### INTERSTATE COMMERCE COMMISSION

REPORT OF THE DIRECTOR OF THE BUREAU OF SAFETY IN RE INVESTIGATION OF AN ACCIDENT WHICH OCCURRED ON THE NEW YORK CENTRAL RAILROAD AT MOTT HAVEN JUNCTION, N. Y., ON SEPTEMBER 4, 1928.

January 2, 1929.

To the Commission.

On September 4, 1938, there was a cide collision between a New York Central Railroad train and a New York, New Haven & Hartford Railroad train, both trains consisting of empty passenger-train equipment, on the New York Central Railroad at Mott Laven Junction, N. Y., resulting in the death of one Pullman porter.

## Location and method of operation

Mott Haven Junction is located 5.28 miles northeast of Grand Central Terminal by compass direction, in the time-table, however, train movements from Grand Central Terminal to Mott Haven Junction and beyond are classed as westward. This accident occurred on the Electric Division within yard and interlocking limits, at Mott Haven Junction the tracks of the Hudson Division diverge toward the north and parallel the Hudson River, on the cast bank, while the tracks leading to the Hailer Division continue "MO" tower is losated in the angle toward the northeast. formed by the diverging tracks, near Park Avenue and E. 150th Street, while Mott Haven yard, consisting of numerous tracks, is also located in this angle, north of "NO" tower and between E. 152nd and E. 161st Streets, Sheridan and Morris Ave. Two tangent main lead tracks, one known as the west main and the other as the east main, parallel each other, extend southward from Mott Haven yard and connect with the tracks of the Hudson Division at a point just south of "MO" tower; the west rain lead trick crosses track 1 of the Hudson Division at a point about 130 feet south of "MO" tower and then connects with track 2 of the Hudson Division at a point approximately 157 feet beyond, Hudson Division track 2 connects with Harlem Division track 4 at a voint 264 feet farther south. The accident occurred at the intersection of the west main lead track with track 1 of the Hudson Division.

There is an electro pneumatic interlocking plant at Mott Haven Junction, operated from "MO" tower, and train movements between the tracks of the Hudson Division and those leading to the Harlem Division and the east and

west main lead tracks to the yard are controlled from "MC" Interlocking signal 10R which governs movements on the west main lead track is a 3-arm home signal and is located opposite "NO" tower, just south of this signal there is a derail, located on the west rail of the west main lead track, which works in conjunction with signal The switches and signals of "MO" tower are so arranged that when the route has been lined for a novement from Mott Haven Junction northward on track 1 of the Hudson Division and across the intersection of the west main lead track, the stop indication of signal 10-R is displayed and the derail is set against a train moving southvaid on the west main lead track. At a point about 300 feet north of signal 10-R there is a crossover, which connects the east main lead track with the west main lead track. No. 1 tower is located at the south end of Mott Haven yard between E. 151st and E. 152nd Streets, just east of the crossover.

The weather was clear at the time of the accident, which occurred at about 9 40 p.m.

## Description

Westbound NYC storage train 1st 144 consisted of four coaches, one diming car, seven Pullman cars, and one club car, all of steel construction, hadled by electric locomotive 1131, and was in charge of Conductor Hith and Engineman Campbell. This train left Grand Central Terminal at 9 10 p.m. and arrived at Lott Haven Junction at 9 36 The route was lined for a movement westword on track 1 of the Hudson  $\mathtt{D}_1\mathtt{v}$  sion and across the intersection of the west main lead track, it being intended to continue westward to a wye track switch and on reaching that point to make a back-up movement into flott Haven yard. The contemplated movement was started, but as the train was moving across the intersection of Hudson Division track 1 71th the West main lead track at a speed estimated to have been about 10 alles per hour the twelfth orr ass struck on its right side near the forward end by the lending car in NYNH&H deadhead equipment train extra "Y" engine 0303.

NYNH&H deadhead equipment train extra "Y" engine 0303 consisted, fio. south to north, of one baggage car, two coaches, two Pullman parlor cars, and six Pullman sleeping cars, all of steel construction, shoved by electric locomotive 0303 backing up, manned by a NYNH&H train and engine crew, and was in charge of Conductor Callaghan and Enginemen Hoffman. This train was to be operated from Nott Haven yard to Boston, via New Haven, and its route from Mott Haven yard to Harles Division track 4 was via the east main lead track, through the crossover to the west main lead track, and thence to Hudson Division track 2 and then to Harles Division track 4, a back-up movement

being required for this distance. As the NYNH&H train crew were not familiar with conditions and not qualified to operate in the yard, a pilot at read this train out of the yard, but being the novement out of the yard had been completed the bill got off the tinin without tolling the tinin crew that he massong to do so, and shoutly after ands, hill traveling at spend estimated to have be nabout 10 liles per nour, the train based signal 10-R, which was displaying a stop indication, each undered the derail just beyond and has derailed, the derailed meels of the first two cars in the train closely follo ad their respective rails and after traveling about 100 feet the loading or struck the side of the telfth onr in NYC storage train 1st 144.

The three rear cars in the NYC storage train and the two ledding cars in the NYNH&H deadhead equipment train very described and damaged. All of the described cars remained upright and in general alignment with the tracks upon which they were moving with the exception of the treditta car in the storage train, which are come to rest on its left made between tracks I and 2 of the Mudson Division, with it, rear end at a point about 100 feet with of the crossia. The front end of the leading our in the deadhead couldment train cornared the front end of the rear car in the stolege train, those cars came to restrict their forward ends just south of the intersection.

# Summary of evidence

Assistrat General Y in inster Reisiger stried that he lid been employed in the lit leaven yand for about 12 years, about 3 years of disca as in his present position, and that he as thoroughly familiar with conductions there. On the I te of this accident he received ford of about five o'clock that the New Haven equipment ording is to be ande un had pourphed to bostom. The time his pidered for seven o'clock, it is inde up but because or claimestion in the yord it are not rendy to rove until about eight o'clock and the invenent as stirted at about 9.35 o.m. Shortly before that tire then train No. 50-Y, a stornge train, was lenving the yard, he telephonalto "LO" to retain raced the director nether the Wer Hiven (dipwent train could be andled after train No. 50-Y, and was advised that it would be 'and'ed right after that train. He then in 1kee to the tablequiblent firsh to start it out of the gard and on his by he stooned at an automatic tolembore located about to dir lengths from the deachead equipment train, colled No. 1 to er, told that to rewan that ".O" has coin to handle the dondread equipment train ofter train No. 20-7 cleared, and that he was on his vay? to the derine of equily ent trial for the purpose of starting that train from the yard; as ho could not see the signal at "MO" tower from the word, he asked the to erran in No. 1 tore: to sound three Plants on the tower maistle

to advise him her "all signals were set" Yardmoster Reisiger said he as advised by the towerman of No. 1 tower that this wo labe tome. Yardmaster heisiger understood from this cliver, afrom that when three blacks were sounded on No. I tower whistle the route would be lined all the way through from "oft waven yard to Harlen Division track 4, past To. 1 tower and also "NO" tower. He then proceeded to the NYNH&A headhead equipment thain and called to the train crew that they were goin, to move. He got on the leading car which was a baggage car, and then the two branken cane into the leading car he showed they where the conductor's emergency 'lake valve as located. Shortly afterwards, three blasts were sounded on No. I tower whistle, Yardmaster Reisiger sail he was inside the leading our, near the forward end and he could see the signal at No. 1 tower about three city blocks away, and that signal was clear, he could not see the indication displayed by the sinnil it "MO" tower, but he assumed that signal is also clear in accordance with the understanding he had with the lowerman. The yaidmaster pulled the whistle signal cord three times for the engineman to start the back-up movement, but as the poverent was not started, he again gave the back-up signal, and then back-up signals were liven by the use of hand lanterns, after which the train started. Prior to that time he had not seen the conductor on the train. After the train started Yaid actor Reistrer said he walked through the baggage car to the coach, saw the conductor sitting there and pointed out the location of the conductor's emergency valve to him. The yardmaster then went outside and stood on the step on the west side and south end of the coach and as the speed began to increase he jumped off at a point near E. 153rd Street. He said he took it for granted that the signal at "MO" tower was clear and the route was lined up all the way through as it was his understanding that this would be the case when three blasts were sounded on No. 1 to er whistle. The list he knew of anything wrong was, on hearing a noise caused by the breakers blowing out, and then the train came to a stop, at which time he was alongside of it, near the motor, having walked in the same direction the train was moving toward the yardmaster's office Ea stated that at this time of the year there are often two or three movements of this character during the night and it is customar, to handle them in the same manner. The New Haven train creis never start out of the yard until they are told it is all right to go, nowever, it is not the practice for a pilot to stay on all the way out to the main line but to jump off as near as they can to "20" tower. In this case he didn't know whether or not the clew in charge of the quipment train was familiar with the route over which the train was to be roved to the main track, but he romained on the irain until it had passed over the yard switches and as the remainder of the movement was governed by high signals he thought the crew were well able to take the train. He expected all signals would be clear, but if they were given a red signal he expected them to apply

the brokes by means or the conductor's volve, the location of which he had ocintred out. Then asked objectning his understanding as to the duties of a pilot, Yardmaster Reisiger shid it this his duty to take the train as far as the crew is not familiar with the track they are going over, and from what happened ofterwords it was appearent he did not fulfill his duties as pilot in this instance although at the time he thought it was safe for the crew to handle the train without a pilot from the point where he left it to the main line to and which they were moving. He stated that he did not notify either the brakemen or the conductor that he was going to get off, and admitted that he should have done so. The yardmaster said that it was not the prictice, nor was it his intention on this occasion, to stirt a deadhe d equipment train from the yard unless the route was clear all the way through both No. 1 and "MO" interlocking plants as to do so with the route clear only as far as "MO" tower would result in blocking one leg of a wye track at the south end of the yard, which leg closses the west main lead and east main lead tracks at nearly right angles in the immediate vicinity of No. 1 tower.

Under the instructions relative to switching pagasenger equipment, it is required that then stitching cars not equipped with platform air device in proper working order, or here the conductor's valve is not quickly accessible, the brok-up hose rust be used. Yord water Reisiger said that it was not the practice to use a tailhose for making back-up movements similar to that involved, and said that no back-up hose was required in this instance as with the brakeign stationed as they were the conductor's valve in the baggage car was quickly The rules also require that then ones are nccessible pushed by an engine a trainman must take a conspicuous position on the front of the lending enr, Yardhaster Reisiger said that this rule applied in this instance and that it was his duty to see that it was complied ith, the two brakemen were inside the bragage car, at about the middle of the car, near the ir cord, and he was of the opinion that this rule was fully complied with.

beverman Wells, stationed at No. 1 tower, stated that he had been engaged in service at that point since July 8, 1928. After talking on the telephone with Yard-raster Reisiger in this instance, when it was arranged to now the back-up movement of the NYNH&H deadhead equipment train started from the yard upon the sounding of three blasts on No. 1 tower histle, which was the first time that such a request had ever been made of him. Leverman Wells stated that he telephoned "MO" tower and informed Tower Director Hassell that the deadhead equipment train was ready to deart from the yard and that the tower director replied that it was "all right". Leverman

Wells said he then lined up the route which ocrmitted the movement to be mide past N . I to er tound "MO" tower, and that he sounded three plasts on the toter thistl. As soon as he sow the deadle is equipment wrain movin, he said that he again called "10" to er and informed the to or director that the train was coming to "MO" tower on the west warm lend thick and that the tower director again replied that it was "all right". Shortly ofterwide the accident occurred. Leverge Velle was certain Yurdmaster Reisi or did not request that the tower whistle be sounded then the routes through both plants were lined. He intended the three clasts on the tower unistle to mean that it was all right to start the back-up movement from the yord, however, Leverman bells stated that he would not have lined No. 1 to er route and hid the bick-up movement stritted unless "MO" tower h d informed nim it was all right, as to have started such a movement from the yard without the route lined all the way through would result in proctically all of No. 1 to er territory being blocked and thereby prevent other yard movements being made. Leverman Wells took it for granted that Yardmaster Reisiger was going to act as pilot and that "MO" tower was ready to handle the hovement, on account of having been told by the tower director that it was "all right". It was the general practice to inquire of the tower director whether the train could be bandled at "MO" tower before lining to. I to er route. After asking the to or director to handle a train sovement from the yard Laverman tells haver ando it a point to observe the indication displayed by interlocking signal 16R nt "MO" cover before lining No. 1 to er route, but permitted the train to move as for as "NO" tower, regardless of the indication displayed by that signal, howover, interlocking signal 10R usually displayed a proceed indication a considerable time before a train moving from the yord reached it, thereby making it unnecessary for the train to come to a stop. On this occasion he watched interlocking signal 10R until it was hidden from vie by the deadhead equipment train making the back-up movement and it displayed a stop indication as long as he could see it. Thore is a bell code system in effect bet een No. 1 tower, "MO" tower, and other towers by which means advance notice is given of train movements, however, Leverman Wells said that this system was not applicable to NYEH&H deadhead equipment trains, or at least he had no instructions to use it for such movements, and it was not used in this instance.

Tower Director Hassell, stationed at "MO" tower, stated that he had worked for this railiond for two years and two months. Since August 1, 1938, he had been employed as a regular relief director, from which time he had worked at "MO" tower every Tuesday, prior to that he had had a little experience at that boint working on a sheet. According to the tower director, Leverman ells

telephoned and said that train No. 50-Y was ready to depart from the yard and Tower Director Hassell said "all right", then Leverman Wells sai that the deadhead equipment tiain would be next, no rention being made as to when the deadness equipment train would be started. Tower Director Hassell stated that he aid not inform Yardmaster Reisiger that the deatheat equipment train could be mandled after train No. 50-Y and could not re ember having had any such conversation of the yardraster, nor did ne tell Leverman Wells, oi any one else to his knowledge, when the deadhead equipment train could be handled, claiming that he had no knowledge unatever as to that train departing from the yard and being enroute to "140" tower or that No. 1 tower route had been lined for the movement. The first knowledge he had of anything wrong was when the leading car of the deadnead equipment train encountered the derail device and was derailed. Tover Director Hassell said that it was the practice for No. 1 tower to give notice by means of a boll code system, of any movement between No. 1 and "NO" tower but that no such signal was given in this instance, although it was used in the case of train No. 50-Y, in addition to the telephone call from No. 1 tower. Furthermore, even nia Leverman Wells telepioned or com intested with "MO" tower by reans of the bell code system and requested that "1.0" tower route be lined for the deadhead equipment train To ex Director Hassell said that the request could not have been complied with as train 1st 144 was already on the circuit enroute northward on track 1 of the Hudson Division, he said he had lined the route for the northward opposing movement just after train No. 50-Y cleared.

Brakeman Van Haaften, of the MYNH&H deadhead equipment train, said that just before the train started the back-up movement Yardmaster Reisiger, the pilot, went into the baggage car. When the train started to move Brakeman Van Haaften went from the coach into the baggage car, then care back into the coach to get his lantern, after thich he returned to the baggage cor, and stood beside Flagman Costello in about the center of the leading car, both end doors of the car were open. returning to the leading car the second time Brake an Van Haaften did not see the bilot, nor did he know where the pilot was; however, as he understood there was a pilot on the train, he did not look for signal indications, and was unawore of anything frong until the derail was encountered. Brakeman Van Laiften then shouted a warning of danger and Flagman Costello pulled the air cord, applying the train brakes from the leading car, and then the collision occurred He said the last time he had been in this yard was about four years ago.

Flagman Costello, of the NYNH&H deadhead equipment train, stated that he had never before been in Mott Haven yard. He said that just before the back-up movement was started the pilot wert to the extreme forward end of the leading orr, to the point where the markers were located, then the pilot returned to the center of the car, gave two back-up signals to the engineman by pulling the communicating whistle signal cord, and as the train did not start to move hand lantern back-up signals were transmitted and the train started. Flagman Costello said that after the train moved about one one length he say the pilot go out the door at the front and of the brggage car but after that he did not again see the pilot prior to the accident, he assumed that the pilot was on the front end of the leading car. Flagman Costello was riding inside the boggage our in about the center of that orr, and the first knowledge he had of anything wrong was when Brakeman Van Haaften shouted a warning of danger. The flagman immediately pulled the air cord, apolying the brakes in emergency from the leading car. Flagman Costello said that the air brukes took proper effect.

Conductor Callaghan, of the NYNH&H deachead equipment train, stated that the last time he had been in Mott Haven yard prior to the night of the accident was about two years ago. Hy was not familiar with the territory nor qualified to operate in the yard and did not consider that he was in charge of the train, or functioned as conductor, in the event that there was a pilot. It Was his understanding that the train would be in charge of a pilot from the yard to the main line, and that the conductor's responsibility for the same did not begin until the train was turned over to him by the pilot on the main line and a proceed signal was received; otherwise he saw no necessity for a pilot. Conductor Callaghan said that on two previous occasions his train had been piloted out of the yard. In the present instince he saw Yardmaster Reisiger, whom he aid not actually know at the time but who he assumed was the pilot, take charge of the train. The conductor had instructed Brakeman Van Haaften and Flagman Costello not to take signals from any one except the pilot. Conductor Calleghan was in the coach working on his records for another trip; he heard the communicating whistle signal sounded for the engineman to start the back-up movement and assmed those signals were given by the bilot. The conductor was not in the rear car when the back-up movement was started but thought that as Brakeman Van Huaften and Flagman Costello were in that car with the pilot that was sufficient. Just after the train started to move the pilot care into the coach and pointed out the conductor's emergency valve and then the pilot returned toward the baggage car. Conductor Callaghan was unaware of anything wrong until the brokeman ran into the coach just prior to the collision, the conductor immediately opened the emergency valve but at this time the air brakes were either just applying or nad

already been applied. Conductor Collegian and no idea that the pilot had left the train, believing all the time that his train as being properly piloted, otherwise he said he would never have remained seater in the conchand permitted the back-do movement to be made, but would have stooped the train or placed himself in position to nave protected the novement. Conductor Calleghan seid that in this instance he depended entirely upon his train being properly beloted, and said that had he not seen the pilot on the train immediately after the back-up movement was started he would have pulled the emargency air brake cord; also, had the pilot given him any notice at all, or even minted, that he was going to get off, the conductor could have stopped the train and the accident would their by have been everted.

Engineern Hoffman and Fireern Richmond, of the NYNH&H deadhead equipment train were unaware of anything wrong orior to the accident.

In orde, to determine the visibility of the tracks and signals in Mott Haven yard from the rear of a train making a back-up movement from the yard tests were made with a train which was moved from the yard to interlocking signal 10R under proctically similar conditions except for the coposing train movement. From a position on the forward, west step of the coach, the position from which Yardmaster Reisigor stated that he left the coach, interlocking signal 10R could not be seen until a point was reached 200 feet beyond the point where the yardmaster stated he left the train. From a position in about the center of the forward car, where Brokeman Van Haaften and Flagman Costello stood, a shifting view of tracks and signals could be had through the for and door of the car The range of vision was dependent upon the direction the ear was moving and changed as the car swung from right to left and back again over the route. Interlocking signal lOR could be seen and identified, by a person familiar with its location and looking for its indication, from a point on the east main lead tirck 515 feet from the signal, as the car moved through the crossover the view of the signal ras lost until the orr strughtened out on the west main lead track, 368 feet from the signal, and then the indication displayed remained in view until the end of the car reached a point about 50 feet from the signal when the line of vision was obstructed by the end of the cor. The derail device, in derailing cosition, could be seen when the end of the c r was 100 feet from the aerail, nowever, from this distance the derail looked like the shadow of interlocking signal 10% ocross the roll and would not have been recognized by a person as a derail unless it was known that there was a derail at that point, nor would it have been seen unless a person was particularly looking for it. From the forward and of the leading or interlocking signal 10% could first be

identified by one knowing its loc tion wen 540 feet from the signal, from that point the signal remained in constant view. At hight the many lights and the chs orders a confusing layout to a order not acquired with the yard.

#### Conclusions

This accident was caused by the failure of Assistant Yardmaster Reisigar properly to perfore his duties when acting as pilot of the New York, New Haven & Hartford equipment train, a contributing cause was the failure of Conductor Calla han of that train properly to look after the movement, safety and care of his train.

The evidence clearly shows that no rabber of the train crew of the Net Haven equipment train as qualified over any part of the route, from the track on this train as standing in Mott Haven Yard to Harlem Division main track No. 4, the territory over which the cilot was required. Assistant Yardmaster Reisiger placed himself is charge of this train as pilot and he was therefore responsible for its sife movement from the point incre it stood until it reached Harler Division main trick No. 4, from thich point the crew was qualified. According to his own at torent Yardwaster Reisiger abandoned this tirin after it had moved only approximately one third of this distance, he was depending upon an understanding thich he had with the toverman of No. 1 tover that a signal would be given sutherizing the movement to be started only then the route for the entire movement through both No. 1 and "MO" interlocking plants was lined However, there was a misunderstanding between the yardmaster and the toverman, and then the movement was started the route was not clear through "MO" interlocking; furthermore, even though the complete route and been lined up, the signals could have been changed subsequently and it ins not safe to permit the movement to continue beyond the boint there Yardwaster Reisiger left the trair except under the direction of a competent employee familiar with the signals and other physical characteristics of the Not only did Yardmaster Reisiger abandon the train before the movement was completed, but he gid so without informing any member of the train ores that he intended to leave the train and rithout having a definite understanding with all concerned as to just mat as to be done. In the New York Central book of rules a pilot is defined as "An employee assigned to a train then the engine an or conductor, or both, are not fully acquainted with the physical characteristics or rules of the railroad, or portion of the imilroad, over which the train is to be moved." Had Yardwaster Reisiger remained with this train until it arrived at a point where the crew was qualified, he could have prevented this accident.

The rules require that has a restanced by an engine a trainian must take a constitution on the front of the leading car and then switching cars not equipoed with a platform air device in proble working order or where conductor's valve is not quickly accessible a back-up hose must be used. It does not appear that the requirements of either of these rules were phantised. In his dual depactty as yardmaster and pilot, Yardmaster Reisiger should have seen to it that provision was made for complying with both of them. Had he done so this accident would probably have been averted.

Raic 1301 of the New York Central operating rules reads as follows:

Passenger Conductors:

"They will be responsible for the movement, safety and care of the train, for the vigilance and conduct of the ren employed thereon and must report any misconduct or neglect of duty."

Conductor Callaghan at 10 time ceased to be the conductor of the train, regardless of the fact that he had been advised a oilot ould be furnished to move the train from the yard. Notwithstanding that this rule places abon the conductor the responsibility for the rovement, safety and care of the train and for the vigilance and conduct of the ren employed thereon, he at not time exercised any supervision over the acceptant of his train prior to the occurrence of the accident. When the movement was started he had no definite or direct knowledge that a pilot was on board and properly functioning as such nor did he know whether or not rules applicable to back-up movements were being observed The work woon thich he was engaged had no connection with the movement of als train which was then in progress and he had no other auty to perform which would have prevented him from being definitely informed by personal observation as to what was going on. Had ne as a latter of reasonable pre-caution poserved and informed himself as to the manner in Which his train was being operated in could have prevented this accident.

Yaidnaster Reisi er's statement indicates that it is common practice to operate trains but of this yard in the same manner. This is a matter which requires corrective action by the responsible operating officers.

Some of the amployees involved in this accident apparently did not have a clear understanding of the responsibilities of pilot and conductor, this is a latter which should be clearly set forth in rules or instructions.

At the time of this accident none of the employees involved had been on duty in violation of any of the provisions of the lours of service law.

Respectfully submitted,

W. P. BORLAND,

Director.