 minutes at the time of the accident, previous to which they had been off duty 43 hours or more; the train crew were not on duty at the time of the accident, having relieved themselves at the expiration of 16 hours on duty; previous to going on duty they had been off duty more than 24 hours. The crew of train No. 32 had been on duty less than 3 hours, after off-duty periods of more than 12 hours.

Respectfully submitted,

F. P Forland

Director.