

Chicago, Milwaukee, St. Paul
and Pacific Railroad
Company

THE STANDARD CODE
OF
TRAIN RULES
BLOCK SIGNAL AND
INTERLOCKING
RULES

To Take Effect December 2nd, 1917

Issued in accordance with rules adopted by the
American Railway Association,
November 17, 1915

STAFF BLOCK SYSTEM

DEFINITIONS

Staff Block.—A length of track of defined limits, the use of which by trains is governed by staffs and staff signals.

Staff Block Station.—A place from which staffs are issued and staff signals are operated.

Home Staff Signal.—A fixed signal at the entrance of a block governing the use of a staff.

Approach Staff Signal.—A fixed signal used in connection with a Home Staff Signal to govern the approach thereto.

Staff Block System.—A series of consecutive blocks controlled by staff instruments.

Staff Instrument.—An instrument containing staffs, so constructed as to require the co-operation of the staff operators at both ends of the block to release staffs.

Staff.—A metallic bar or disc of specific design governing the use of a Staff Block.

Absolute Staff.—A staff which permits but one train to use a block.

Divided Staff.—An Absolute Staff divided into two parts.

Staff Disc.—One numbered part of a Permissive Staff permitting following train movements in a block.

Permissive Staff.—A complete number of discs assembled in numerical order and may be used as an Absolute Staff.

RULES.

The following signals will appear where conditions require their use.

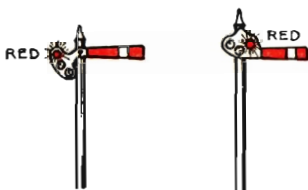
The indications are given by the position of the arm; by lights of prescribed color; or by both.

For less than three tracks, Home Staff Signals for trains in each direction may be on the same signal mast.

Semaphore arms that govern, are displayed to the right of the signal mast as seen from an approaching train.

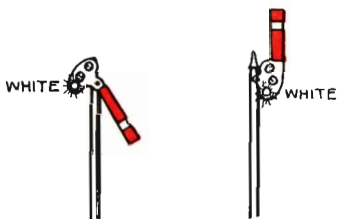
801- TWO POSITION HOME STAFF SIGNALS

801-A



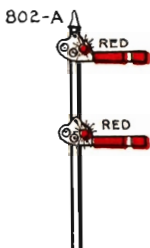
Indication: STOP
Name: STOP SIGNAL

801-C

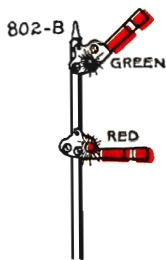


Indication: PROCEED with Staff
Name: CLEAR SIGNAL

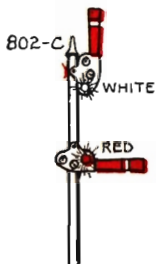
802-TWO ARM APPROACH SIGNALS



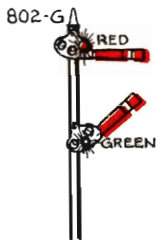
Indication: STOP
Name: STOP SIGNAL



Indication: PROCEED on MAIN
line with CAUTION
PREPARED to stop
at Home Staff Signal
Name: CAUTION SIGNAL



Indication: PROCEED on
main line,
staff ready
for delivery
Name: CLEAR SIGNAL



Indication: Take Siding.
Name: CAUTION SIGNAL

805. Staff Block System will be used in territory indicated by time tables.

806. Staffs govern the use of the blocks, and unless otherwise provided, their use supersedes timetable superiority and takes the place of train orders; they do not dispense with the use or the observance of signals whenever and wherever they may be required.

807. The indications of approach and home staff signals do not dispense with the use of staffs.

STAFF OPERATORS

808. The normal indication of home staff signals—
Stop.

809. Staff instruments, levers or other operating appliances must be used only by those charged with that duty as directed by the rules and instructions.

810. 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 its most restrictive indication until repaired.

811. Staff operators must observe, as far as practicable, whether the indications of the signals correspond with the position of the levers.

812. Staff operators must not make nor permit any unauthorized repairs, alterations or additions to the apparatus.

Any defects must be promptly reported to the chief dispatcher and signal repairman.

813. A block record must be kept at each block station.

814. To admit a train to a block, the staff operator must examine the block record and if the block is clear, remove staff from the instrument in connection

with the next staff station in advance, display the proper signal indications and arrange for delivery of staff to the train. A train must not be admitted to a block without staff or permissive disc, except as prescribed by rule No. 826.

815. A staff for a train will be delivered to the engineman either by hand or by staff crane, or to the conductor; staff operators must not deliver a staff to any other person, except as prescribed by rule No. 820.

816. When the markers of a train have passed the home staff signal, the staff operator must display the stop signal at once.

817. Unless otherwise directed, staff operators may permit a train to proceed if the block is clear and it is apparent that no opposing trains of the same class will be delayed five minutes or more.

Passenger trains must not be delayed by freight trains.

Preference must be given to trains of the greater importance.

When in doubt, call train dispatcher for instructions.

818. When a train has surrendered a staff to the staff operator, he will, after seeing the markers and knowing that the entire train has passed out of the block, place the staff in the staff instrument.

819. A staff received from one train must not be delivered to another train until it has been placed in the staff instrument and withdrawn.

820. Divided staffs will be furnished where conditions require their use. (See rule No. 833.) A divided staff when assembled is similar to the solid absolute staff and will be handled in the same manner, except before delivering to a train it will be

divided into two portions, each portion placed in a separate pouch, one to be delivered to the engineman, the other to the conductor or brakeman stationed on the rear car of train, or if a pusher engine is attached, to the engineman of the pusher engine.

821. When a train has surrendered both portions of a divided staff to the staff operator, he will assemble them using care in joining the parts, and place in the staff instrument.

822. Permissive staffs will be furnished for certain blocks indicated by time table.

823. To admit two or more trains, moving in the same direction, to a block, the staff operator must examine the block record and if the block is clear, remove absolute staff from the instrument, using it to remove the permissive staff and will then deliver one permissive disc to each train, except the last, which will be given the remaining discs, base, rod and nut. (See rule No. 815.)

824. When all trains have surrendered the permissive discs, the staff operator must at once assemble them in numerical order, placing the complete staff in the permissive attachment.

825. The first train in the opposite direction (descending the grade) must be given the complete permissive staff, which confers the same right as an absolute staff.

826. If a staff instrument falls, or a staff is lost, its operation must be discontinued and trains will be moved in accordance with rules for movement by train orders.

Orders for movement of trains will be issued for each separate block.

Staff instrument will not be restored to service until authorized by the chief dispatcher.

827. Staff operators must have the proper appliances for hand signaling ready for immediate use. Hand signals must not be used when the proper indications can be displayed by the fixed signals. When hand signals are necessary, they must be given from such a place 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.

828. Where conditions require their use, two-arm approach signals will be provided near entrance to siding to govern the approach of trains to station. (See rule No. 802.)

829. When coupled trains are separated, as prescribed by rule No. 840, the staff operator must regard each portion as an independent train.

830. If a train overruns a stop signal, the fact must be reported to the superintendent.

ENGINEMEN AND TRAINMEN

831. Trains must not enter a block unless the engineman has in his possession a staff or permissive disc and the home staff signal is at Clear, except as prescribed by rules Nos. 834 and 843.

832. An absolute staff (see figures 1 and 2) permits but one train to use a block and confers right of track.



Fig. 1—Absolute staff—solid staff or divided staff assembled.

833. In blocks where divided staffs are used, indicated by time table, one portion of the staff (see figure 2) will be carried by the engineman and the

other portion by the conductor or brakeman stationed on the rear car of train, or if a pusher engine is attached, by the engineman of the pusher engine.



Fig. 2—Absolute staff—divided staff in two parts.

834. In blocks where permissive discs are used, indicated by time table, a permissive disc (see figure 3) permits following movement of trains in a block and confers the right of track over opposing trains. The last train to follow will be given the remaining discs, base, rod and nut, and this confers the same right as a single disc. Trains moving under authority of permissive discs may pass home staff signal at stop and proceed expecting to find a train in the block.

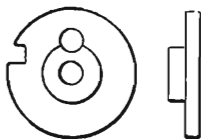


Fig. 3—Permissive staff disc.

835. A permissive staff completely assembled (see figure 4) confers the same right as an absolute staff.

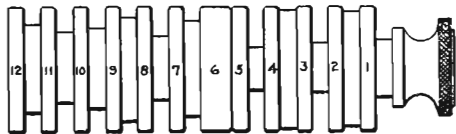


Fig. 4—Permissive staff assembled.

836. Permissive movements will be made on ascending grades only and when authorized by train dispatcher.

837. A staff for a train will be delivered to the engineman by the staff operator or the conductor or by staff crane, and must not be accepted in any other manner, and engineman must know that the staff is in the pouch and is the proper one for the block to be entered.

838. A staff must not be surrendered until entire train is ready to clear the block and then must be delivered to the staff operator or at designated place. It must not be transferred from one train to another.

839. When two or more engines are coupled, the engineman of the engine coupled to the train will carry the staff or permissive disc and signal the engineman on leading engine or engines that he is in possession of the staff or disc by giving one long and one short sound of the whistle, to be answered as prescribed by rule No. 14 (g) before proceeding.

840. When two or more trains have been coupled and so move past any staff station, they must, unless the engineman of each train has a permissive disc, be separated only at a staff station and the staff operator notified.

841. A pusher engine will run coupled to train the entire length of the block. Pusher engines must not move without staff or disc, except as part of a train.

842. Conductor of work extra entering block, to do work, will secure authority from chief dispatcher stating the time work extra may occupy the block and the staff must be surrendered before the expiration of the time specified.

843. If staff apparatus is inoperative, trains will be moved in accordance with rules for movement by train orders.

844. Trains must not proceed on hand signals as against home staff signals.

845. Should a train to which a staff has been delivered, be unexpectedly delayed, the staff may be recalled by the staff operator.

846. The engineman of a train which has parted must give the whistle signal for train parted when approaching a staff station.

847. An engineman receiving a train parted signal from a staff operator must answer as prescribed by rule No. 14 (f).

848. When a parted train is recoupled, the staff operator must be notified.

849. Where two-arm approach signals are in use, trains will be governed by the indications (see rule No. 802). If stopped, the conductor and engineman must immediately ascertain the cause.

850. If there is an obstruction between staff stations, notice must be given to the nearest staff operator.

851. The staffs must at all times be so handled as to not injure them.

INSTRUCTIONS FOR OPERATING STAFF INSTRUMENTS

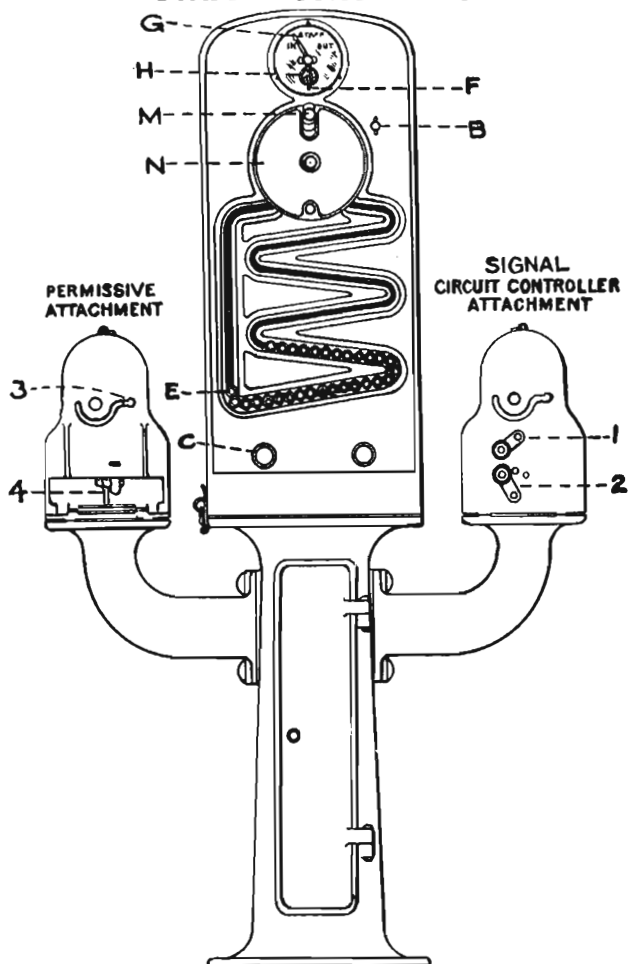


Fig. 5—Electric Staff Instrument.

TO REMOVE STAFF FROM INSTRUMENT.

INSTRUCTIONS TO OPERATOR REMOVING STAFF.

1st. Press bell key "C" once. Answer will be two rings.

2nd. Watch current indicating needle "F" until it deflects to the right.

3rd. Turn preliminary spindle "B" to the right as far as it will go and then release it, permitting it automatically to return to its normal position. A white disc will appear in place of the red one at "H." This indicates that the staff is ready to be removed.

4th. Move end staff "E" up to vertical slot into engagement with guard "N," this guard having been turned so that the staff will slip into the slot in the edge of the guard "N."

5th. Revolve guard "N," using staff as a handle, and withdraw the staff through the opening at "M." This operation moves staff indicating needle "G" from "Staff in" to "Staff out."

6th. Immediately upon withdrawing staff, press bell key "C" once. This is absolutely necessary.

INSTRUCTIONS TO OPERATOR AIDING IN REMOVAL OF A STAFF.

1st. Upon receipt of one ring, acknowledge same by pressing bell key "C" two times, the second time holding it in until staff indicating needle "F" moves from left to right twice; then release key "C," as operation is complete.

TO REPLACE STAFF IN THE INSTRUMENT.

INSTRUCTIONS TO OPERATOR REPLACING STAFF.

1st. Turn outer guard "N" to place and insert staff in the opening "M."

2nd. Using staff as handle revolve guard "N" to the right and allow staff to roll down spiral into place.

3rd. Press bell key "C" two times. This indicates "Staff in" on the instrument at opposite end of block.

INSTRUCTIONS TO OPERATOR AT OPPOSITE END OF BLOCK.

1st. Upon receipt of two rings, acknowledge same by pressing bell key "C" two times. This is necessary to indicate "Staff in" on both instruments and places them in proper condition for withdrawal of the next staff.

TO REMOVE THE PERMISSIVE STAFF FROM INSTRUMENT.

1st. Remove an absolute staff in regular manner.

2nd. Insert absolute staff in the opening "3" of the permissive attachment and move to the extreme left of the slot. This unlocks door No. 4 which can then be opened and permissive staff taken out, the absolute staff being locked in.

TO REPLACE THE PERMISSIVE STAFF IN INSTRUMENT.

1st. Be sure all discs are on the permissive staff in their proper numerical order.

2nd. Place staff in attachment and close door No. 4.

3rd. Move absolute staff to the right through slot and remove at opening "3."

TO CLEAR STAFF SIGNAL WHERE LEVER IS STAFF LOCKED.

1st. Insert absolute staff in the staff lock on signal lever and use as key to unlock.

2nd. Reverse signal lever and then withdraw staff