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State Social Administration  
Washington, D.C.

# Northern Pacific Railroad

TRANSITION YEAR 1919

No. 2986

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*Northern Pacific Railway Company*

**United States Railroad Administration**

**Director General of Railroads**

**NORTHERN PACIFIC RAILROAD**

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**TRAIN RULES**

**BLOCK SIGNAL RULES**

**INTERLOCKING RULES**

**SIGNAL INDICATIONS AND ASPECTS**

**GENERAL REGULATIONS**

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The rules herein set forth govern the railroads operated by the Northern Pacific Railroad. They take effect June 1, 1919, superseding all previous rules and instructions inconsistent therewith.

Special instructions may be issued by proper authority.

J. M. RAPELJE,  
General Manager.

Note: This is a reprint of Transportation Rules effective January 1, 1912, and includes new rules and amendments adopted to June 1, 1919.

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## GENERAL NOTICE.

To enter or remain in the service is an assurance of willingness to obey the rules.

Obedience to the rules is essential to the safety of passengers and employes, and to the protection of property.

The service demands the faithful, intelligent and courteous discharge of duty.

To obtain promotion, capacity must be shown for greater responsibility.

Employes, in accepting employment, assume its risks.



## GENERAL RULES.

A. Employes whose duties are prescribed by these rules must provide themselves with a copy.

B. Employes must be conversant with and obey the rules and special instructions. If in doubt as to their meaning they must apply to proper authority for an explanation.

C. Employes must pass the required examinations.

D. Persons employed in any service on trains are subject to the rules and special instructions.

E. Employes must render every assistance in their power in carrying out the rules and special instructions.

F. Any violation of the rules or special instructions must be reported.

G. The use of intoxicants by employes while on duty is prohibited. Their use, or the frequenting of places where they are sold, is sufficient cause for dismissal.

H. The use of tobacco by employes while on duty in or about passenger stations, or on passenger cars, is prohibited.

J. Employes on duty must wear the prescribed badge and uniform and be neat in appearance.

K. Persons authorized to transact business at stations or on trains must be orderly and avoid annoyance to patrons.

L. In case of danger to the Railroad's property employes must unite to protect it.

## DEFINITIONS.

**Engine.**—A locomotive propelled by any form of energy.

**Train.**—An engine, or more than one engine coupled, with or without cars, displaying markers.

**Regular Train.**—A train authorized by a time-table schedule.

**Section.**—One of two or more trains running on the same schedule displaying signals or for which signals are displayed.

**Extra Train.**—A train not authorized by a time-table schedule. It may be designated as—

Extra—for any extra train, except work extra;

Work extra—for work train extra.

**Superior Train.**—A train having precedence over another train.

**Train of Superior Right.**—A train given precedence by train order.

**Train of Superior Class.**—A train given precedence by time-table.

**Train of Superior Direction.**—A train given precedence in the direction specified in the time-table as between trains of the same class.

Note.—Superiority by direction is limited to single track.

**Time-Table.**—The authority for the movement of regular trains subject to the rules. It contains the classified schedules of trains with special instructions relating thereto.

**Schedule.**—That part of a time-table which prescribes class, direction, number and movement for a regular train.

**Division.**—That portion of a railroad assigned to the supervision of a superintendent.

**Subdivision.**—A part of a division so designated on the time-table.

**Main Track.**—A track extending through yards and between stations, upon which trains are operated by time-table or train order, or the use of which is controlled by block signals.

**Single Track.**—A main track upon which trains are operated in both directions.

**Double Track.**—Two main tracks, upon one of which the current of traffic is in a specified direction, and upon the other in the opposite direction.

**Three (or more) Tracks.**—Three (or more) main tracks, upon any of which the current of traffic may be in either specified direction.

**Current of Traffic.**—The movement of trains on a main track, in one direction, specified by the rules.

**Station.**—A place designated on the time-table by name, at which a train may stop for traffic; or to enter or leave the main track; or from which fixed signals are operated.

**Siding.**—A track auxiliary to the main track for meeting or passing trains, limited to the distance between two adjoining telegraph stations.

**Fixed Signal.**—A signal of fixed location indicating a condition affecting the movement of a train.

**Note to Definition of Fixed Signal.**—The definition of a "Fixed Signal" covers such signals as slow boards, stop boards, yard limits, switch, train order, block, interlocking, semaphore, disc, ball or other means for indicating stop, caution or proceed.

**Yard.**—A system of tracks within defined limits provided for the making up of trains, storing of cars and other purposes, over which movements not author-

ized by time-table, or by train order, may be made, subject to prescribed signals and regulations.

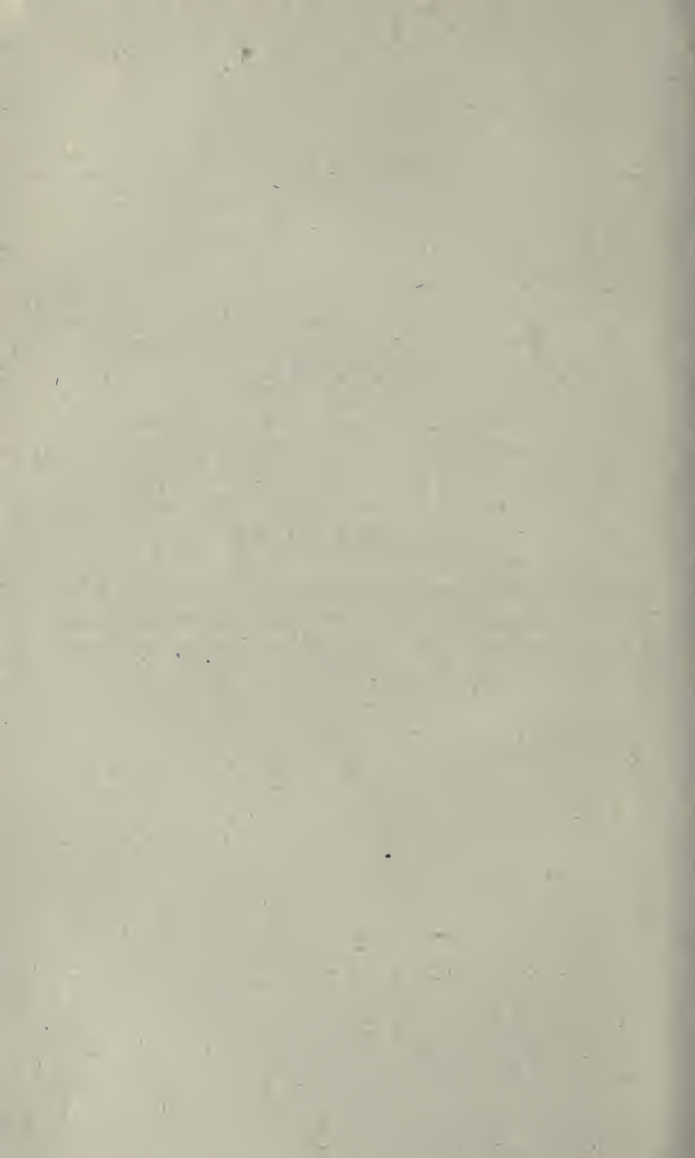
**Yard Engine.**—An engine assigned to yard service and working within yard limits.

**Pilot.**—A person assigned to a train when the engineman or conductor, or both, are not fully acquainted with the physical characteristics, or running rules of the road, or portion of the road, over which the train is to be moved.

## TRAIN RULES.

**Note.**—Double Track Rules and Forms are designated by the letter “D” prefixed to their numbers and are printed in different type; on Double Track they will supersede the corresponding Rules and Forms not so marked. All other Rules and Forms apply to both Single and Double Track.

**Note.**—Where the term telegraph, or telegraph office, is used in these rules, it also applies to telephone, or telephone office, in the territory where telephones are used for train dispatching purposes.





## STANDARD TIME.

1. Standard Time obtained from an authorized observatory will be telegraphed to all points from designated offices at 11 a. m. Central Time, daily.

2. Watches that have been examined and certified to by a designated inspector must be used by conductors, enginemen and switch foremen. The certificate in prescribed form must be renewed and filed with the Superintendent every three months.

*(Form of Certificate.)*

## CERTIFICATE OF WATCH INSPECTOR.

This is to certify that on.....19.....  
 the watch of.....  
 employed as.....  
 on the Northern Pacific Railroad was examined by me.  
 It is correct and reliable, and in my judgment will,  
 with proper care, run within a variation of thirty  
 seconds per week.

Name of Maker.....

Brand.....

Number of Movement.....

Open or hunting case.....

Metal of case.....

Stem or key winding.....

Signed,

*Inspector.*

Address.....

3. Watches of conductors, enginemen and switch foremen must be compared, before starting on each trip or commencing a day's work with a clock designated as a standard clock. The time when watches are compared must be registered on a prescribed form.

3-a. Conductors and switch foremen must compare their watches with those of their enginemen before starting on each trip or commencing a day's work.

Conductors and enginemen whose duties prevent them from having access to a standard clock must compare their watches daily with each other and with those of conductors and enginemen who have standard time and have registered as provided in this rule.

The daily variation of standard clocks will be recorded on the train sheet by the train dispatcher.

## TIME TABLES.

4. Each time-table, from the moment it takes effect, supersedes the preceding time-table, and its schedules take effect on any sub-division at the leaving time at their initial stations on such sub-division. But when a schedule of the preceding time-table corresponds in number, class, day of leaving, direction, and initial and terminal stations with a schedule of the new time-table, a train authorized by the preceding time-table will retain its train orders and assume the schedule of the corresponding number of the new time-table.

Schedules on each sub-division date from their initial stations on such sub-division.

Not more than one schedule of the same number and day shall be in effect on any sub-division.

5. Not more than two times are given for a train at any station; where one is given, it is, unless otherwise indicated, the leaving time; where two, they are the arriving and the leaving time.

Unless otherwise indicated, the time applies to the switch where an inferior train enters the siding; where there is no siding it applies to the place from which fixed signals are operated; where there is neither siding nor fixed signal, it applies to the place where traffic is received or discharged.

Schedule meeting or passing stations are indicated by figures in full-faced type.

Both the arriving and leaving time of a train are in full-faced type when both are meeting or passing times, or when one or more trains are to meet or pass it between those times.

When trains are to be met or passed at a siding extending between two adjoining stations, the time

at each end of the siding will be shown in full-faced type.

The numbers of the trains meeting, passing or being passed will be shown in small type adjacent to the full-faced type.

*D-5.* Not more than two times are given for a train at any station; where one is given, it is, unless otherwise indicated, the leaving time; where two, they are the arriving and the leaving time.

Unless otherwise indicated, the time applies to the switch where an inferior train enters the siding; where there is no siding it applies to the place from which fixed signals are operated; where there is neither siding nor fixed signal, it applies to the place where traffic is received or discharged.

Schedule passing stations are indicated by figures in full-faced type.

Both the arriving and leaving time of a train are in full-faced type when both are passing times, or when one or more trains are to pass it between those times.

When trains are to be passed at a siding extending between two adjoining stations, the time at each end of the siding will be shown in full-faced type.

The numbers of the trains passing or being passed will be shown in small type adjacent to the full-faced type.

6. The following signs when placed before the figures of the schedule indicate:

“s” —Regular stop.

“f” —Flag stop to receive or discharge passengers or freight.

“¶” —Stop for meals.

“L” —Leave.

“A” —Arrive.

6-a. The following signs when placed in the columns provided indicate:

W—Water.

C—Fuel.

O—Track scales.

T—Turntable.

Y—Wye.

D—Day office only.

N—Night office only.

DN—Day and night office.

P—Telephone.

Time-table will show location of bulletin and register stations.

## SIGNAL RULES.

7. Employes whose duties may require them to give signals, must provide themselves with the proper appliances, keep them in good order and ready for immediate use.

7-a. Signals must be used strictly in accordance with the rules, and trainmen, enginemen, and all concerned must keep a constant lookout for them. Those giving signals must locate themselves so as to be plainly seen, and make them so as to be plainly understood. The utmost care must be exercised by trainmen, yardmen and enginemen to avoid taking signals that may be intended for other trains. Unless conductor and engineman are positive that signals given are for them, they will not move their train until communication is made by words. In backing a train the disappearance from view of trainmen, or lamp by which signals are given, will be construed as a stop signal.

8. Flags of the prescribed color must be used by day, and lamps of the prescribed color by night.

9. Night signals are to be displayed from sunset to sunrise. When weather or other conditions obscure day signals, night signals must be used in addition.

## VISIBLE SIGNALS.

10.

## COLOR SIGNALS.

COLOR.	INDICATION.
(a) Red.	Stop.
(b) Green.	Proceed, and for other uses prescribed by the rules.
(c) Yellow.	Proceed with caution, and for other uses prescribed by the rules.
(d) Green and white.	Flag stop. See Rule 28.
(e) Blue.	See Rule 26.

11. A fusee on or near the track burning red must not be passed until burned out. When burning yellow it is a caution signal.

## 12. HAND, FLAG AND LAMP SIGNALS.

MANNER OF USING.	INDICATION.
------------------	-------------

(a) Swung across the track. } Stop.



(b) Raised and lowered vertically. } Proceed.



(c) Swung vertically in a circle at half arm's length across the track, when the train is standing.

Back.



(d) Swung vertically in a circle at arm's length across the track, when the train is running.

Train has parted.



(e) Swung horizontally above the head, when the train is standing.

Apply air brakes.



(f) Held at arm's length above the head, when the train is standing.

Release air brakes.




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13. Any object waved violently by any one on or near the tracks is a signal to stop.



## AUDIBLE SIGNALS.

## 14. ENGINE WHISTLE SIGNALS.

Note.—The signals prescribed are illustrated by "o" 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) o	Stop. Apply brakes.
(b) — —	Release brakes.
(c) — o o o	Flagman go back and protect rear of train.
(d) — — — —	Flagman return from west.
(e) — — — — —	Flagman return from east.
(f) — — — —	When running, train parted; to be repeated until answered by the signal prescribed by Rule 12 (d). Answer to 12 (d).
(g) o o	Answer to any signal not otherwise provided for.
(h) o o o	When train is standing, back.
(j) o o o o	Call for signals.
(k) — o o	To call the attention of yard engines, extra trains or trains of the same or inferior class or inferior right, trackmen and bridgemen to signals displayed for a following section.
(l) — — o o	Approaching public crossings at grade and obscure places.
(m) — — — — —	Approaching stations, junctions and railroad crossings at grade.

## ENGINE WHISTLE SIGNALS—Continued.

SOUND	INDICATION
<i>D-14. (k)</i> — o o	To call the attention of yard engines, extra trains and trains of the same or inferior class or inferior right moving in the same direction; also trackmen and bridgemen to signals displayed for a following section.

A succession of short sounds of the whistle is an alarm for persons or cattle on the track.

15. The explosion of one torpedo is a signal to stop; the explosion of two not more than 200 feet apart is a signal to reduce speed and look out for a stop signal.

## 16. COMMUNICATING SIGNALS.

SOUND.	INDICATION.
(a) Two.	When train is standing, start.
(b) Two.	When train is running, stop at once.
(c) Three.	When train is standing, back the train.
(d) Three.	When train is running, stop at next station. This signal will also be used by conductors to indicate the approach to a meeting point with train of same or superior class or a meeting point made by train order.
(e) Four.	When train is standing, apply or release air brakes.

## COMMUNICATING SIGNALS—Continued.

SOUND	INDICATION
<i>(f)</i> Four.	When train is running, reduce speed.
<i>(g)</i> Five.	When train is standing, call in flagman.
<i>(h)</i> Five.	When train is running, increase speed.
<i>(i)</i> Six.	Turn steam heat on or off.

## TRAIN SIGNALS.

17. The head-light will be displayed to the front of every train by night, but must be concealed when a train turns out to meet another and has stopped clear of main track, or is standing to meet trains at the end of double track or at junctions.

*D-17.* The head-light will be displayed to the front of every train by night, but must be concealed when a train is standing to meet trains at the end of double track or at junctions.

18. Yard engines will display the head-light to the front and rear by night. When not provided with a head-light at the rear, two white lights must be displayed. Yard engines will not display markers.

19. The following signals will be displayed, one on each side of the rear of every train, as markers, to indicate the rear of the train: By day, green flags, or marker lamps without lights; by night, green lights to the front and side and red lights to the rear; except when the train is clear of the main track, when green lights must be displayed to the front, side and rear.\*

\*Illustrated by diagrams on pages 80, 82, 83, 84, 85.

*D-19.* The following signals will be displayed, one on each side of the rear of every train, as markers, to indicate the rear of the train: By day, green flags, or

marker lamps without lights; by night, green lights to the front and side and red lights to the rear, except when the train is clear of the main track, when green lights must be displayed to the front, side and rear, and except when a train is turned out against the current of traffic, when green lights must be displayed to the front and side, and to the rear, a green light toward the inside and a red light to the opposite side.\*

\*Illustrated by diagrams on pages 80, 82, 83, 84, 85, 88.

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

\*Illustrated by diagrams on pages 81, 82.

20-a. Enginemen, when displaying green signals, will call attention of conductors and enginemen of extra trains and trains of the same or inferior class or inferior right, to signals displayed as per Rule 14 (k) and D-14 (k) which must be acknowledged as per Rule 14 (g).

When the response is not given the train giving the signal must stop and give notice. Enginemen will similarly call attention of trackmen and bridgemen to green signals displayed. When trains being met or passed also have green signals, they will acknowledge signals called, and then, if required, call attention to their own signals which must be acknowledged. The train being met or passed is not relieved from responsibility for not noticing signals on passing trains.

21. Extra trains will display two white flags and, in addition, two white lights by night, in the places provided for that purpose on the front of the engine.\*

\*Illustrated by diagrams on pages 79, 80.

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

gine becomes the leading engine it must duplicate signals of engine it doubleheads.

23. One flag or light displayed where in Rules 19, D-19, 20 and 21 two are prescribed will indicate the same as two; but the proper display of all train signals is required.

24. When cars are pushed by an engine (except when shifting or making up trains in yards), a white light must be displayed on the front of the leading car by night.\*

\*Illustrated by diagrams on page 87.

25. Each car on a passenger train must be connected with the engine by a communicating signal appliance.

26. A blue flag by day and a blue light by night, displayed at one or both ends of an engine, car or train, indicates that workmen are under or about it; when thus protected it must not be coupled to or moved. Workmen will display the blue signals and the same workmen are alone authorized to remove them. Other cars must not be placed on the same track so as to intercept the view of the blue signals, without first notifying the workmen.

#### USE OF SIGNALS.

27. A signal imperfectly displayed, or the absence of a signal at a place where a signal is usually shown, must be regarded as a stop signal, and the fact reported to the Superintendent.

27-a. When a train is stopped by the absence of a light where one is usually shown, it will be governed by the day indication.

Lights will be displayed at night on all main line train order signals.

On branch line sub-divisions of light traffic, where lights are not used on day office train order signals,

all trains will positively ascertain position of signal before passing.

28. A combined green and white signal is to be used to stop a train only at the flag stations indicated on its schedule. When it is necessary to stop a train at a point that is not a flag station on its schedule, a red signal must be used.

29. When a signal (except a fixed signal) is given to stop a train, it must, unless otherwise provided, be acknowledged as prescribed by Rule 14 (g) or (h).

30. The engine-bell must be rung when an engine is about to move.

31. The engine-bell must be rung on approaching every public road crossing at grade, and until it is passed; and the whistle must be sounded at all whistling posts, approaching public road crossings at grade and all obscure points.

32. The unnecessary use of either the whistle or the bell is prohibited. They will be used only as prescribed by rule or law, or to prevent accident.

32-a. The whistle must not be sounded while passing a passenger train, except to prevent accident.

33. Watchmen stationed at highway crossings must use stop signals when necessary to stop trains. They will use standard highway signals to stop highway traffic.

#### SUPERIORITY OF TRAINS.

71. A train is superior to another train by right, class or direction.

Right is conferred by train order; class and direction by time-table.

Right is superior to class or direction.

Direction is superior as between trains of the same class.



*D-71.* A train is superior to another train by right or class.

Right is conferred by train order; class by time-table.

Right is superior to class.

- 72. Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

Trains in the direction specified by the time-table are superior to trains of the same class in the opposite direction.

*D-72.* Trains of the first class are superior to those of the second; trains of the second class are superior to those of the third; and so on.

73. Extra trains are inferior to regular trains.

#### MOVEMENT OF TRAINS.

82. Time-table schedules, unless fulfilled, are in effect for twelve hours after their time at each station.

Regular trains twelve hours behind either their schedule arriving or leaving time at any station lose both right and schedule, and can thereafter proceed only as authorized by train order.

83. A train must not leave its initial station on any sub-division, or a junction, or pass from double to single track, until it has been ascertained whether all trains due, which are superior, or of the same class, have arrived or left.

*D-83.* A train must not leave its initial station on any sub-division, or a junction, until it has been ascertained whether all superior trains due have left.

83-a. Conductors of all trains, or enginemen of engines without conductors, will register their trains in the train register, at points designated by time-table.

At points where enginemen consult register before departing, they will fill in their names and engine numbers, conductors completing the register of departure.

At points designated by the superintendent, enginemen will not consult register, but will be furnished on blank, form 602, a copy of register over the signature of the operator or conductor, showing register of trains affecting the right of his train.

No train will leave a register station which has telegraph service without a clearance.

83-b. Bulletins will be posted in books or on boards provided for the purpose.

Conductors and enginemen will consult bulletins before departing, receipting for the last and all previous bulletins by recording the number of the last bulletin in the place provided, and will be held accountable for all bulletins posted prior to their departure.

Time posted will be endorsed on face of each bulletin, and officer issuing advised that bulletin has been posted. Telegraph bulletins affecting safety of trains, will be repeated to insure accuracy.

84. A train must not start until the proper signal is given.

85. When a train of one schedule is on the time of another schedule of the same class in the same direction, it will proceed on its own schedule.

Trains of one schedule may pass trains of another schedule of the same class, and extras may pass and run ahead of third class trains and extras.

*D-85.* When a train of one schedule is on the time of another schedule of the same class it will proceed on its own schedule.

Trains of one schedule may pass trains of another schedule of the same class.



A section may pass and run ahead of another section of the same schedule, first exchanging orders, signals and numbers with the section to be passed.

Third class trains and extras may pass and run ahead of second class trains.

Extras may pass and run ahead of third class trains and extras.

86. An inferior train must clear the time of a superior train, in the same direction, not less than five minutes; but, except in automatic block signal territory, 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.

87. An inferior train must keep out of the way of opposing superior trains and failing to clear the main track by the time required by rule must be protected as prescribed by Rule 99.

Extra trains must clear the time of regular trains five minutes unless otherwise provided, and will be governed by train orders with respect to opposing extra trains.

88. At meeting points between trains of the same class, the inferior train must clear the main track before the leaving time of the superior train.

At meeting points between extra trains, the train in the inferior time-table direction must take the siding unless otherwise provided.

Trains must pull into the siding when practicable; if necessary to back in, the train must first be protected as prescribed by Rule 99, unless otherwise provided.

89. At meeting points between trains of different classes the inferior train must take the siding and clear the superior train at least five minutes, and must pull into the siding when practicable. If necessary to

back in, the train must first be protected as prescribed by Rule 99, unless otherwise provided.

90. Trains must stop at schedule meeting stations, if the train to be met is of the same class, unless the switch is right and the track clear.

When the expected train of the same class is not found at the schedule meeting station, the superior train must approach all sidings prepared to stop, until the expected train is met.

Trains must stop clear of the switch used by the train to be met in going on the siding.

90-a. On a siding used by trains in both directions, trains must run expecting to meet opposing trains.

91. Unless some form of block signals is used, trains in the same direction must keep at least five minutes apart, except in closing up at stations.

92. A train must not arrive at a station in advance of its schedule arriving time.

A train must not leave a station in advance of its schedule leaving time.

93. Within yard limits the main tracks may be used, protecting against first class trains.

Second and third class and extra trains (including passenger extras) must move within yard limits prepared to stop unless the main track is seen or known to be clear.

*D-93.* Within yard limits the main tracks may be used, protecting against first class trains.

Second and third class and extra trains (including passenger extras) must move within yard limits prepared to stop unless the main track is seen or known to be clear.

First class trains running against the current of traffic on double track must move within yard limits

prepared to stop unless the main track is seen or known to be clear.

94. A train which overtakes another train so disabled that it cannot proceed will pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train, proceed to the next open telegraph office, and there report to the Superintendent. The disabled train will assume the right or schedule and take the train orders of the last train with which it has exchanged, and will when able proceed to and report from the next open telegraph office.

When a train, unable to proceed against the right or schedule of an opposing train, is overtaken between telegraph stations by an inferior train or a train of the same class having right or schedule which permits it to proceed, the delayed train may, after proper consultation with the following train, precede it to the next telegraph station, where it must report to the Superintendent. When opposing trains are met under these circumstances, it must be fully explained to them by the leading train that the expected train is following.

*D-94.* A train which overtakes a superior train, so disabled that it cannot proceed will pass it, if practicable, and if necessary will assume the schedule and take the train orders of the disabled train, proceed to the next open telegraph office, and there report to the Superintendent. The disabled train will assume the schedule and take the train orders of the last train with which it has exchanged and will, when able, proceed to and report from the next open telegraph office.

94-a. Should a train be held by another between telegraph stations, the conductor of the train thus delayed may require the first train passing him to carry a flagman on the engine, to the next telegraph station,

if an important train will not be delayed thereby. Precautions must be taken to stop in such manner as to block the switch until the opposing trains are notified that they are flagged and held for the following train.

95. Two or more sections may be run on the same schedule.

Each section has equal time-table authority.

A train must not display signals for a following section without orders from the Superintendent.

*D-95.* Two or more sections may be run on the same schedule.

Each section has equal time-table authority.

A train must not display signals for a following section except as prescribed by Rule D-85, without orders from the Superintendent.

96. When signals displayed for a section are taken down at any point before that section arrives, the conductor will, if there be no other provision, arrange in writing with the operator, or if there be no operator, with the switchtender, or in the absence of both, with a flagman left there for that purpose, to notify all opposing inferior trains or trains of the same class leaving such point, that the section for which signals were displayed has not arrived.

97. Extra trains must not be run without orders from the Superintendent.

*D-97.* Extra trains may be run with the current of traffic without train order provided they secure clearance (Form A) from operator. Operator must secure authority from train dispatcher before issuing clearance.

Work extras must move with the current of traffic unless otherwise directed.

98. Trains must approach the end of double track, junctions, railroad crossings at grade, and draw-bridges, prepared to stop, unless the switches and signals are right and the track is clear. Where required by law, trains must stop.

99. When a train stops or is delayed, under circumstances in which it may be overtaken by another train, the flagman must go back immediately with stop signals a sufficient distance to insure full protection. When recalled he may return to his train, first placing two torpedoes on the rail when the conditions require it and using fusees when necessary.

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

99-a. When it is known by Engineman that his train will be delayed, he will immediately whistle out flagman, as per Rule 14 (c).

100. (Omitted.)

101. If a train should part while in motion, trainmen must, if possible, prevent damage to the detached portions. The signals prescribed by Rules 12 (d) and 14 (f) must be given.

The detached portion must not be moved or passed until the front portion comes back.

**D-101.** If a train should part while in motion, trainmen must, if possible, prevent damage to the detached portions. The signals prescribed by Rules 12 (d) and 14 (f) must be given.

The detached portion must not be moved or passed until the front portion comes back.

The engineman and trainmen of the front portion must give the train-parted signal to trains running on the opposite track. A train receiving this signal or being otherwise notified that a train on the opposite

track has parted, must immediately reduce speed and proceed with caution until the separated train is passed.

When a train is disabled so it may obstruct the opposite track, trains on that track must be stopped.

102. When cars are pushed by an engine, (except when shifting and making up trains in yards), a flagman must take a conspicuous position on the front of the leading car.

103. Messages or orders respecting the movement of trains or the condition of track or bridges must be in writing.

104. Switches must be left in proper position after having been used. Conductors are responsible for the position of the switches used by them and their trainmen, except where switchtenders are stationed.

A switch must not be left open for a following train unless in charge of a trainman of such train.

104-a. Employes must stand on opposite side of track if practicable and keep at least twenty feet from the switch stand while a train is closely approaching or passing over a switch.

*D-104-a.* Employes must stand at least twenty feet from the switch stand while a train is closely approaching or passing over a switch.

105. Both conductors and enginemen are responsible for the safety of their trains and, under conditions not provided for by the rules, must take every precaution for their protection.

106. In all cases of doubt or uncertainty the safe course must be taken and no risks run.

107. In case enginemen or conductors change off before completion of trip, they must exchange all unexpired orders and know that they are fully under-



stood by the parties with whom they are changing. Train or enginemen will not be permitted to change off on road without authority of the Superintendent.

*D-151.* Trains must keep to the right, unless otherwise provided.

*D-152.* When a train crosses over to, or obstructs the other track, unless otherwise provided it must first be protected as prescribed by Rule 99 in both directions on that track.

*D-153.* Trains must use caution in passing a train receiving or discharging passengers at a station, and must not pass between it and the platform at which the passengers are being received or discharged.





**RULES**  
**FOR MOVEMENT BY TRAIN**  
**ORDERS.**



## RULES FOR MOVEMENT BY TRAIN ORDERS.

201. For movements not provided for by time-table, train orders will be issued by authority and over the signature of the Superintendent. They must contain neither information nor instructions not essential to such movements.

They must be brief and clear; in the prescribed forms when applicable; and without erasure, alteration or interlineation.

202. Each train order must be given in the same words to all persons or trains addressed.

203. Train orders will be numbered consecutively each day, beginning with No. 1 at midnight.

204. Train orders must be addressed to those who are to execute them, naming the place at which each is to receive his copy. Those for a train must be addressed to the conductor and engineman, and also to anyone who acts as its pilot, a copy for each person addressed together with a proper clearance must be supplied by the operator.

Orders addressed to operators restricting the movement of trains must be respected by conductors and enginemen the same as if addressed to them.

205. Each train order must be written in full in a book provided for the purpose at the office of the Superintendent; and with it recorded the names of those who have signed for the order; the time and the signals which show when and from what offices the order was repeated and the responses transmitted; and the train dispatcher's initials. These records must be made at once, and never from memory or memoranda.

206. Regular trains will be designated in train orders by their numbers, as "No. 10" or "2d No. 10," adding engine numbers. Extra trains will be designated by engine numbers, and the direction as "Extra 798 'East' or 'West.'" Time in the body of train orders will be stated in figures and words, except in schedule orders (Form G, Example 3). Other numbers and time will be stated in figures only.

207. To transmit a train order, the signal "31" or the signal "19" followed by the direction must be given to each office addressed, the number of copies being stated, if more or less than three—thus, "31 West copy 5," or "19 East copy 2."

208. A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable.

The several addresses must be in the order of superiority of trains, and when practicable must (except in automatic block or manual block territory) include the operator at the meeting or waiting point, each office taking its proper address.

When not sent simultaneously to all, the order must be sent first to the superior train.

Copies of the order addressed to the operator at the meeting or waiting point must be delivered to all trains affected until all have arrived from one direction.

*D-208.* A train order to be sent to two or more offices must be transmitted simultaneously to as many of them as practicable. The several addresses must be in the order of superiority of trains, each office taking its proper address. When not sent simultaneously to all, the order must be sent first to the superior train.

208-a. Meeting orders, or orders conferring rights to the point where placed, must not be addressed to

the trains of superior right, at the point of execution, if it can be avoided.

When it cannot be avoided, special precaution must be taken by the train dispatchers and operators to insure safety, and the following notice will be incorporated in the order; "\_\_\_\_\_gets this order at \_\_\_\_\_."

209. Operators receiving train orders must write them in manifold during transmission and if they cannot at one writing make the requisite number of copies, must trace others from one of the copies first made.

210. When a "31" train order has been transmitted, operators must (unless otherwise directed) repeat it at once from the manifold copy in the succession in which the several offices have been addressed, and then write the time of repetition on the order. Each operator receiving the order should observe whether the others repeat correctly.

Those to whom the order is addressed, except enginemen, must then sign it, and the operator will send their signatures preceded by the number of the order to the Superintendent. The response "complete," and the time, with the initials of the Superintendent, will then be given by the train dispatcher. Each operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and then deliver a copy to each person addressed, except enginemen. The copy for each engineman must be delivered to him personally by the conductor.

211. When a "19" train order has been transmitted, operators must (unless otherwise directed) repeat it at once from the manifold copy, in the succession in which the several offices have been addressed. Each operator receiving the order should observe whether the others repeat correctly. When the order has been repeated correctly by an operator, the response "com-

plete," and the time, with the initials of the Superintendent, will be given by the train dispatcher. The operator receiving this response will then write on each copy the word "complete," the time, and his last name in full, and personally deliver a copy to each person addressed without taking his signature. But when delivery to engineman will take the operator from the immediate vicinity of his office, the engineman's copy will be delivered by the conductor or brakeman.

A Form "19" train order restricting the superiority of a train must not be sent to a train at the point where such superiority is restricted, except in Automatic Block signal territory and then the train must be brought to a stop before delivery of the order.

212. A train order may, when so directed by the train dispatcher, be acknowledged without repeating, by the operator responding: "X; (Number of Train Order) to (Train Number)," with the operator's initials and office signal. The operator must then write on the order his initials and the time.

213. "Complete" must not be given to a train order for delivery to an inferior train until the order has been repeated or the "X" response sent by the operator who receives the order for the superior train.

214. When a train order has been repeated or "X" response sent, and before "complete" has been given, the order must be treated as a holding order for the train addressed, but must not be otherwise acted on until "complete" has been given.

If the line fail before an office has repeated an order or has sent the "X" response, the order at that office is of no effect and must be there treated as if it had not been sent.

215. The operator who receives and delivers a train order must preserve the lowest copy.

216. For train orders delivered by the train dispatcher the requirements as to the record and delivery are the same as at other offices.

217. A train order to be delivered to a train at a point not a telegraph station, or at one at which the telegraph office is closed, must be addressed to

“C. and E.——— (at———), care of———,” and forwarded and delivered by the conductor or other person in whose care it is addressed. When form 31 is used “complete” will be given upon the signature of the person by whom the order is to be delivered, who must be supplied with copies for the conductor and engineman addressed, and a copy upon which he shall take their signatures. This copy he must deliver to the first operator accessible, who must preserve it, and at once transmit the signatures of the conductor and engineman to the train dispatcher.

Orders so delivered must be acted on as if “complete” had been given in the usual way.

For orders which are sent, in the manner herein provided, to a train, the superiority of which is thereby restricted, “complete” must not be given to an inferior train until the signatures of the conductor and engineman of the superior train have been sent to the Superintendent.

218. When a train is named in a train order by its schedule number alone, all sections of that schedule are included, and each must have copies delivered to it.

219. Unless otherwise directed, an operator must not repeat or give the “X” response to a train order for a train which has been cleared or of which the engine has passed his train-order signal until he has obtained the signatures of the conductor and engineman to the order.



220. Train orders once in effect continue so until fulfilled, superseded or annulled. Any part of an order specifying a particular movement may be either superseded or annulled.

Orders held by or issued for, or any part of an order relating to a regular train become void when such train loses both right and schedule as prescribed by Rules 4 and 82, or is annulled.

221-A. In manual block territory, or where provided by special instructions, a fixed signal must be used at each train order office, which shall indicate "stop" when there is an operator on duty, except when changed to "caution" as provided in Rule 221-c or to "proceed" to allow a train to pass for which there are no orders.

While "stop" or "caution" is indicated trains must not proceed without a proper Clearance Card. The signal must be returned to "stop" as soon as a train has passed. It must be fastened at "proceed" only when no operator is on duty.

Operators must have the proper appliances for hand signaling ready for immediate use if the fixed signal should fail to work properly. If a signal is not displayed at a night office, trains which have not been notified must stop and ascertain the cause, and report the facts to the Superintendent from the next open telegraph office.

Where the semaphore is used, the arm indicates "stop" when horizontal, "caution" when diagonally upward and "proceed" when vertical or diagonally downward.

221-B. Except at sub-division terminals, register stations for all trains and points covered by special instructions, a fixed signal must be used at each train order office, which shall indicate "stop" when trains are to be stopped for train orders (except as provided



in Rule 221-c). When there are no orders the signal must indicate "proceed".

When an operator receives the signal "31," or "19," followed by the direction, he must immediately display the "stop signal" or "caution signal" for the direction indicated and then reply "stop displayed" or "caution displayed," adding the direction; and until the orders have been delivered or annulled the signal must not be restored to "proceed." While "stop" or "caution" is indicated trains must not proceed without a Clearance Card, (Form A).

Operators must have the proper appliances for hand signaling ready for immediate use if the fixed signal should fail to work properly. If a signal is not displayed at a night office, trains which have not been notified must stop and ascertain the cause, and report the facts to the Superintendent from the next open telegraph office.

Where the semaphore is used, the arm indicates "stop" when horizontal, "caution" when diagonally upward and "proceed" when vertical, or diagonally downward.

221-c. Where three position semaphore is used the "caution" position may be used for "19" train orders except when the order is addressed to operator at the meeting or waiting point as provided in Rule 208, or when the order restricts the superiority of a train and is sent to it at the point where such superiority is restricted. In such cases the train dispatcher must instruct the operator to display the "stop" signal.

222. Operators will promptly record and report to the Superintendent the time of arrival and departure of all trains and the direction of extra trains.

222-a. Operators must make manifold copies of clearance card at one writing and preserve the lowest copy.

223. The following signs and abbreviations may be used:

Initials for signature of the Superintendent.

Such office and other signals as are arranged by the Superintendent.

C & E—for Conductor and Engineman.

X—Train will be held until order is made "complete."

Com—for Complete.

O S—for Train Report.

No—for Number.

Eng—for Engine.

Sec—for Section.

Psgr—for Passenger.

Frt—for Freight.

Mins—for Minutes.

Jct—for Junction.

Dispr—for Train Dispatcher.

Opr—for Operator.

31 or 19—to clear the line for Train Orders, and for Operators to ask for Train Orders.

S. D—for "Stop Displayed."

Yel—for "Caution Displayed."

The usual abbreviations for the names of the months and stations.

**FORMS**  
**OF TRAIN ORDERS.**



## FORMS OF TRAIN ORDERS.

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### Form A. Fixing Meeting Points for Opposing Trains.

- (1.) ..... meet ..... at .....
- (2.) ..... meet ..... at ..... at ..... (and so on.)

#### EXAMPLES.

(1.) *No 1 Eng 25 meet No 2 Eng 23 at "B."*

---

*No 3 Eng 21 meet 2d No 4 Eng 36 at "B."*

---

*No 5 Eng 13 meet Extra 95 east at "B."*

---

*Extra 652 east meet Extra 231 west at "B."*

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(2.) *No 2 Eng 23 and 2d No 4 Eng 36 meet Nos 1 Eng 25 and 3 Eng 35 at "C" and Extra 95 west at "D."*

*No 1 Eng 25 meet No 2 Eng 23 at "B" 2d No 4 Eng 36 at "C" and Extra 95 east at "D."*

Trains receiving these orders will run with respect to each other to the designated points and there meet in the manner provided by the rules.

### Form B. Directing a Train to Pass or Run Ahead of Another Train.

- (1.) ..... pass ..... at .....
- (2.) ..... pass ..... when overtaken.
- (3.) ..... run ahead of ..... to .....
- (4.) ..... run ahead of ..... until overtaken.
- (5.) ..... pass ..... at ..... and run ahead of ..... to .....

## EXAMPLES.

- (1.) *No 1 Eng 25 pass No 3 Eng 36 at "K."*
- (2.) *No 6 Eng 23 pass No 4 Eng 37 when overtaken.*
- (3.) *Extra 594 east run ahead of No 6 Eng 35 "M" to "B."*
- (4.) *Extra 95 west run ahead of No 3 Eng 25 "B" until overtaken.*
- (5.) *No 1 Eng 25 pass No 3 Eng 36 at "K" and run ahead of No 7 Eng 41 "M" to "Z."*

When under (1) a train is to pass another both trains will run according to rule to the designated point and there arrange for the rear train to pass promptly.

Under (2), both trains will run according to rule until the second-named train is overtaken and then arrange for the rear train to pass promptly.

Under (3), the second-named train must not exceed the speed of the first-named train between the points designated.

Under (4), the first-named train will run ahead of the second-named train from the designated station until overtaken, and then arrange for the rear train to pass promptly.

When an inferior train receives an order to pass a superior train, right is conferred to run ahead of the train passed from the designated point.

### Form C. Giving Right to a Train Over an Opposing Train.

.....has right over ..... to .....

## EXAMPLES.

- (1.) *No 1 Eng 25 has right over No 2 Eng 36 "G" to "X."*

(2.) *Extra 37 east has right over No 3 Eng 21 "F" to "A."*

This order gives right to the train first named over the other train between the points named.

If the trains meet at either of the designated points, the first-named train must take the siding, unless the order otherwise prescribes.

Under (1), if the second-named train reaches the point last named before the other arrives, it may proceed, keeping clear of the opposing train as many minutes as such train was before required to clear it under the rules.

Under (2), the regular train must not go beyond the point last named until the extra train has arrived, unless directed by train order to do so.

#### Form D. Giving Regular Trains the Right Over a Given Train.

Omitted. (Not used.)

#### Form E. Time Orders.

(1.) ..... run ..... late ..... to .....

(2.) ..... run ..... late ..... to ..... and .....  
late ..... to ..... etc.

(3.) ..... wait at ..... until ..... for .....

(4.) ..... wait at ..... until .....  
..... until .....  
..... until .....

#### EXAMPLES.

(1.) *No 1 Eng 21 run 20 twenty mins late "A" to "G."*

(2.) *No 1 Eng 27 run 20 twenty mins late "A" to "G" and 15 fifteen mins late "G" to "K" etc.*

(3.) *No 2 Eng 23 wait at "H" until 10 00 ten a m for No 1 Eng 21.*

(4.) *Nos 1 Eng 25 and 3 Eng 21 wait at*

*"N" until 10 00 ten a m*

*"P" until 10 30 ten thirty a m*

*"R" until 10 55 ten fifty five a m etc.*

(1) and (2) make the schedule time of the train named, between the stations mentioned, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later time, as before required to run with respect to the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

Under (3), the train first named must not pass the designated point before the time given, unless the other train has arrived. The train last named is required to run with respect to the time specified, at the designated point or any intermediate station where schedule time is earlier than the time specified in the order, as before required to run with respect to the schedule time of the train first named.

Under (4), the train (or trains) named must not pass the designated points before the times given.

Other trains receiving the order are required to run with respect to the time specified at the designated points or any intermediate station where schedule time is earlier than the time specified in the order as before required to run with respect to the schedule time of the train (or trains) named.

All of these examples may be used in connection with an extra train created by example (3) of Form G and the times at each point stated in that example have the same meaning as schedule times in the foregoing examples.

When (1) or (2) is used in connection with example (3) of Form G the number of the schedule order must be stated.



## EXAMPLES.

(1.) *Extra 77 east run 30 thirty mins late on order No 1.*

(2.) *Extra 77 east run 30 thirty mins late "A" to "C" and 20 twenty mins late "C" to "E" on order No 1.*

## D-Form E. Time Orders

(1.) ..... run ..... late ..... to .....

(2.) ..... run ..... late ..... to ..... and .....  
late ..... to ..... etc.

(3.) ..... wait at ..... until .....  
..... until .....  
..... until .....

## EXAMPLES.

(1.) *No 1 Eng 21 run 20 twenty mins late "A" to "G."*

(2.) *No 1 Eng 21 run 20 twenty mins late "A" to "G" and 15 fifteen mins late "G" to "K" etc.*

(3.) *Nos 1 Eng 23 and 3 Eng 34 wait at*

*"N" until 10 00 ten a m*

*"P" until 10 30 ten thirty a m*

*"R" until 10 55 ten fifty five a m etc.*

(1) and (2) make the schedule time of the train named, between the stations mentioned, as much later as stated in the order, and any other train receiving the order is required to run with respect to this later time, as before required to run with respect to the regular schedule time. The time in the order should be such as can be easily added to the schedule time.

Under (3), the train (or trains) named must not pass the designated points before the times given.

Other trains receiving the order are required to run with respect to the time specified at the designated points or any intermediate station where schedule time is earlier than the time specified in the order as before required to run with respect to the schedule time of the train (or trains) named.

All of these examples may be used in connection with an extra train created by example (3) of Form G and the times at each point stated in that example have the same meaning as schedule times in the foregoing examples.

When (1) or (2) is used in connection with example (3) of Form G the number of the schedule order must be stated.

#### EXAMPLES.

- (1.) *Extra 77 east run 30 thirty mins late on order No 1.*  
 (2.) *Extra 77 east run 30 thirty mins late "A" to "C" and 20 twenty mins late "C" to "E" on order No 1.*

#### Form F. For Sections.

- (1.) ..... display signals and run as .....  
 to .....
- (2.) ..... run as ..... to .....
- (3.) ..... display signals ..... to ..... for .....
- (6.) ..... is withdrawn as ..... at .....
- (7.) ..... instead of ..... display signals and run  
 as ..... to .....
- (8.) ..... take down signals at .....
- (9.) ..... and ..... reverse positions as .....  
 and ..... to .....

#### EXAMPLES.

- (1.) *Eng 20 display signals and run as 1st No 1 "A" to "Z."*  
 (2.) *Eng 25 run as 2d No 1 "A" to "Z."*  
 (3.) *No 1 Eng 23 display signals "A" to "G" for Eng 25. 2d No 1 Eng 25 display signals "B" to "E" for Eng 99.*

These examples may be modified as follows:

- (4.) *Engs 23 25 and 99 run as 1st 2d and 3d No 1 "A" to "Z."*

Example (1) is to be used when the number of the engine for which signals are displayed is unknown and is to be followed by example (2), both being single order examples.

Under example (2) the engine named will not display signals.

Under examples (3) and (4) the engine last named will not display signals.

For changing sections:

To add an intermediate section the following modification of example (1) will be used:

*(5) Eng 85 display signals and run as 2d No 1 "A" to "Z." Following sections change numbers accordingly.*

Under (5) Engine 85 will display signals and run as directed and following sections will take the next higher number.

To drop an intermediate section the following example will be used:

*(6.) Eng 85 is withdrawn as 2d No 1 at "H." Following sections change numbers accordingly.*

Under (6) Engine 85 will drop out at "H" and following sections will take the next lower number.

To substitute one engine for another on a section, the following will be used:

*(7.) Eng 18 instead of Eng 85 display signals and run as 2d No 1 "R" to "Z."*

Under (7) Engine 85 will drop out at "R" and Engine 18 will run as directed.

If Engine 85 is last section the words "display signals and" will be omitted. Following sections need not be addressed.

To discontinue the display of signals the following example will be used:

*(8.) 2d No 1 Eng 25 take down signals at "D."*

Under example (8) 2d No. 1 will take down signals as directed and a following section must not proceed beyond the point named.

To pass one section by another, the following will be used:

(9.) *Engs 99 and 25 reverse positions as 2d and 3d No 1 "H" to "Z."*

Under (9) Engine 99 will run ahead of Engine 25 "H" to "Z," and, if necessary, both engines will arrange signals accordingly. Following sections, if any, need not be addressed.

The character of a train for which signals are displayed may be stated. Each section affected by the order must have copies, and must arrange signals accordingly.

To annul a section for which signals have been displayed over a division or any part thereof, when no train is to follow the signals, Form K must be used.

#### D-Form F.

Example (9) omitted. See Rule D-85.

#### Form G. Extra Trains.

(1.) Eng ..... run extra ..... to .....

(2.) Eng ..... run extra ..... to ..... and return to .....

#### EXAMPLES.

(1.) *Eng 99 run extra "A" to "F."*

(2.) *Eng 99 run extra "A" to "F" and return to "C."*

Under (2) the extra must go to "F" before returning to "C."

(3.) Eng ..... run extra leaving ..... on .....  
as follows with right over all trains:

Leave .....

“ .....

Arrive .....

#### EXAMPLE.

(3.) Eng 77 run extra leaving “A” on Thursday Feb  
17th as follows with right over all trains:

Leave “A” 11 30 p m

“ “C” 12 25 a m

“ “E” 1 47 a m

Arrive “F” 2 22 a m

This order may be varied by specifying the kind of extra, for example: “passenger extra,” “stock extra,” “fruit extra,” or “engine extra,” and the particular trains over which the extra shall or shall not have right. Trains over which the extra is thus given right must clear the time of the extra five minutes, and if it be a “passenger extra” (in which case the order must so specify) must, except in automatic block signal territory, be clear of main track at the time the extra, in the same direction, is due to leave the last station in the rear where time is shown.

#### Form H. Work Extra.

(1.) ..... works ..... until ..... between .....  
and .....

#### EXAMPLE.

(1.) Eng 292 works 7 seven a m to 6 six p m between  
“D” and “E.”

Under (1), the work extra must, whether standing or moving, protect itself against extras within the

working limits in both directions as prescribed by rule. The time of regular trains must be cleared.

This may be modified by adding:

(2.) *Not protecting against (eastward) extras.*

(3.) *Not protecting against extras.*

Under (2), the work extra will protect only against (westward) extras. The time of regular trains must be cleared.

Under (3), protection against extras is not required. The time of regular trains must be cleared.

When a work extra has been instructed by order to not protect against extra trains, and, afterward, it is desired to have it clear the track for (or protect itself after a certain hour against) a designated extra, an order may be given in the following form:

(4.) *Work Extra 292 clears (or protects against) Extra 76 east between "D" and "E" after 2 10 two ten p m.*

Under (4), extra 76 east must not enter the working limits before 2 10 p. m., and will then run expecting to find the work extra clear of the main track (or protecting itself) as the order may require.

To enable a work extra to work upon the time of a regular train, the following form will be used:

(5.) *Work Extra 292 protects against No 55 Eng 217 (or.....class trains) between "D" and "E."*

Under (5), the work extra may work upon the time of the train or trains mentioned in the order, and must protect itself against such train or trains, as prescribed by Rule 99. The regular train or trains receiving the order will run expecting to find the work extra protecting itself.

When a work extra is to be given exclusive right over all trains the following form will be used:

(6.) *Work Extra 292 has right over all trains between "D" and "E" 7 seven p m to 12 twelve night.*



This gives the work extra the exclusive right between the points designated between the times named.

Work extras must give way to all trains as promptly as practicable.

Whenever extra trains are run over working limits, they must be given a copy of the order sent to the work extra. Should the working order instruct a work extra to not protect against extra trains in one or both directions, extra trains must protect, as prescribed by Rule 99, against the work extra; if the order indicates that the work extra is protecting itself against other trains, they will run expecting to find the work extra protecting itself.

The working limits should be as short as practicable; to be changed as the progress of the work may require.

#### D-Form H. Work Extra.

(1.) Eng ..... works on ..... track ..... to ..... between ..... and .....

#### EXAMPLE.

(1.) *Eng 292 works on eastward track (or both tracks) 7 seven a m to 6 six p m between "D" and "E."*

Under (1), the work extra must, whether standing or moving, protect itself within the working limits against extras moving with the current of traffic on the track or tracks named, as prescribed by Rule 99. The time of regular trains must be cleared.

This form may be modified by adding:

(2.) *Not protecting against extras.*

Under (2), protection against extra trains is not required. The time of regular trains must be cleared.

To enable a work extra to work upon the time of a regular train, the following form may be used:

(3.) *Work extra 292 protects against No 55 Eng 217 (or.....class trains) between "D" and "E."*

Under (3), the work extra may work upon the time of the train (or trains) mentioned in the order and must protect against such train (or trains) as prescribed by Rule 99.

The regular train or trains receiving the order will run expecting to find the work extra protecting itself.

When it is desired to move a train against the current of traffic over the working limits, provision must be made for the protection of such movement.

When a work extra is to be given exclusive right over all trains, the following form will be used:

(4.) Work extra ..... has right over all trains on ..... track between ..... and ..... m to..... m.

#### EXAMPLE.

(4.) *Work extra 275 has right over all trains on eastward and westward tracks between "G" and "H" 7 seven p m to 12 twelve night.*

This gives the work extra the exclusive right to the track (or tracks) mentioned between the points designated between the times named.

Work extras must give way to all trains as promptly as practicable.

Whenever extra trains are run over working limits, they must be given a copy of the order sent to the work extra. Should the working order instruct a work extra to not protect against extra trains, extra trains must protect, as prescribed by Rule 99, against the work extra; if the order indicates that the work extra is protecting itself against other trains, they will run expecting to find the work extra protecting itself.

The working limits should be as short as practicable; to be changed as the progress of the work may require.



**Form J. Holding Order.**

Hold.....

**EXAMPLES.***Hold No 2.**Hold all (or.....ward) trains.*

When a train has been so held it must not proceed until the order to hold is annulled, or an order given to the operator in the form:

*"..... may go."*

These orders will be addressed to the operator and acknowledged in the usual manner, and will be delivered to conductors and enginemen of all trains affected.

Form J will only be used when necessary to hold trains until orders can be given, or in case of emergency.

**Form K. Annuling a Schedule or a Section.**

..... of ..... is annulled ..... to .....

**EXAMPLES.***No 1 of Feb 29th is annulled "A" to "Z."**2d No 5 of Feb 29th is annulled "E" to "G."*

The schedule or section annulled becomes void between the points named and cannot be restored.

**Form L. Annuling an Order.**

Order No.....is annulled.

**EXAMPLE.***Order No 10 is annulled.*

If an order which is to be annulled has not been delivered to a train, the annulling order will be ad-

dressed to the operator, who will destroy all copies of the order annulled but his own, and write on that:

*Annulled by Order No ———*

An order which has been annulled must not be re-issued under its original number.

### Form M. Annuling Part of an Order.

That part of Order No ..... reading ..... is annulled.

#### EXAMPLE.

*That part of Order No 10 reading No 1 Eng 25 meet No 2 Eng 21 at "S" is annulled.*

### D-Form M. Annuling Part of an Order.

That part of Order No. .... reading ..... is annulled.

#### EXAMPLE.

*That part of Order No 10 reading Extra 263 west pass No 1 Eng 21 at "S" is annulled.*

### Form P. Superseding an Order or Part of an Order.

This order will be given by adding to prescribed forms, the words "instead of ....."

(1.) .....meet ..... at ..... instead of .....

(2.) ..... has right over ..... to ..... instead of .....

(3.) ..... display signals for ..... to ..... instead of .....

#### EXAMPLES.

(1.) *No 1 Eng 21 meet No 2 Eng 34 at "C" instead of "B."*

(2.) *No 1 Eng 23 has right over No 2 Eng 27 "G" to "R" instead of "X."*

(3.) *No 1 Eng 25 display signals for Eng 85 "A" to "Z" instead of "G."*

An order which has been superseded must not be re-issued under its original number.

#### D-Form P. Superseding an Order or Part of an Order.

This order will be given by adding to prescribed forms, the words "instead of ....."

(1.) ..... pass ..... at ..... instead of .....

(2.) ..... display signals for ..... to ..... instead of .....

#### EXAMPLES.

(1.) *No 1 Eng 21 pass No 3 Eng 27 at "C" instead of "B."*

(2.) *No 1 Eng 23 display signals for Eng 85 "A" to "Z" instead of "G."*

An order which has been superseded must not be re-issued under its original number.

#### D-Form R. Providing for a movement Against the Current of Traffic.

..... has right over opposing trains on ..... track  
..... to .....

#### EXAMPLE.

(1.) *No 1 Eng 21 has right over opposing trains on eastward track "C" to "F."*

A train must not be moved against the current of traffic until the track on which it is to run has been cleared of opposing trains.

Under this order the designated train must use the track specified between the points named and has right over opposing trains on that track between those points. Opposing trains must not leave the point last named until the designated train arrives.

An inferior train between the points named moving with the current of traffic in the same direction as the designated train must receive a copy of the order, and may then proceed on its schedule, or right.

This order may be modified as follows:

(2.) After ..... arrives at ..... has right over opposing trains on ..... track ..... to .....

EXAMPLE.

(2.) After No 4 Eng 27 arrives at "C" No 1 Eng 23 has right over opposing trains on eastward track "C" to "F."

Under (2), the train to be moved against the current of traffic must not leave the first-named point until the arrival of the first-named train.

D-Form S. Providing for the Use of a Section of Double Track as Single Track.

..... track will be used as single track between ..... and .....

If it is desired to limit the time for such use add (from ..... until .....).

EXAMPLE.

Westward track will be used as single track between "F" and "G."

Adding if desired

from 1 one p m to 3 three p m.

Under this order all trains must use the track specified between the stations named and will be governed by rules for single track.

Trains running against the current of traffic on the track named must be clear of the track at the expiration of the time named, or protected as prescribed by Rule 99.

TELEPHONE INSTRU-  
CTIONS.



## TELEPHONE INSTRUCTIONS.

231. Speak directly into the transmitter in a moderate tone.

232. Where jack boxes are used plug must be left disconnected from the jack except when in actual use.

233. **To Answer a Call.**—Insert plug in proper jack, take down receiver and *speak name of the station*.

234. **To Call Dispatcher.**—Insert plug in proper jack, take down receiver and listen; if line not in use, say "Dispatcher" and name of your station.

235. Except train orders, which will be made complete in the usual manner, all communications will be acknowledged by "All Right" or "O. K.", followed by name of person receiving them.

236. In transmitting and repeating train orders, the following method will be observed:

Numbers one to nine inclusive will be pronounced and then spelled thus: 1; O-N-E; 5; F-I-V-E, etc.

In numbers above nine, except time in the body of train orders, the figures will be pronounced separately and then the whole number pronounced, thus: 1-0, ten: 3-2-5, three twenty-five: 2-3-7-8, twenty three seventy eight: (the figure 0 will be pronounced as though spelled Oh.)

Time in the body of train orders, except in schedule orders, (Form G) will be pronounced and then spelled thus: 1-0-3-5; T-E-N T-H-I-R-T-Y F-I-V-E: 6-1-5; S-I-X F-I-F-T-E-E-N.

In transmitting and repeating time in schedule orders, (Form G) the figures will be pronounced separately and then the whole number pronounced, thus: 1-0-3-5, ten thirty five, etc.

Names of stations in the body of orders, except when repeating schedule orders (Form G) will be pronounced and then spelled thus: Hawley, H-A-W-L-E-Y; Winlock, W-I-N-L-O-C-K, etc.

#### EXAMPLES.

Example of order as transmitted and repeated:

*Number 1 O-N-E engine 2-1-6-2 twenty one sixty two wait at Missoula M-I-S-S-O-U-L-A until 1-2-3-5 T-W-E-L-V-E T-H-I-R-T-Y F-I-V-E P M for Number 6-0-2 six hundred and two engine 2-3-7-8 twenty three seventy eight.*

Example of same as written:

*No 1 Eng 2162 wait at Missoula until 12 35 twelve thirty five p m for No 602 Eng 2378.*

237. Trains should be reported thus:

*OS Bluffton Number 1 by 4-2-0; OS Heron extra east 2-7-2-8 by 6-1-0, etc.*

Trains may be reported without first calling the dispatcher, but dispatcher should acknowledge getting the report by saying "All Right" or "O. K."

238. When in doubt, spell names and numbers. Confusion of similar sounds can be overcome by spelling such letters as T, B and C, etc., thus: T-E-A; B-E-E; S-E-E; etc., when necessary. Repeat until certain of being understood correctly.

239. When circuit is interrupted or selector signal inoperative, operators will cut in frequently in an endeavor to keep in touch with the dispatcher.



FORMS OF BLANKS  
FOR SINGLE AND DOUBLE  
TRACKS.



FORM—(A).

**UNITED STATES RAILROAD ADMINISTRATION**  
 DIRECTOR GENERAL OF RAILROADS  
**NORTHERN PACIFIC RAILROAD**  
**CLEARANCE CARD.**

Missoula 9 15 A M March 21 19 11

Conductor and Engineman No 12

I have (3) (No) (No further) orders for your train, Nos.

Signal is displayed for Extra 452

John Jones Operator.

This does not affect any orders you may have received.

Conductor and Engineman must each have a copy, and see that their train and orders are correctly designated in the above form.

**SPECIFICATIONS FOR TRAIN ORDER FORM AND BOOKS FOR OPERATORS FOR 31 ORDERS.**

Form as here shown. Blank space for order (4) inches with no lines. The mode of filling the blanks is indicated by small type.

Form ( $6\frac{3}{4} \times 9\frac{1}{4}$ ) inches beyond perforated line. Book ( $6\frac{3}{4} \times 10\frac{1}{2}$ ) inches.

300 leaves. Glued at top. Manilla cover on face and stiff back.

Paper opaque, yellow, sized, and of such thickness as to admit of making (9) good manifold copies with stylus and double carbons.

To be used with double Carbon Paper ( $6\frac{3}{4} \times 9$ ) inches, and a stiff tin, same size, corners rounded.



**SPECIFICATIONS FOR TRAIN ORDER FORM AND  
BOOKS FOR OPERATORS FOR 19 ORDERS.**

Form as here shown. Blank space for order (4) inches with no lines. The mode of filling the blanks is indicated by small type.

Form ( $6\frac{3}{4} \times 9\frac{1}{4}$ ) inches beyond perforated line. Book ( $6\frac{3}{4} \times 7\frac{1}{2}$ ) inches.

300 leaves. Glued at top. Manilla cover on face and stiff back.

Paper opaque, green, sized, and of such thickness as to admit of making (9) good manifold copies with stylus and double carbons.

To be used with double Carbon Paper ( $6\frac{3}{4} \times 9$ ) inches, and a stiff tin, same size, corners rounded.

FORM

19

FORM

19

**UNITED STATES RAILROAD ADMINISTRATION**  
**DIRECTOR GENERAL OF RAILROADS**  
**NORTHERN PACIFIC RAILROAD**

TRAIN ORDER No. 10

March 21 19 11

To \_\_\_\_\_

To \_\_\_\_\_

To \_\_\_\_\_

To \_\_\_\_\_

At \_\_\_\_\_

X \_\_\_\_\_ (Initials) \_\_\_\_\_ Opr.; \_\_\_\_\_ 1 45 A M

\_\_\_\_\_  
 Superintendent.

Conductor and Engineman must each have a copy of this order.

Made Complete

Time 2 16 P M.

Black Opr.



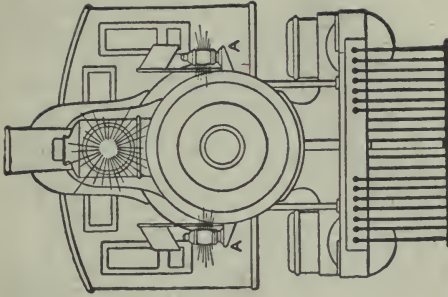


DIAGRAMS OF  
TRAIN SIGNALS.

## NOTES.

The diagrams are intended to illustrate the general location of the train signals, not the exact manner in which they are to be attached.

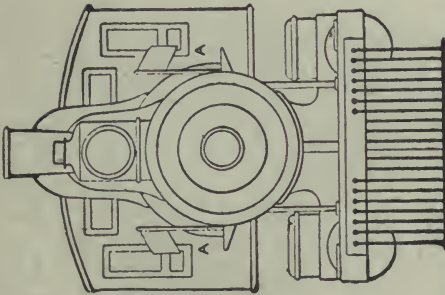
Combination lamps with four illuminated colored faces are represented in the diagrams.



**ENGINE RUNNING FORWARD BY NIGHT AS AN  
EXTRA TRAIN.**

White lights and white flags at A. A.

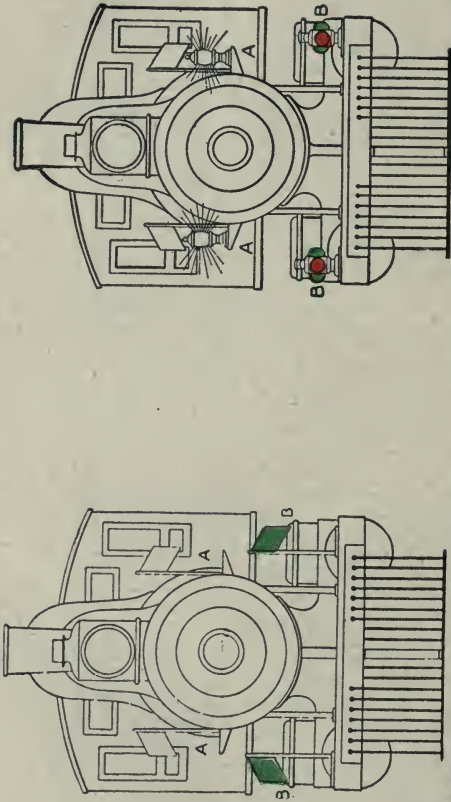
See Rule 21.



**ENGINE RUNNING FORWARD BY DAY AS AN  
EXTRA TRAIN.**

White flags at A. A.

See Rule 21.



**Engine Running backward by Day as an Extra train, without Cars or at the Rear of a Train Pushing Cars.**

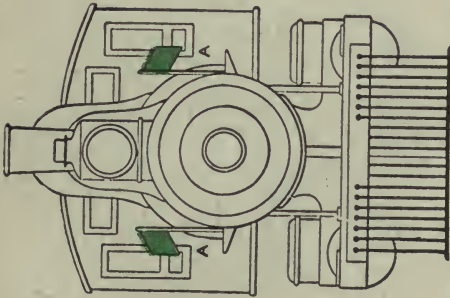
White flags at A A. See Rule 21.

Green flags at B B, as markers. See Rules 19 and D-19.

**Engine Running Backward by Night as an Extra Train, Without Cars or at the Rear of a Train Pushing Cars.**

White lights and white flags at A A. See Rule 21.

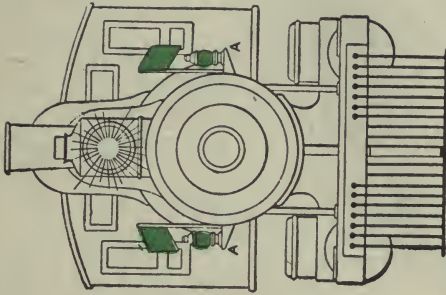
Lights at B B, as markers, showing green at side and in direction engine is moving and red in opposite direction. See Rules 19 and D-19.



**ENGINE RUNNING FORWARD BY DAY DISPLAYING SIGNALS FOR A FOLLOWING SECTION.**

Green flags at A A.

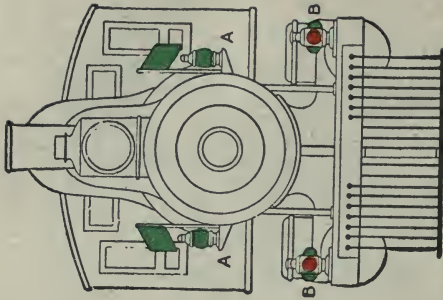
See Rule 20:



**ENGINE RUNNING FORWARD AT NIGHT DISPLAYING SIGNALS FOR A FOLLOWING SECTION.**

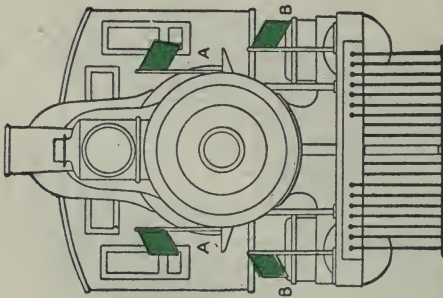
Green lights and green flags at A A.

See Rule 20.



**Engine Running Backward by Night, Without Cars or at the Rear of a Train Pushing Cars, and Displaying Signals for a Following Section.**

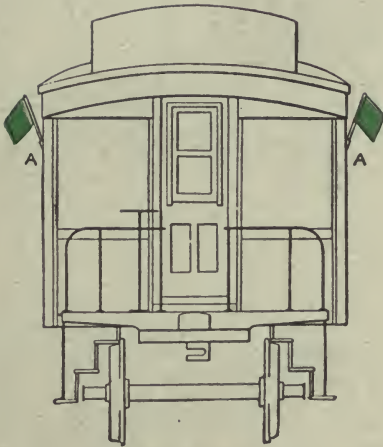
Green lights and green flags at A. See Rule 20. Lights at B B, as markers, showing green at side and in direction engine is moving and red in opposite direction. See Rules 19 and D-19.



**Engine Running Backward by Day, Without Cars or at the rear of a train Pushing Cars, and Displaying Signals for a Following Section.**

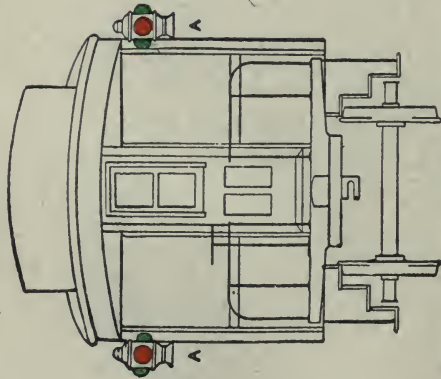
Green flags at A A. See Rule 20. Green flags at B B, as markers. See Rules 19 and D-19.





**REAR OF TRAIN BY DAY**

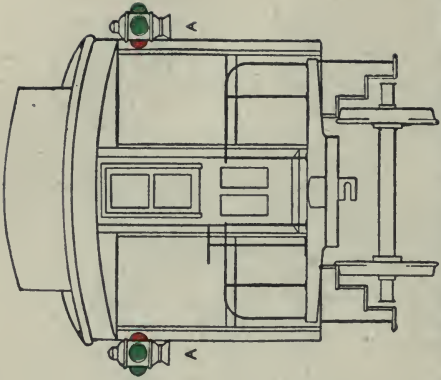
Green flags at A A, as markers. See Rules 19 and *D-19*.



**REAR OF TRAIN BY NIGHT WHILE RUNNING**

Lights at A A, as markers, showing green toward engine and side and red to rear.

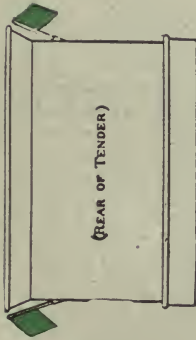
See Rules 19 and *D-19*.



**REAR OF TRAIN BY NIGHT WHEN ON SIDING TO BE PASSED BY ANOTHER TRAIN**

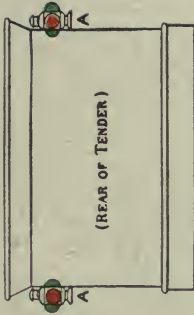
Lights at A A, as markers, showing green toward engine, side and to rear.

See Rules 19 and *D-19*.



**ENGINE RUNNING FORWARD BY DAY. WITHOUT CARS  
OR AT THE REAR OF A TRAIN PUSHING CARS.**

Green flags, as markers. See Rules 19 and D-19.

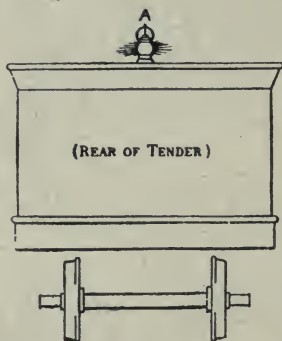


**ENGINE RUNNING FORWARD BY NIGHT, WITHOUT CARS  
OR AT THE REAR OF A TRAIN PUSHING CARS.**

Lights at A, A, as markers, showing green to the front and side and red to rear.

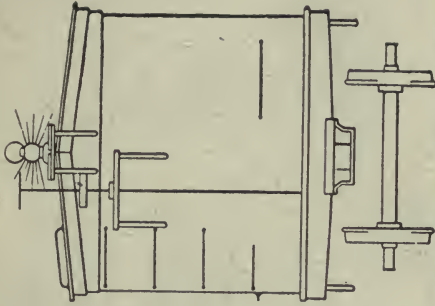
See Rules 19 and D-19.





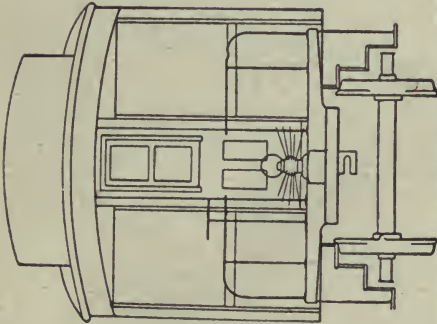
**ENGINE RUNNING BACKWARD BY NIGHT WITHOUT CARS OR  
AT THE FRONT OF A TRAIN PULLING CARS**

White light at A.



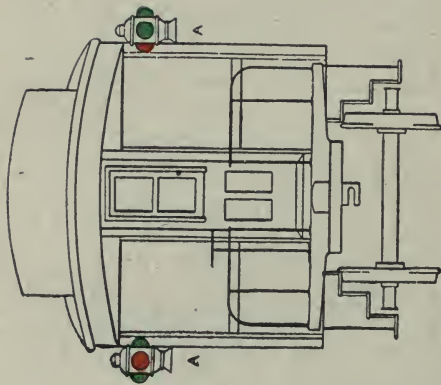
**FREIGHT CARS BEING PUSHED BY AN ENGINE  
BY NIGHT**

White light on front of leading car.  
See Rule 24.



**PASSENGER CARS BEING PUSHED BY AN ENGINE  
BY NIGHT**

White light on front of leading car.  
See Rule 24.



(Outside)

(Between Tracks)

**REAR OF TRAIN BY NIGHT RUNNING AGAINST THE CURRENT OF TRAFFIC**

(This illustration is for a road which uses the right hand track.)  
 Lights at A A, as per Rule D-19.

**BLOCK SIGNAL  
RULES.**





## DEFINITIONS.

**Block.**—A length of track of defined limits the use of which by trains is controlled by block signals.

**Block Station.**—A place from which block signals are operated.

**Fixed Signal.**—A signal of fixed location, indicating a condition affecting the movement of a train.

**Block Signal.**—A fixed signal controlling the use of a block.

**Home Block Signal.**—A fixed signal at the entrance of a block to control trains in entering and using said block.

**Distant Block Signal.**—A fixed signal used in connection with a Home (and Advance) Block Signal to regulate the approach thereto.

**Advance Block Signal.**—A fixed signal used in connection with a Home Block Signal to sub-divide the block in advance.

**Block System.**—A series of consecutive blocks.

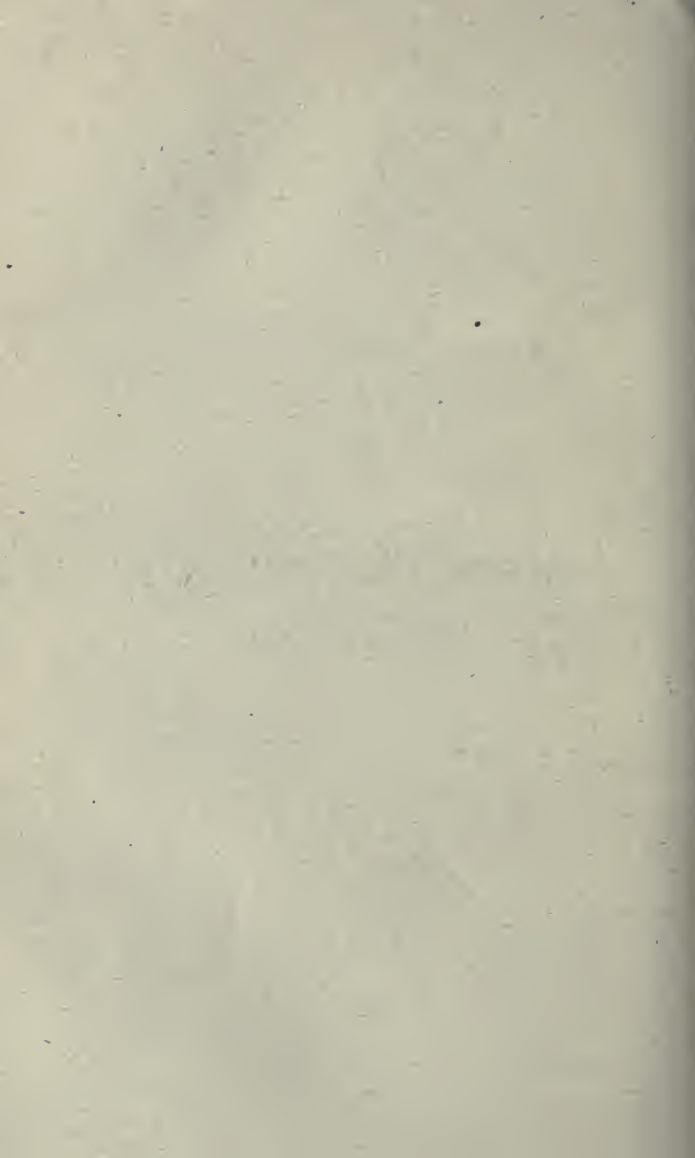
**Manual Block System.**—A block system in which the signals are operated manually.

**Automatic Block System.**—A block system in which the signals are operated by electric, pneumatic or other agency actuated by a train, or by certain conditions affecting the use of a block.

**Intermediate Station.**—A station between open block offices.



MANUAL BLOCK  
SYSTEM.



# RULES.

## HOME BLOCK SIGNALS.

301.

SIGNAL.	OCCASION FOR USE.	INDICATION.	NAME.
Color.	The signal will be displayed when	For engine-men and train-men.	As used in rules.
(a) Red.	Block is not clear, or for Train orders.	Stop.	Stop-signal.
(b) Yellow.	Block is not clear, or for Form "19" Train orders.	Proceed under Caution Card and Clearance, or "19" Train orders and Clearance.	Caution-signal.
(c) Green.	Block is clear; No Train orders.	Proceed.	Clear-Signal.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train, and the indications are given by positions:

Horizontal as the equivalent of (a).

Diagonally upward as the equivalent of (b).

Vertical, or diagonally downward, as the equivalent of (c).

301-a. Home Block Signals are also Train Order Signals and all rules applying to Train Order Signals apply to them, except as herein provided. (See Rule 221-A.)

DISTANT BLOCK SIGNALS.

SIGNAL.	OCCASION FOR USE.	INDICATION.	NAME.
Color.	The signal will be displayed when	For engine-men and train-men.	As used in rules.
(d) Yellow.	Home Signal at (a).	Proceed with caution to the Home Signal.	Caution-signal.
(e) Green.	Home Signal at (c).	Proceed.	Clear-signal.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train, and the indications are given by positions:

Horizontal, or diagonally upward, as the equivalent of (d).

Vertical, or diagonally downward, as the equivalent of (e).

302. Block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other signals whenever and wherever they may be required.

303. When a block station is open at an irregular hour, trains must be notified by train order or by



special instructions, and special precautions must be taken to call the attention of trains approaching the block stations to the indications of the block signals.

## SIGNALMEN.

311. The normal indication of Home Block Signals is Stop.

312. Signals must be operated carefully and with a uniform movement. If a signal fails to work properly its operation must be discontinued and the signal secured so as to display the normal indication until repaired.

313. Signalmen must observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

314. Signalmen must not make nor permit any unauthorized repairs, alterations or additions to the apparatus.

315. A block record must be kept at each block station, beginning at 12:01 A. M., the required entries being made at the time of occurrence.

If a train is passed at any block station it must be re-entered upon the block record. The last train entering or leaving a block must be the last recorded.

A signalman going off duty will transfer to the relieving signalman all pledges to block then in effect and any orders to be delivered, and will obtain the relieving signalman's personal signature on the transfer blank in acknowledgement.

316. The prescribed communicating code is as follows:

1—Display Stop-signal.

13—I understand.

17—Display Stop-signal. Train following.

2—Block clear.

- 3—Block wanted for train other than passenger.
- 36—Block wanted for passenger train.
- 4—Train other than passenger has entered block.
- 46—Passenger train has entered block.
- 5—Block is not clear of train other than passenger.
- 56—Block is not clear of passenger train.
- 7—Train following.
- 8—Opening block station. Answer by record of trains in the extended block.
- 9—Closing block station. Answer by 13.

317. To admit a train to a block, the signalman must examine the block record, and, if the block is clear, give "1 for ....." to the next block station in advance. The signalman receiving this signal, if the block is clear, must display the stop signal to opposing trains, and reply "2 for....." If the block is not clear, he must reply "5 of .....", or "56 of .....". The signalman at the entrance of the block must see if he has any train orders and then display the proper signal indication.

A train must not be admitted to a block which is occupied by an opposing train or by a passenger train and a passenger train must not be admitted to a block occupied by any train, except as provided in Rules 317-a, 332 and 362-a or by train order.

To permit a train to follow a train into a block, the signalman must give "17 for....." to the next block station in advance. The signalman receiving this signal must reply "5 of..... 13 for.....", or "56 of ..... 13 for.....". The approaching train will then be admitted to the block with Caution Card (Form B).

317-a. A train may be permitted to follow another train into a block with Caution Card, which will be issued only on authority of the Superintendent except as provided in Rule 332. Record of all Caution Cards

(Form B) issued must be kept at Superintendent's office; they will be numbered consecutively commencing with No. 1 at 12:01 A. M., and after being sent and repeated correctly will be made complete over Superintendent's initials by the dispatcher.

Caution Cards may be issued in rear of passenger trains, to fully rated freight trains following on heavy continuously ascending grades, also in rear of a passenger train standing at a station, to trains, the runs of which terminate before reaching the track occupied by the passenger train. They will not be authorized for following movements on descending grades: during foggy, snowy or otherwise obscure weather or through tunnels.

When trains by train order are to meet or pass at an intermediate station, Caution Card for each train will be issued and endorsed "Train..... and train ..... meet (or pass) at..... as per train order No.....". Trains must not go to an intermediate station to be met or passed by another train without getting such Caution Card at block station at entrance of block.

When a train, other than a passenger train, is standing within outer switches at a station, a Caution Card may be given to a second-class or inferior train at block station in rear.

318. (Omitted.)

319. When a train enters a block, the signalman must give "4.....," or "46....." and the time, to the next block station in advance, and when the train has passed the Home Block Signal and the signalman has seen the markers he must display the Stop-signal, and when the rear of the train has passed 300 feet beyond the Home Block Signal, he must give the record of the train to the next block station in the rear.

This information must be entered on the block records.

320. Unless otherwise provided, signalmen must not ask for the block until they have received 4 or 46 from the next block station in the rear.

321. Signalmen must observe all passing trains and note whether they are complete and in order, and the markers properly displayed.

322. Should a train pass a block station with any indication of conditions endangering the train, or a train on another track, the signalman must immediately notify the signalman at the next block station in advance, and each must display Stop-signals to all trains that may be affected, and must not permit any train to proceed until it is known that its track is not obstructed.

323. Should a train pass a block station without markers, the signalman must notify the signalman at the next block station in each direction, and must not report that train clear of the block until he has ascertained that the train is complete.

324. Should a train pass a block station in two or more parts, the signalman must stop all trains running in the same direction and notify the signalman at the next block station in advance. A signalman having received this notice must stop any train running in the opposite direction. The Stop-signal must not be displayed to the engineman of the divided train if the train can be admitted to the block in advance under Block Signal Rules; but the Train-parted signal must be given. Should a train in either direction be stopped, it may be permitted to proceed when it is known that its track is not obstructed.

325. A signalman informed of any obstruction in a block must immediately notify the signalman at the

other end of the block and each must display Stop-signals to all trains that may be affected and must not permit any train to proceed until it is known that its track is not obstructed.

326. When a train takes a siding the signalman must know that it is clear of the block before giving 2 or displaying a Clear-signal for that block.

The signalman must obtain control of the block before permitting a train on a siding to re-enter the block.

327. To permit a train to cross over or return, unless otherwise provided, the signalman must examine the block record, and if all the blocks affected are clear of approaching trains he must arrange with the signalman at the next block station in each direction to protect the movement, and when the proper signals have been displayed permission may be given. Until the block is clear no train must be admitted in the direction of the cross-over switches except under a Caution Card (Form B).

All cross-over movements must be entered on the block records.

328. When, as provided in Rule 364, coupled trains have been separated, the signalman must regard each portion as an independent train.

329. If necessary to stop a train for which a Clear or Caution Home (or Advance) Block Signal has been displayed and accepted, the signalman must give hand signals in addition to displaying the Stop-signal.

330. A signalman having orders for a train must display the Home Block Signal at Stop, except as provided in Rule 221-c. He may permit trains so stopped to proceed under Block Signal Rules after complying with Rules for Movement by Train Orders.

331. If from the failure of block signal apparatus the block signal cannot be changed from the normal

indication, a signalman, having information from the signalman at the next block station in advance that the block is clear, may admit a train to the block by the use of a Clearance Card (Form C).

332. If, from any cause, a signalman be unable to communicate with the next block station in advance, he must stop every train approaching in that direction. Should no cause for detaining the train be known, it may then be permitted to proceed with a Clearance Card (Form C) and a Caution Card (Form D), provided five minutes have elapsed since the passage of the last preceding train.

333. Signalmen must have the proper appliances for hand signaling ready for immediate use. Hand signals must not be used when the proper indication can be displayed by the block signals, except as provided in Rules 329, 342 or 375. When hand signals are necessary they must be given from such a point and in such a way that there can be no misunderstanding on the part of enginemen or trainmen as to the signals, or as to the train or engine for which they are given.

334. Signalmen will be held responsible for the care of the block station, lamps and supplies; and of the signal apparatus, unless provided for otherwise.

335. Lights within block stations must be so placed that they cannot be seen from approaching trains.

336. Lights must be used upon all block signals from sunset to sunrise and whenever the signal indications cannot be clearly seen without them.

337. (Omitted.)

338. If a Stop-signal is disregarded, the fact must be reported to the next block station in advance and then to the Superintendent.

339. To open a block station the signalman must give 8 to the next block station in each direction and



record the trains that are in the extended block. He must then display the normal signal indication and notify the next block station in each direction that the block station is open.

When trains, which were in the extended block when the block station was opened and which have passed his block station before it was opened, clear the block in advance he must repeat the record to the block station in the rear.

340. A block station must not be closed except upon authority of the Superintendent.

341. A block station must not be closed until the block in each direction is clear of all trains.

To close a block station, the signalman must give 9 to the next block station in each direction, and when he receives 13 enter it on his block record, with the time it is received from each block station.

The block signals must then be fastened to "clear" and the block wires arranged to work through the closed block station.

342. When a block station is opened at an irregular hour, signalmen must use hand signals, in addition to block signals, to give the required indications until all trains have passed which have not been notified by train order or by special instructions that the block station is open. Signalmen must take special precautions to call the attention of trains approaching the block station to the indications of the block signals.

343. Signalmen must not permit unauthorized persons to enter the block station.

344. Clearance and Caution Cards must be manifolded in triplicate; copies delivered to conductor and engineman and one copy filed.

345. When a train is at a station waiting the arrival of an opposing train signalman may endorse the

Clearance Card (Form C) "Block will be clear for your train on arrival of train.....," previously arranging for the use of the block except the train specified.

346. When it is desired to change the arrangement of a block, if Clearance Card has been delivered, signalman must not make any change until conductor's and engineman's copies of Clearance have been returned to him.

## ENGINEMEN AND TRAINMEN.

360. Block signals do not relieve train and engine-men from complying with Rule 99.

361. Block signals for a track apply only to trains running with the current of traffic on that track.

362. Trains must not pass a Stop-signal without receiving a Clearance Card (Form C) or a train order authorizing them to do so, except as provided in Rule 362-a.

362-a. A train may pass a Home Block Signal at "stop" to do station work, take fuel or water, enter a siding in advance of the signal or go to switch where an opposing train is to take siding, subject to the restrictions of Train Rules, but such train must obtain Clearance Card (Form C) before departing from that station.

363. An engineman holding a Caution Card (Form D) must deliver it to the signalman at the next block station and personally obtain from him permission to proceed.

364. Unless directed by special instructions, when two or more trains have been coupled and so run past any block station, they must be uncoupled only at a block station and the signalman notified.

365. When a train takes a siding, except at an intermediate station, it must get a Clearance Card (Form C) before departing from that station.



366. Unless otherwise provided, when it is necessary for a train to cross over, the conductor before crossing or returning must notify the signalman and obtain permission to do so.

367. Enginemen and trainmen must not proceed on hand signals as against block signals.

368. The engineman of a train which has parted must sound the whistle signal for Train-parted on approaching a block station.

369. An engineman receiving a Train-parted signal from a signalman must answer by the whistle signal for Train-parted.

370. When a parted train has been recoupled the signalman must be notified.

371. If there is an obstruction between block stations notice must be given to the nearest block signalman.

372. If a train is held by a block signal the conductor must ascertain the cause.

373. Conductors must report to the Superintendent any unusual detention at block stations.

374. A block station must not be considered as closed, except as provided on time-table or by special instructions.

375. When a block station is open at an irregular hour, the required block indications will be given by hand signals, in addition to block signals, until all trains have passed which have not received a train order or special instructions that the block station is open.

376. Freight trains must clear a block before a passenger train is due to enter the same.

377. To pass a Home Block Signal at "Caution," a Caution Card (Form B) and Clearance Card (Form C), or a "19" train order and Clearance Card (Form C), is required.

FORM—(B)

**UNITED STATES RAILROAD ADMINISTRATION**  
**DIRECTOR GENERAL OF RAILROADS**  
**NORTHERN PACIFIC RAILROAD**

CAUTION CARD No.....

.....19.....

Conductor and Engineman.....

Proceed under control from.....

To.....expecting to find

Train.....in the block,

Train.....in the block at

....., or

Train.....and train.....

Meet (or pass) at.....

As per Train Order No.....

Made.....By.....

Except as per Block Clearance Card and as above, block  
 is clear.

.....M.....Signalman

FORM—(C)

**UNITED STATES RAILROAD ADMINISTRATION**

DIRECTOR GENERAL OF RAILROADS

**NORTHERN PACIFIC RAILROAD****BLOCK CLEARANCE CARD**

.....19.....

Conductor and Engineman.....

**TRAIN ORDERS.**

I have.....orders for your train, Nos.....

**BLOCK RIGHTS.**

(Use the First to state the block is "CLEAR;" the Second, that it will be "CLEAR" after the arrival of a train therein specified; or the Third, that it is "NOT CLEAR," and the caution card if authorized, under which it may be used, copies of which the conductor and engineman must have.)

Block is .....

Block will be.....for

your train on arrival of train.....

Block is....., be

governed by Caution Card No.....

.....M.....

.....Signalman

This does not affect any orders you may have received. Conductor and Engineman must each have a copy, and see that their train and orders are correctly designated in the above form.

Form—(D)

**UNITED STATES RAILROAD ADMINISTRATION**  
**DIRECTOR GENERAL OF RAILROADS**  
**NORTHERN PACIFIC RAILROAD**

**CAUTION CARD**

Block Station.....; .....M., .....191....

To Conductor and Engineman, Train No.....

Means of communication have failed. You may proceed with caution, expecting to find track obstructed.

..... Signalman.

Conductor and Engineman receiving this card properly filled out and signed by the signalman may proceed with the train under control prepared to stop short of any obstruction in the block.

**AUTOMATIC BLOCK  
SYSTEM.**



# RULES.

501.

## BLOCK SIGNALS.

SIGNAL.	OCCASION FOR USE.	INDICATION.	NAME.
Color.	The signal will appear when	For enginemen and trainmen.	As used in rules.
(a) Red.	Block is not clear.	Stop.	Stop-signal.
(b) Yellow.	Block is clear. Second block in advance is not clear.	Approach next Signal prepared to stop.	Caution-signal.
(c) Green.	Block is clear.	Proceed.	Clear-signal.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train, and the indications are given by positions:

Horizontal as the equivalent of (a).

Diagonal as the equivalent of (b).

Vertical as the equivalent of (c).

Where a disc is used for two indications these are given by position of a red disc as seen from an approaching train:

Disc displayed as the equivalent of (a).

Disc withdrawn as the equivalent of (c).

501-a. Signals will be placed where practicable, on bridges, over, or on masts to the right of the tracks they control. When not on bridges and where there are two or more tracks to be controlled the signal masts will be located on bracket poles to the right of the tracks; the relative position of the masts corresponding to the relative position of the tracks on

the ground, as viewed from an approaching train. When the space between the tracks is not sufficient for the mast adjoining the track or tracks controlled, bracket posts to the right of such track or tracks, will support the signal mast or masts, together with dummy or doll masts representing, one for each track, the tracks intervening between the bracket posts and the track or tracks controlled by the signals. These doll masts will each display a purple light by night and will be located to the right of the signal mast or masts.

Automatic signals have only one arm and one light and are designated by the number plate located on the mast, below the arm.

502. Block signals control the use of the blocks, but, unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other signals whenever and wherever they may be required.

503. Block signals for a track apply only to trains running with the current of traffic on that track.

504. When a train is stopped by a Home Block Signal having a square ended arm painted red, with round disc below the arm, it may proceed when signal goes to caution or clear position, or if not immediately changed, by obtaining authority from the train dispatcher, or if unable to communicate with train dispatcher, train may proceed under protection of flag to the next signal which indicates clear or caution.

504-a. When a train is stopped by an intermediate block signal on single track, it may proceed when the signal goes to caution or clear position, or if not immediately changed it may proceed at once under control, except when a train is proceeding under flag from the last Home Block Signal, as provided in Rule 504.



*D-504.* When a train is stopped by a block signal on double track, it may proceed when the signal goes to caution or clear position, or if not immediately changed, it may proceed at once under control, expecting to find track impassable.

505. Omitted.

506. When a train is stopped by a block signal which is evidently out of order, and not so indicated, the fact must be reported to the Superintendent by wire from next open office.

507. Lights must be used upon all block signals from sunset to sunrise, and whenever the signal indications cannot be clearly seen without them. At such times if lights are not burning, or if a white light is shown where a colored light should be, trains must ascertain and be governed by the day signal indication before passing signal.

508. In certain territory controlled by block signals, miniature signals known as switch indicators are located. These indicators are of semaphore pattern, the normal position of which is horizontal. They are constructed with a push button, underneath the left hand corner. To ascertain the condition of the block, this button must be pushed; if the block is clear, the indicator will show a Clear or Caution-signal until the switch is thrown, when it will change to a Stop-signal. If the signal does not show clear or caution when the button is pushed, it indicates there is a train in the block or approaching and the switch must not be opened until the train shall have passed the switch and cleared the block. If after waiting five minutes, train does not appear, switches may be used under protection of a flag.

509. Trains on sidings, must stand clear of fouling points or insulated joints, otherwise the switch indicator will not clear.

510. Indicators at main track crossovers, indicate the condition of the opposite track and not the track on which they are located; that is, eastbound indicators are located on westbound tracks and vice versa. At a siding crossover the indicator is located on the siding end of the crossover and will indicate the condition of the main track, to which the crossover leads. At single switches, the indicators indicate the condition of the track to which the switch leads. Switch instruments are connected to main line switches and both ends of crossover switches within automatic signal limits. Trains using a crossover, must have at least one switch open while occupying any part of the crossover. The opening of any switch will set and hold signal of that block at stop until the switch is closed. The opening of any switch at either end of a double track crossover, will hold signals on both main tracks at stop. If either end of a siding crossover on a single track is opened, it will set and hold the signals that control the block on main track to which it leads, in both directions, at stop. Neither switch nor crossover must therefore be opened, until the movement of the train is to be made and must be closed immediately after the movement has been made and the switches locked. When it is necessary to stop at any signal, the front wheels of train must be at least twenty feet back of the signal, in order to avoid fouling the circuits.

510-a. Where switch indicators are used the indications displayed do not relieve enginemen and trainmen from protecting their train as required by the rules.

511. If necessary to clean ash-pan or cinders from the smoke arch on the main track inside of the block signal limits, the ashes and cinders must immediately

be removed by the fireman, if no one else is available for the purpose.

512. A train taking the siding, must run past the insulated joints before stopping, in order that the signals of the blocks will indicate clear.

513. Lights will not be maintained on trailing point switches on double track; nor on facing point switches on double, or any switch on single track, located not more than 300 feet in advance of the signal protecting the block in which the switch is located.

514. In block signal districts, where the automatic block signal governing the track in use can be plainly seen from the rear of a standing train to be at stop, such signal being not less than one-half mile from such train, it will not be necessary to protect the train by a flagman. Under all other circumstances, Rule 99 must be fully observed in block signal districts.

514a. Rule 514 does not apply to trains moving against the current of traffic on double track, and the rear of the train must be protected as prescribed in Rule 99.



**INTERLOCKING  
RULES.**



## DEFINITIONS.

**Interlocking.**—An arrangement of switch, lock and signal appliances so interconnected that their movements must succeed each other in a pre-determined order.

**Interlocking Plant.**—An assemblage of switch, lock and signal appliances, interlocked.

**Interlocking Station.**—A place from which an interlocking plant is operated.

**Fixed Signal.**—A signal of fixed location indicating a condition affecting the movement of a train.

**Interlocking Signals.**—The fixed signals of an interlocking plant.

**Home Signal.**—A fixed signal at the point at which trains are required to stop when the route is not clear.

**Distant Signal.**—A fixed signal used in connection with a home signal to regulate the approach thereto, also as a block signal in automatic block signal districts.

**Dwarf Signal.**—A low fixed signal.





## RULES.

601.

### HOME SIGNALS.

SIGNAL.	OCCASION FOR USE.	INDICATION.	NAME.
Color.	The signal will be displayed when	For engine-men and train-men.	As used in rules.
(a) Red.	Route is not clear.	Stop.	Stop-signal.
(b) Yellow.	Route is not clear.	Proceed with caution.	Caution-signal. Clear-signal.
(c) Green.	Route is clear.	Proceed.	Clear-signal.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train, and the indications are given by positions:

Horizontal as the equivalent of (a).

Diagonally upward as the equivalent of (b).

Vertical or diagonally downward as the equivalent of (c).

### DISTANT SIGNALS IN NON-AUTOMATIC BLOCK SIGNAL DISTRICTS.

SIGNAL.	OCCASION FOR USE.	INDICATION.	NAME.
Color.	The signal will be displayed when	For engine-men and train-men.	As used in rules.
(d) Yellow.	Home Signal at (a).	Proceed with caution to the Home Signal.	Caution-signal.
(e) Green.	Home Signal at (c).	Proceed.	Clear-signal.

Where the semaphore is used, the governing arm is displayed to the right of the signal mast as seen from an approaching train and the indications are given by positions:

Horizontal or diagonally upward as the equivalent of (d).

Vertical or diagonally downward as the equivalent of (e).

601-a. In automatic block signal districts the distant signal is also a block signal using same positions and colored lights as automatic block signals. All rules governing the use and observance of automatic block signals apply to it.

602. Interlocking signals, unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other signals whenever and wherever they may be required.

## SIGNALMEN.

611. The normal indication of Home Signals is Stop; of Distant Signals is Caution.

612. Levers, or other operating appliances, must be used only by those charged with that duty and as directed by the rules.

613. Signal levers must be kept in the position displaying the normal indication, except when signals are to be cleared for an immediate train or engine movement.

614. When the route is clear the signals must be cleared sufficiently in advance of approaching trains to avoid delay.

615. Signals must be restored so as to display the normal indication as soon as the train or engine for which they were cleared has passed the Home Signal limits of the interlocking plant.

616. If necessary to change any route for which the signals have been cleared for an approaching train or engine, switches must not be changed or signals cleared for any conflicting route until the train or engine, for which the signals were first cleared, has stopped.

617. A switch, or facing point lock, must not be moved when any portion of a train or an engine is standing on, or closely approaching, the switch or detector bar.

618. Levers must be operated carefully and with a uniform movement. If any irregularity, indicating disarranged connections, is detected in their working, the signals must be restored so as to display the normal indication and the connections examined.

619. During cold weather the levers must be moved as often as may be necessary to keep connections from freezing.

620. If a signal fails to work properly its operation must be discontinued and until repaired the signal secured so as to display the normal indication.

621. Signalmen must observe, as far as practicable, whether the indications of the signals correspond with the positions of the levers.

622. Signalmen must not make nor permit any unauthorized repairs, alterations or additions to the plant.

623. If there is a derailment or if a switch is run through, or if any damage occurs to the track or interlocking plant, the signals must be restored so as to display the normal indication, and no train or switching movement permitted until all parts of the interlocking plant and track liable to consequent injury have been examined and are known to be in a safe condition.

624. If necessary to disconnect a switch from the interlocking apparatus the switch must be securely fastened.

625. During storms or while snow is drifting special care must be used in operating switches. If the force whose duty it is to keep the switches clear is not on hand promptly when required, the fact must be reported to the Superintendent.

626. When switches or signals are undergoing repairs, signals must not be displayed for any movements which may be affected by such repairs, until it has been ascertained from the repairmen that the switches are properly set for such movements.

627. Signalmen must observe all passing trains and note whether they are complete and in order; should there be any indication of conditions endangering the train, or any other train, the signalman must take such measures for the protection of trains as may be practicable.

628. If a signalman has information that an approaching train has parted he must, if possible, stop trains or engines on conflicting routes, clear the route for the parted train, and give the Train-parted signal to the engineman.

629. Signalmen must have the proper appliances for hand signaling ready for immediate use. Hand signals must not be used when the proper indication can be displayed by the interlocking signals. When hand signals are necessary they must be given from such a point and in such a way that there can be no misunderstanding on the part of enginemen or trainmen as to the signals, or as to the train or engine for which they are given.

629-a. In giving hand signals for a train to move through interlocking limits against fixed signals, the

signalman must be on the ground and use a yellow flag by day, and a yellow light by night.

630. If necessary to discontinue the use of any interlocking signal, hand signals must be used and the Superintendent notified.

631. Signalmen will be held responsible for the care of the interlocking station, lamps and supplies; and of the interlocking plant, unless provided for otherwise.

632. Lights within interlocking stations must be so placed that they cannot be seen from approaching trains.

633. Lights must be used upon all interlocking signals from sunset to sunrise and whenever the signal indications cannot be clearly seen without them.

634. If a train or engine over runs a Stop-signal, the fact must be reported to the Superintendent.

635. Signalmen must not permit unauthorized persons to enter the interlocking station.

## ENGINEMEN AND TRAINMEN.

661. Trains or engines must be run to but not beyond a Home-Signal indicating stop, except as provided in Rule 663.

662. If a Clear or Caution-signal, after being accepted, is changed to a Stop-signal before it is reached, the stop must be made at once. Such occurrence must be reported to the Superintendent.

663. Enginemen and trainmen must not proceed on hand signals as against interlocking signals until they are fully informed of the situation and know that they are protected.

Trainmen must not give proceed hand signals which conflict with interlocking signals.

664. The engineman of a train which has parted must sound the whistle signal for Train-parted on approaching an interlocking plant.

665. An engineman receiving a Train-parted signal from a signalman must answer by the whistle signal for Train-parted.

666. When a parted train has been re-coupled the signalman must be notified.

667. Sand must not be used over movable parts of an interlocking plant.

668. Conductors must report to the Superintendent any unusual detention at interlocking plants.

669. Trains or engines stopped by the signalman in making a movement through an interlocking plant, must not move in either direction until they have received the proper signal from him.

## REPAIRMEN.

681. Repairmen are responsible for the inspection, adjustment and proper maintenance of all the interlocking plants assigned to their care.

682. When the condition of switches or track does not admit of the proper operation or maintenance of the interlocking plant, the fact must be reported to the Superintendent.

683. When any part of an interlocking plant is to be repaired a thorough understanding must first be had with the signalman, in order to secure the safe movement of trains and engines during repairs. The signalman must be notified when the repairs are completed.

684. If necessary to disconnect any switch it must be securely fastened before any train or engine is permitted to pass over it.

685. Alterations or additions to an interlocking plant must not be made unless authorized by the signal engineer.



SIGNAL INDICATIONS  
AND ASPECTS.







Fig. 1

FIGURE 1

**INTERLOCKING HOME SIGNALS: (Rule 601.)**

Distinguished by an arm with a square end, painted red. All interlocking home signals have either two or three arms. The top arm governs normal speed route. The lower arm governs slow speed route. Where there are three arms, the middle arm governs medium speed route.



Fig. 2

FIGURE 2

**DISTANT SIGNAL FOR INTERLOCKING HOME SIGNAL.**

Non-automatic. (Rule 601.) Distinguished by a fork ended arm, painted yellow. It must be understood that they give no protection. They repeat the indication of the home signal, and, where used in connection with a switch, indicate its position.



Fig. 3

FIGURE 3

**DWARF SIGNAL:**

Indicating slow speed for movements out of sidings or other tracks, or cross-overs or reverse movements on double track.



Fig. 4

FIGURE 4

**AUTOMATIC BLOCK SIGNAL: (Rule 501.)**

Distinguished from an interlocking signal by having a pointed arm, painted yellow, and a number plate located on the mast. It may be used in connection with interlocking home or outlying switch signals.



Fig. 5

**FIGURE 5**  
**STARTING AUTOMATIC BLOCK SIGNAL:**

Distinguished from an automatic block signal, as shown in Figure 4, by a square-ended arm, painted red, and a marker light six feet below the arm. Used exclusively on single track, absolute permissive block signaling, and automatic block signal rules govern.



Fig. 6

**FIGURE 6**  
**SWITCH INDICATOR:** (Rules 508,  
 509 and 510.)



Fig. 7

**FIGURE 7**  
**STANDARD TRAIN ORDER SIG-**  
**NAL:** (Rule 301.)



Fig. 8

**FIGURE 8**  
**STANDARD CROSSING GATES.**

FIGURE 9

**CANTILEVER SIGNAL:**

Used only where it is not possible to place signal next to the track it governs. In such cases a bracket will be placed on signal as shown in Figure 9, with a purple marker light on the dummy mast.



Fig. 9.

Siding

Main Line



**FIGURE 10**

**EXTENSION BRIDGE SIGNAL:**

Used where it is not possible to place signal next to the track it governs.

Fig. 10

Track No. 1

Track No. 2

Track No. 3



Fig. 11

**FIGURE 11****BRIDGE SIGNAL:**

Used where it is necessary to span two or more tracks with a signal bridge.

Eastward Main

Westward Main

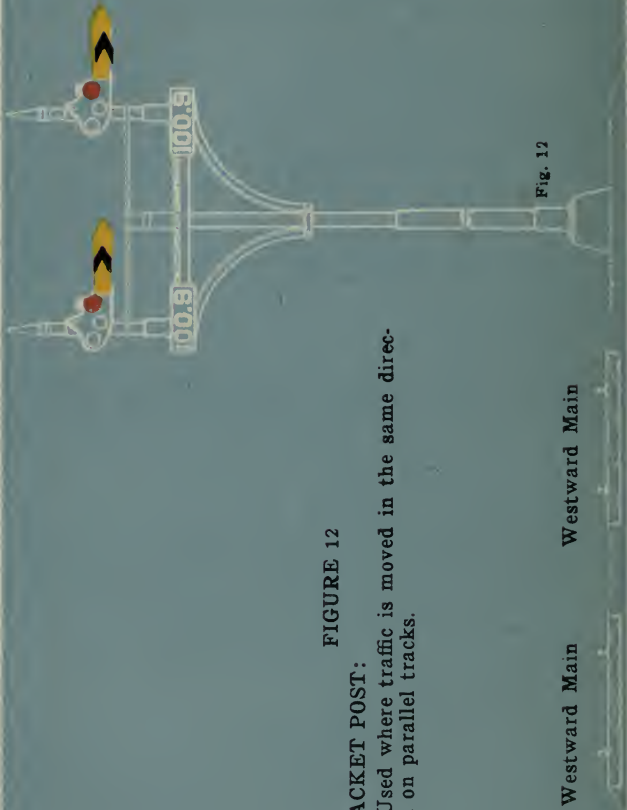


Fig. 12

**FIGURE 12**

**BRACKET POST:**

Used where traffic is moved in the same direction on parallel tracks.

Westward Main

Westward Main



Fig. 13

### FIGURE 13

#### BRACKET POST:

Used on double track where there is not room to locate the signal on the right-hand side of the track.

Eastward Main

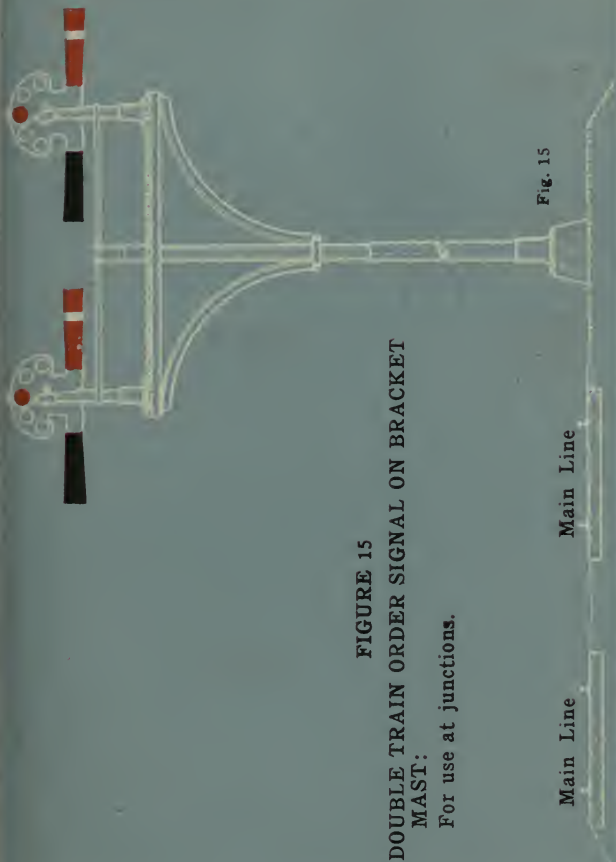
Westward Main

**FIGURE 14**  
**EXTENSION TRAIN ORDER SIGNAL:**  
Used where the view is obscured approaching  
signal.

Fig. 14.  
Main Line







**FIGURE 15**

**DOUBLE TRAIN ORDER SIGNAL ON BRACKET  
MAST:**

For use at junctions.

Fig. 15

Main Line

Main Line



Fig. 16



Fig. 17



Fig. 18



Fig. 19

Indication—Stop



Fig. 20

Indication—  
Stop



Fig. 21

Indication—  
Stop and Proceed



Fig. 22



Fig. 23



Fig. 24



Fig. 25



Fig. 26

Indication—Proceed



Fig. 27



Fig. 28



Fig. 29



Fig. 30

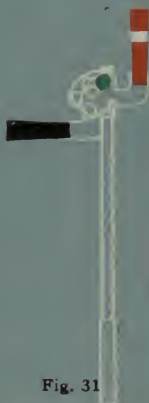


Fig. 31

Indication—Proceed



Fig. 32



Fig. 33



Fig. 34



Fig. 35



Fig. 36

Indication—Proceed, prepared to stop at next signal



Fig. 37



Fig. 38

Indication—Proceed under Caution Card and Clearance,  
or "19" Train Orders and Clearance



Fig. 39

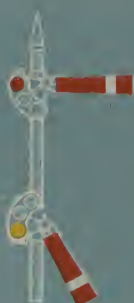


Fig. 40



Fig. 41



Fig. 43



Fig. 44



Fig. 42



Fig. 45

Indication—Proceed at low speed, prepared to stop





Fig. 46



Fig. 47



Fig. 48

Indication—Proceed at restricted speed



Fig. 49

Indication—Proceed at restricted speed, prepared to stop at next signal



Fig. 50

Indication—Stop



Fig. 51

Indication—Proceed



Fig. 52

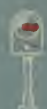


Fig. 53



Fig. 54

Indication—Stop



Fig. 55



Fig. 56

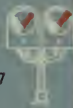


Fig. 57

Indication—Proceed

Main Line Switch Stands



Fig. 58



Fig. 59

Derail Switch Stand

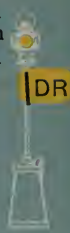


Fig. 60

Indication—Stop  
Siding Switch Stands



Fig. 61



Fig. 62

Indication—Stop

Main or Siding Switch Stands



Fig. 63



Fig. 64

Derail Switch Stand



Fig. 65

Indication—Proceed



END OF  
AUTOMATIC  
BLOCK.

Fig. 60



**GENERAL  
REGULATIONS.**





## AIR BRAKES.

701. Engine, train, yardmen and all others having to do with air brake operation must be sufficiently conversant with the use and care of air brakes to perform their duties intelligently.

Except as otherwise provided, instructions contained in current book of instructions for operating and maintaining air brakes will govern.

702. Conductors and enginemen will give air brakes personal attention and will exact similar care from brakemen. They will not start a train from any point after switching has been done, cars set out or picked up, helper coupled to rear of train, engines changed, or where for any reason train pipe has been disconnected, until after a test of air brakes has been made by trainmen, and engineman who is to control brakes.

703. A terminal test of air brakes on all trains and of air signal on passenger trains must be made by car inspectors or trainmen before leaving terminals.

A terminal test of air brakes must be made on all freight trains immediately before commencing the descent of mountain grades. Conductor must inform engineman of the tons per good brake and before proceeding they will confer and agree as to precautions necessary to control train.

Passenger trains authorized to pass summit of mountain grades without making terminal brake test must pass summit at moderate speed if no stop is made. In either case the engineman must make a brake application at low speed, this application to follow departure if a stop is made. Engineman must not proceed until he is satisfied by brake action that brakes are able to control train.

704. Train pipe must be connected to permit the operation of air brakes throughout the train.

705. The air pressure prescribed for different classes of service must be uniformly maintained.

706. In detaching engines or cars, the angle cocks must first be closed and the hose couplings parted by hand.

707. If air brakes become so defective while on the road as to interfere with proper control of train or to require special arrangement, report same to Superintendent by telegraph and get authority before proceeding.

Each car having a defective air brake must be properly carded.

708. Speed of all trains will be so reduced, considering grade, effectiveness of air brakes, distance of vision and points of possible danger, as to absolutely insure safety and must never be so high as to require the aid of hand brakes.

709. Care must be taken in handling all trains to avoid damage to equipment and contents. On all stock trains and on other trains exceeding 25 cars the engines must be cut off when taking water or fuel.

710. Freight conductors must know by the caboose gage that the air is cut in to the caboose and train is being controlled safely, taking into consideration air pressure, speed and grade. Where these indicate that aid is needed, either from hand brakes or emergency use of conductor's valve, it must be rendered at once without awaiting call from engineman.

Approaching meeting points and other places where extra hazard would result from engineman not having the full use expected of air brakes, and at a distance not less than one mile or over two from such point,

it must be determined by inspection of caboose gage whether he has such full use. If not, steps must be taken at once to stop.

Signal to proceed must not be given at any time until the pressure shown on caboose gage is sufficient to release all brakes and insure safe control of train.

711. If an engineman calls for brakes as per Rule 14 (a) it will be the immediate duty of trainmen to open conductor's valve and to rapidly and fully apply hand brakes.

712. During the descent of steep grades trainmen are required to watch brakes closely and to take any needed steps to prevent flattening or dangerous heating of car wheels.

713. When starting, trainmen will see that brakes are released, making inspection where practicable as train is pulling out. Brakemen will be held responsible for wheels slid flat under parts of trains in their charge.

714. When more than one engine is used on or in a train the air brakes will be controlled from the leading engine. If necessary to change control of brakes the train must first be stopped and a verbal understanding had before change of control and proceeding. When possible the engine that is then to control the brakes should be switched ahead.

Under no circumstances shall the brake valve on any other engine in the train be cut in, either standing or running, except to apply brakes in a case of emergency.

715. The rear car in a passenger train must always have an operative air or hand brake.

When necessary to haul a car of any description behind the caboose it must be chained thereto as well as coupled unless the air brake is in good condition

and is being operated or the hand brake is in good condition and a trainman stationed on such car. In all cases car in rear must have a connection to train pipe on train so brakes will apply if car breaks off. If necessary a hose with angle cock can be coupled to rear hose of caboose and fastened to rear car.

716. Conductors are responsible for retaining valves being cut in and cut out at proper times. Down grades of one and eight-tenths per cent or steeper use all retaining valves, unless otherwise provided. Down lesser grades enginemen will determine minimum and conductor will use any additional number that he considers necessary.

717. When a helper engine is to be coupled on ahead, the engineman then in charge of the brakes will apply them by a service reduction of 20-pounds and will then cut out his brake valve, release to be made by the engineman of the engine taken on. When a helper engine ahead is to be cut off its engineman will apply the brakes by a service reduction of 20 pounds and will leave them set, release to be made by the engineman of the regular engine. Following either operation the proper brake test will be made.

718. When necessary to cut off engine on steep grades, before detaching the engine, the air brakes must be released and the train held with hand brakes.

719. Where a train must stand on a grade for over ten minutes, the train must be held by hand brakes, unless the engineman can hold it with the independent brakes on engine, and the air brakes on cars must be released and kept recharged.

720. The air brake on the car next to an engine must always be cut in. If so defective as to require cutting it out a car with a good order brake must be switched ahead. More than two consecutive brakes must not be cut out in the train.

## OPERATION ON MOUNTAIN GRADES.

731. Location will be specified on time-table.

Special attention is directed to Rules 701 to 720.

732. Trains on mountain grades will be operated under a Block System.

733. Ascending, a trainman will be stationed on rear car, if no helper engine in rear. Conductors are responsible for having trainmen properly stationed.

734. Helper engines, when used on rear of freight trains, must be in advance of cars insufficient in strength to safely resist the push of such engines.

735. Ascending, such consolidation of the power at the head or rear of train will be avoided, as will result in damage to draft rigging or equipment.

736. Unless otherwise instructed, helper engines will be cut off from train at summit, and will not descend with train. When trains are handled by double headers to continue through the sub-division, both engines may remain with train.

737. The unnecessary handling of cars below engine in switching is prohibited.

## SLOW ORDERS AND BULLETINS.

741. Whenever track or structure is rendered unsafe for passage of trains at usual speed, or is in such condition as to endanger persons or property, it is the first duty of those discovering same to immediately protect all trains, as per Rule 99, following promptly with a telegraphic report to Superintendent showing character of defects, location, action taken for protection by signals or otherwise, tools and material and estimate of time required to make repairs.

742. Whenever any portion of track is to be made unsafe by work for passage of trains at usual speed,

except for short intervals, notice must be telegraphed to the Superintendent giving location, nature of work, restrictions necessary, and time they should go into effect. Promptly on completion of work, the person in charge will notify the Superintendent.

743. Those requesting issuance of cautionary orders will not consider them in effect until receipt of a copy of such order from the dispatcher.

744. These instructions in no way modify rules for use of signals, or release those in charge of work from the duty of protecting dangerous places.

745. Cautionary orders or bulletins are effective until cancelled by an annulling order or bulletin.

746. Bulletins will be used for cautionary notices where the line is not completely obstructed or where the obstruction has become of such duration that all concerned are familiar with its existence. Train orders will be used where the obstruction is of a temporary or serious nature.

747. Roadmasters and supervisors must watch cautionary bulletins respecting work under their charge, and see that cancellation is promptly requested on completion of such work.

## **SAFETY PRECAUTIONS AND CASUALTIES.**

750. No building or obstruction of any kind shall be placed closer than six feet to rail of main track, or five and one-half feet to rail of any side track, except in accordance with standard plans or special instructions.

751. The greatest care and watchfulness must be exercised to prevent injury or damage to persons or property; in case of doubt take the safe course and run no risk.



752. It must be understood that no notice will be given of the contemplated running of trains; be prepared for them at any hour of the day or night.

753. All are cautioned not to walk or stand upon the tracks except when necessary, and, as far as possible, to prevent the public from so doing.

754. When persons who are evidently intoxicated, idiotic, or insane, are seen in vicinity of tracks or stations, they should be guarded from approaching trains, and, as soon as possible, be put in the custody of the police or other proper authorities.

755. If defective or dangerous condition is discovered in the construction of tracks, structures, equipment, appliances, tools, or other property whereby hazard exists or casualty might result, immediate and full report must be telegraphed to the Superintendent.

756. Employes are required to see for themselves that the machinery or tools which they are expected to use are in proper condition for the service required, and if not, to put them in proper condition, or see that this is done, before using them.

757. In case of extraordinary storms or high water, trains must be brought to a stop and a man sent to examine bridges, trestles, culverts or other places liable to damage, before proceeding. Conductors and enginemen will make careful inquiry at all stopping places and, if necessary, make extra stops to ascertain extent and severity of storms, protecting themselves as provided by the rules and taking no risks. When in doubt as to safety, train will be placed upon a siding until it is ascertained it is safe to proceed.

758. When passengers or employes are injured everything possible must be done for their care; if seriously injured the nearest competent surgeon to be had should be called to attend until the Railroad's

surgeon, who must be immediately notified, arrives; or if they are able to be moved, should be taken to the nearest place at which the Railroad has a surgeon, and placed in his charge.

759. When casualty occurs to any train on which passengers are carried, trainmen, after first making everything safe, must give their undivided attention to the care and comfort of passengers, especially any who may be injured. Bedding and linen may be taken from the sleepers for this purpose, the conductor keeping a careful account of all supplies so taken and accounting for any not returned.

760. In case of injury inflicted by trains upon intoxicated persons on the track, tramps stealing rides, etc., where the Railroad and its employes are in no way to blame, the injured must be carried to a station where humane and proper treatment can be given. All such cases should be placed under the care of the authorities of the county where the injury occurred as early as possible. They must not, except in emergency, be removed beyond the limits of the county without orders from the Superintendent, or expenses incurred by the Railroad beyond that required in the interest of humanity. When a corpse is found on the track or upon the right of way, remove the body so as to give a clear passage for trains, take steps for its protection, telegraph coroner of county in which body is found, and report facts to the Superintendent.

761. Any casualty along the line of the road involving death or injury to employes or others, damage to railroad or other property, fires, whether causing damage to the property of the Railroad or others, will be reported by telegraph to the Superintendent. This report must be promptly followed by detailed report by train mail from conductor, engineman and foreman, or other person in charge.



762. In case of fatality, personal injury, or damage to property other than that of the Railroad, statements must be secured from all witnesses, every effort being made to immediately secure and record names and addresses of all persons, whether employes or others, who witnessed the casualty and report mailed to Superintendent at once.

763. In cases where persons or teams are struck and injured by trains or locomotives on crossings or in the vicinity of stations, agent at point where accident occurs will immediately, with the assistance, if possible, of one or two disinterested persons, not connected with the Railroad, locate by measurement the position of all cars standing on tracks at or near the crossing, and send report to Superintendent, describing the cars, giving the number of each, and their location with reference to the crossing, where the accident may have occurred, over his signature and that of the person who may have assisted him.

764. When persons are injured while coupling or uncoupling cars or in any way by defective appliances or machinery, the cars or appliances must be immediately examined by the person in charge, or by the yard master (if in a yard), to ascertain their condition, and a report made to the Superintendent, stating conditions and names of inspectors. This inspection must be made before the car or engine leaves the place where the accident occurred, and afterwards at the first district terminal by the inspector, master mechanic or shop foreman. The chief dispatcher will notify such persons of necessity of making examinations. When an accident is caused by breaking of machinery, tools, appliances, or rails, broken parts must be marked so as to be readily identified and sent to the Superintendent, or reported and held subject to his order.

765. In case of damage to trains or structures wherein the security of Railroad property or freight is involved, it is the duty of all concerned to see that watchmen are immediately stationed, and that arrangements are promptly made for the protection of such property against thieving or loss from other causes.

## LEGAL PROCEEDINGS.

771. Whenever service of summons or any other legal paper is made on an officer, agent, or employe with reference to the business of the Railroad he must at once telegraph General Counsel at St. Paul or Division Counsel for the district in which the action is brought, and notify the Superintendent of the fact and that report to counsel has been made. Telegraphic report should state names of parties to action, plaintiff, defendant, and when possible a brief statement of the case.

The paper or papers served should be sent by first train mail as follows, viz.: In suits in Wisconsin and Minnesota, General Counsel, St. Paul; North Dakota, Division Counsel, Fargo; Montana, Division Counsel, Helena; Idaho and Washington east of the Columbia River, Division Counsel, Spokane; Washington west of the Columbia River and in Oregon, Division Counsel, Tacoma.

772. If by process of law freight or baggage is seized, check must be surrendered, all charges collectible must be demanded, and a receipt for the property be obtained before delivery is made to an officer of the law.

773. Whenever service of garnishment or attachment is made on an officer or agent, he must at once telegraph treasurer and Superintendent that such action has been taken, giving name of defendant and

plaintiff, also occupation and location of defendant. He must also unless otherwise instructed report to the Law Department and forward papers served, as directed above. Fees fixed by law are to be demanded and forwarded to the treasurer.

774. Except as provided by preceding rules, no action in case of legal proceedings will be taken except on order from counsel through proper authority.

## PREVENTION OF FIRES.

781. Vigilance must be used by all employes to prevent fires and they must familiarize themselves with the special instructions for prevention of fires and for the safe handling of explosives, inflammables and acids so far as such instructions apply to their duties.

782. Keep the premises clean. Prevent accumulation of refuse in or about buildings, structures or cars.

Wooden boxes must not be used as spittoons or receptacles for ashes. Matches must be stored in metal or earthenware receptacles.

783. Smoking is prohibited in or about buildings or cars containing inflammable material.

784. Woodwork in close proximity to stoves or stove pipes must be protected by non-combustible covering. Stove pipes must be fastened securely in position and must have a clearance of at least four inches between stove pipe and woodwork. Unused openings in chimneys must be closed with thimble covers or bricked up.

785. Ashes must not be deposited within twenty feet of any building or structure.

786. Gasoline stoves or lamps must not be used.

787. The supply of oil in lamps should not be allowed to get too low. Lamps should be cleaned and

filled during daylight only and waste or rags used in cleaning them should be immediately burned or removed from buildings.

788. The ground under wooden bridges must be kept free of grass, brush or rubbish. Where water barrels are provided they must be kept full of salted water and a bucket or rough board box kept submerged in each barrel.

789. Cars stored on isolated tracks should be separated into cuts of ten cars each with one hundred feet between cuts.

790. Boarding and outfit cars are hazardous fire risks and should be placed where there is least risk to other cars or buildings.

791. Employes should familiarize themselves with the location of public fire alarms near company property.

# DUTIES OF EMPLOYEES.



## ALL EMPLOYES.

800. All those who are authorized to employ will carefully select from among applicants those whose intelligence, appearance, strength, age and character indicate that their services will be satisfactory, and who will develop sufficiently to merit advancement. Applicant for employment must pass prescribed physical examinations.

801. Unless otherwise instructed, minors must not be employed as brakemen, switchmen, firemen or switch-tenders.

802. Employes of the Railroad must devote themselves exclusively to its service, attending during the prescribed hours of the day or night, and residing wherever required.

803. No employe will absent himself from duty without proper authority.

804. Employes must exercise care and economy in the use of all Railroad property.

805. Employes are forbidden to make charge for or receive unusual fees or rewards for services performed in line of duty, or to offer testimonials to their superiors, either directly or indirectly; those in authority must not accept such testimonials or presents.

806. All are prohibited from divulging information respecting the affairs of the Railroad except to authorized officials.

807. Civil, gentlemanly deportment is required of all employes in their intercourse with the public, their subordinates and each other. Courtesy and attention to patrons is demanded.

All employes are prohibited from entering into altercation with any person, regardless of provocation. They



will make a note of the facts, if necessary, and report to their immediate superior.

808. When an employe is discharged he shall not be re-employed without the consent of the General Superintendent.

809. Messages must not be sent by telegraph where the use of train message will accomplish the same purpose. All messages must be briefly worded and confined to the Railroad's business.

810. All property of value found on the road must be cared for and promptly reported to Superintendent.

811. Employes in charge of Railroad's premises must keep them in neat, clean and orderly condition, and maintain good order and behavior thereon.

812. Change in the arrangement or design of structures, cars, or other Railroad property is prohibited, except under proper authority.

813. Unless by written order from proper authority, only employes in the discharge of their duties are permitted to ride on engines, mail, express, baggage or hand cars.

814. Assignments of pay are prohibited, and if made will be construed as withdrawal from the service.

815. Unless there are special causes for leniency, an employe on a third garnishment will be dismissed.

816. Each employe whose duties require him to have ticket punch, switch or coach key, or other equipment for his personal use, will, at the time of issue, give a receipt for same, and will forfeit value thereof if not returned.

817. In doing work in cities and villages all ordinances or laws must be observed; where by city ordinances fines are imposed for blocking crossings, trainmen are personally liable unless they can show that blocking was unavoidable.



818. The speed of engines partially disconnected, or of trains containing dead engines that are disconnected, must be so reduced as to enable engine to ride steadily, and to prevent injury to track or structures by the unequal counterbalancing.

819. Except on local trains, train and engine men must secure permission from the train dispatcher before going to meals.

### **TRAIN DISPATCHERS.**

825. Train dispatchers report to the chief dispatcher.

826. They will issue train orders over the initials of the Superintendent and will transmit and record them as prescribed by the rules. They will enter on the train sheet the information required by its form.

827. They must remain on duty until relieved by another train dispatcher, to whom they must make transfer of all orders in effect. Such transfer must be written in ink in a book provided for that purpose exclusively.

828. Train dispatchers must not depend on train order signals to hold trains in blizzards or in placing orders at meeting point for fast trains that have right of track.

### **STATION AGENTS.**

837. Station agents report to the Superintendent, and must conform to the instructions issued by the Freight, Passenger, Treasury and Accounting Departments, assistant superintendent and train master.

838. They must devote their time exclusively in the business of the Railroad, and not engage in other business without permission from the Superintendent

839. They will have charge of the sale of tickets, the receiving, delivering, forwarding and caring for freight, the collection of the revenues of the Railroad at their station, and will make reports and remittances in the manner prescribed.

840. They are the custodians of the Railroad's books and papers at their stations; also of the station grounds and buildings. They are required to acquaint themselves with existing authorities for their use and to see that no unauthorized use is made.

841. They will have charge of employes at the station, seeing that they properly perform their duties; and must promptly report any misconduct or violation of the rules, or anything that is prejudicial to the Railroad's interests or which may interfere with the safe and economical working of the Railroad.

842. They must acquaint themselves with the business interests of the people among whom they are situated, use all proper means to secure traffic and report all local matters which may affect the interests of the Railroad.

### OPERATORS.

846. Telegraph and telephone operators (except those in relay offices who report to the manager), report to the chief dispatcher in all matters pertaining to the telegraph or telephone service and to the agent in all other matters.

847. They must be constantly on duty during the hours assigned them and must not absent themselves without permission.

848. When one operator relieves another, the operator relieved must make a transfer in writing, on the prescribed form, of all train orders, and instructions not fully executed, which the relieving operator will sign.

849. They must keep a full set of signals, in good order and ready for immediate use.

850. They must report promptly to the train dispatcher, fogs, storms or sudden weather changes.

851. They must not permit unauthorized employes or others to frequent their offices.

852. They must consider all messages confidential, neither permitting them to be read by any person except those to whom they are addressed, nor making their contents the subject of conversation or remark.

### **YARDMASTERS.**

853. Yardmasters report to the train master, assistant superintendent, or superintendent. They will perform work ordered by agent or chief dispatcher, and are in charge of yard work, yard engines and crews, and trains and engines while in yards.

### **CONDUCTORS.**

854. Conductors report to train master, assistant superintendent and superintendent. They will obey instructions of the Traffic, Accounting, Treasury, and Car Service Departments and are in charge of their trains and all employes thereon.

855. They must report for duty at the appointed time and by personal attention insure departure on time. They must see that trains are equipped with proper tools, supplies, and signals, reporting any deficiency to their superior; while in yards conform to orders of yard master; at stations, conform to orders of agents in placing cars and performing station work, replacing cars required for loading that may have been displaced by them. Ascertain before departure from terminals that trains have been inspected, air brakes and air whistle appliances tested, and equipment found to be in proper condition.

856. They must show their train orders to their rear brakeman.

857. They must not handle in trains cars in unsafe condition. They must take steps to protect defective cars, marking "Bad Order" on the way bill and reporting facts to agent, car inspector and Superintendent.

858. They must require trainmen to watch and frequently inspect trains and give hot boxes prompt attention.

859. They must, unless otherwise instructed, report to Superintendent from first open station after discovery of flat wheels, using separate card, for each car, also applying defect card.

860. They must make report to Superintendent, to other trains met, and to track or bridge foremen if in the vicinity, of any conditions that would endanger trains, leaving a trainman where necessary to protect following trains.

861. They must expedite handling of trains, performance of station work, and, if necessary at night, to avoid serious delays at points where there is no night service, call day operator.

862. They must secure cars left at stations, first releasing air brakes, then setting hand brakes, and also blocking where necessary; set derails, and leave no cars on passing tracks except by authority of Superintendent.

863. They must deliver articles found in cabooses or passenger cars, properly marked for identification, to the ticket agent at sub-division terminal or other authorized person.

864. They must allow no beggars, gamblers, hotel solicitors, or other unauthorized persons, to practice

their vocations or distribute advertising matter on trains.

865. They must allow no person to ride free except as specially provided; collect fares from all persons traveling without regular transportation.

866. Circumstances under which persons may be ejected from trains are fully covered below:

A passenger who refuses to pay his fare, or to conform to any lawful regulation of the carrier, may be ejected from the vehicle by the carrier. This must be done with as little violence as possible, and at a usual stopping place or near some dwelling house. A passenger upon a railroad train who has not paid his fare before entering the train, if he has been offered an opportunity to do so, must upon demand pay such train rate in addition to the regular ticket rate as may be provided by the rules of the Passenger Department. A Railroad has a lien upon the baggage of a passenger for the payment of such fare as it is entitled to from him.

In case a person is by reason of any infirmity unable to travel or find his way from the point where he is put off to a dwelling house or town, or if the weather be so inclement as to render it unsafe or inhuman to eject a person at a point other than a station, then such person should be ejected from the train at a station where suitable accommodations for safety and comfort can be procured.

Intoxicated or disorderly persons, or a passenger who is guilty of gross misconduct, either by insulting or assaulting other passengers or train employes, who uses vile or profane language in the car, or who threatens to assault other passengers or train employes, may lawfully be expelled from the train at any usual stopping place or near a dwelling house or

station, provided the place be not such as to cause want or injury; this may be done whether fare has been paid or not. All ejections must be reported.

867. They must supervise the work of train crew, instruct brakemen in regard to work to be performed, ascertain that rules and regulations are understood, see that they are complied with; report to the train master, assistant superintendent, or superintendent regarding unsatisfactory service, improper equipment, lack of facilities, or other matters concerning the safe, prompt, and economical handling of trains.

868. In case of accident, blockade or other emergency the senior conductor on the ground will direct the work.

### PASSENGER CONDUCTORS.

869. Should a passenger engine fail they will take engine from any inferior train; in case of casualty to train, command the services of all employes.

870. They must familiarize themselves with instructions governing heating and lighting cars and see that they are enforced. Detailed instructions are posted in cars.

871. They will attend to ventilating, cleaning and supplying cars, and to closing car doors; provide for the comfort and safety of passengers; see that they are directed to the proper cars, that seats are provided, and that women, children and infirm persons are assisted; protect them against rudeness, threatened violence, abusive or obscene language, or annoyance from intoxicated or quarrelsome persons.

872. They must permit no train employe to enter or pass through dining, sleeping or private cars, except when necessary in the discharge of duty; when passing through dining cars during meal hours, or through



private cars, train employes other than conductor when lifting tickets, will remove their caps.

873. Upon request, they will give passengers all the information practicable regarding time of trains, connections, and other matters which will assist them in reaching their destination. After departing from a station the name of the next station at which the train stops for passengers will be announced in each coach. On approaching such station, the conductor or brakeman must again pass through each coach, stop twice, and announce each time distinctly, with closed doors, the name of the station. At junction stations the names of the principal stations where connecting trains stop must be announced. See that employes of sleeping and parlor cars advise their passengers when they are to leave the train. At junctions, where trains leave in different directions, cause to be announced distinctly in each passenger car before starting, the direction in which the train is to go, and the principal stations on the route.

874. They must promptly, after departure from station, collect and cancel transportation, and inform passengers who will be required to change to other cars or trains in order to reach their destinations.

### FREIGHT CONDUCTORS.

875. They are personally responsible for care of freight while in their charge.

When conductors transfer freight from one car to another, full information must be entered on face of the way bill, including the date, and point of transfer, the initials and number of car to which the transfer is made, and "Over, Short and Damaged" exceptions.

876. When notified that loaded cars are ready for their trains at side tracks which are reached before

the billing station for such tracks, they may take the cars to the billing station, where they must procure the proper billing or leave the cars. When the billing station is reached first, they may take the billing for cars that they are notified by the agent are ready to go forward from such side track; but if the cars are found not ready to go, they must promptly return the billing by train mail to the billing agent, stating why the cars were not taken.

877. If there is no agent where freight is left, they must check upon the way bill all freight so left, making the proper record on the face of the way bill of all freight Over, Short and Damaged, and must deliver any freight Over at such points to the agent at the billing station for such points.

878. When taking freight from a station where there is no agent, they must carefully check the freight, see that it is accompanied by a shipping order, and that such orders are delivered to the billing agent for such points who will furnish the proper billing.

879. If necessary to set out cars short of their destination or before reaching the end of run, they must report by telegraph (in the absence of orders authorizing the setting out of such cars) to the Superintendent, giving numbers, destinations and cause of setting out. Way bills will be left with agent, or, if no agent at point where car is set out, at the first station where there is an agent, with proper indorsement showing why and where car was left.

If cars containing valuable equipment, or freight liable to be stolen are set out short of destination at a point where there is no agent, steps must be taken to protect property.

880. When necessary to move cars on station tracks, they must see that persons loading or unloading cars thereon are notified before the cars are moved.



881. They must conform to wishes of drovers in matters pertaining to care and comfort of live stock, except when such wishes conflict with the rules and regulations; give live stock unaccompanied by drovers, such care as is necessary for its comfort.

882. They must protect perishable shipments, and report by telegraph in advance as to supplies required for this purpose.

883. They must check all freight loaded by them with the way bills, making the proper record on face of way bill of anything Over, Short, or Damaged. After unloading they must see that freight left in cars is properly stowed.

884. They must see that doors of empty cars in their trains are closed and securely fastened, and that doors of loaded cars are closed and properly sealed unless otherwise provided. Special instructions relative to sealing, and to the ventilation of perishable commodities must be closely observed.

885. They must not permit unauthorized persons to inspect or make changes in way bills.

886. They must leave switch list, commencing at front of train, at yard office at end of run, showing cars in train, to what points billed, and whether loaded or empty.

887. They must see that their cabooses are kept in clean and neat condition.

888. Freight trains authorized to carry passengers will be designated on time table or by special order of Superintendent.

889. Care takers of live stock or other freight requiring attention en-route, may be carried on same train with it when provided with proper transportation.

**PASSENGER BRAKEMEN.**

890. Passenger brakemen report to the train master or assistant superintendent and, while on duty, are under the direction of the conductor.

891. They must report for duty at the appointed time; assist in making up the train if necessary; give courteous attention to the wants of passengers, avoiding unnecessary conversation, and will not occupy seats with passengers if others are available.

892. It is their duty to watch brakes closely to prevent flattening or overheating wheels; take care of and properly display train signals; attend to the lighting, heating and ventilation of all cars; open and close the car and platform doors and assist the conductor in the proper disposition of passengers, in preventing them from violating the regulations provided for their safety, in preserving order, and in all things requisite for the prompt and safe movement of the train and the comfort of passengers.

893. They must not take tail lights through dining, sleeping or private cars when it can be avoided.

894. The post of the rear brakeman (or flagman) is on the last car of the train when practicable. He must immediately go back to protect the train, where the rules require it, without waiting for signal or instructions to do so.

**FREIGHT BRAKEMEN.**

895. Freight brakemen report to the train master or assistant superintendent and while on duty they are under the direction of the conductor. When acting as front brakeman obey orders of engineman in all matters pertaining to safety of train.

896. They must report for duty at the appointed time and assist in making up the train when necessary.

897. They must when starting watch closely to see that brakes are fully released; be provided with, take care of, and properly display train signals; assist the conductor in loading or unloading freight, in inspecting the cars, and in all things requisite for the safe and prompt movement of the train.

898. When not engaged in duty elsewhere, they must occupy the posts assigned to them. The rear brakeman (or flagman) must immediately go back to protect the train, where the rules require it, without waiting for signal or instructions to do so. The front brakeman must in like manner protect the front of the train.

899. They must be on top of the train descending mountain grades, approaching terminals, and through localities where extra precaution is required, to assist in holding train or to pass signals.

### ENGINEMEN.

900. Enginemen report to the master mechanic and superintendent. They must obey orders of the round house foreman and road foreman of engines and conform to instructions of the trainmaster or assistant superintendent in transportation matters. They are in charge of and responsible for their engines.

901. They must report for duty at the appointed time; before starting inspect all bulletins; and see that engine is supplied with all signals, tools and equipment.

902. When running at night they must have in their cabs, where it cannot be seen by passing trains, a lighted red lamp with torpedoes attached, ready for immediate use.

903. They must prevent unnecessary noise, or escape of steam or smoke, that might frighten horses or constitute a nuisance.

904. They must see that ash pans and front ends are cleaned only at cinder pits or at designated locations, and that fire is extinguished; use every precaution to prevent danger of fires from ashes or cinders especially while crossing timber structures and not permit ash pans to be opened while passing another train.

905. It is the duty of the engineman to handle the engine at all times but he may permit his fireman to do so under his direct supervision, the engineman being responsible for the movement.

906. They must direct work of firemen, and of front brakemen in the absence of conductor so far as safety is concerned.

907. They must show their train orders to firemen, and to front brakemen when practicable; they must require firemen, when approaching train order and interlocking signals, to call their indication.

908. They must, when located at isolated stations, obtain permission from proper authority before being absent during lay-over hours.

909. Whenever a train is run over any portion of road without a conductor, the movement will be in charge of the engineman.

### **FIREMEN.**

913. Firemen report to the master mechanic. They must obey the orders of the round house foreman and road foremen of engines; they will conform to instructions of train master or assistant superintendent in transportation matters; when on duty they are subordinate to the engineman.

They must assist engineman in the observance of rules for enginemen and must comply with those rules applicable to firemen.

914. They must report for duty at the appointed time and, before starting on each trip, see that signals are in a clean and serviceable condition.

915. They must not go underneath engines to do any work except by advice of the engineman; be familiar with rules that apply to trains, and the use of signals; carefully note and repeat to the engineman signals observed; approaching train order and interlocking signals, determine their indication and call same to engineman.

916. They must protect the front of the train when necessary.

### **CAR INSPECTORS.**

917. Car inspectors report to the foreman or master mechanic; when inspecting or working beneath cars they must protect themselves by the use of blue signals as per Rule 26. They must see that all cars are in proper condition for service, fully supplied, that loading is in accordance with requirements and that such cars can be safely handled; report cases of improper or overloading to the agent; inspect air brake and signal appliances of all trains before starting.

### **TRACK AND BRIDGE MEN.**

918. Report to the foreman, roadmaster, or supervisor.

919. They must always bear in mind that trains may be expected at any moment, and take all necessary precautions for protection.

On hand cars one man must face to the rear, so lookout will be kept in both directions; after dark a light visible to both front and rear shall be carried on car.

920. They must at all times be in readiness to aid passage of trains; in case of accident or delay assist conductors.

921. They must in case of extraordinary storms or high water, be out (day or night) with proper signals; watch places most liable to damage and take every precaution to prevent accident.

922. They must promptly report all occurrences affecting Railroad interests, and report by telegraph to immediate superior and Superintendent anything affecting safety of road or movement of trains.

923. Except when protected by flag they must not use track jacks inside of rails.

924. They must extinguish fires on or near right of way, and guard property of others, as well as that of the Railroad, exposed to such fires whether responsibility attaches to the Railroad or not.

925. They must pay particular attention to the telegraph line; if wires are found broken, on the ground, crossed, or in any way obstructed, immediately repair in a temporary manner; where such repairs are impossible, give notice by the earliest means practicable.

926. They must restrict use of hand cars, velocipedes, or other Railroad property to Railroad business.

927. They must promptly kill animals injured beyond recovery; bury or otherwise dispose of them, and also those killed by trains.

### FOREMEN.

928. They must observe signal rules and cautionary orders, and perform no work which will render track unsafe for usual speed except as prescribed by the rules. They must select careful, thoroughly instructed men as flagmen.



When track is to be made unsafe for trains at usual speed, a flagman (except as provided in Rule 928-A) will be stationed at a distance of not less than three-quarters of a mile (130 rail lengths) on each side of the point of obstruction and where there is an unobstructed view for at least a quarter of a mile beyond. Two torpedoes will be placed on the rail 2 rail lengths apart on the engineman's side 10 rail lengths beyond the flagman. On the approach of a train the flagman will display caution signals until acknowledged by the engineman in accordance with Rule 14 (g).

At a distance of not less than 20 rail lengths on each side of the point of obstruction a red flag by day, stretched between two staffs at right angles to the track and three feet or more above the rail, or a red light by night will be placed on the engineman's side (except in multiple track territory where the flag or light may, when necessary, be placed between the rails) where it can be plainly seen by an approaching train, and, in addition, two torpedoes will be placed on the rails opposite each other so as to make one explosion 10 rail lengths beyond the flag. These stop signals must not be removed until track has been made safe for trains to proceed without stopping. Trains stopped by these signals shall be governed by signal or instructions of the foreman in charge, who, in giving such signal, must use a yellow flag by day or a yellow light by night.

928-A. Where specified by the Superintendent, a fixed yellow flag by day or a yellow light by night may be used (except during fog, storms or otherwise bad weather) in place of the flagman provided in Rule 928. The flag must be stretched between two staffs at right angles to the track and three feet or more above the rail, placed on the engineman's side where there is an unobstructed view for at least one-quarter of a mile beyond. By night the yellow light must be three feet

or more above the rail and placed in the same manner. Two torpedoes will be placed on the rail 2 rail lengths apart on the engineman's side 10 rail lengths beyond the flag or light. Trains finding these signals may proceed under control to the red signal provided in Rule 928 and from there shall be governed by signal or instructions of the foreman in charge, who, in giving such signal, must use a yellow flag by day or a yellow light by night.

929. (Omitted.)

930. They must carry a reliable watch and always have with them a copy of the current time-table.

931. They must see that watchmen understand and attend to their duties.

932. They must work with their men, unless having a large number of men in charge, or excused by superior.

933. They must be sure that their crews are always supplied with proper signals and thoroughly instructed as to use of same.

934. They must protect material and tools, and store all unused and surplus material, scrap, and extra tools in places provided therefor.

### **TRACK FOREMEN.**

935. They must closely inspect sections as often as possible; pass over or send one of their men, during storms when the road is liable to be damaged, at least once every day or more frequently during the continuance of storms if circumstances demand; pass, or send one of their men, over track under their charge, when no damage thereto is threatened by storms or unusual conditions, at such intervals as may be specified by the roadmaster or other proper authority, or as may be necessary to insure safety. In going over track as above, take a track wrench, spike maul, six torpedoes, three red flags, and (when likely



to be needed) one white and two red lamps. Carefully examine road to see if safe for passage of trains. If any place is found unsafe, it must be protected at once by a flagman with red signals and torpedoes.

936. They must give attention to condition and appearance of station grounds, platforms, water stations, fences, telegraph lines, stock yards, bridges, culverts, cattle guards and all property, making minor repairs and reporting defective conditions. Protect all frogs, guard rails, switch rails, and other locations of a like nature with foot guard blocking.

937. They must not allow wood, timber, freight, or material of any kind within six feet of main tracks nor within five and one-half feet of side tracks. The exact location of elevators, warehouses, coal yards, lumber yards, or wood yards will be fixed by the Superintendent.

938. They must become familiar with right of way and property lines, prevent encroachments of any character by outside or unauthorized persons, and report any threatened encroachments. They must arrange the rounds of road watchmen or track walkers so they will pass over their sections in advance of passenger trains when practicable.

### WATCHMEN.

939. Day and night watchmen employed on the same beat must remain on duty until relieved.

940. When their time is not wholly occupied watching they will perform such other duties as may be required.

941. They must carefully examine roadway; look for broken rails, observe switches, try locks and see that they are in proper order; see that cars clear main track; examine buildings and other property, and protect same from theft, fire, or other damage. Should

an obstruction be found, or anything occur that would be liable to endanger trains, immediately protect.

942. They must report promptly any accident, risk of accident, or occurrence not consistent with safety or good order.

943. Bridge and snow-shed watchmen must pass over their beats immediately after passage of trains; look for fire; maintain cleanliness about structures, remove combustible matter from their vicinity; make frequent examinations, and report any indication of failure; and allow no one but employes upon bridges or structures.

944. Street crossing watchmen must keep vigilant lookout for all trains or engines; warn vehicles and pedestrians of approach of trains or engines, and prevent crossing until safe; stand where they can be seen by enginemen; keep lamps at crossings clean and lighted between sunset and sunrise and during foggy weather; flange rails at crossings; and report all defects in track or crossing planks. Watchmen's houses are for use of watchmen only, and must not be occupied by others.

#### **NORTHERN PACIFIC BENEFICIAL ASSOCIATION.**

The Secretary, upon application, will furnish a copy of the Constitution and By-Laws and any other publications relating to the benefit and methods of the Association.

All officers and regular employes are required to become members excepting:

(a) When on temporary duty.

(b) When afflicted with chronic diseases before entering the service.

Members will be assessed on the basis of one percent of their monthly earnings, with a minimum deduction of fifty cents and a maximum of \$1.25, and assessments will be deducted on the payrolls.

Employees who work in two or more places during a month, shall be liable to but one assessment. The deduction should be charged on the payroll covering services first rendered.

No benefits will be allowed when an injury or sickness results from intoxication, disorderly conduct, unlawful acts, or venereal diseases.

### BENEFITS.

Members may apply to authorized surgeons for advice or treatment, presenting "Surgeon's Order" (Form 100), signed by an officer. In emergencies surgeon may be summoned and order furnished afterwards within twenty-four hours. Local surgeon is not authorized to go outside locality appointed, but in emergency he may be called to other points.

The relief provided is as follows:

When injured by accident in discharge of duty, surgical attendance at Railroad Association Hospitals, or when authorized by chief surgeons, at other hospitals, or by such surgeons as may be provided for individual cases.

When sick, or when injured from any other cause than accident occurring in the discharge of duty (unless excepted by the rules), medical advice or treatment by an authorized local surgeon, or at Railroad Association Hospitals only, but in cases of severe illness or contagious diseases, outside hospital care and nursing will be furnished when specially authorized by chief surgeon.

An allowance for burial expenses, not exceeding \$75 in any case, and bills should be accompanied by certificate of death on Form 16 or 17.

Artificial limbs and eyes for those who have lost limbs or eyes while entitled to benefits, also trusses, elastic bandages and crutches that have become necessary during this time. They can be had upon application to chief surgeon. These articles will not be renewed.

Spectacles or glasses will be furnished through oculists to members who have been in the service one year; but any member injured in the discharge of duty will receive them at once.

Members are entitled to free vaccination, but small-pox cases will not be received at the hospitals. Cases of scarlet fever, diphtheria, measles, erysipelas and pulmonary consumption will not be received at hospitals, but will be treated by local surgeons.

