## CONTENTS

Special Instructions ..... 1
Pittsburgh to Youngstown ..... 8
Youngstown to Pittsburgh ..... 12
New Castle Branch ..... 16
Elwood City Branch ..... 18
MeKees Rocks to Connellsville. ..... 19
Connellsville to McKees Rocks ..... 21
McKees Rocks to Brownsville ..... 23
Brownsville to McKees Rocks ..... 25
General Rules. ..... 28
Page

Train Alasters
C. M. LINGLE
J. P. GOFF
H. H. SPROAT
G. E. MARQUIS
T. A. COPELAND
G. C. SCHUCK

Office Train Masters
F. P, KETTERER
W. I. OTTO
F. C. MoMILLAN
A. P. RECKLEY

## Time Table No. 113

In Effect 1.45 A. M., Sunday, October 6, 1929

## EASTERN STANDARD TIME <br> STANDARD CLOCKS

| East Youngstown | Y. M. C. A. Building Terminal Office Building |
| :---: | :---: |
| New Castle Jct. | Telegraph Office |
| College | Yard Office |
|  | Round House |
| McKees Rocks | General Yard Office |
|  | Engine Dispatcher's Office |
| Pittsburgh | Train Dispatcher's Office |
| Rankin. | Yard Office |
| Glasspor | Round House |
| Newell. | Yard Office |
|  | Round House |
| " . . . . . | Y. M. C. A. Building |
| Dickerson Ru | Telegraph Office |
| " | Round House |
| " ${ }^{\text {a }}$ | , M. C. A. Building |

## MAIN TRACKS

On double and three or more main tracks, trains or engines will not cross from one track to another, except by interlocking signal indication or on permission from the Train Dispatcher, or in case of emergency.

On double and three or more main tracks, freight trains using passenger tracks on the time of first-class trains will detour first-class trains via other tracks under full protection,

## P. \& L. E. Division

Four main tracks are in use and will be used as follows, between East Youngstown and DN.
WA and SD.
RK and McKees Rocks.
No. 1 track, Eastward passenger.
No. 2 track, Eastward freight.
No. 3 track, Westward freight.
No. 4 track, Westward passenger.
McKees Rocks and Pittsburgh.
No. 1 track, Eastward passenger.
No. 2 track, Westward passenger.
No. 3 track, Eastward freight.
No. 4 track, Westward freight.
Double track is in use between
RK and SD.
New Castle Junction and NC on Ferrons Branch.
WA and DN.
East Youngstown and New York Central Junction.
N and Youngstown.

## Youghiogheny Division

Four main tracks are in use between Lucas and HM, and will be used as follows:

No. 1 track, Eastward passenger.
No. 2 track, Eastward freight.
No. 3 track, Westward freight.
No. 4 track, Westward passenger.
Double track is in use between Pittsburgh and Lucas and between HM and Connellsville.

## Monongahela Division

Double track is in use between Belle Vernon Junction and Brownsville Junction.

## Special Instructions

1-On single track W゙̌estward Trains are superior to Eastward Trains of the same class, except when otherwise provided by special rule.

2-On Ellwood Clty Branch, when all the regular trips are made by one engine and crew, if delayed, they will disregard the rules governing the rights of opposing trains, unless otherwise instructed.

3-Conductors and Enginemen of trains of foreign rallroads operating over the P. \& L. E. R. R. must provide themselves with P. \& L. E. R. R. operating book of rules and current time table.

4-Should an improper proceed Indication of a fixed signal be observed, it must be reported on Form S-1 to the Superintendent by wire and a man left at the slgnal to notify approaching trains that would be affected until relieved by a Signal Department employe or by instructions from the Superintendent.

5-Westward trains on the Ferrona Branch will approach the end of double track at NG under control and not proceed until they receive manual block signal in the clear or caution position. A westward train receiving this signal in the clear position at the end of double track NC, will have right over all trains to West Washington Street, New Castle. A westward train receiving this signal in the caution position will have right over all trains to West Washington Street, New Castle, and will run carefully, expecting to find the track occupied between NC and West Washington Street, New Castle by a train ahead.

6-Eastward trains on the Ferrona Branch will approach Whest Washington Street, New Castle under control, and not proceed until they receive manual block signal in the clear or caution position. An eastward train receiving this signal in the clear position at West Washington Street, New Castle will have right over all trains to the end of double track, NC. An eastward train receiving this signal in the caution position will have right over all trains to the end of double track NC and will run carefully, expecting to find the track occupied between West Washington Street, New Castle and NC by train ahead.

These instructions will not relieve trainmen from strict compliance with Rule 99, Book of Rules and Time Table.

7-A clear or caution signal given to eastward second-class or extra trains at College indicates that all first-class eastward trains whose initial station is College, that are due or over due have been represented.

8-A clear or caution signal given to eastward passenger engines running light on No. 1 main track at CH , McKees Rocks, indicates that all first-class eastward trains due or over due have been represented.

9-A clear or caution signal given to second-class or extra westward trains from the Monongahela Division at Belle Vernon Junction indicates that all first-class westward trains from the Youghiogheny Division due or over due at this point have been represented.

10-A clear or caution signal given to second-class or extra westward trains from the Youghiogheny Division at Belle Vernon Junction indicates that all first-class westward trains from the Monongahela Division due or over due at this point have been represented.

11-Yard engines will not use Lowellville Branch, Mahoning State Line Railroad, Walford Branch, Ellwood City Branch, Koppel Branch, Dickerson Run Branch, Youghiogheny Northern Branch and Little Redstone and Speers Run Branches without written instructions from the Yard Master in charge, and will be governed by Book of Rules and Time Table instructions in using said Branches. Yard Masters in the limits of whose yards these branches are located will issue written instructions daily to the Conductor and Engineman of each yard engine defining their working limits. On the Downer and Elwell Branches and Downer Branch Extension, all trains and yard engines will be handled by the Train Dispatcher.

12-All Passenger Train Engines between Youngstown and East Youngstown, between New Castle and New Castle Junction, between McKees Rocks and Pittsburgh, and between Dickerson Run and Connellsville will use yard rights and must not be delayed.

13-Nos. 7, 10, 30, 33, 34, 38 will use P. \& L. E. R. R. tracks between N and New York Central Junction. Other first-class trains will use the Erie R. R. tracks between N and Youngstown.

14-No. 15 will use Blacks Run passing Siding to be passed by No. 33.

15-No. 31 will back onto Oil Siding paralleling No. 4 main track located on river side at South Heights to be passed by No. 19.

16-Nos. 402 and 403 will use lead track paralleling No. 1 main track between JA and West Ellwood Junction.

17-Way freight trains and scheduled local freight trains when overtaken by through freight trains will permit through trains to pass without delay.

18-Westward second-class or extra trains will approach Connellsville Passenger Station under control.

19-Passenger conductors on first class trains leaving Brownsville will report to the train dispatcher at Pittsburgh by telephone located on station platform, before departing from that point, in addition to reporting to the Monongahela Railway dispatcher.

20-Erie R. R. trains No. 662 due New Castle 10:45 A. M. and No. 669 due New Castle 1:15 P. M. use yard rights between New Castle and Gardner Avenue.

21-Extra trains may pass second-class trains and may proceed on time of second-class trains unless otherwise ordered.

22-On single track extra trains must protect themselves against yard engines in yard limits.

23-Telephones must be used to avoid delays and where telephones are available, crews of work trains and yard engines desiring to use main tracks must call the Train Dispatcher and ascertain location of road trains before occupying main tracks. Conductors and enginemen of work trains and yard engines using main tracks will be held responsible for delays to road trains.

24-All trains and engines on No. 1 eastward main track will use extreme care in passing West End, Pittsburgh, while train No. 3 is loading passengers at that point.

25-Eastward trains which are to enter Newell Interchange east yard will approach the facing switch in the eastward main track at the west end of this yard under control and will call for switch by sounding four (4) short blasts of the engine whistle, and will not proceed by this switch until they receive a clearly understood hand signal to proceed, from the switchtender located at that point.

Westward trains which are to enter Newell Interchange west yard will approach the facing switch in the westward main track at the east end of this yard under control and will call for switch by sounding four (4) short blasts of the engine whistle, and will not proceed by this switch until they receive a clearly understood hand signal to proceed, from the Yard Master located at that point.

26-No. 3 main or westward freight track terminates at the clearance of the back-over crossover between No. 3 main track and lead track, directly under the Youngstown Sheet \& Tube Company's overhead bridge at East Youngstown.

Westward trains on No. 3 freight track when required to stop before entering East Youngstown west yard at that point will stop clear of the east end of this crossover.

Westward trains using No. 3 freight track and desiring to enter East Youngstown west yard will approach the east end of the west yard, East Youngstown, under control and will call for switches by one (1) long blast of the engine whistle and will not proceed until they receive a clearly understood hand signal to proceed from the Switch Tender located at that point with a yellow flag by day and a yellow light by night.

Westward trains using No. 4 passenger track desiring to enter East Youngstown west yard will approach the east end of the west yard, East Youngstown, under control and will call for switches by four (4) short blasts of the engine whistle and will not proceed until they receive a clearly understood hand signal to proceed from the Switch Tender located at that point with a yellow flag by day and a yellow light by night.

Westward trains on No. 4 track moving into East Youngstown West Yard will proceed at slow speed past signal No. 643 when displayed in the stop position without coming to a stop, moving under a clearly understood hand signal to proceed, given by the Switch Tender located at that point, by yellow flag by day and yellow light by night.

After a westward train on No. 4 passenger track has passed distant signal No. 637 at Struthers in a clear position, the Switch Tender located at facing point switch entering East Youngstown Yard from No. 4 main track at Signal No. 643 cannot open facing point switch in No. 4 main track except by use of time release in switch, which requires an interval of one and one-half minutes.

27-Westward trains on No. 4 passenger track required to use New Castle Branch, will approach facing switch in No. 4 main track located just east of New Castle Junction yard office, leading to New Castle Branch, under control, and will call for switch by four (4) short blasts of the engine whistle, and will not proceed until they receive a clearly understood hand signal to proceed, with yellow flag by day and yellow light by night, from the switch tender located at that point.

28-The practice of cooling hot journals on passenger or freight cars with water will be discontinued to the greatest possible extent and in the event it becomes necessary to use water in cooling a journal, the car must be cut out of train at the first available point reached after the application of water has been made.

When hot boxes are observed in a train, the train must be immediately brought to a stop and a careful inspection made of the hot box and proper action taken to safeguard the movement of the car to the first available point where the car must be set off.

Cars set off must be reported promptly from the first avallable point of communication.

29-Unless otherwise instructed, main line trains having Branch connection at West Ellwood Junction and New Castle Junction will wait for Branch connection.

30-A number of cabooses have been equipped with air whistles located on top of cupola, which are to be used by trainmen in repeating engine whistle signals in calling in flagmen or other purposes where circumstances require.

These whistles must not be used promiscuously, and are to cover emergency cases only, such as repeating engine whistie when calling in flagmen; when necessary to attract attention in backing train, or to call attention of towermen when messages are thrown off caboose.

31-Engines performing work at the plant of the Waverly Oil Company at Coraopolis, are not permitted to go in on siding beyond small wooden trestle near pump house.

If necessary to reach cars beyond this point, engine must hold on to enough cars to keep the engine west of this trestle at all times.

32-On all work trains and wreck trains all signals must be given by a member of the train crew, and under no circumstances will the engineer or fireman accept and obey any signals, except emergency stop signal, given by others than members of the work train or wreck train crew.

Maintenance of Way employes and wrecking forces are forbidden to give signals involving movement of work trains or wreck trains, except emergency stop signal.

Members of work trains or wreck train crews will station themselves where they can promptly receive instructions from work train Foreman or Wreck Master, regarding movements of the train and work to be performed.

## REGISTER STATIONS

Youngstown. . . . . . . . . . . . . . First-class trains.
East Youngstown. . . . . . . . . . . Freight trains.
Ferrona. . . . . . . . . . . . . . . . . . Freight trains.
New Castle. . . . . . . . . . . . . . . First-class trains.
New Castle Junction. . . . . . . . Trains using New Castle Branch.
West Ellwood Junction. ...... . Trains using Ellwood City Branch.
Ellwood City. . .............. . Trains using Ellwood City Branch.
College Yard Office..........Trains originating and terminating
McKees Rece General Yard at College.
Rocks, General Yard
Office.
Trains originating and terminating at McKees Rocks.
Pittsburgh, Station Master's
Office.
First-class trains.
Dickerson Run. . . . . . . . . . . . All trains.
Newell, Yard Office.......... Trains originating and terminating at Newell.
Brownsville Union Station,
Second Floor, Room 210. . . First-class trains.

## RAILROAD CROSSINGS

P. \& L. E. R. R. trains must not cross Railroad Crossings where targets are displayed until the target is placed in the position indicated below:

New York Central Junction. HORIZONTAL position gives clear track to P. \& L. E. R. R. trains on the Erie R. R. When red ball signal (red light by night) on tower on right of eastward Erie R. R. main track at "NK" Target is displayed, all trains will stop and will not proceed until this signal is obscured, and "proceed" is indicated by the target signal; or on clearly understood instructions from the target man to proceed.

N-(B. \& O. Crossing). Hand signal from switch tender.
Eastward trains will come to a stop at the stop boards at Dry Run and westward trains will come to a stop at stop boards just east of the crossing and will not proceed over the crossing without clearly understood hand signals from the switch tenders at Dry Run for eastward trains, and east of the crossing for westward trains, with yellow flag by day and yellow light by night, and then only as the way is seen or known to be clear.

Struthers-Youngstown Branch (P. Y. \& A. Crossing). Controlled by interlocking.

Hillsville Crossing, Walford Branch (Narrow Gauge) DIAGONAL-Train men will operate target and restore to stop position after using.

New Castle Jet. (B. \& O. Crossing). DIAGONAL.
New Castle, Gardner Avenue (Shenango Tin Plate Co.). DIAGONAL.

New Castle (W. N. Y. \& P. Crossing). DIAGONAL. New Castle, Moravia Street (W. N. Y. \& P. Crossing). DIAGONAL.

New Castle (E. \& P. Crossing). DIAGONAL.
McKeesport. Approach B. \& O. R. R. Wye under control and do not cross until way is known to be clear.

Washington Run Railroad:-
1000 feet east of Star Junction-DIAGONAL. 4000 feet west of Star Junction-DIAGONAL.
Brownsville Junction-(Penna. R. R. crossing) controlled by Interlocking Signals.

## YARD LIMITS

Youngstown-West of B. \& O. R. R. crossing, N on Erie R. R. tracks.

East Youngstown-From B. \& O. R. R. crossing, N to WA, and to Sheehy Street, Youngstown, including the Lowellville Branch, Mahoning State Line R. R. and Walford Branch.

New Castle-From WA to Beaver River Bridge, Newport, including New Castle and Ferrona Branches.

Beaver Falls-From Beaver River Bridge, Newport, to Ohio River Bridge, including Ellwood City and Koppel Branches.

Aliquippa-From Ohio River Bridge to South Heights.
Pittsburgh-From South Heights to City Farm crossover.
McKeesport-From City Farm crossover to Boston east crossover and to Bunola.

Jacob's Creek-From East end Duncan to Fuller, including Elwell Branch and Downer Branch Extension.

Dickerson Run-From Fuller to Connellsville, including Yough. Northern and Dickerson Run Branches.

Monessen-From Bunola to Brownsville Jct. and Perryopolis Jet., including Speers and Little Redstone Branches.

Within yard limits the main tracks may be used, protecting against all trains.
SIDINGS
Sidings will hold Engine and Caboose in addition to Car Capacity listed.

P. \& L. E. Division

New Castle Branch-Eastward ..... 87
New Castle Jet.-First track to the right of No. 4 track for Westward Ferrona trains. ..... 77
Blacks Run-Westward. ..... 168
Ivanhoe-Westward. ..... 73Westward trains having cars for Aliquippa or required tomove cars from Black's Run, will use Black's Run siding toclear main tracks and will notify dispatcher before proceedingon main tracks from west end of Black's Run yard.
In the use of Black's Run siding Westward trains are superior but must run carefully. Eastward trains or yard engines must protect by flag.
Westward trains (except symbol freight trains) with work at Ivanhoe will use Ivanhoe siding, taking No. 4 track from FM Tower.

## Youghiogheny Division




## MAXIMUM SPEED

## P. \& L. E. Division

First Class Trains on high speed tracks seventy (70) miles an hour, excepting as follows:
Miles an Hour
McKees Rocks, River Avenue Crossing. ............... 10
McKees Rocks, CH, through Interlocking Plant........ 30
Ohio River Bridge and approach curves................ 35
Evans Run Curve, $1 / 3$ mile east of Beaver Falls and
New Brighton on No. 4 track................... 55
Between PO and Eleventh Street........................ . . 60
Between Eleventh Street and College, westward....... 60
" " " " eastward....... 50
Between College and College Curve...................... 60
At College Curve. ......................................... . . 50
Between College Curve and Wickham Curve........... 60
At Wickham Curve......................................... . . 50
Between RK and SD...................................... . 60
Between WA and DN.................................. . . . 60
Lowellville, through the village limits................... 25
N, B. \& O. Crossing. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Milesan Hour
Pennsylvania Crossing, 500 feet west of N ..... 15
Between Pennsylvania Crossing, 500 feet west of N , and New York Central Junction on P. \& L. E. R. R. tracks ..... 60
Where four main tracks are in use, first class trains on freight tracks ..... 45
Freight Trains on main tracks ..... 35
Work Trains ..... 25
Ohio River Bridge, Freight Trains, Work Trains and Yard Engines. ..... 15
Youghiogheny Division
First Class Trains fifty (50) miles an hour, excepting asfollows:
Curve east of Darnley ..... 40
Curve west of Darnley ..... 40
Curve west of McCune. ..... 40
Curve at Round Bottom ..... 40
Curve at Childs. ..... 40
Fuller Point Curve. ..... 40
Curve west of Fuller. ..... 40
Curve at Van Meter. ..... 40
Smithton Curve. ..... 40
Port Royal Curve ..... 40
Curve at Cedar Creek ..... 40
Croushore Curve, two miles east of West Newton ..... 40
Curve at Collinsburg ..... 40
Curve at Stringtown ..... 40
Dravo Point Curve ..... 40
Curve west of Duncan ..... 40
Curve east of Greenock ..... 40
Curve west of Boston. ..... 40
Youghiogheny River Bridge and curve east thereof ..... 20
Riverton Street, McKeesport, to west end of Yough- iogheny River Bridge. ..... 12
Monongahela River Bridge, Homestead ..... 20
Pittsburgh, between 26th and 30th Streets (through tunnel) ..... 20
Where four main tracks are in use, first class trains on freight tracks ..... 35
Freight Trains between Belle Vernon Jct. and Pittsburgh ..... 35
Freight Trains between BelleVernon Jct. and Connellsville ..... 25
Work Trains ..... 25
Youghiogheny River Bridge, Belle Vernon Jct., Loco- motives of Mikado type and heavier. ..... 8
Monongahela River Bridge, Homestead, Locomotives of Mikado Type and heavier ..... 15
Monongahela Division
First Class Trains fifty (50) miles an hour,
excepting as follows:
Brownsville Junction, at point of connection withMonongahela Railroad.10
Brownsville Junction Curve ..... 40
Forsythe Curve, one and one-third miles west of Browns- ville Junction. ..... 40
Newell Curve, one-half mile east of Newell ..... 40
Apollo Mine Curve, one-half mile east of Fayette City . ..... 40
Miles an Hour
Fayette City, Ferry Street Curve ..... 40
Belle Vernon Depot Curve ..... 40
Elizabeth, through the borough limits ..... 10
McKeesport, Rebecca St. to Windsor St ..... 12
Youghiogheny River Bridge, Belle Vernon Jct. and first curve east ..... 20
Freight Trains ..... 35
Work Trains ..... 25
Branches
Walford Branch ..... 15
Lowellville Branch and Mahoning State Line R. R ..... 12
New Castle Branch:
Between New Castle Jct. and Ferrona Jct ..... 30
Between Ferrona Jct. and South Mill St ..... 15
Between Ferrona Jct. and West Washington St. ..... 15
Ellwood City Branch ..... 30
At east and west ends of Beaver River Bridge. ..... 20
Work Trains and Yard Engines ..... 12
Brady's Run Branch ..... 12
Aliquippa Branch ..... 12
Neville Island Bridge. ..... 10
Elwell Branch ..... 12
Downer Branch Extension ..... 12
Dickerson Run Branch. ..... 12
Broadford Branch ..... 12
Youghiogheny Northern Branch ..... 12
Speers Run Branch ..... 12
Downer Branch. ..... 12
Little Redstone Branch ..... 12
Miscellaneous

Trains and engines going to the Youngstown Branch at Struthers, must not exceed a speed of ten (10) miles an hour on lead paralleling No. 1 main track between Struthers station and east end of bridge.
Trains and engines using turnouts and crossovers except PO15
PO, first-class trains and freight trains. ..... 35
Trains and engines using sidings and yard tracks, and only as the way is seen to be clear ..... 15
Mikado Engines in Passenger Service ..... 50
Mikado H-8-B type engines. ..... 25
Six Wheel Yard Engines ..... 25
Other Yard Engines ..... 25
Engines running backward ..... 20
Trains handling Scale Test Car ..... 15
Trains handling Wreck Crane ..... 25
" " " " with boom extendingforward20
Trains handling Locomotive Cranes ..... 20
safety.

## Restrictions for Locomotives on Bridges and Branches

Locomotives heavier than class B-104 six wheeled switching engine must not be used on the trestle bridge over the Mahoning river at Struthers.

Locomotives of the Mikado type and heavier must not be used on the following bridges, branches and tracks:

West Yough. Bridge.
Broadford Bridge, Broadford Jct.
Dickerson Run Branch.
Little Redstone Branch.
Speers Run Branch.
Manown Mine tracks west of Inside Switch, East End.
Homestead, Upper Howard Transfer Yard.
East Approach Curve to Neville Island Bridge.
Brady's Run Branch. Lowellville Branch.
Koppel Branch. Mahoning State Line Railroad.
Crescentdale Branch. Walford Branch.
Big Run Branch.
On the Youghiogheny River Bridge at Belle Vernon Junction and Monongahela River Bridge at City Farm, Consolidation type locomotives may be doubleheaded. Pacific, Mikado, Mallet or heavier types of locomotives must not be doubleheaded or doubleheaded with lighter type of locomotive. Pacific, Mikado, Mallet or heavier types of locomotives must be separated at least six car lengths.

Three locomotives of any type must not be moved coupled together over these bridges.

Locomotives of Class G-102 or heavier must not be operated on Water Works Siding at Braddock.

## OFFICIAL BULLETIN BOARDS

Youngstown........... Telegraph Office.
East Youngstown..... Terminal Office.
Struthers . . . . . . . . . . . . Interchange Yard Office.
New Castle . . . . . . . . . Conductor's Room.
Gardner Ave. . . . . . . . .Yard Office
New Castle Junction . Round House.
New Castle Junction . . Yard Office.
College . . . . . . . . . . . . . Yard Office.
".......... . Round House.
West Aliquippa. ..... . General Yard Office.
" " ......Coaling Station.
Ivanhoe . . . . . . . . . . . . . Yard Office.
McKees Rocks....... Engine Dispatcher's Office.
" " ........ General Yard Office.
Pittsburgh . . . . . . . . . . Conductors' Room.
Rankin.................. Yard Office.
Riverton.............. . Yard Office.
Portvue . . . . . . . . . . . . Yard Office.
Scott Haven........... . Yard Office.
Jacob's Creek.......... . Yard Office.
Dickerson Run......... Round House.




## IN ADDITION TO THE LETTERS AND SIGNS INDICATED IN RULE 6 BOOK OF RULES, THE FOLLOWING LETTERS INDICATE:

B. Stop on signal daily except Sunday.
C. Stop on signal daily except Saturday and Sunday.
E. Stop on signal to pick up mail.
G. Stop on signal Sunday only.
H. Stop on signal Monday only.
J. Stop on signal Tuesday only.
K. Stop on signal Wednesday only.
M. Stop on signal Thursday only to receive passengers.
O. Stop on signal Friday only.
P. Stop on signal Saturday only.
Q. Stop to land passengers.
R. Stop to land passengers from Ashtabula and beyond.
T. Stop on signal for passengers for, or to land passengers from Cleveland and beyond.
U. Stop on signal for passengers for Ashtabula and beyond.
V. Stop on signal for passengers for New Castle Jct. and beyond.
W. Stop on signal for passengers for, or to land passengers from Youngstown and beyond.
X . Reduce speed to exchange mail.
Y. Stop to land revenue passengers from Pittsburgh.
Z. Stop on signal to unload parcel post mail.

No. 24 stop on signal Saturday only, at West Pittsburgh and Wampum, to receive revenue passengers for Pittsburgh.

Nos. 408, 409 and 410 stop on signal at Park Gate.
Nos. 1, 3, 11, 15, 37, 41, 2, 42, 36, 156, 48 and 28 stop on signal at West Aliquippa coal dock.

No. 3 stop at West Yard Office, McKees Rocks.
No. 15 stop at West Yard Office, McKees Rocks, daily except Sunday.

Nos. 52, 53, 58 and 64 daily and Train 151 on Sunday stop DM, Demmler, on signal or notice to conductor to land or pick up telegraph operator.

Nos. 62 and 57 stop at West End Newell Interchange (Car Inspectors' Building).

No. 50 stop at entrance to Carrie Furnace plant, Rankin.
Nos. 51, 53 and 56 stop on signal at East End Newell Interchange Yard.

Nos. 152 and 156 stop to exchange mail at Frank P. O. (Scott Haven) and Blythedale.

No. 153 stop to exchange mail at Blythedale.












ELLWOOD CITY BRANCH-EASTWARD-FIRST CLASS


| STATIONS |  | 414 | 416 | 418 | 420 | 422 | 424 | 426 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CONNECTION |  | 43 | 11 | 23-6 | 40 | 9 | 19-20 | 28 |  |  |  |
|  |  | datuy | $\begin{array}{\|c} \text { DAILY } \\ \text { EXOEPT } \\ \text { SUNDAY } \\ \hline \end{array}$ | DAILY | $\begin{gathered} \text { DAILY } \\ \begin{array}{c} \text { EXOEPT } \\ \text { SUNDAX } \end{array} \end{gathered}$ | $\begin{aligned} & \text { DAILY } \\ & \text { EXCEET } \\ & \text { SUNDAY } \end{aligned}$ | daily | DAILY |  |  |  |
| BLLWOOD CITY -- |  | $\begin{gathered} \text { P. M. } \\ \text { S } \quad 2.51 \end{gathered}$ | $\begin{gathered} \text { P. M. } \\ \text { S } \\ \hline \end{gathered}$ | $\begin{gathered} \text { P. M. } \\ \text { S } \quad 4.37 \end{gathered}$ | $\begin{gathered} \text { P. M. } \\ \text { S } \quad 5.46 \end{gathered}$ | $\begin{gathered} \text { P. M. } \\ \text { S } \quad 6.11 \end{gathered}$ | $\begin{gathered} \text { P. M. } \\ \text { S } 6.38 \end{gathered}$ | $\begin{gathered} \text { P.M. } \\ \text { S } 10.33 \end{gathered}$ |  |  |  |
| PARK GATE $\qquad$ <br> W. BLLWOOD JCT.. | 1.5 | $\begin{aligned} & \text { s } 3.03 \\ & \text { P. M. } \end{aligned}$ | $\begin{gathered} \text { S } 4.24 \\ \text { P. M. } \end{gathered}$ | $\begin{aligned} & \text { S } 4.47 \\ & \text { P. M. } \end{aligned}$ | $\begin{aligned} & \text { S } 5.58 \\ & \text { P. M. } \end{aligned}$ | $\begin{aligned} & \text { S } 6.21 \\ & \text { P. M. } \end{aligned}$ | $\begin{gathered} \text { S } 6.48 \\ \text { P. M. } \end{gathered}$ | $\begin{aligned} & \text { S } 10.45 \\ & \text { P. M. } \end{aligned}$ |  |  |  |










Youngstown Branch


Lowellville Branch，Mahoning State Line Railroad and Walford Branch

| Westwar |  |  |  | Eastwerd |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | STATIONS |  |  |
|  | 4.1 |  | Walford． | 6.8 | 3.3 |
| 3.3 | 0.8 | 3.3 | Shaw Juncti | 3.5 |  |
|  |  | 4.1 | Johnson． | 4.3 | 0.5 |
| 0.5 | 0.5 | 3.6 | Hillsville． | 3.8 | 0.3 |
| 0.3 | 0.8 | 3.3 | ．．．Shaw Junction | 3.5 | 3.0 |
| 3.0 | 3.8 | 6.3 | ．．．．．．．．Bentley． | 0.5 |  |
| 0.0 | 3.8 | 6.3 | ．．．．．Bentley ．．．．． | 0.5 | 0.5 |
| 0.5 | 4.3 | 6.8 | ．．Lowellville Junction．． |  |  |

Normal position of switches on Mahoning State Line R．R．and Walford Branch is for direct movement between Lowellville Junction and Walford．

Koppel Branch

| Westward | Kopel Branch | Eaatward |
| :---: | :---: | :---: |
|  | STATIONS |  |
| 1.5 | Ellwood City Branch Junction． | 1.5 |
| Westward | Speers Run Branch | Eastward |
|  | STATIONS |  |
| 1.8 | Somers．．．．． Speers Junction | 1.8 |

## Little Redstone Branch



## Downer and Elwell Branches and Downer Branch Extension

| East |  |  | Westward |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | STATIONS |  |  |  |
|  |  | 8.6 | ．．Downer Junction． | 7.0 | 6.9 | 1.0 |
| 1.0 | 1.0 | 7.6 | ．．．．．．Arnold City．．．． | 6.0 | 5.9 | 0.9 |
| 0.9 | 1.9 | 6.7 | ．Brown | 5.1 | 5.0 | 3.4 |
| 3.4 | 5.3 | 3.3 | ．．Perryopolis Junction．． | 1.7 | 1.6 | 0.5 |
| 0.5 | 5.8 | 3.8 | well Jun | 1.2 | 1.1 | 1.1 |
| 1.1 | 6.9 | 4.9 | Fuller |  |  |  |
|  | 8.6 |  | ．．Washington Mines ． | 5.0 | 4.9 | 1.0 |
| 1.0 | 7.6 | 1.0 | ．．．．．Star Junction．．．． | 4.0 | 3.9 | 2.3 |
| 2.3 | 5.3 | 3.3 | ．．Perryopolis Junction． | 1.7 | 1.6 | 0.5 |
| 0.5 | 5.8 | 3.8 | ．．．．Elwell Junction． | 1.2 | 1.1 | 1.2 |
| 1.2 | 7.0 | 5.0 | Whitsett Junction |  |  |  |

The Downer Branch extends from Downer Junction to Perryopolis Junction；the Elwell Branch from Washington mine to Whitsett Junction；the Downer Branch Extension from Elwell Junction to Fuller．

Normal position of switches on Downer and Elwell Branches is for direct movement between Washington Mines and Whitsett Junction，and West leg of Wye at Downer Junction．

The lead to storage track at Whitsett Junction must not be occupied by road trains without permission from Dispatcher and must be reported to Dispatcher when clear．

Dickerson Run Branch


| Youghiogheny Northern Branch |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Westward |  |  | Eastward |  |
|  | $\begin{aligned} & \text { 首 } \\ & \text { 息 } \\ & \text { 黑品 } \end{aligned}$ | STATIONS |  |  |
|  |  | ．．Summit． | 2.4 | 0.7 |
| 0.7 | 0.7 | ．．．．．．．．Eagle Transfe | 1.7 | 0.5 |
| 0.5 | 1.2 | ．．．．．．．．．Morgan．． | 1.2 | 0.8 |
| 0.8 0.4 | 2.0 2.4 | ．．．．．．．．．．．．Broadford Junction | 0.4 | 0.4 |
| 0.4 | 2.4 | Broadiord Junction |  |  |

## GENERAL RULES

Unless otherwise ordered, trains terminating at any point, whether by schedule or special order, will have no right beyond the first switch reached of the siding designated by the rule or special order. When necessary to go beyond the first switch trains must protect themselves. All westward trains terminating at New Castle Junction will have right to the main track Branch switch.

All Conductors and Enginemen must provide themselves with copies of Joint Time Table of Youngstown Yard, and time table of the N. Y. C. R. R. and time table of the Erie R. R. governing the Ferrons Branch and the time table of the Monongahela Ry., and be governed by them.

Instructions in relation to the movement of trains between N Tower and Youngstown and between New Castle and Ferrona, issued by the Erie R. R.; in N. Y. C. R. R. yard, Youngstown, issued by N. Y. C. R. R.; on the Youngstown Branch and the Lake Erie and Eastern R. R., issued by the L. E. \& E. R. R., between West Liberty and West End, issued by the P. \& W. Va. Ry., and east of Brownsville Junction, issued by the Monongahela Ry., will govern.

All trains except first-class trains using main tracks between East Youngstown and Brier Hill and N. Y. C. yards will be governed by, and moved only under yard rules.

Running switches are prohibited in N. Y. C. R. R. and Erie R. R. Yards.

If necessary to stop a train for orders at a day office after the closing hour, the operator on duty must display a red light in addition to the train order signal indicating stop. Trains must not pass a train order sigaal indicating stop, except as provided in the rules.

No freight car of any description shall be placed behind a passenger car in the same train, except in troop trains requiring steam heat. When necessary to haul freight cars on passenger trains, they must be taken on front end (next to engine) Caboose cars will not be considared freight cars in this connection and they will at all times be hauled on rear of passenger trains when necessary.

No signs or lights will be displayed on the rear of trains, except such markers and signal lights as are required by the Rules.

All trains of the New York Central, except first-class trains using P. \& L. E. R. R. tracks between Sheehy Street, New York Central Junction and East Youngstown, will display on each side of the train as markers to indicate the rear of the train by day, marker lamps, and by night, yellow lights to the front and side, and red lights to the rear, except when the train is clear of the main tracks, when yellow lights must be displayed to the front, side and rear.

Enginemen will display lighted head light on all engines while passing through tunnel between 26th and 30th Streets, Pittsburgh.

Cabooses cut off on main tracks must not be permitted to stand less than 50 feet back of automatic signals.

At stations where fences are located between main tracks, trains are relieved from the observance of Rule No. 117, page 41, Book of Rules.

Scale test car must be hauled on rear of train next to caboose.

All extra trains and yard engines must approach the west end of No. 2 storage siding 6900 feet west of Walford freight station under control expecting to find yard engines using main track between this point and Walford freight station without further protection.

All second class, extra trains and yard engines must approach the crossovers east of West Newton station under control, expecting to find yard engines using these crossovers at that point without further protection.

The use of Conductor's valve in any caboose or angle cock on moving freight trains is prohibited, except to stop trains in case of extreme emergency.

## INSTRUCTIONS GOVERNING THE USE OF HIGHWAY CROSSING GATES AND DERAILS ON DOUGLASS RUN SIDING AT WARDEN MINE.

Crossing apparatus and derails at each highway crossing will be controlled by dwarf interlocking machine in building located near the crossing.

Normal position will indicate stop for movements on the railroad, and proceed for movements on the highway.

To line up route for passage of trains, trainmen will operate the levers as follows:
1st. Remove switch lock located on machine, open lid and turn the small crank to the left.
2nd. Reverse levers Nos. 1 and 2 after observing that no vehicles sre between the gates.
3rd. Reverse levers Nos. 3 and 4.
4th. After train has cleared the highway and derails, levers and crank must be restored to normal position and lid must be closed and locked.
5th. Door of building must be locked when not in use. Standard switch locks will be used on door of building and lid of machine.
INSTRUCTIONS GOVERNING THE USE OF INTERLOCK-
ING MACHINE AT GRADE CROSSING BETWEEN STANDARD STEEL SPRING COMPANY'S SWITCHING TRACK, CORAOPOLIS, AND THE PITTSBURGH RAILWAYS COMPANY'S TRACKS.

The signals and derails will be controlled by dwarf interlocking machine and will be operated by trainmen.

The normal position will indicate clear signals for Pittsburgh Railways Company's cars and will indicate stop with derails on the switching lead for railroad movements.

To line up the route for use of switching lead, trains or engines must come to a stop not less than fifty (50) feet from the crossing and trsinmen will operate machine as follows:

1. Any Pittsburgh Railway Company car that may be approaching must be allowed to proceed over the crossing.
2. Remove switch lock located upon machine.
3. Reverse levers one and two, which will place signals at stop for Pittsburgh Railways Company's cars, and remove derails for train movements on switching track.
4. After engine or train has cleared crossing and derails, restore levers two and one to normal, and lock machine.

Switch tenders are stationed at the east end of the west receiving yard, McKees Rocks, in building located just west of water plug along inbound lead.

These switch tenders will handle all switches at the east end of the west receiving yard for all trains and engines and will issue track orders to all westbound engines and trains desiring to enter west receiving yard and new departure yard.

Westward trains or engines for west receiving yard, will sound four (4) short blasts of the engine whistle approaching P. C. \& Y. overhead bridge and will not proceed by the P. C. \& Y. overhead bridge until they have received a clearly understood proceed signal from the switch tender located at that point and will be on the lookout for a track order.

Eastward trains and engines using tracks in the west receiving yard, east of slip switches, will not foul the lead at the east end of the west receiving yard, without permission from the switch tender.

A two-position lower quadrant semaphore type target signal is in service at the intersection of the Aliquippa Branch and Aliquippa and Southern R. R. Company's new hot slag track at West Aliquippa, which will indicate a stop and proceed position by the position of the semaphore in daytime and by red and green lights by night.

The normal position of this signal will be diagonal in daytime and green at night for movement over the crossing by the hot slag runs of the A. \& S. R. R. This semaphore when placed in stop position for movement of A. \& S. R. R. engines on the hot
slag route and clear or green indication for movement of P. \& L. E. R. R. trains or engines on the Aliquippa Branch gives clear track for movement of the P. \& L. E. R. R. trains or engines over the crossing.
P. \& L. E. R. R. trains or engines desiring to use the Aliquippa Branch will place the semaphore in stop position for movement on the A. \& S. R. R. tracks and in clear or proceed position for movement of P. \& L. E. R. R. trains or engines on the Aliquippa Branch. Target will be operated by P. \& L. E. R. R. trainmen, who will restore the target to proceed position for movement over the crossing by A. \& S. R. R. engines, and in stop position for movement of P. \& L. E. R. R. trains or engines on the Aliquippa Branch after the crossing has been used. This target must be kept locked by switch lock.

All trains or engines must approach this crossing at grade, prepared to stop unless the semaphore is in proper position for proceed movement and the track is seen or known to be clear.

Engines operating over grade crossing at Port Vue Wye, on hillside of Port Vue East Yard, will come to a stop fifty (50) feet from the crossing, sound the whistle and send a member of the train crew to protect the crossing during each movement.

Westward trains with sixty (60) cars or over will be given assistance over Rankin viaduct and will come to a stop with head end of train to clear of Lock No. 2 crossover to permit pusher engine to couple into the rear of train before proceeding.

If pusher engine is not at Lock No. 2, trains requiring assistance will wait until pusher arrives.

It is important that grade crossings in this vicinity be opened promptly when necessary by trains stopped for pusher.

Trains catching pouches from mail cranes will, when running on any other than their regular track, stop to exchange pouches.

Trains stopping at ends of two or more main tracks to meet or pass other trains will stop where the smoke or steam from the engine will not obscure the view of signals and switches.

Passenger locomotives will dim headlights while standing at stations and when approaching opposing trains, and engines switching in yards.

Freight locomotives will dim headlights when held in yards, on ash pits, or at water plugs and coaling stations and on sidings, and when approaching and passing opposing locomotives, and engines switching in yards.

Yard locomotives are equipped with lamps of such candle power that do not require dimming. Headlights on road locomotives, when used in yard service, will be dimmed to correspond with candle power used on yard locomotives.

## RULE No. 10-a, BOOK OF RULES, SIXTH PARAGRAPH, IS MODIFIED TO READ AS FOLLOWS:

An approach signal, indicates: Proceed at a speed reduced to not exceeding one-half the maximum authorized speed at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.

## RULE Nos. 10 AND 10b, PAGES 21 AND 22, BOOK OF RULES, ARE MODIFIED BY THE FOLLOWING:

Color indications on vanes of derail switch stands are as follows:

Purple to indicate STOP.
Yellow to indicate PROCEED.
RULE No. 11, PAGE 23, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:
A train finding a fusee burning on or near its track must stop and extinguish the fusee, and then proceed with caution, prepared to stop short of train or obstruction.

Fusees must not be placed on signal wire trunking, bridges, plank crossings, or places where fire hazard is created.
RULE No. 19-a, PAGE 27, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:
Engines running light or yard engines with draft of cars moving on main track must display a red flag by day and a red
light by night on the rear of the engine or draft as a marker to indioate the rear of the train.

## RULES Nos. 20, 21, 22 AND 23, PAGE 28, BOOK OF RULES, ARE MODIFIED TO READ AS FOLLOWS:

Rule 20. All sections except the last will display two green lights, by day and by night, in the places provided for that purpose on the front of the engine.

Rule 21. Extra passenger trains will display two white lights by day and by night, in the places provided for that purpose, on the front of the engine. All other extra trains will not display two white lights by day or by night.

Rule 22. When two or more engines are coupled, the leading engine only shall display the signals, as prescribed by Rules 20 and 21.

Rule 23. One light displayed where in Rules 20, 21 and 22 , two are prescribed, will indicate the same as two lights, but the proper display of all train signals is required.

## RULE Nos. 33 AND 33-a, PAGE 31, BOOK OF RULES IS MODIFIED TO READ AS FOLLOWS:

At night, and in daytime when weather conditions require it, crossing flagmen at road crossings and street crossings must display a hand lantern with red light towards the highway and blank side towards railway tracks, to prevent highway traffic from crossing tracks when trains are approaching and when crossing is blocked by a train.

## RULE No. 86, PAGE 32, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:

An inferior train must clear the time of a superior train not less than five minutes; but 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 except when moving through the limits of an interlocking plant on proceed signal indication.

## RULE No. 99, PAGE 36, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:

When a train stops under circumstances in which it may be overtaken by another train, the flagman must go back immediately with flagman's signals a sufficient distance to insure full protection, placing two torpedoes, and when necessary, in addition, displaying lighted fusees.

When signal 14 (d) or (e) has been given to the flagman and safety to the train will permit, he may return, leaving the torpedoes and a lighted fusee, except that the torpedoes and lighted fusee will not be left when it is known positively to the flagman that the train or engine for which he has been affording protection has cleared the main track.

The front of the train must be protected in the same way when necessary, by the head brakeman or baggageman.

When a train is moving under circumstances in which it may be overtaken by another train, the flagman must take such action as may be necessary to insure full protection. By night, or by day, when the view is obscured, lighted fusees must be thrown off at proper intervals.

When day signals cannot be plainly seen, owing to weather or other conditions, night signals must also be used.

Conductors and enginemen are responsible for the protection of their trains.

Flagman's signals:
Day signals: $\left\{\begin{array}{l}\text { A red flag, } \\ \text { Torpedoes and fusees. }\end{array}\right.$
Night signals: $\left\{\begin{array}{l}\text { A red light, } \\ \text { A white light, } \\ \text { Torpedoes and }\end{array}\right.$
At such points as Struthers; between CH Tower Interlocking plant and Ohio Connecting Bridge, Pittsburgh; between west end of Dickerson Run Yard and east end of the receiving tracks Dickerson Run; east end of the interchange yard at Newell and similar points where movements are heavy, if the flagman finds by close and careful observation that unexploded torpedoes have been left on the rail in proper location by preceding train, it will not be necessary to leave additional torpedoes.

## RULE 99-b, PAGE 37, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:

If a passenger train is due within five minutes or an approaching train is within sight or hearing, the flagman must remain until it arrives.

## RULE No. 102, PAGE 38, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:

When cars are pushed by an engine on any track, a flagman must take a conspicuous position on the front of the leading car. When necessary to couple onto and push cars on a track, before doing so, the flagman must go to the rear end of the track prepared to stop the cars when necessary.

## RULE No. 108, PAGE 40, BOOK OF RULES, IS MODIFIED TO READ AS FOLLOWS:

Engines on freight trains consisting of more than fifteen (15) cars must always be detached before taking coal.

Engines on freight trains may take water without being detached.

Enginemen will use extreme care in taking coal and water to avoid damage to coal chutes and stand pipes.

## INSTRUCTIONS GOVERNING USE OF RAILROAD TRACK SCALES

The weighmaster shall familiarize himself with the construction of the scale and shall make inspection daily or more frequently to satisfy himself that the scale is in proper working condition. The weighmaster shall report promptly to the proper officials any irregularities in weights noted and all defects found in the scale.

Engine, or cars not to be weighed, must not be passed over the weigh rails.

Equipment shall not be allowed to stand on the scale when not being weighed.

For protection of the scale, cars shall not be violently stopped on the scale by impact, by the sudden application of brakes, or by throwing obstructions under the wheels. When pushing cars, which have been stopped for weighing or otherwise, off the scale, impact must not occur at a speed greater than two miles per hour. When necessary for any reason to run cars over scale rails, the speed must not exceed four (4) miles per hour.

Enginemen must not use sand on the scale deck or operate the injectors while on the scale.

Switches at both ends of the scales must be set for dead rail movement, except when weighing is being done.

Weigh carefully each car separately and uncoupled.
When weighing freight equipment for the purpose of obtaining the tare weight, be governed by the following instructions at all track scale points:

1. Before car is weighed, the fact must be determined that car is entirely free of dunnage, dirt, or refuse of any character.
2. Car shall be placed on track scales, carefully spotted in as near the center of the scale as possible, and the weight obtained through the medium of a beam weight.
3. Under no circumstances will it be permissible to use the Streeter-Amet weight in weighing light equipment for tare weights.
4. After the tare weight has been accurately obtained, car must be carefully restenciled on both sides in compliance with Master Car Builder Rules, regardless of any variance that might obtain with respect to the old tare weight as indicated on the car.
The movements on lead track approaching scales st McKees Rocks, Glassport and Newell will be governed by the following night and day signal indications:
At Newell, Glassport and McKees Rocks:
Yellow.
Proceed towards scales.
White.
. Back away from scales.
No Lights. .Stop.

## At East Youngstown:

Yellow............ Proceed towards classification yard.
White.......... Stop away from classification yard.
No Lights.......St
Yellow and White.Increase speed eastward.

## BE TT ENACTED BY THE GENERAL ASSEMBLY

 OF THE STATE OF OHIO:Section 1. It shall be unlawful for any superintendent, trainmaster, yard master or other employe of the railroad company doing business in the State of Ohio to allow or permit passenger or freight car to stand on a track commonly called a running track, within yard limits, unless flagman or red light is on end of car during the period from thirty minutes before sunset to thirty minutes after sunrise.

## MOVEMENT OF DEFECTIVE EQUIPMENT

When an appliance prescribed by the Safety Appliance Acts is found to be defective on a car in transit or otherwise, such car may be hauled from the place where such defective appliance was first discovered to the nearest available point where the appliance can be repaired. When a defective drawbar is found on a car in transit, if such car contains live stock or perishable freight, if necessary, it may be hauled by means of chains instead of drawbars to the nearest available point where such drawbar can be repaired. If the car is empty or contains freight other than the above, and it cannot be hauled on the rear end of the train without the use of chains, it must be set off at the nearest available point and moved from that point to the nearest available point where the drawbar can be repaired, by a work train, a shop train, a light engine, or any train composed of cars employed at the time by the railroad company for its own use and service. Cars with defective safety appliances may be associated together and moved to any repair point as a shop train, but must not be moved on revenue trains or in connection with cars commercially used, which include empty cars not employed at the time by the railroad company for its own use and service.

When the air brake becomes inoperative on a train, it will proceed carefully with hand brakes to the first siding, where it will clear the main track and report to the Superintendent for orders. If a Telephone or Telegraph office is located between the point of failure and first siding, report will be made from that office.

Engine and train crews handling trains of shop cars will keep a sharp look-out for derailed cars and equipment dragging and will also make frequent inspection of such trains where stops are made enroute.

## NUMBER OF CARS THAT MUST BE OPERATED BY AIR

Not less than $100 \%$ of the cars in every train must be equipped with air brakes in condition for use by the engineman of the engine hauling the train and all cars in train so equipped must have their airbrakes so used.

In the event airbrake equipment on any car in the train becomes defective in transit, although in proper condition when the train started, the car must be set out at the nearest available point after defect in airbrake equipment becomes apparent.

The only exception to these instructions is that a solid train of shop cars may be moved from a point on the line to an airbrake repair shop and such shop train must have $85 \%$ of the airbrake equipment operative, coupled up and working. The following points will be regarded as repair points for airbrake equipment:

> East Youngstown
> Struthers
> McKees Rocks

> Glassport
> Monessen
> Newell

Dickerson Run
The word "car" means all cars or dead engines in train. The tender of an engine is counted as a car.

In the event airbrakes become inoperative on any cars moving in a shop train, such cars must not be handled beyond the above named points unless switched to the rear of all cars having airbrakes operated by the engineman.

## RULES GOVERNING THE OPERATION AND SUPER－ VISION OF THE AIR BRAKE AND TRAIN AIR SIGNAL EQUIPMENT ON LOCOMOTIVES AND CARS

In complying with Air Brake Rules Nos．11，12， 13 and 20， the tests shall be made as follows：When locomotive is coupled to train and the brake－pipe pressure indicates within five（5） pounds of standard pressure，the Engineman will on signal from the train crew or Inspector give one blast of whistle and make a fifteen（15）pound service brake－pipe reduction．After brake－pipe exhaust ceases blowing he will note brake－pipe leakage．The train crew or Inspector，where Inspectors are available，shall then observe whether the brakes have applied in accordance with Rule 13 or 20 and signal the Engineman to release brakes，which signal shall be answered by two short blasts of the whistle．

Rule No． 25 governing the Operation and Supervision of the Air Brake and Train Air Signal Equipment on Locomotives and Cars as revised July 1st，1922，is modified to read as follows：
＂When the consist of a train has been changed or an angle cock closed，standing brake test must be made as follows：

After the hose is coupled and angle cocks are opened，trainman performing this duty must go back two（2）car lengths from where coupling was made，and when brakes are applied must know that brakes release and apply，two（2）car lengths back of where coupling was made．If brakes do not apply or release on that portion of the train coupled to，a standing test must be made to know that all brakes in train apply and release on entire train in response【tolthe】manipulation＿of the engineman＇s brake valve．＂
Rule 36，of Rules Governing the Operation and Supervision of Air Brake and Train Air Signal Equipment on Locomotives and Cars，as revised July 1，1922，is hereby modified as follows：

1．The retaining valves shall be turned up from the front to rear of train and turned down from the rear to front of train． On the three position retaining valves，the retaining valve handle will be placed in the high pressure position or at an angle of forty－five（45）degrees on loaded cars and in the low pressure position or horizontal on empty cars．On two position retain－ ing valves，the retaining valve handle will be placed in the horizon－ tal position．

The release position of all retaining valves is with the handle vertical or straight down．

2．On grades where it is necessary to use retaining valves， the following tests must be made before descending：

3．Brake－pipe leakage must be reduced to eight pounds or less per minute．

4．To make test of retaining valves before descending grades，trainmen will turn up retaining valve handle to position above mentioned．When retaining valves have been turned up， the rear trainmen will signal the head trainmen，who will signal the engineman to apply brakes．Upon receiving the signal， engineman will sound one short blast of the whistle and apply the brakes by making a fifteen to twenty pound reduction． When the brake－pipe exhaust ceases blowing，engineman will release and note the time．At the expiration of four minutes， engineman will again sound one short blast of the whistle and re－apply the brakes，making a fifteen to twenty pound brake－ pipe reduction and when brake pipe exhaust ceases blowing will release and note the time and continue this operation at intervals of four minutes until engineman receives signal from the crew signifying that tests have been completed．

5．In making the retaining valve test，the trainmen will place themselves near the retaining valve on the first car of their portion of the train and when they hear the brakes start to release through the blow－down port in retaining valve，they will note the time，and at the expiration of two minutes they will proceed to turn handles of retaining valves to release position and note the exhaust of air from the retaining valve to determine
whether the brakes are holding．If the brake is effective，the handle of the retaining valve will be immediately returned to holding position．All retaining valves that give a blast of air will be considered effective brakes；those that do not blow will be considered ineffective brakes．

6．While making this test，when the trainmen hear the engineman give one short blast of the whistle，they will stop turning the handles of the retaining valves as the engineman is about to make another application of the brakes．The train－ men must wait and listen at retaining valve to hear the brake start to release，then wait two minutes before turning down retaining valve handle．This test must be repeated until the retaining valves have been tested．

7．The signal that test has been completed will be given by the rear trainman to the engineman．After receiving this signal the engineman will answer by two short blasts of the whistle．Conductor will then notify engineman number of effective mountain brakes in the train．

8．Where the use of retaining valves are required and Inspectors are stationed，and Conductor and Inspector agree that the train has been properly inspected and tested according to the rules，the Inspector will furnish the Conductor with a copy of AIR BRAKE CLEARANCE CARD，Form MP－10， indicating result of test，signed by the Inspector，before train departs from point where test and inspection is made．Conductor will forward Form MP－10 to the General Yard Master in charge．

9．On the grades mentioned below the engineman will adjust brake－pipe pressure to ninety（90）pounds，main reservoir pressure to one hundred twenty（120）pounds．

10．A brake club is part of the equipment for trainmen in grade service．

11．Hand brakes must not be used on power brake trains unless the engineman calls for same．Hand brakes must be used to hold trains on grades when stopped or where engine is detached from train．

12．At points where airbrake testing plants are provided， trains after being made up and tested，will be kept on the air line to retain brake pipe pressure until engine arrives．

Trainmen will be required to uncouple hose at the con－ nection to the plant before attempt is made to couple engine to train．

Care must be exercised in coupling and uncoupling air hose at such locations．

13．In addition to the one hundred per cent．（ $100 \%$ ）air brakes required，the following percentage of retaining valves must be used on loaded trains in descending the grades mentioned below：

|  | Minimum Number of Retaining Valves to be used on Loaded Trains | Maximum Speed per Hour in $\mathrm{De}_{-}$ scending Grades |
| :---: | :---: | :---: |
| Mahoning State Line | 60 per cent． | 12 miles |
| Branch from Crescentdale | 60 per cent． | 12 |
| Koppel Branch．．．．．．．．．． | 60 per cent． | 12 |
| Ellwood City Branch | 50 per cent． |  |
| Speers Run Branch | 30 per cent． |  |
| Downer Branch | ． 60 per cent． | 12 |
| Elwell Branch． | 60 per cent． | 12 ＂ |
| Dickerson Run Branch． | 60 per cent． | 12 |
| Youghiogheny North．Bra | 40 per cent． | 12 ＂ |

14．Pressure obtained in brake cylinders with various piston travels and brake－pipe reductions corresponding to piston travel：


Brake Pipe Reduction Required 11 pounds 11 poun15

$$
16 \quad \text { ル }
$$

$$
\begin{aligned}
& 16 \\
& 18
\end{aligned}
$$

$$
\begin{array}{ll}
18 \\
20
\end{array}
$$

$$
\begin{aligned}
& 20 \\
& 21 \\
& 2
\end{aligned}
$$

$$
3
$$

4
5
6
7
8
9
10
11
12

## the following rules will govern the OPERATION OF CARS EQUIPPED WITH WESTINGHOUSE EMPTY AND LOAD BRAKES.

1. The valve handle operating the empty and load brake is located on each side of the car at the end and is plainly marked, indicating the position.
2. No special instructions are required by the engineman to handle trains having cars equipped with empty and load brakes, the automatic brake valve to be handled under present practice.
3. When the air pressure drops to 15 pounds or less in the system it will automatically change the equipment to empty position.
4. Retaining valves on this equipment must be placed in low pressure position when equipment is cut into load position in grade operation.
5. The vent valve, which is part of this equipment, is located under car for the purpose of transmitting emergency application, as this triple valve does not have this feature and trainmen should follow present instructions in regard to opening all angle cocks slowly to prevent undesired emergency.
6. When valve becomes defective in train operation, it can be cut out by plugging the large exhaust port in bottom of valve without cutting brake out on the car and the vent valve should be carded for proper attention on arrival at terminal.
7. When brake equipment on these cars becomes defective and must be cut out, close cut out cock in crossover pipe and bleed equipment the same as standard equipment and apply defect card. This will not affect operation of the vent valve which must not be plugged if not found defective.
8. Car Inspectors, where they are located, will place indicator handle on the car in proper position, either load or empty, when making inspection.
9. Where cars are picked up by trains enroute, trainmen will place valve handle in proper position before switching car into train and where cars are found in the train with handle in improper position it must be placed by the trainmen in the proper position.
10. The foregoing supplements Rules Governing the Operation and Supervision of the Airbrake and Train Air Signal Equipment on Locomotives and Cars dated July 1, 1922.

## instructions governing the use of INTERMITTENT INDUCTIVE AUTOMATIC TRAIN STOP EQUIPMENT.

Intermittent inductive automatic train stop system is in service on all main tracks except branches between "DX" Tower, Pittsburgh, and New York Central Junction, Youngstown, Ohio, for all locomotives provided with intermittent inductive automatic train stop equipment. Sign boards are placed indicating the roadway limits of the intermittent inductive automatic train stop territory.

The use of intermittent inductive automatic train stop system does not supersede, modify, or dispense with the compliance of rules contained in the Book of Rules for the government of the employes in the Operating Department, rules governing the operation and supervision of air brakes and train air signal equipment on locomotives and cars, time tables, special instructions, or General Orders.

Enginemen must not forestall until after signal indication has been observed and is being obeyed.

Except when authorized by the Superintendent, locomotives in passenger or freight service, provided with intermittent inductive automatic train stop equipment must not enter automatic train stop territory without having the control equipment operative.

In intermittent inductive automatic train stop territory trains will be governed by the most restrictive indications displayed either by interlocking signals or automatic block signals.

If the air brakes fail to work in accordance with the intermittent inductive automatic train stop equipment, the train must proceed carefully to the first point of communication and the conductor and engineman must report to the Superintendent for instructions.

If necessary to break seal on cut-out cock, or if automatic train stop does not properly operate, engineman must fill out form S-1, marking " X " in proper square, sign and leave card at first open communication office at which stop is made.

Enginemen must forestall when passing the following signals, regardless of the indication displayed by the signal.

| Signal | No. | X 1 | Pittsburgh | No. 1 Track |
| :---: | :---: | :---: | :---: | :---: |
| , | " | 28 | Pittsburgh | No. 1 |
| " | " | 423 | RK | No. 3 |
| " | " | 486 | SD | No. 2 |
| " | " | 501 | WA | No. 3 |
| " | " | 562 | DN | No. 2 |
| " | " | 635 | Struthers | No. 3 |
| " | " | 651 | N | West Bound |
| " | " | 664 | New York | East Bound |

Enginemen must forestall when passing double distant signals having the lower distant arm clear at the following locations:Signal 471 westward main track approaching SD
" 547 westward main track approaching DN
" 516 eastward main track approaching WA
" 440 eastward main track approaching RK
In intermittent inductive automatic train stop territory between Pittsburgh and New York Central Junction, Youngstown, Ohio, the following instructions will govern:

When train control apparatus fails enroute on locomotives handling passenger trains, or when passenger trains are offered in detour over automatic train stop territory by foreign railroads, with locomotives not equipped with automatic train stop device, such trains will not be permitted to enter a block occupied by a train ahead, nor will such trains be permitted to follow each other in block but will be blocked a station apart.

Interlocking towers and towers at the ends of four tracks will be utilized as block stations to properly space such trains.

## INSTRUCTIONS GOVERNING THE MOVEMENT OF TRAINS BY MANUAL BLOCK SIGNALS

Three position upper quadrant manual block semaphore signals with one red, round end arm, are established at DN and at SD to govern the movement of eastward trains; and at WA and RK to govern the movement of westward trains. These signals are located at the towers on the right of the track they govern, except at SD, where signal is on the left of the track it governs. Normal position, "proceed."

The vertical position of the arm, and in addition a green light by night, Indicates "proceed;" the inclined position of the arm forty-five degrees above the horizontal, and in addition a yellow light by night, Indicates "caution," proceed expecting the track between it and the next tower occupled; the horizontal position of the arm, and in addition a red light by night, indicates "stop." While "stop" is Indicated trains must not proceed.

The home seml-automatic block signals on tracks No. 1 and No. 2 at DN and at SD, and on tracks Nos. 3 and 4 at RK and at WA have SQUARE ends, which Indicate when in the horizontal position and in addition a red light by night, "stop." Trains so stopped will not proceed until the home signal indicates the "proceed" position, or the towerman gives a clearly understood "proceed" hand signal. Should there be a train on each track, the towerman will take a position on the track in front of the train that is to proceed and will give the "proceed" hand signal to that train in such a manner as will not indicate "proceed" to the other train.

All second-class and extra trains (except work extra) having the home and semi-automatic block signal in the "proceed" position, or a "proceed" hand signal from the towerman, and in addition, the manual block signal in the "proceed" or the "caution" position, will proceed ahead of all first-class tralns due or over due to the next tower or Interlocking plant ahead.

Work extras and yard engines will not be permitted to proceed on the time of first-class trains by manual block signals.

Immediately after the passage of a train, the towerman will place the manual block signal in the "caution" position and keep it in that position until all trains for which manual block signal has been displayed have been reported to him as having cleared the next tower or interlocking plant ahead.

Towermen will not place the manual block slgnals in the "caution" position for trains following work extras and yard engines, and work extras and yard engines will not be relleved from a strict compliance with Rules Nos. 86 and 99, Book of Rules and Time Table.

A second-class or an extra train that has been given permission to proceed ahead of a first-class train due or overdue, will, if stopped or delayed, or is unable to maintain a speed of six miles an hour, protect itself as provided by Rule 99, Book of Rules and Time Table.

When second-class or extra trains are permitted by manual block signal to proceed on the time of first-class trains they will not be required to comply with Rule 86, Book of Rules.

If a second-class or extra train is not in condition to make usual speed, or has work to do between block stations, an understanding must be had with the train dispatcher before accepting a signal to proceed ahead of first-class trains due or over due.

| Miles <br> per <br> Hour | TIME |  | Miles per Hour | TIME |  | Miles per <br> Hour | TIME |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Mile |  |  | 1 Mile |  |  | 1 M | Mile |
|  | Min. | Sec. |  | Min. | Sec. |  | Min. | Sec. |
| 1 | 60 | 0 | 21 | 2 | 51 | 41 | 1 | 27 |
| 2 | $\begin{aligned} & 30 \\ & 20 \end{aligned}$ | 0 | ${ }_{23}^{22}$ | 2 | 43 36 | 42 | 1 | 25 23 |
| 4 | 15 | 0 | 24 | 2 | 30 | 44 | 1 | 21 |
| 5 | 12 | 0 | 25 | 2 | 24 | 45 | 1 | 20 |
| 6 | 10 | 0 | 26 | 2 | 18 | 46 | 1 | 18 |
| 7 | 8 | 34 | 27 | 2 | 13 | 47 | 1 | 18 |
| 8 | 7 | 30 | 28 | 2 | 8 | 48 | 1 | 15 |
| 9 | 6 | 40 | 29 | 2 | 4 | 49 | 1 | 13 |
| 10 | 6 | 0 | 30 | 2 | 0 | 50 | 1 | 12 |
| 11 | 5 | 27 | 31 | 1 | 56 | 51 | 1 | 10 |
| 12 | 5 | ${ }^{0}$ | 32 | 1 | 52 | 52 | 1 | 9 |
| 13 | 4 | 37 | 33 | 1 | 49 | 53 | 1 | 7 |
| 14 15 | 4 | 17 | 34 <br> 35 | 1 | 45 | 54 | 1 | 6 |
| 15 | 4 | 0 | 35 | 1 | 42 | 55 | 1 | 5 |
| 16 | 3 | 45 | 36 | 1 | 40 | 56 | 1 | 4 |
| 17 | 3 | 31 | 37 | 1 | 37 | 57 | 1 | 3 |
| 18 | 3 | 20 | 38 | 1 | 34 | 58 | 1 | 2 |
| 19 | 3 | 9 | 39 | 1 | 32 | 59 | 1 |  |
| 20 | 3 | 0 | 40 | 1 | 30 | 60 70 | 1 | 0 |

## LOCAL WATCH INSPECTORS

Cleveland, Ohio, 161 The Arcade......... Southam, Wm. A. Co. Youngstown, Ohio, Mahoning Bank Bldg.. Pugh Bros. New Castle, Pa., 9 North Mill St. . ...... . Clint L. Snyder Beaver Falls, Pa., 1023-7th Avenue . . . . . . Schaefer, E. H. Monacs, Pa.............................. Malone, H. S. Coraopolis, Pa., 501 Mill Street............Penny, D. W. MoKees Rocks, Pa., 606 Chartiers Ave.... King, W. H. Pittsburgh, Pa., 211 House Bldg........... Pugh Bros, Braddock, Pa., 704 Braddock Ave........ Hess, Karl MoKeesport, Pa., 513 Walnut Street...... Alex Rankin \& Co. West Newton, Pa. . . . . . . . . . . . . . . . . . . . . Brehm, L. C. Dawson, Pa..................................Newcomer, J. C. Glassport, Pa., 631 Monongahela Ave.... . King \& Co.
Monessen, Pa., 566 Donner Ave...........Layman, J. \& Son
California, Pa., Wood St...................Earl W. Taylor
Brownsville, Pa., 36 Market St............Nichols \& Wood.

## GENERAL INSTRUCTIONS GOVERNING THE OPERATIONS OF AUTOMATIC BLOCK SIGNALS

See Rules Nos. 10 and 10a, Book of Rules.

Automatic block signals are located on the right hand side of main tracks, or on bridges over main tracks.

Where bracket posts are used, the right hand signal on each bracket post will govern the first main track from the post and the left hand signal the second main track from the post.

The absence of a signal or an improperly displayed signal must be regarded as a STOP signal and be treated as such.

A train or engine desiring to come out onto a main track through any switch or crossover in the territory controlled by automatic Block Signals must open all switches to be used (which will place the signals concerned in the STOP position), and then wait two minutes before proceeding, prepared to close the switches, to protect a train which may have passed the signals before the switches were opened.

Engineman must report each delay caused by each signal on card form S-1 provided for the purpose, marking " X " in proper square, sign, and leave card at first open communication office at which stop is made.

Delays due to train in block must not be reported on this card.

These instructions will not relieve Trainmen from strict compliance with Rule No. 99, Book of Rules and Time Table.

Within the following locations the signals are operated as stated:
(a) N. Y. C. Junction to Anderson Road.

Pittsburgh to Belle Vernon Junction.
Boston to Connellsville.
Belle Vernon Junction to Brownsville Junction.
Two position, home and distant, lower quadrant signals are used.

A red arm, with a pointed end, when in the horizontal position, and in addition a red light by night, indicates STOPthen proceed, expecting to find the block occupied.

A yellow arm, with a forked end, in the horizontal position, and in addition a yellow light by night, indicates proceed, at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding 30 miles per hour) prepared to stop at the next signal.

A red arm at an angle of sixty (60) degrees below the horizontal, and in addition a green light by night, indicates PROCEED.
(b) New Castle Junction to NC

Three position upper quadrant automatic signals are used.
Each signal will have one pointed end arm, colored red.
The arm in the horizontal position, and in addition a red light by night, indicates STOP-then proceed, expecting to find the block occupied.

The arm at an angle of forty-five (45) degrees above the horizontal, and in addition a yellow light by night, indicates proceed, at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding 30 miles per hour) prepared to stop at the next signal.

The arm in the vertical position above the horizontal, and in addition a green light by night, indicates PROCEED.

These instructions supersede Rule 10 a , in the Book of Rules, where they conflict.
(c) Lowellville Junction to Bentley.

Two (2) upper quadrant, single track, semi-automatio, normal danger signals are used in controlling the movements in the block between them.

Each signal has one square end arm colored red.
The arm in the horizontal position and in addition a red light by night indicates stop.

The arm at an angle of forty-five (45) degrees above the horizontal and in addition a yellow light by night, indicates proceed through the block.

A train desiring to use the block between these signals will turn the knob on the time release machine located in a box near the signal a full stroke to the right, causing the pointer to indicate zero. The signal will then give the caution indication, providing the opposing signal is giving the stop indication and the track is not occupied. The signal when so cleared will remain in that position four (4) minutes if not used before that time.

If the signal should not clear after the operation of the time release, the block must not be entered until the opposing train has cleared it or until the expiration of four (4) minutes and enough additional time for the opposing train to pass over the block and then only after proper flagging ahead of the train to protect it against an opposing movement.

The boxes at these signals are connected by telephone.
Any failure in the operation of these signals will be reported in the same manner as Automatic Block Signals are now reported.
(d) Neville to Pittsburgh.

Belle Vernon Junction to Boston.
Position Light Signals are used.
Automatic Block Position Light Signals will give the day indications and the night indications by lights.

All lights in Position Light Signals are the same colorlemon yellow.

Indications are given by the positions of the lights.
Rules 10 and 10a, Book of Rules, are modified and superseded where they conflict with the instructions governing the use of Position Light Signals.

## THE POSITION LIGHT SIGNAL INDICATIONS, SEE DIAGRAMS, ARE AS FOLLOWS:

Aspect 9-Clear Signal.
Proceed at schedule speed.
Two blocks are clear.
Aspect 10-Approach Signal.
Proceed at a speed reduced to not exceeding onehalf the maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second block in advance is not clear.
Aspect 11-Stop and Proceed Signal.
Stop, then proceed.
Block is not clear.

## POSITION LIGHT SIGNALS AUTOMATIC BLOCK INDICATIONS


(e) Anderson Road to FM. Color Light Signals are used.

## COLOR LIGHT AUTOMATIC BLOCK SIGNAL INDICATIONS



ASPECT 1


ASPECT 2


ASPECT 3

## COLOR LIGHT AUTOMATIC BLOCK SIGNAL INDICATIONS

The color light automatic block signal indications shown above are as follows:
Aspect 1-Stop and proceed signal.
Stop then proceed.
Block is not clear.
Aspect 2-Approach signal.
Proceed at a speed reduced to not exceeding onehalf maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second Block in advance is not clear.
Aspect 3-Clear signal.
Proceed at schedule speed.
Two blocks are clear.

## GENERAL INSTRUCTIONS GOVERNING THE USE OF INTERLOCKING PLANTS

See Rules Nos. 10 and 10a, Book of Rules.
All signals are placed on the right hand side of the tracks they govern, when approaching the plant, on bridges, directly over the track or on bracket posts, in which case the right hand signal on each bracket post will govern the first main track from the post, and the left hand signal the other main track.

All trains or engines entering an Interlocking Plant will proceed far enough to bring all wheels past or farther away from the plant than the signal which controls the return route, and will be controlled by that signal when returning. When unable to proceed far enough to bring all wheels past, or farther away from the plant than the signal which contròls the return route, permission must be obtained from the towerman before returning.

No trains will pass over any route governed by an interlocking plant without first receiving a properly displayed proceed signal excepting under clearly understood signals from the towerman and then not until the route is known to be clear.

All Interlocking Home Signals are normally in the Stop position.

All trains will approach the Interlocking Plant prepared to be governed by the signals.

Interlocking Plants with signals operating in the upper right hand quadrant (with or without interlocked train order signal) will give day and night indications as follows:

Figure 1-Stop Signal.
Stop.
Block is not clear.
(See Rule 10a, Book of Rules.)
Figure 2-Stop Signal.
Stop.
Block is not clear.
Train order signal is in stop position.
(Train to be governed by Rule 221.)
If the towerman can allow the engine or train to pull up to the Tower, he will do so by clearing the "slow speed signal" (which is lower short blade), as indicated by Figure 3. This, however, will be done only after the engineman has given Whistle signal (g), Rule 14, that he has received and accepted the display of the Train Order Signal.

Figure 4-Clear Signal.
Proceed at schedule speed.
Two blocks are clear.
Figure 5-Approach signal.
Proceed at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second block in advance is not clear.
Figure 6-Clear Restricting Signal.
Proceed at restricted speed.
Two blocks are clear.
(Divergence in the direction of traffic.)
Figure 7-Restricting Signal.
Proceed at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second block is not clear.
(Divergence in the direction of traffic.)
Figure 8-Slow Speed Signal.
Proceed at slow speed prepared to stop.
Route is set.
Track may or may not be occupied.
Figure 8 indicates a slow speed movement and simply gives the information that the Interlocking Plant is lined up for some route. The train must protect itself on the track to be entered until it reaches the next signal, if any, ahead.


Enginemen accepting "calling-on" arm signal for movement to the next signal ahead, will proceed with caution, under control, prepared to stop, and only as the way is seen or known to be clear.

Dwarf signals at these plants will also be operated in the upper right hand quadrant. The blade will be inclined upward at an angle of 45 degrees, with a yellow light at night, for proceed, and the blade in a horizontal position with a purple light at night will indicate stop.

Interlocking Plants with Position Light Signals will give the day indications and the night indications by lights.

All lights in Position Light Signals are the same colorlemon yellow.

Indications are given by the positions of the lights.
Rules 10 and 10s, Book of Rules, are modified and superseded where they conflict with the instructions governing the use of Position Light Signals.

The Position Light Signal indications, see diagrams, are as follows:-

Aspect 1-Clear Signal.
Proceed at schedule speed.
Two blocks are clear.
Aspect 2-Approach Signal.
Proceed at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second block in advance is not clear.
Aspect 3-Stop Signal.
Stop.
Block is not clear.
(Train will be governed by the Interlocking STOP,
Rule 10a, Book of Rules.)
Aspect 4-Clear Restricting Signal.
Proceed at restricted speed.
Two blocks are clear.
(Divergence in the direction of traffic.)
Aspect 5-Restricting Signal.
Proceed at a speed reduced to not exceeding one-half the maximum authorized at point involved (not exceeding thirty miles per hour) prepared to stop at the next signal.
Block is clear.
Second block is not clear.
(Divergence in the direction of traffic.)
Aspect 6-Slow Speed Signal.
Proceed at slow speed prepared to stop.
Route is set.
Track may or may not be occupied.
Aspect 7-Slow Speed Signal. (Dwarf)
Proceed at slow speed prepared to stop.
Route is set.
Track may or may not be occupied.
Aspect 8-Stop Signal. (Dwarf)
Stop.
Route is not set.

## POSITION LIGHT SIGNALS INTERLOCKING INDICATIONS



Becks Run Interlocking Plant (BK) will control all train and engine movements between home signals in the territory covered by it. Standard color light signals are used throughout the plant.

General instructions governing the use of interlocking plants will apply to this plant insofar as they do not conflict with these instructions.

One train only at a time in the same direction will occupy the block and tunnel between interlocking signal R-2, located 100 feet west of west end of tunnel, and interlocking signal R-9, located 20 feet east of 34th Street, and between interlocking signal L-14, located 990 feet east of 34th Street, and interlocking dwarf signal R-5, located 20 feet west of west end of tunnel, and a strict compliance is required with Rule No. 99, Book of Rules as modified in Time Table.

Sufficient telephone service has been provided in this district and must be used promptly to avoid delay.

## Definitions:

1. Normal speed is maximum or schedule speed.
2. Medium speed is one-half of normal speed.
3. Restricted speed is, proceed prepared to stop short of train, obstruction, or anything that may require the speed of the train to be reduced, to the next signal (if any) and only as the way is seen or known to be clear.

Eastward trains on eastward main track will be controlled by signals as follows:

1. By approach automatic block signal No. 14 at 10th Street, Pittsburgh.
2. To avoid blocking 22nd Street highway crossing, Pittsburgh, trains of over 45 cars will not pass automatic block signal No. 10 at 19th Street when signal is in stop or approach position until after calling towerman at BK from telephone Y-1.4 and will then be governed by his instructions.
3. Trains of 45 cars or less will not pass automatic block signal No. 10 at 19th Street when in the stop position until after calling towerman at BK and then will be governed by his instructions.
4. By home interlocking signal $\mathrm{R}-2,100$ feet west of west end of tunnel.
5. By home interlocking signal R-9, 20 feet east of 34th Street, Pittsburgh.
6. By home interlocking signal R-22, 900 feet west of BK, Becks Run.
7. By home interlocking signal R-40, 75 feet west of west end of No. 2 main track, Lueas, controlling to automatic block signals No. $58-\mathrm{K}$ on No. 1 main track and No. $56-\mathrm{K}$ on No. 2 main track.

Eastward trains on westward main track will be controlled by interlocking signals as follows:

1. By dwarf signal $R-5,20$ feet west of west end of tunnel.
2. By dwarf signal R-18, 450 feet east of 34th Street, Pittsburgh.
3. By dwarf signal R-38, 530 feet west of BK Tower, Becks Run.
4. By dwarf signal R-48, 165 feet west of west end of No. 3 main track, Lucas.

Westward trains on westward main track will be controlled by signals as follows:

1. By automatic block semaphore approach signals No. 63 -K on No. 4 main track and No. 65 -K on No. 3 main track at present location.
2. By bracket post interlocking home signals L-50 and L-46, on No. 4 and No. 3 main tracks, respectively, 500 feet east of west end of No. 3 main track, Lucas.
3. By cantilever bracket home interlocking signal L-36, 610 feet east of BK, Becks Run, at the left of the track it controls.
4. By interlocking home signal L-14, 990 feet east of 34th Street, Pittsburgh, which will control to automatic block signal No. 21-K.
Westward trains on eastward main track will be controlled by interlocking signals as follows:
5. By dwarf signals L-44, and L-42, on No. 1 and No. 2 main tracks, 375 feet and 440 feet, respectively, east of west end of No. 2 main track, Lucas.
6. By dwarf signal L-26, 560 feet east of BK, Becks Run.
7. By dwarf signal L-11, 690 feet east of 34th Street, Pittsburgh.
Eastward and westward movements at clearances from yard tracks over the interlocking plant will be controlled by dwarf signals.

Interlocking crossovers Nos. 13, 15 and 17 at 34th Street, Pittsburgh, and interlocking switches Nos. 39, 41 and 43 and interlocking crossover No. 45 at Lucas, are dual control. They are operated electrically from BK, but can be operated by hand in case of hand switching or switch machine failure. These switches must not be unlocked or operated by hand unless authorized by the Towerman at BK, Becks Run.

To operate a dual control switch by hand, obtain permission from the towerman, giving engine number and length of time switch is desired to be used.

When permission is received, place hand throw lever in corresponding position with switch points whether normal or reverse.

Throw selector lever from motor operating position to hand throw position. Then throw switch by hand as may be required.

When it is desired to make a move over a route in which a dual control switch machine has failed or has the points part way open on account of obstruction, obtain authority from towerman to operate switch by hand.

Raise hand throw lever to a position corresponding to the distance the switch points are standing open, then throw selector lever to hand operating position.

Remove obstruction from between points and operate switch by hand as may be necessary.

To restore to motor operating position, place switch points in position as instructed by towerman.

Change selector lever from hand throw position to motor operating position, then lock both levers and report to towerman.

Trains or engines using turnouts or crossovers must not exceed a speed of 15 miles per hour.

Day and night aspects of color light signals have the same colors as night aspects of upper quadrant semaphore signals. Aspects, indications and names of indications of color light signals are as follows:


## INTERLOCKING PLANT AT EDENBURG

DN
See general instructions governing the use of interlocking plants.

This plant controls westward movements only.
The home signals are operated in the upper right hand quadrant.

There are double distant signals.
The upper distant signal repeats the upper home signal, and the lower distant signal the middle home signal.

## INTERLOCKING PLANT AT MAHONINGTOWN WA

See general instructions governing the use of interlocking plants.

This plant controls eastward movements orly.
The home signals are operated in the upper right hand quadrant.

There are double distant signals.
The upper distant signal repeats the upper home signal and the lower distant signal the middle home signal.

## INTERLOCKED SIGNALS AT NEW CASTLE JUNCTION J

The home signals are operated in the upper right hand quadrant.

All switches are operated by hand.
Train order signals are interlocked with the home signals.
There are four distant signals, one repeating the upper blade on each home signal.

## INTERLOCKING PLANT AT WEST PITTSBURGH

 SDSee general instructions governing the use of interlocking plants.

This plant controls westward movements only.
The home signals are operated in the upper right hand quadrant.

There are double distant signals.
The upper distant signal repeats the upper home signal and the lower distant signal the middle home signal.

## INTERLOCKING PLANT AT WAMPUM RK

See general instructions governing the use of interlocking plants.

This plant controls eastward movements only.
The home signals are operated in the upper right hand quadrant.

There are double distant signals.
The upper distant signal repeats the upper home signal and the lower distant signal the middle home signal.

## INTERLOCKING PLANT AT WEST ELLWOOD JUNCTION. JA

See general instructions governing the use of interlocking plants.

The signals are operated in the upper right hand quadrant.
There is one derail on branch lead. There are four distant signals-one repeating the upper blade on each home signal.

## INTERLOCKING PLANT AT COLLEGE CO

See general instructions governing the use of interloeking plants.

The home signals are operated in the upper right hand quadrant.

There are four distant signals, one repeating the upper blade on each home signal.

## INTERLOCKING PLANT AT BEAVER FALLS <br> PO

See general instructions governing use of interlocking plants. Position light signals are used.
There are four distant signals, one for each main track, approaching the plant in normal direction.

Automatic block signal 313, controlling westward movereents on No. 3 main track and signal No. 315 on No. 4 main track at first location west of Fallston, will indicate Proceed when interlocking signal PO-4, or PO-1 displays either of the following indications.

1. Proceed on No. 3 or on No. 4 main track with top aspect showing clear or approach indication.
2. Diverge from No. 4 to No. 3 main track, or from No. 3 to No. 4 main track with bottom aspect showing clear or approach indication.

## INTERLOCKING PLANT AT MONACA

BG
See general instructions governing the use of interlocking plants.

The home signals are oparated in the upper right hand quadrant.

There are four distant signals, one for each main track approaching the plant in normal direction.

A telephone is located at the west end of the plant at the C. \& P. arches for the use of trainmen when necessary to communicate with the towerman.

## INTERLOCKING PLANT AT WEST ALIQUIPPA

## QA

See general instructions governing the use of interlocking plants.

The home signals are operated in the upper right hand quadrant.

There are two derails, one on the J. \& L. lead and one on the Aliquippa freight house lead.

There are four distant signals, one for each main track approaching the plant in normal direction.
emergency whistle.
One long blast-Trains and engines within limits of interlocking zone, stop.

Two short blasts-Trains and engines proceed under rules.
Four short blasts-Call for maintainer.

## INTERLOCKING PLANT AT MONTOUR JUNCTION

 MRSee general instructions governing the use of interlocking plants.

The home signals are operated in the upper right hand quadrant.

There are four distant signals-one for each main track approaching the interlocking plant in normal direction.

There is one derail at west end of Groveton lead.

## INTERLOCKING PLANT AT NEVILLE

FM
See general instructions governing the use of interlocking plants.

The home signals are operated in the upper right hand quadrant.

There are four distant signals-one for each main track approaching the plant in normal direction.
emergency whistle.
One long blast-Trains and engines within limits stop.
Two short blasts-Trains and engines proceed under the rules.

Four short blasts-Call for maintainer.

## INTERLOCKING PLANT AT McKEES ROCKS

 CHSee general instructions governing the use of interlocking plants.

Position light signals are used.
There is a derail in the P. C. \& Y. track.
There are four distant signals-one for each main track approaching the plant in normal direction.

## emergenct whistle.

One long blast-Trains and engines within limits stop.
Two short blasts-Trains and engines proceed under the rules.

Four short blasts-Call for maintainer.

## INTERLOCKING PLANT AT PITTSBURGH DX

See general instructions governing the use of interlocking plants.

Position light signals are used.
The second arms on home signals DX-1, and DX-88 control to train shed tracks only.

There are two distant signals, one for No. 3 main track approaching the plant, which repeats the top arm of the home signal, and one for the westward main track approaching the plant, which repeats the top arm of the home signal.
emergency whistle.
One long blast-Trains and engines within limits stop.
Two short blasts-Trains and engines proceed under the rules.

Four short blasts-Call for maintainer.

## INTERLOCKING PLANT AT BECKS RUN BK

See instructions, Pages 38 and 39.

## INTERLOCKING PLANT AT HOMESTEAD HM

See general instructions governing the use of interlocking plants.

The home signals are operated in the upper right hand quadrant.

There are three distant signals-one for each main track and at the westward distant signal there are two distant blades. The lower blade in the clear position indicates that the middle blade on the home signal is in the proceed position for divergence to No. 3 track.

## INTERLOCKING PLANT AT BELLE VERNON JUNCTION

 BVSee general instructions governing the use of interlocking plants.

## POSITION LIGHT SIGNALS ARE USED

The upper indication on eastward home signal controls to Monongahela Division and the lower indication to Youghiogheny Division. The calling-on arm indication controls to either Division.

There are three distant signals, one for each main track approaching the plant in normal direction. The eastward distant signal has two arms, the upper arm giving approach indication for Monongahela Division; the lower distant arm giving approach indication for the Youghiogheny Division.

Eastward trains approaching Belle Vernon Junction interlocking Plant will sound whistle for microphone at whistling post on River side of Eastward main track at east end of Monongahela Furnace crossover four hundred (400) feet east of Signal 150-K, as follows:

1 long moderate blast for Youghiogheny Division.
4 short moderate blasts for Monongahela Division.
If home signal does not indicate Proceed, whistle signal will be repeated at west end of Youghiogheny River Bridge.

## INTERLOCKING PLANT AT EAST ROSCOE RC

See general instructions governing the use of interlocking plants.

The home signals are operated in the upper right hand quadrant.

There are two distant signals, one for each main track approaching the plant in normal direction.

Home signal controlling movement from lead track is located on left side of track it controls.

## INTERLOCKING PLANT AT BROWNSVILLE JUNCTION

Grade Crossing of Monongahela Ry. over P. R. R.
P. \& L. E. R. R. automatic block signals are not continuous through this plant.

Monongahela Railway instructions as follows are to govern:
S28A. Two position, interlocked, home semaphore signals located to the right of the northward and southward tracks thirty-six (36) feet north and thirty (30) feet south of crossing govern movement with the current of traffic.

An arm by day and a light by night is displayed to the right of each signal mast as seen from an approaching train. "Proceed at restricted speed" is indicated when arm is in 45 degree or diagonal position, or yellow light is displayed. "Stop" is indicated when arm is in horizontal position, or red light is displayed.

S28B. Two position, interlocked, dwarf, light signals are logated between northward and southward tracks twenty-nine (29) feet north and seventy-two (72) feet south of the crossing, and govern movement against the current of traffic.

The signal indications as seen from a train approaching the crossing against the current of traffic are to the right of track. "Proceed at restricted speed" is indicated when lights are in 45 degree or diagonal position. "Stop" is indicated when lights are in horizontal position.

S28C. When proceed is indicated, trains moving either with or against the current of traffic, will proceed over crossing without stopping at a speed not to exceed twelve (12) miles per hour.

## MAIN TRACK CROSSOVERS-PITTSBURGH TO YOUNGSTOWN

DIREOTION

| LOCATION | Headover | Backover |
| :---: | :---: | :---: |
| DX | 4 to 1 | 4 to 1 |
| DX, 1500' West of |  | 1 to 2 |
| Point Bridge, $700^{\prime}$ West of. . . . . . . . . . |  | 1 to 2 |
| West End, $1 / 2$ Mile West of. . . . . . . . . . |  | 1 to 2 |
| OH. . . . . | 4 to 1 | 4 to 1 |
| FM. | 4 to 1 | 4 to 1 |
| FM. |  | 4 to 1 |
| Brightwood, $800^{\prime}$ |  | 1 to 2 |
| Groveton. |  | 4 to 1 |
| MR | 4 to 1 | 4 to 1 |
| Kendall, $1100^{\prime}$ West of |  | 4 to 1 |
| Stoops Ferry . . . . . . . | 4 to 2 |  |
| Briggston, 1200' West |  | 4 to 1 |
| South Heights, 600' East of.... . . . . . . |  | 4 to 1 |
| Aliquippa, $3600^{\prime}$ East of. . . . . . . . . . . . | 4 to 3 | 1 to 2 |
| QA. . . . . . . . . . . . . . . | 4 to 1 | 4 to 1 |
| Stobo |  | 4 to 1 |
| BG | 4 to 1 | 4 to 1 |
| Bradys Run |  | 1 to 3 |
| Fallston... . | 4 to 2 |  |
| PO | W.B. to E.B. | W.B. to E.B. |
| CO | 4 to 1 | 4 to 1 |
| CO, 3400' West of |  | 4 to 2 |
| JA . . . . . . . . . . | 4 to 1 | 4 to 1 |
| Rock Point |  | 4 to 2 |
| RK........ | 1 to 3 | $4 \text { to } 2$ |
| West Pittsburgh, $1100^{\prime}$ East of. . . . . . . J, $4000^{\prime}$ East of |  | W.B. to E.B. |
| J, $4000^{\prime}$ East of (Over Yard Lead) |  | $4 \text { to } 1$ |
| J, 700' East of. . . . . . . . . . . . . . . . . . |  | $4 \text { to } 3$ |
| J. | 4 to 1 | $4 \text { to } 1$ |
| WA. |  | W.B. to E.B. W.B. to E.B. |
| Edenburg, $400^{\prime}$ East of |  | W.B. to E.B. |
| DN... . . . . . . . . . . | 4 to 2 | 1 to 3 |
| Robinson, 1 Mile East of |  | 4 to 2 |
| Robinson, $1 / 2$ Mile West of | 4 to 2 | 1 to 2 |
| Lowellville, $1 / 2 \mathrm{Mile}$ West of. . . . . . . . |  | 4 to 1 |
| Lowellville Jct. . . . . . |  | 1 to 3 |
| Struthers, $11 / 4$ Miles East of . . . . . . . . |  | $4 \text { to } 3$ |
| Struthers, $1600^{\prime}$ East of. |  | 4 to 3 |
| Struthers. . . . . . . . . . . | $4 \text { to } 1$ <br> W.B. to E.B | $4 \text { to } 1$ <br> W.B. to E.B |
| N, West of B\&O Crossing. . . . . . . . . . New York Central Jct., 1200' East of. | W.B. to E.B. | W.B. to E.B. |
| New York Central Jct., 1000' East of. | E.B. P\&LE to E.B. Erie | W.B. P\&LE to W.B. Erie |
| New York Central Jct., 600' East of. . | W.B. P\&LE to W.B. Erie | E.B. P\&LE to E.B. Erie |

## MAIN TRACK CROSSOVERS-PITTSBURGH TO CONNELLSVILLE

DIRECTION

| LOCATION | Headover | Backover |
| :---: | :---: | :---: |
| Pittsburgh, 1000 ${ }^{\prime}$ Eas |  | W.B. to E.B. |
| Pittsburgh, $1 / 4$ Mile East of | W.B, to E.B. |  |
| Pittsburgh, 1500' East of | W.B. to E.B. |  |
| Pittsburgh, 1/2 Mile East of |  | W.B. to E.B. |
| Pittsburgh, 1 Mile East of |  | W.B. to E.B. |
| 22nd Street, $900^{\prime}$ West of. |  | W.B. to E.B. |
| 22nd Street, $400^{\prime}$ East of | W.B. to E.B. |  |
| 34th Street, $500^{\prime}$ East of | W.B. to E.B. |  |
| Becks Run. | W.B. to E.B. | W.B. to E.B. |
| Lucas. |  | 2 to 3 |
| West Homestead, 400' West |  | 4 to 1 |
| HM, 300' East of |  | W.B. to E.B. |
| Homestead, 1/2 Mile East |  | W.B. to E.B. |
| Rankin, $1 / 2$ Mile West of |  | W.B. to E.B. |
| Rankin, $300^{\prime}$ East of |  | W.B. to E.B. |
| Braddock, 700' West of |  | W.B. to E.B. |
| Bessemer, $1 / 2$ Mile West | W.B. to E.B. |  |
| Bessemer, $3 / 4$ Mile East of. |  | W.B. to E.B. |
| Bessemer, 11/4 Miles East of |  | W.B. to E.B. |

## MAIN TRACK CROSSOVERS-PITTSBURGH TO CONNELLSVILLE-Continued

DIRECTION

| LOCATION | Headover | Backover |
| :---: | :---: | :---: |
| Demmler, $800^{\prime}$ West | W.B. to E.B. | W.B. to E.B. |
| Riverton, $100^{\prime}$ East of |  | W.B. to E.B. |
| McKeesport, $1 / 2$ Mile West of |  |  |
| McKeesport, $1 / 4$ Mile West of |  | W.B. to E.B. |
| McKeesport, $500^{\prime}$ East of |  | W.B. to E.B. |
| Belle Vernon Jet., $500^{\prime}$ Ea |  | W.B. to E.B. |
| Port Vue, 700' West of. |  | W.B. to E.B. |
| Port Vue, 1/2 Mile East |  | W.B. to E.B. |
| Boston, 1000' East of. |  | W.B. to E.B. |
| Greenock, 3/4 Mile East |  | W.B. to E.B. |
| Duncan, $1 / 2$ Mile East of |  | W.B. to E.B. |
| Scott Haven Scales, 800' Ea |  | W.B. to E.B. |
| Douglass, $800^{\prime}$ East of |  | W.B. to E.B. |
| Smithdale, 400' East of |  | W.B. to E.B. |
| Collinsburg, 1/2 Mile East of |  | W.B. to E.B. |
| West Newton, $700^{\prime}$ East of |  | W.B. to E.B. |
| Cedar Creek, $3000^{\prime}$ West |  | W.B. to E.B. |
| Smithton, 1/4 Mile West of. |  | W.B. to E.B. |
| Smithton, $8 / 4$ Mile East of |  | W.B. to E.B. |
| Jacobs Creek, $500^{\prime}$ West of |  | W.B. to E.B. |
| Wick Haven, $400^{\prime}$ West o |  | W.B. to E.B. |
| Whitsett Jct., 1/4 Mile West |  | W.B. to E.B. |
| Whitsett Jct., 1100' East of |  | W.B. to E.B. |
| Fuller, $600^{\prime}$ East of. Kier, $400^{\prime}$ East of. | W.B. to E.B. | W.B. to E.B. |
| Round Bottom, $1700^{\prime}$ East |  | W.B. to E.B. |
| Sand Rock, $1500^{\prime}$ East of. |  | W.B. to E.B. |
| Dickerson Run. . . . |  | W.B. to E.B. |
| Rainey, 1/2 Mile East of |  | W.B. to E.B. |
| Adelaide, $1 / 2$ Mile West of | W.B. to E.B. |  |
| Broadford Jct. |  | W.B. to E.B. |
| Crossland, $200^{\prime}$ West of. . . . | W.B. to E.B. |  |
| Connellsville, $1 / 2$ Mile West of |  | W.B. to E.B. |

## MAIN TRACK CROSSOVERS-BELLE VERNON JCT TO BROWNSVILLE JCT.

DIREOTION

| LOCATION | Headover | Backover |
| :---: | :---: | :---: |
| Belle Vernon Jct., $1 / 4$ Mile East of |  | W.B. to E.B. |
| Glassport, 1 Mile West of |  | W.B. to E.B. |
| Glassport, 300' East of. |  | W.B. to E.B. |
| Robbins |  | W.B. to E.B. |
| Belle Bridge, $3 / 4$ Mile We |  | W.B. to E.B. |
| Belle Bridge, $500^{\prime}$ East of |  | W.B. to E.B. |
| Wylie, 300' East of. |  | W.B. to E.B. |
| Elizabeth, 1 Mile East of |  | W.B. to E.B. |
| Lock No. 3, 1 Mile East of |  | W.B. to E.B. |
| Brownsdale, $1 / 4$ Mile West |  | W.B, to E.B. |
| Monongahela, $400^{\prime}$ East of. . . . . . . . . |  | W.B. to E.B. |
| Manown, 200' East of. |  | W.B. to E.B. |
| Gallatin, 1/4 Mile East of |  | W.B. to E.B. |
| Milesville, $700^{\prime}$ East of. |  | W.B. to E.B. |
| Webster, $400^{\prime}$ West of. |  | W.B. to E.B. |
| Webster, 1/2 Mile East o |  | W.B. to E.B. |
| Sheppler, $1600^{\prime}$ West of |  | W.B. to E.B. |
| Sheppler, $400^{\prime}$ East of. |  | W.B. to E.B. |
| Monessen, $1 / 2$ Mile West of. . . . . . . . . |  | W.B. to E.B. |
| Monessen, 1/2 Mile East of. .... . . . . . |  | W.B. to E.B. |
| Rostraver. . . . . . . . . . |  | W.B. to E.B. |
| Gibsonton, $1 / 4$ Mile West |  | W.B. to E.B |
| Gibsonton, $300^{\prime}$ East of | B. to E.B. |  |
| Belle Vernon, $700^{\prime}$ East |  | W.B. to E.B. |
| Tremont, $1 / 2$ Mile West of |  | W.B. to E.B. |
| Fayette City, 600' West of |  | W.B. to E.B. |
| Fayette City, $2000^{\prime}$ East of | V.B. to E.B. |  |
| East Roscoe, $100^{\prime}$ West of. . . . . . . . . . . . |  | W.B. to E.B. |
| Newell, $1600^{\prime}$ West of. . |  | W.B. to E.B. |
| Newell, 300 ' East of |  | W.B. to E.B. |
| Newell, $3 / 4$ Mile East of | V.B. to E.B. |  |
| East California, 1/4 Mile East of...... |  | W.B. to E.B. |
| Newell, Interchange Yard East End.. | V.B. to E.B. |  |
| Brownsville Jct., 3400' West of. |  | W.B. to E.B. |

## AUDIBLE SIGNALS

## Engine Whistle Signals

Note-The signals prescribed are illustrated by " 0 " for short sounds; "—" for longer sounds. The sound of the whistle should be distinct, with intensity and duration proportionate to the distance signal is to be conveyed.

| Sound | Indication |
| :---: | :---: |
| (a) 0 | Stop. Apply brakes. |
| (b) | Release brakes. |
| (c) -000 | Flagman go back and protect rear of train. |
| (d) | Flagman return from east. |
| (e) - | Flagman return from west. |
| (f) - - - | When running, train parted; to be repeated until answered by the signal prescribed by Rule 12 (d). Answer to 12 (d). |
| (g) 00 | Answer to any signal not otherwise provided for. |
| (h) 000 | When train is standing, back. Answer to 12 (c) and 16 (c). When train is running, answer to 16 (d). |
| (j) 0000 | Call for signals. |
| (k) 00 | To call the attention of yard engines, extra trains or trains of the same or inferior class or inferior right to signals displayed for a following section. |
| (1) --00 | Approaching public crossings at grade. |
| (m) | Approaching stations, junctions and railroad crossings at grade. |

## COMMUNICATING SIGNALS

(See Rule 25.)

## Sound

(a) Two.
(b) Two.
(c) Three.
(d) Three.
(e) Four.
(f) Four.
(g) Five.
(h) Five.
(j) Six.

## Indication

When train is standing, start.
When train is running, stop at once.
When train is standing, back the train.
When train is running, stop at next station.
When train is standing, apply or release air brakes.
When train is running, reduce speed.
When train is standing, call in flagman.
When train is running, increase speed.
When train is running, increase steam heat.

Westward trains will sound engine whistle at stop board east of N Tower as signals to the switch tender, as follows:-

1 long 4 short, - - - - . P. \& L. E. R. R. tracks.
1 long, . . . . . . . . Erie R. R. tracks.

LOCATION AND NUMBERS OF ELECTRIC SIGNALS P. \& L. E. DIVISION.

| STATIONS | TRACKS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
| NEW YORK CENT. JCT. ........ |  |  |  |  |
|  | $\begin{aligned} & 670 \\ & 664 \end{aligned}$ |  |  | 665 661 |
| EAST YOUNGSTOWN.. | 658 654 650 |  |  | 651 |
|  | 644 636 | 634 |  | 643 |
| STRUTHER | $\begin{aligned} & 630 \\ & 622 \\ & 614 \end{aligned}$ | $\begin{aligned} & 628 \\ & 620 \\ & 612 \end{aligned}$ | $\begin{aligned} & 635 \\ & 629 \\ & 619 \\ & 613 \end{aligned}$ | 637 627 621 611 |
| LOWELLVILLE JOT. BENTLEX | 2 L |  |  | 1 L |
| LOWELLVILLE J <br> LOWELLVILLE.... | 606 | 604 | 605 | 607 |
|  |  |  |  |  |
|  | $\begin{aligned} & 600 \\ & 590 \end{aligned}$ | $\begin{aligned} & 602 \\ & 592 \end{aligned}$ | $\begin{aligned} & 599 \\ & 591 \end{aligned}$ | $\begin{aligned} & 601 \\ & 593 \end{aligned}$ |
|  | 584 | 586 | 585 | 583 |
| CARBON. | 576 | 578 | 577 | 575 |
|  | 568 560 554 | 570 562 558 | 571 863 | 569 561 |
| EDENBURG.. |  |  |  | DN-4 |
|  | $\begin{array}{r} 546 \\ 538 \\ 532 \\ 624 \\ 516 \\ \text { WA-4 } \end{array}$ |  |  | $\begin{aligned} & 547 \\ & 539 \\ & 531 \\ & 523 \\ & 517 \end{aligned}$ |
| MAHONINGTOWN.. |  |  | 507 | 509 |
|  | 502 | 500 | 501 | 503 |
| NEW CASTLE.. |  |  |  |  |
|  | 512 F |  |  |  |
| NEW CASTLE JCT.. | $\begin{aligned} & 508 \mathrm{~F} \\ & 502 \mathrm{~F} \\ & 496 \mathrm{~F} \end{aligned}$ |  |  | $\begin{aligned} & 507 \mathrm{~F} \\ & 501 \mathrm{~F} \\ & 495 \mathrm{~F} \\ & 489 \mathrm{~F} \end{aligned}$ |
| NEW CASTLE JCT. |  |  |  |  |
|  | J-20 488 480 | $\begin{array}{r} \mathrm{J}-18 \\ 488 \\ 478 \end{array}$ | J-2 485 | $\begin{aligned} & \mathrm{J}-1 \\ & 487 \end{aligned}$ |
| WEST PITTSBURGH.... |  |  |  | SD-4 |
|  | 472 464 456 |  |  | 471 465 455 |
| WAMPUM. | $\begin{aligned} & 448 \\ & 440 \end{aligned}$ |  |  | $\begin{aligned} & 449 \\ & 441 \end{aligned}$ |
|  | RK-4 |  |  |  |
|  | 426 418 412 | 424 416 410 | 431 423 417 409 | 433 425 419 411 |
| W. ELLWOOD JOT. | 402 394 | 404 396 | 401 393 | 403 395 |
|  | JA-32 | JA-31 |  |  |

LOCATION AND NUMBERS OF ELECTRIC SIGNALS P. \& L. E. DIVISION-Continued STATIONS TRACKS JA

COLLEGE (CO). ELEVENTH STREET PO

| BEAVER FALLS AND NEW BRIGHTON... |  |  | PO-4 | P0-1 |
| :---: | :---: | :---: | :---: | :---: |
| FALLSTON. | $\begin{aligned} & 312 \\ & 306 \end{aligned}$ | $\begin{aligned} & 314 \\ & 308 \end{aligned}$ | 313 | 315 |
|  |  |  | 308 | 305 |
|  | 298 | 300 | 299 | 297 |

W. BRIDGEWATER ......

BE
BG

\section*{| M |
| :---: |
| Q |
| Q |
|  |}

AL

|  | 216 | 218 | 215 | 213 |
| :--- | :---: | :---: | :---: | :---: |
| WEST ECONOMY | 208 | 210 | 209 | 207 |
|  | 200 | 202 | 201 | 199 |
| SOUTH HEIGHTS | 196 | 194 | 193 | 191 |
| ANDERSON ROAD | 184 | 186 | 185 | 183 |
| GLENWILLARD | 176 | 178 | 179 | 177 |
| BRIGGSTON.... | 172 | 170 | 171 | 169 |
| STOOPS FERRY | 160 | 162 | 163 | 161 |
| KENDALL | 152 | 154 | 155 | 153 |
| CORAOPOLIS | 146 | 148 | 149 | 147 |
|  | 138 | 140 | 141 | 139 |
|  | 130 | 132 | 133 | 131 |

LOCATION AND NUMBERS OF ELECTRIC SIGNALS P. \& L. E. DIVISION-Continued

| STATIONS | TRACKS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
| MONTOUR JCT. |  |  |  |  |
| MR. | MR-40 | MR-39 |  |  |
| GROVETON... | 118 | 120 | $\begin{gathered} \mathrm{MR}-2 \\ 117 \end{gathered}$ | $\begin{gathered} \mathrm{MR}-1 \\ 119 \end{gathered}$ |
| BRIGHTWOOD.. | 108 | 110 | 109 | 111 |
| PORTERS... | 100 | 102 | 103 | 105 |
|  | $\begin{array}{r} 92 \\ F M-80 \end{array}$ | $\begin{array}{r} 94 \\ F M-77 \end{array}$ | 91 | 93 |
| FM |  |  | FM-4 | FM-1 |
|  | 76 68 | $\begin{aligned} & 78 \\ & 70 \end{aligned}$ | 79 | 77 |
|  | CH-68 | CH-65 | 71 | 69 |
| CORLISS STREET... | 52 | $\begin{gathered} \mathrm{CH}-4 \\ 55 \end{gathered}$ | 48 | $\begin{gathered} \mathrm{CH}-1 \\ 53 \end{gathered}$ |
| MAIN STREET | 44 | 47 | 46 | 45 |
|  | $\begin{array}{r} 36 \\ 28 \\ \mathrm{DX}-1 \end{array}$ | $\begin{aligned} & 35 \\ & 31 \\ & 27 \end{aligned}$ | $\begin{array}{r} 38 \\ 32 \\ D X-4 \end{array}$ | 37 29 25 |
| PITTSBURGH |  |  |  |  |
| YO | GH. DI | VISION |  |  |


| STATIONS | tracks |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
| DX |  |  |  |  |
| PITTSBURGH |  |  |  |  |
|  | 22 14 10 |  |  | [ $\mathrm{P}-88$ |
| 22D STREET |  |  |  |  |
| TUNNEL | R-2 |  |  | 21 K |
| 34TH ST.. |  |  |  |  |
| BECKS RUN | $\frac{\mathrm{R}-9}{\mathrm{R}-22}$ |  |  | L-14 |
| LuCas | R-40 |  |  | L-36 |
| Cas .... | 58 K | 56K | L-46 65 K | L-50 63 K |
| HM | HM-1 | HM-2 |  |  |
| mestead |  |  |  | HM-13 |
|  | 74K |  |  | 73K |




## Telephones




## THE PITTSBURGH AND LAKE ERIE RAILROAD COMPANY

## GENERAL ORDER No. 3111

Pittsburgh, Pa., December 30, 1929.
Effective after the passage of Train No. 17, Thursday, January 2nd, 1930, automatic semaphore block (distant) signals 313 and 315 controlling westward movements on tracks No. 3 and No. 4, respectively, at first location east of PO interlocking plant, Beaver Falls, will be changed to color light signals.

These (distant) signals will have aspects as shown and will include the "Approach Medium" indication.

Corresponding aspects of the position light home interlocking signals are shown directly above the aspects of the new color light signals.


Trains or engines passing signal 313 or signal 315 displaying "Approach Medium" indication will be required to forestall and will proceed expecting to find home interlocking signal set for diverging to track No. 4 or track No. 3, respectively.

Approved:
F. G. Minnick,

General Manager.
F. M. Brown, Superintendent.


