

HE  
1780  
.A32  
no. 4158

RAILROAD ACCIDENT INVESTIGATION

REPORT NO. 4158

DEPARTMENT OF  
TRANSPORTATION

FEB 7 1972

PENN CENTRAL COMPANY

LIBRARY

WELLINGTON, OHIO

AUGUST 18, 1969



FEDERAL RAILROAD ADMINISTRATION

BUREAU OF RAILROAD SAFETY

Washington, D C 20591

Summary

DATE: August 18, 1969

RAILROAD: Penn Central

LOCATION: Wellington, Ohio

ACCIDENT TYPE: Collision

TRAINS: Freight Freight

TRAIN NUMBERS: Extra 7339 East Extra 3099 East

LOCOMOTIVE NUMBERS: 7339, 3165 3099, 3038, 1710,  
3209

CONSISTS: 48 cars, caboose 48 cars, caboose

SPEEDS: 3-6 m p h Standing

OPERATION: Traffic control  
system

TRACKS: Double; tangent;  
level

WEATHER: Clear

TIME: 2:28 p m

CASUALTIES: 2 killed; 1 injured

CAUSE: Failure of interlocking  
operator and the con-  
ductor and/or engineer  
of an eastbound train  
to comply with the  
carrier's rules govern-  
ing time and working  
limits for trains stopped  
in traffic control system  
territory to do work, re-  
sulting in the train  
moving in reverse on a  
main track without adequate  
protection and colliding  
with the locomotive of  
another eastbound train

DEPARTMENT OF TRANSPORTATION  
FEDERAL RAILROAD ADMINISTRATION  
BUREAU OF RAILROAD SAFETY

RAILROAD ACCIDENT INVESTIGATION  
REPORT NO. 4158 .

PENN CENTRAL COMPANY

AUGUST 18, 1969

Synopsis

On August 18, 1969, a Penn Central train moved backward on a main track at Wellington, Ohio, and struck the locomotive of a freight train standing on that track. The collision resulted in death to two, and in injury to one, crew members on the locomotive.

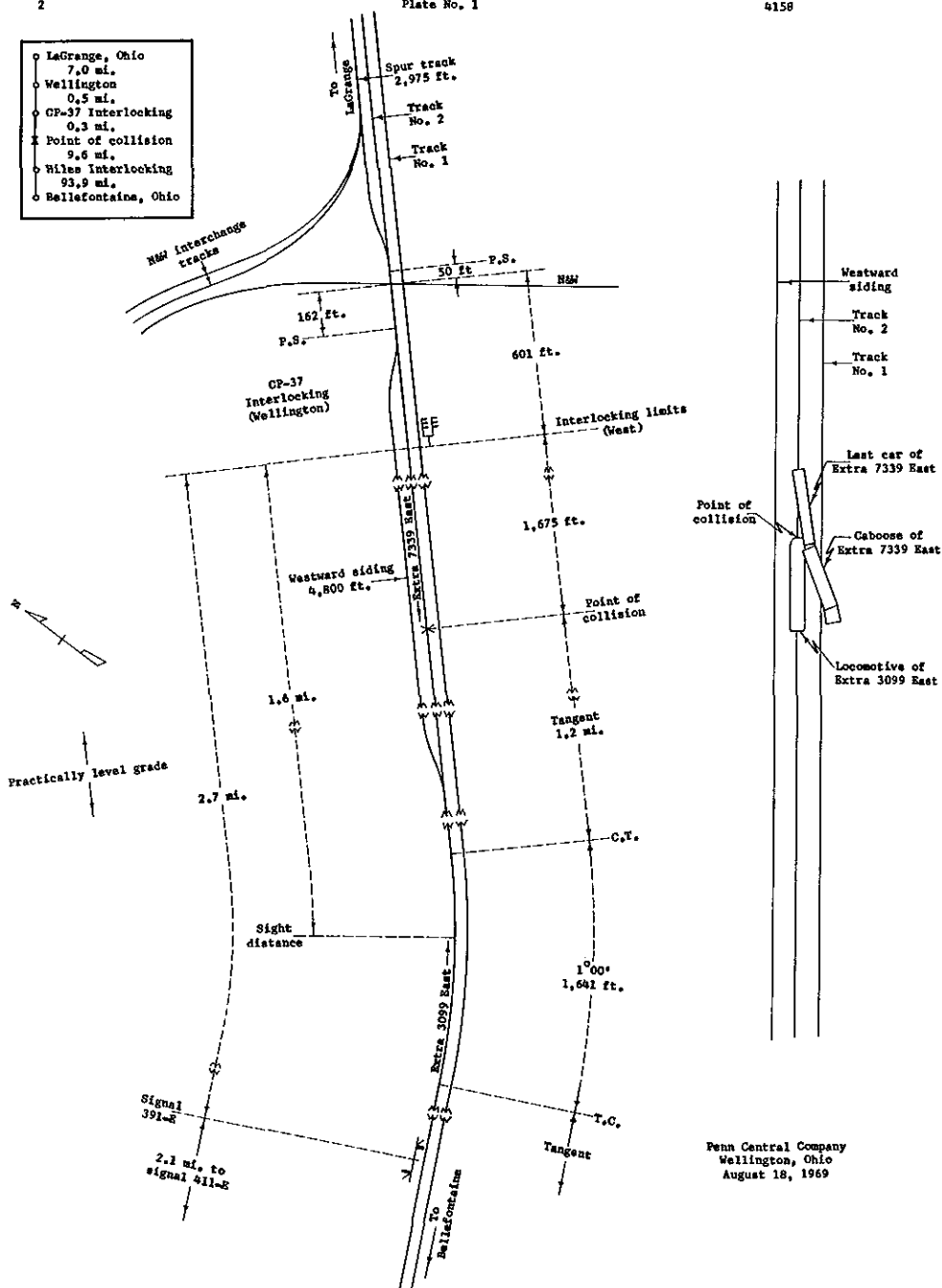
The accident was caused by failure of interlocking operator and the conductor and/or engineer of an eastbound train to comply with the carrier's rules governing time and working limits for trains stopped in traffic control system territory to do work, resulting in the train moving in reverse on a main track without adequate protection and colliding with the locomotive of another eastbound train.

Location and Method of Operation

The accident occurred on that part of the railroad extending eastward from Bellefontaine to LaGrange, Ohio, a distance of 111.3 miles. In the accident area, this is a double-track line over which trains operate in either direction on both main tracks by signal indications of a traffic control system. From the north, the main tracks are designated as No. 2 and No. 1.

CP-37, a remote-controlled interlocking, is at Wellington, 10.3 miles east of Bellefontaine. This interlocking is controlled by the operator at Hiles Interlocking, 10.4 miles westward.

○	LaGrange, Ohio
○	7.0 mi.
○	Wellington
○	0.5 mi.
○	CP-37 Interlocking
○	0.3 mi.
×	Point of collision
○	9.6 mi.
○	Wiles Interlocking
○	93.9 mi.
○	Bellefontaine, Ohio



The collision occurred on track No 2, 1675 feet west of the eastward home signals of CP-37 Interlocking

#### Auxiliary Tracks at CP-37 Interlocking

A Norfolk and Western Railway single-track line crosses the Penn Central main tracks at grade within the limits of CP-37 Interlocking, 601 feet east of the eastward home signals of the interlocking

A spur track 2975 feet in length parallels track No 2 on the north Its switch is within CP-37 Interlocking, 50 feet east of the N&W crossing, and is facing-point for eastward movements on track No 2 The spur track is connected to N&W interchange tracks, as indicated in Plate No 1

A siding, known as the westward siding, 4800 feet in length, also parallels track No 2 on the north Its east switch is 162 feet west of the N&W crossing

#### Track No. 2

From the west on this track there are, successively, a lengthy tangent; a 1<sup>00</sup>0' curve to the left 1641 feet, and a tangent 1 2 miles to the collision point The grade in this area is practically level

#### Sight Distance

The maximum range of vision between the western portion of CP-37 Interlocking and an approaching eastbound train is about 1 6 miles

#### Time and Weather

The collision took place at 2:28 p m , under clear weather conditions

#### Authorized Train Speed

The maximum authorized speed for freight trains in the collision area is 50 m p h

#### Signals

Automatic signals 411-E and 391-E, governing eastbound movements on track No 2, are 4 8 and 2 7 miles west of the eastward home signals of CP-37 Interlocking They are of the color-light type and are approach lighted The applicable signal aspects, indications and names are as follows:

<u>Signal</u>	<u>Aspect</u>	<u>Indication</u>	<u>Name</u>
411-E	Yellow	Proceed prepared to stop at next signal Train exceeding Medium speed must at once reduce to that speed	Approach

391-E Red-over- Stop; then proceed at Stop and Proceed  
 No Plate Restricted Speed.

The circuits are so arranged that when the block of signal 411-E is unoccupied and the block of signal 391-E is occupied, signals 411-E and 391-E display Approach and Stop-and-Proceed aspects, respectively, for an approaching eastbound train on track No 2

### Penn Central Rules

#### Operating Rules

Restricted Speed - Proceed prepared to stop short of train, obstruction, or switch not properly lined, \*\*\* not exceeding 15 miles per hour

99 When a train stops under circumstances in which it may be overtaken by another train, a member of the crew must go back immediately with flagging equipment a sufficient distance to ensure full protection, \*\*\*

\*\*\*

NOTE - When trains are operating under \*\*\* traffic control system rules, the requirements of Rule 99 do not apply for following movements on the same track

103 When one or more cars are pushed by an engine and the conditions require, a trainman must take a conspicuous position on the leading car; \*\*\*

#### Traffic Control System Rules

457 When permission is granted for trains or engines to occupy a main track or a controlled siding to do work, the Train Dispatcher or operator must protect the working limits by placing signals governing such limits in "Stop" position and must apply approved blocking device to the control lever of each such signal. Approved blocking device must not be removed or signals cleared for train movement into such protected limits until trains or engines report that work is completed, or track is clear \*\*\*

460. When necessary for trains or engines to occupy a main track or a controlled siding to do work, permission must be obtained \*\*\* from the \*\*\* operator at control station. There must be an understanding with the \*\*\* operator as to the working limits and length of time to be used

If additional time is necessary and before expiration of time limit, authority must be obtained from \*\*\* operator at control station

\*\*\*

Train or engine movement within such working limits may be made in either direction without flag protection \*\*\*

\*\*\*

In the event the main track or controlled siding cannot be cleared within the time limit specified and additional time cannot be secured, trains or engines must be protected in accordance with Rule 99

#### Radio and Telephone System Rules

705 All verbal \*\*\* instructions affecting movement of trains, \*\*\* must be repeated back by employee receiving them

717 Conductor, engineman or driver of track car must personally receive all communications and take all necessary action pertaining to the movement of their train

#### Train Radio Equipment

The locomotives of both trains in the accident had radio-telephone equipment The cabooses had no radio equipment

#### Circumstances Prior to Accident

##### Extra 7339 East

This train left Bellefontaine at 10:15 a m the day of the accident About 1:23 p m , while moving eastward on track No 2, it passed Hiles Interlocking, where the crew members received a message to pick up 28 cars from the N&W interchange tracks at CP-37 Interlocking in Wellington Soon after the train passed Hiles Interlocking, the operator there established the route for it to enter CP-37 Interlocking and for the locomotive to proceed to the spur track connected to the N&W interchange tracks

Extra 7339 East, consisting of 2 diesel-electric units 20 cars and a caboose, passed signals 411-E and 391-E, then stopped on track No 2 with the front end within CP-37 Interlocking The rear end stopped outside the interlocking, within the block of signal 391-E at a point a short distance west of the eastward home interlocking signals

##### Extra 3099 East

Extra 3099 East, an eastbound freight train consisting of 4 road-switcher type diesel-electric units, 48 cars and a caboose, left Bellefontaine at 11:25 a m the day of the accident with instructions to pick up 56 cars from the westward siding at CP-37 Interlocking At 1:53 p m , while moving eastward on track No 2, the train passed Hiles Interlocking, as authorized by signal indications Soon afterward, it passed signal 411-E displaying an Approach aspect, and stopped short of signal 391-E, which displayed a Stop-and-Proceed aspect due to the rear portion of Extra 7339 East occupying its block A few moments later, the train began to pass signal 391-E and to approach the collision point while moving at Restricted Speed The engineer and fireman were in the control compartment at the front of the

first diesel-electric unit, and the front brakeman was standing on the platform at the front of that unit. The conductor and flagman were in the caboose.

### The Accident

#### Extra 7339 East

A few minutes after this train stopped on track No 2 with the front end inside CP-37 Interlocking, the locomotive with the first 15 cars proceeded to the spur track to pick up 28 cars from the N&W interchange tracks, leaving the rear five cars and caboose of the train standing on track No 2 in the block of signal 391-E a short distance west of the eastward home interlocking signals. Apparently about 1:40 or 1:45 p m, as the locomotive moved to the spur track, the front brakeman went to a wayside telephone, contacted the Hiles Interlocking operator, and obtained permission for his train to occupy CP-37 Interlocking for "15 or 20 minutes". According to the front brakeman, the operator was aware that the rear portion of the train had been left standing on track No 2 outside the interlocking limits.

While engaged in switching required to pick up 28 cars from the N&W interchange tracks, the engineer overheard on the radio that Extra 3099 East was approaching Hiles Interlocking. After making an unsuccessful attempt to communicate with that train by radio, the engineer called the Hiles Interlocking operator and requested him not to permit Extra 3099 East to approach CP-37 Interlocking too closely on track No 2, because it was necessary for Extra 7339 East to back out of the interlocking on that track before it could resume its trip eastward after picking up the 28 cars. The engineer stated that the operator acknowledged receipt of the request, and that he then heard him start to call Extra 3099 East by radio.

When the switching on the N&W interchange tracks was completed, the locomotive of Extra 7339 East shoved 43 cars westward from the spur track to a coupling with the rear portion of the train standing on track No 2, reassembling the train at about 2:20 p m, or approximately 15 or 20 minutes after expiration of the period agreed to by the front brakeman and Hiles Interlocking operator. Soon after the train was reassembled, it was ready to leave CP-37 Interlocking. Before the train could resume its trip eastward, however, it was required to clear the CP-37 Interlocking circuits by backing up on track No 2 beyond the eastward home interlocking signals, so that the Hiles Interlocking operator could restore the spur-track switch to normal position and establish the route for the train to proceed eastward through the interlocking on track No 2.

After Extra 7339 East was reassembled, the conductor began to walk along the north side of the cars, in the vicinity of a wayside telephone near the east switch of the westward siding. The flagman began to walk along the north side of the rear portion of the train, enroute to the caboose.



At that time, the engineer, fireman, and front brakeman were in the control compartment of the locomotive. The engineer was seated on the north side of the compartment, and the fireman, a qualified engineer, was at the controls on the south side.

While walking alongside the cars, the conductor saw the headlight of Extra 3099 East approaching the rear of his train at a distance somewhat less than 1/6 miles. At the time, however, he neither knew the identity of the approaching train or could discern what track it was on. Although the conductor's statements were conflicting and confusing, it appears he then went to the nearby telephone; called the Hiles Interlocking operator; learned the identity of the approaching train; learned it was operating on track No. 2 and had instructions to stop and stay at the west switch of the westward siding until Extra 7339 East had backed out of CP-37 Interlocking on track No. 2, and was advised by the operator "It's okay for you to back up." It further appears that immediately after receiving the aforesaid information, the conductor signalled his train to back up on track No. 2, before his flagman reached the caboose. The fireman promptly responded to the conductor's signal, by moving Extra 7339 East in reverse in the block of signal 391-E at an estimated speed of 3 to 6 m p h.

Seeing the train move in reverse, the flagman ran toward the caboose, but was unable to overtake it. Consequently, he mounted a sill step on the north side of the sixth car from the caboose. According to the flagman's statements, he first saw Extra 3099 East after he boarded the aforesaid car, at an estimated distance of 250 to 400 feet. He said that Extra 3099 East appeared to be stopped, and that he lighted a fusee and used it to signal his train to stop its reverse movement. Moments later, realizing a collision was inevitable, he alighted from the car and ran to safety between cars standing on the westward siding. Immediately after going between those cars, he heard his train strike Extra 3099 East.

The statements of the conductor of Extra 7339 East indicate that he was facing his locomotive during the reverse movement and therefore did not see the stop signals given by his flagman. According to the conductor's statements, he was unaware that Extra 3099 East was in proximity to the rear of his train before he heard its locomotive horn sound. He promptly gave violent stop signals to the engineer, who called a warning to the fireman and then opened the emergency brake valve in the locomotive control compartment about the same time that the fireman moved the automatic brake valve to emergency position. The emergency brake application and the collision occurred almost simultaneously.

#### Extra 3099 East

The fireman of this train was the only surviving crew member on the locomotive. According to his statements, the radio equipment on the locomotive was not functioning properly due to static. He stated that every once in awhile,

however, transmissions from other trains could be heard, but his engineer was unsuccessful in placing calls. Consequently, both he and the engineer had considered the radio equipment to be inoperative. According to the fireman's statements, he did not at any time hear a radio communication between his engineer and the operator at Hiles Interlocking.

After stopping at signal 391-E, Extra 3099 East entered the block of that signal and proceeded on track No. 2 at Restricted Speed. The fireman's statements are somewhat confusing as to when he or the other crew members on the locomotive first saw Extra 7339 East in the block of signal 391-E, and as to when the engineer took action to stop Extra 3099 East. However, in the light of certain circumstances and some statements of the fireman, it appears he and the other crew members on the locomotive first saw Extra 7339 East at a distance of about 1.0 to 1.6 miles, while their train was moving on the easterly portion of a 1000' curve to the left. It further appears Extra 7339 East had, at that time, just begun to move in reverse in the block of signal 391-E, without the crew members on the locomotive of the approaching train being able to discern the movement.

Apparently soon after the front end of Extra 3099 East passed the west switch of the westward siding, the fireman realized Extra 7339 East was moving backward. He called a warning and the engineer applied the brakes of Extra 3099 East in emergency, stopping his train on track No. 2 with the front end 1675 feet from the eastward home signals of CP-37 Interlocking. The fireman stated that the engineer began sounding the locomotive horn at the time of the emergency brake application, but the train ahead continued to move in reverse. He further stated that he saw the flagman of Extra 7339 East giving signals for his train to stop its reverse movement, and that at first he thought Extra 7339 East would stop short of a collision.

About 90 seconds after stopping, according to his statements, the fireman realized that a collision was inevitable. Seeing that the train ahead was backing at slow speed and expecting the impact to be merely the equivalent of a hard bump, he braced himself for the impending collision without attempting to alight from the locomotive. Apparently the engineer and front brakeman thought the same as the fireman, as neither alighted from the locomotive before the collision. From all indications, the force of the collision actually was the equivalent of a hard bump. However, the force was such that the caboose of Extra 7339 East rose sufficiently to override the underframe of the locomotive of Extra 3099 East, and to strike and destroy the control compartment of that unit.

#### Hiles Interlocking Operator

This operator stated that at approximately 1:50 p.m., in response to a telephone request from its front brakeman, he gave permission for Extra 7339 East "to hold the N&W crossing for about 20 minutes" at CP-37 Interlocking. He further stated this permission applied only to work perform-

ed by Extra 7339 East within the interlocking limits as he had no authority to establish work and time limits for the train outside the interlocking limits

The operator could not recall having any communication with Extra 3099 East while that train approached Hiles Interlocking. His statements indicate that shortly after Extra 3099 East passed the interlocking, he radioed its engineer, upon receipt of a request by radio from the engineer of Extra 7339 East, and asked him to stop his train short of the west switch of the westward siding at CP-37 Interlocking so that Extra 7339 East would have sufficient room to back out of the interlocking on track No 2 before resuming its trip eastward. The operator's statements indicate the engineer of Extra 3099 East acknowledged receipt of this request.

Apparently about 2:20 or 2:25 p.m., or approximately 10 or 15 minutes after the expiration of the period that had been granted for Extra 7339 East to occupy CP-37 Interlocking, the conductor of that train telephoned the Hiles Interlocking operator and informed him that Extra 7339 East was ready to back out of the interlocking on track No 2. The operator then granted permission for the train to move out of the interlocking in reverse, without providing it time and working limits for this movement in conformity with the carrier's rules.

#### Witnesses to Radio Communications

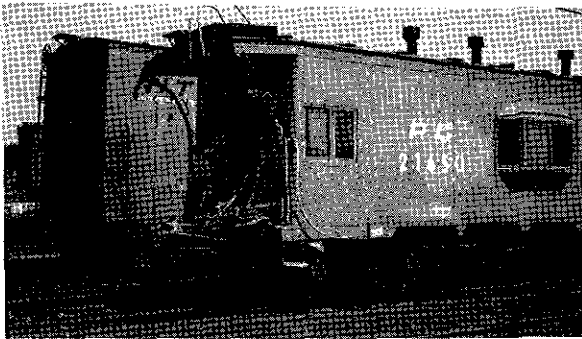
The interlocking operator at Grafton, 21.5 miles east of Hiles Interlocking, stated that he overheard a radio conversation between the Hiles Interlocking operator and a crew member on the locomotive of Extra 3099 East sometime between 1:45 and 2:00 p.m. He further stated that he heard the operator instruct Extra 3099 East to stop short of the west switch of the westward siding at CP-37 Interlocking as it was necessary for Extra 7339 East to back out of that interlocking. According to his statements, the Grafton Interlocking operator then heard the crew member on the locomotive of Extra 3099 East acknowledge the Hiles Interlocking operator's instructions by responding "Roger."

A signal maintainer also said he overheard the Hiles Interlocking operator conversing by radio with a crew member on the locomotive of Extra 3099 East shortly after that train passed Hiles Interlocking.

#### Damages

##### Extra 7339 East

The caboose and rear car of this train were derailed. The caboose overrode the underframe at the front of the first diesel-electric unit of Extra 3099 East, struck and demolished the control compartment of that diesel-electric unit, and stopped upright on the front portion of the unit. It was slightly damaged (see photo next page). The rear car stopped upright on and in line with the structure of track No 2. It was also slightly damaged.



### Extra 3099 East

No equipment of this train derailed. Practically the entire control compartment at the front of the first diesel-electric unit was sheared off and knocked to the ground on the south side of track No. 2, as a result of being struck by the caboose of Extra 7339 East. The first diesel-electric unit was heavily damaged (see photo below).



### Cost of Damages

According to the carrier's estimate the monetary damage to equipment of both trains was \$165,000.

### Casualties

The engineer and front brakeman of Extra 3099 East were killed. The fireman was seriously injured, sustaining an amputation of the left leg above the knee.

Hours of ServiceExtra 7339 East

All the crew members of this train had been on duty 5 hours 43 minutes at the time of the accident, after having been off duty over 17 hours

Extra 3099 East

All the crew members of the train had been on duty 4 hours 13 minutes at the time of the accident, after having been off duty 15 hours 25 minutes

Service Records of Employees Most Directly Involved in Accident

<u>Employee</u>	<u>Age</u>	<u>First RR Employment</u>	
Hiles Interlocking Operator	60	Operator, Jan 1927	Good Record
Conductor - Extra 7339 East	56	Brakeman, June 1941; promoted May 1945	" "
Engineer - Extra 3099 East	45	Fireman, Sept 1942; promoted April 1953	" "
Fireman - Extra 3099 East	18	June 25, 1969	" "
Front Brakeman Extra 3099 East	26	June 9, 1969	" "

Carrier's Interpretation of Operating Rules

According to the carrier's interpretation of its rules, when Extra 7339 East stopped on track No 2 at CP-37 Interlocking, the engineer or conductor was required to secure permission from the Hiles Interlocking operator as to time and working limits. The time being that allotted by the operator for the train to pick up 28 cars from the N&W interchange tracks and to clear the interlocking by moving in reverse on track No. 2; the working limits being the distance between designated points the train has permission to use during the allocated time

The accepted phraseology in requesting the time and working limits from the Hiles Interlocking operator would be as follows:

"Conductor (name) Extra 7339 East at Wellington (CP-37 Interlocking) desires permission to use No. 2 main track for the purpose of picking up cars and it will be necessary to make a reverse movement "

The accepted phraseology for the operator in granting the permission requested would be as follows:

"Conductor (name) Extra 7339 at Wellington has permission to occupy No 2 main track between CP-37 and Hiles and you have (number) minutes to perform your work "

At this point, the time and working limits for Extra 7339 East would have been established. The Hiles Interlocking operator must then follow the provisions of operating rule 457 to prevent an eastbound train on track No 2 from entering the work limits (Hiles Interlocking - CP-37 Interlocking) during the time allocated to Extra 7339 East.

Should a train using time and working limits find it necessary to exceed the time allotted, the conductor or engineer must secure additional time. If unable to do so, the rear of his train must be protected as prescribed by Rule 99. When necessary to advance a train into a block occupied by a train performing work, both trains must be notified as to the time and working limits and all movements within the working limits must be made at Restricted Speed.

#### Findings

1 Since the preponderance of evidence so indicates, we find that the radio equipment on the locomotive of Extra 3099 East was operative.

2 The time allotted by the Hiles Interlocking operator, on request of the front brakeman, for Extra 7339 East to do its work at CP-37 Interlocking did not apply to any portion of track No. 2 outside the interlocking and had expired when the train was reassembled after picking up cars. Hence, the time allotted was insufficient for the train to complete its work within the interlocking; the working limits allotted were insufficient for the reverse movement the train was required to make before resuming its trip eastward.

3 When Extra 7339 East stopped at CP-37 Interlocking, neither the engineer nor the conductor personally arranged, as required, for the time and working limits needed by the train to complete its work at the interlocking, including the necessary reverse movement on track No 2. This appears to be a contributing factor in the accident.

4 The conductor of Extra 7339 East signalled his train to back out of CP-37 Interlocking on track No 2 without protection for the reverse movement being afforded, as required by the carrier's traffic control system rules under the circumstances. This was a causal factor in the accident.

5 Extra 7339 East began its reverse movement at 3 to 6 m p h before the flagman could take a position on the leading car (caboose). This was another causal factor in the accident, for the flagman could have taken appropriate action in time to prevent the accident had he been on the caboose before the reverse movement was initiated.

6 When the flagman and conductor of Extra 7339 East became aware of the proximity of Extra 3099 East, it was too late for their train to stop its reverse movement short of a collision

7 After granting permission for Extra 7339 East to occupy CP-37 Interlocking for 15 or 20 minutes and being informed the rear portion of the train was occupying track No 2 outside the interlocking, the Hiles Interlocking operator took no action to protect the working limits established for Extra 7339 East as prescribed by the carrier's traffic control system rules. As a result, Extra 3099 East passed Hiles Interlocking at 1:53 p m, during the time allotted to Extra 7339 East at CP-37 Interlocking, and was permitted to approach the working limits established for the latter train. Failure of the operator to protect those working limits, as required, was another causal factor in the accident

8 Soon after Extra 3099 East passed Hiles Interlocking, the operator instructed the engineer by radio to stop his train on track No 2 short of the west switch of the westward siding at CP-37 Interlocking so Extra 7339 East would have sufficient room to back out of the interlocking on that track. Best information available indicates the engineer acknowledged receipt and understanding of the operator's instructions by responding "Roger," instead of repeating back the instructions, as required. This may have been an additional causal factor in the accident, as the subsequent failure of the train to stop at the switch might have been due to the engineer's misunderstanding of the operator's radio instructions

9 After stopping short of signal 391-E, which displayed a Stop-and-Proceed aspect due to Extra 7339 East occupying its block, Extra 3099 East passed the west switch of the westward siding at CP-37 Interlocking, then stopped on track No 2 when the train ahead was seen to be backing out of the interlocking on that track. The point where Extra 3099 East stopped did not provide sufficient room on track No 2 for the intended reverse movement of Extra 7339 East, resulting in the accident

10 The reasons why Extra 3099 East did not stop at the west switch of the westward siding in accordance with the radio instructions of the Hiles Interlocking operator could not be determined. However, taking all the circumstances into consideration, it would appear the train did not stop at the switch due to (1) the engineer's misunderstanding of the operator's instructions and (2) the misunderstanding being undetected because of the engineer's failure to repeat the instructions back to the operator, as required to prevent misunderstanding of radio instructions affecting a train movement

11 Having no radio equipment in their caboose, the conductor and flagman of Extra 3099 East were unaware of the Hiles Interlocking operator's radio instructions to the engineer of their train. Hence, they took no action to stop the train when it passed the west switch of the west-

ward siding at CP-37 Interlocking It is possible that if the conductor had been aware of the aforesaid instructions, he would have prevented the accident by stopping his train promptly when it began to pass the west siding-switch without stopping.

It is common practice on the Penn Central for radio instructions affecting the movement of trains to be transmitted to engineers, but not to conductors because of lack of radio equipment on cabooses On the other hand, a rule of the carrier states that conductors have general charge of trains and assigns them the responsibility for the safety and care of their respective trains, as well as responsibility for the conduct of other crew members That the common practice deters conductors from exercising their responsibilities and is not conducive to safety is obvious on its face, and is well illustrated by the circumstances involved in the Wellington accident

12 The accident was the end result of a series of violations of the carrier's rules prescribed for the protection of a train required to stop and do work in traffic control system territory, and for proper use of the radio when radio instructions affecting the movement of trains are issued Had any one of the violations not occurred, the accident probably would have been averted

13 The circumstances involved in the accident indicate (1) it is common practice for Penn Central employees to disregard or circumvent the aforesaid rules either by design or by their unfamiliarity with the rules (2) the carrier virtually condones that common practice by not taking adequate action to obtain compliance with its rules This appears to have been a contributing factor in the accident also

14. Although the crew members on the locomotive of Extra 3099 East had time to do so, they did not alight from their locomotive and run to safety before the collision, apparently because of feeling the impending impact would be of little or no consequence The impact, however, caused the caboose of Extra 7339 East to over-ride the underframe of the first locomotive unit of Extra 3099 East and strike the control compartment at the front of that unit, killing the engineer and front brakeman, and seriously injuring the fireman In the past, several crew members in the control compartments of switcher and road-switcher type diesel-electric units have been killed or injured due to slow-speed collisions causing struck cars or cabooses to over-ride the underframes of the diesel-electric units and strike the control compartments at the front of the units. This demonstrates there is need for the railroad industry to provide safer environmental conditions for crew members in control compartments at the front of switcher or road-switcher type diesel-electric units

Safety to crew members in the control compartment of a switcher or road-switcher type diesel-electric unit at the front of a train would be improved substantially if the unit were provided with a buffer device of sufficient size and



strength to protect the control compartment in the case of a slow-speed collision, and to afford some protection in a high-speed collision

Dated at Washington, D C., this 24th  
day of September 1970  
By the Federal Railroad Administration

Mac E Rogers, Director  
Bureau of Railroad Safety