New York Central & Hudson River Railroad Company.

RULES

GOVERNING THE USE OF THE

Block Signal System

ON THE

Hudson Division

TAKING EFFECT

JANUARY 19, 1908.

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HUDSON DIVISION.

BLOCK SIGNAL RULES.

BLOCK SIGNALING.

DEFINITIONS.

BLOCK.—A length of track of defined limits, the use of which by trains is controlled by a block signal.

BLOCK STATION.—A place from which block signals are operated.

INTERLOCKING BLOCK STATION.—A place from which an interlocking plant and block signals are operated.

BLOCK SIGNAL.—A fixed signal controlling the use of a block.

HOME SIGNAL.—A fixed signal operated from an interlocking block station governing movements over switches with the current of traffic.

If there are two or more home signals at an interlocking block station, they will be designated as first home signal, second home signal, etc., beginning with the one nearest the distant signal and numbering to the block signal.

DISTANT SIGNAL.—A fixed signal used to regulate the approach to a home or block signal, or both.

DWARF SIGNAL.—A small fixed signal operated from an interlocking block station, governing movements over switches and against the current of traffic.

POT SIGNAL.—A small fixed signal used to indicate the position of a switch, or as a substitute for a dwarf signal.

BLOCK SYSTEM.—A series of consecutive blocks.

CONTROLLED MANUAL BLOCK SYSTEM.

A series of consecutive blocks controlled by block signals operated manually, and so constructed as to require the co-operation of the signalmen at both ends of the block to display a clear signal.

ORDER OF SIGNALS.

A train running with the current of traffic passes signals operated from a block station in the following order:

Distant signal, block signal; or, if the block station in an interlocking block station; distant signal, home signal or signals, block signal.

NORMAL POSITION OF SIGNALS.

The normal indication of controlled manual signals is "Stop," except distant signals, which is "Caution."

TYPE OF SIGNALS.

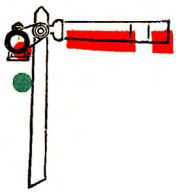
The signals used are of the semaphore pattern, the arms that govern being to the right of the signal mast, and in addition the lights of the prescribed color by night, as seen from approaching train, gives the indication.

HOME AND BLOCK SIGNALS.

The arms of the home and block signals have square ends and are painted red with a white band near the end (see cut on page 3.)

A red arm in horizontal position, and in addition a red light by night, indicates STOP.

A red arm at an angle of 45 degrees or more below horizontal, and in addition a green light by night, indicates PROCEED.



HOME AND BLOCK SIGNAL.
DANGER—STOP.

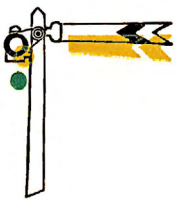
PROCEED.

DISTANT SIGNALS.

The arm of the distant signal has a forked end, and is painted yellow with a black <-shaped band near the end (see cut below.)

A yellow arm in horizontal position, and in addition a yellow light by night, indicates PROCEED WITH CAUTION.

A yellow arm at an angle of 45 degrees or more below horizontal, and in addition a green light by night, indicates PROCEED.



DISTANT SIGNAL—CAUTION.

PROCEED.

DWARF SIGNALS.

The arm of a dwarf signal has a square end and is painted the same as home and block signals (see cut on page 4.)

A red arm in horizontal position, and in addition, a purple light by night, indicates STOP.

A red arm at an angle of 45 degrees or more below horizontal, and in addition a green light by night, indicates PROCEED.

DWARF SIGNAL—DANGER.

PROCEED.

RELATIVE LOCATION OF SIGNALS.

At block stations there is a distant signal and a block signal for each main track.

At interlocking block stations there is a distant signal, one or more home signals and a block signal for each main track.

At interlocking block stations where there are facing point switches in main track (a switch at which a train may take a diverging route by continuing in the direction of traffic), home signals are provided with two or more arms; the top arm governing main route, the lower arm or arms, diverging routes.

Bracket masts are used to carry signals where they cannot be located adjacent to the track which they govern. Functions of signals carried thereon are described by special instructions.

SIGNALMEN AND TRAIN CREWS.

CONTROL BY BLOCK SIGNALS.

1. A signal set at normal must not be passed except as provided in Rules 2, 4, 5, 6 and 12, and last paragraph of Rule 7.

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2. When a caution card has been received by an engineman, owing to inability of signalman to get answer to bells from block station in advance, ENGINEMAN MUST STOP AT NEXT BLOCK STATION, WHETHER SIGNALS ARE CLEAR OR NOT, and ascertain, if possible, why there was no response to bells. He will report the cause to the Superintendent when he arrives at destination.

Signalman must state on card reason for issuing it.

Form 133.

New York Central & Hudson River R. R. Co.

HUDSON DIVISION.

CAUTION CARD.

.....*Block Station*.....*190*..... *M*

To Engineman of Engine.....

Train No.....*on*.....*Track.*

PROCEED WITH CAUTION.

.....

SIGNALMAN.

NOTE.—The engineman receiving this card, duly dated, timed and signed, may proceed with train under control, and stop short of any obstruction in the block, and on completion of trip will send card to Office of Superintendent.

3. When an engineman receives an advance (5-2) card, he must expect to find train just beyond home signal at next block station, and run accordingly.

Form 136.

New York Central & Hudson River R. R. Co.

HUDSON DIVISION.

ADVANCE CARD.

.....*Block Station*.....*190*.....*M.*

To Engineman,.....*Engine*,.....*Track*,.....

Proceed to Home Signal at Block Station.....

as per Rule 3.

5-2

.....

SIGNALMAN.

RULE 3. When an engineman receives an advance (5-2) card, he must expect to find a train just beyond home signal at next block station, and run accordingly.

This card is given also in accordance with RULE 27.

NOTE.—Engineman will return this card to the office of the Superintendent at the end of trip.

4. When an engineman receives a caution card at a block station, he is authorized to pass signals at normal at that block station, and proceed cautiously to home signal of next block station in advance (or, should next block station not be an interlocking station, engineman will proceed cautiously to block signal), or to point of obstruction.

Caution cards are issued when signals cannot be cleared because apparatus is out of order, or block is not known to be clear. Signalman must state on card, as nearly as possible, reason for issuing it.

5. When a train is stopped at a block station, on account of a disabled train in block ahead, the engineman shall be authorized to proceed to the point of obstruction by being given a caution card, on back of which shall be stated the reason it was issued.

The train may then proceed with caution and render assistance to disabled train.

6. When a work train is working in block and will continue to do so until notified that following train is being held, a flagman from work train must be left at first block station in the rear, and engineman of following train shall receive caution card marked "work train in block," which permits him to advance into block cautiously to where work train has stopped.

7. When a train passes a block station without markers, or in two or more parts, the signalman must notify block stations in rear and advance as provided in bell code.

Signalman in advance block station must clear his signals, provided block in advance is clear, and display a white and a green flag by day, and a white and a green light by night, which is notification to the engineman that his train has parted.

Engineman shall answer with "train parted" signal.

Whenever a freight train becomes separated on any part of the road, the forward part must be kept in motion until rear part is known to be stopped. Should train part without the immediate knowledge of engineman, he must not back up for it (unless it is in sight), but must proceed to the first siding or middle track, leave the forward part of train, and immediately return on the opposite track to find the rear portion.

Signalman in rear block station shall, after receiving the "train parted" bell signal, stop the following train and give engineman a caution card marked "train ahead parted." Should the rear portion be found in the block, it shall be coupled to and pushed to the first siding or switch where it will clear the main track.

8. When from any cause it becomes necessary to couple two or more trains together to run as one, they must not be separated under any circumstances until the train arrives at a block station, when conductors shall notify signalman of their action. If they are then separated, they shall be equipped, signaled and governed thereafter as separate trains.

9. A signalman having orders for a train, shall display, in addition to the block signal, a red hand signal from the side of block station toward approaching train, being careful that it cannot be seen by train approaching in opposite direction.

10. In the absence of any regular fixed signal, train must stop and engineman ascertain the cause, reporting same to Superintendent at next telegraph station in advance.

11. At a block station where a signalman is absent or incapacitated, so that instructions cannot be obtained, trains must proceed to next block station as though caution card had been received, conductor reporting same to the Superintendent at next telegraph station in advance.

12. When switching is being done and signalman cannot see clearly when to change the route, he must not change the position of switch until he receives proper signal from the conductor or other member of the crew to do so.

At night this signal shall consist of a white light, raised in a perpendicular line to a point above the head, and at that height moved horizontally and quickly across the track a few times, then brought straight down. In daylight this motion shall be made with the hand.

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.

When engineman has seen signal and understands that he is to stay in yard or on siding, he will sound one blast of whistle, so that signalman will know that signal has been seen and he may safely change route or switch.

13. On the middle track between Mt. Murray and Yonkers (block station No. 27 to block station No. 14½) trains shall be governed by instructions in time table and book of rules. When trains are following within intervals of five (5) minutes between these points, signalmen will display caution hand signal from the side of the block station toward approaching train.

14. When electrically locked outlying switch is to be used, conductor shall press the bell key in switch-house four (4) times and after a pause, three (3) times, thus: . . . . ; upon receiving this signal, signalman shall unlock the switch and ring two (2) bells (switch unlocked). Conductor can then unlock switch lever and throw switch as necessary.

When through using switch, conductor shall lock switch lever by restoring handle of electric lock to its normal position. Then, if train is on siding clear of main, press the bell key once, and after a

pause, twice, thus: . . . ; indicating that switch is closed and that main track is clear. But if train is on main track, ready to proceed, press the key once, and after a pause four (4) times, thus: . . . . , indicating that switch is closed and train will proceed to next block station on main track.

(To man at switch).

14A. Ring 4-3 to block station. When the arm of small semaphore signal in face of electric lock case on switch stand changes from a horizontal to a drooping position and two (2) bells are received from block station, the lock will have been released.

To free the switch lever, pull the handle of small crank away from face of case as far as it will come, and move it from its normal position to the left until it stops.

When through using the switch, the switch lever is to be locked by moving the small crank to the right, back to its normal position. Then ring the proper bell signals to the block station.

15. THE USE OF THE BLOCK SIGNALS AND THE RULES GOVERNING SAME DO NOT RELIEVE EMPLOYES IN TRAIN SERVICE FROM OBSERVING ALL OTHER RULES RELATING TO THE PROTECTION OF THEIR TRAINS.

ORGANIZATION.

The operation of the signal system is under the supervision of the Chief Signalman who reports to and receives instructions from the Superintendent.

Signalmen report to the Chief Signalman.

INSTRUCTIONS TO SIGNALMEN.

OPERATION OF SIGNALS.

16. The normal indication of home and block signals is 'stop' (signal arm in horizontal position; red light at night).

17. The normal indication of distant signals is caution (signal arm in horizontal position; yellow light at night).

18. Signals must be made to give the normal indication except when cleared for trains to proceed.

They must be restored to 'normal' as soon as entire train has passed.

19. 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 give the normal indication, until repaired.

20. Should an improper proceed signal indication be observed, it must be reported to the General Superintendent, the Superintendent and the Chief Signalman by wire in accordance with Form 704.

21. Signalmen must observe, as far as practicable, whether the indication of the signals corresponds with the position of the levers controlling them.

Where repeaters are provided, Signalmen must observe if the repeater indication corresponds with the position of the lever.

22. Block signal instruments and bells must be used only by signalmen, and as directed by the rules.

23. Signalmen must have the proper appliances for hand signaling (lamps, flags and torpedoes) ready for immediate use. Hand signals must not be used when the proper indications can be displayed by the regular fixed signals.

24. Lights in block stations must be so placed or shaded that they cannot be seen from approaching trains.

25. If a train overruns a stop signal, the fact, with the number of the train, must be promptly

reported to the General Superintendent, the Superintendent and the Chief Signalman in accordance with Form 156.

26. If a stop indication is disregarded, the fact, with the number of the train or engine, must be reported by wire to the General Superintendent, the Superintendent and the Chief Signalman in accordance with Form 156 and the signalman in block station in advance notified by prescribed bell signal.

Signalman in advance so notified, will display a stop signal and place one torpedo on the track involved, securing from the engineman an explanation of his disregard of the stop indication of the signal or signals, and wire same to the Superintendent.

The signalman at the block station where signals were disregarded must immediately inspect the signals to ascertain if the proper indications were displayed.

27. When there is a train, or any part of a train, or any dangerous obstruction, or switch reversed that must remain so, just beyond home signal, or just beyond block signal, the signalman at this point, when asked for an unlock, shall answer five (5) bells.

After train has been brought to a standstill, signalman will again ask for an unlock and signalman in advance shall answer by 5-2.

When this signal has been repeated back to him and he has answered by two (2) bells he shall give the unlock asked for.

When this unlock has been received at block station in the rear, signalman there will give engineman an advance (5-2) card; the train may then be allowed to proceed under clear signals.

28. When a work train on main track is to work in block, the signalman at last block station passed must be informed of this intention, and a flagman left at that block station to notify following train.

Signalman may then forward following train on a caution card marked 'work train in block,' but he must first ask for unlock, and upon receiving five (5) bells from block station in advance (because work train is already in block) he shall announce train by bell signal 4-5-4, which must be answered by 4-5-4.

The signalman in block station in advance, upon receiving these bell signals, will understand at once that two trains are in the block, and must not ring "block is clear" bell until the block is clear; he shall then ring one "block is clear" bell for each train that has been in the block.

29. A train should always be announced to next block station in advance before it arrives at the block signal.

30. When an unlock has been received that has not been asked for, and it is not accompanied by twelve bells, it must be regarded as caused by a cross or something else wrong with the circuits.

The unlock must be requested at once, and twelve bells be received before the block ahead may be considered clear, and train allowed to proceed under clear signals.

31. If a train is to be held at block signal, home signal is not to be cleared until this train has been brought almost to a stop. It may then be cleared and train permitted to proceed to block signal.

32. Bell signals must be responded to immediately.

33. Signalmen must not tamper with the instruments.

34. The unnecessary use of the bells, or the use of signals not authorized, is strictly forbidden.

35. In case of trouble notify Superintendent by wire and call electrical or mechanical repairman.

Signalmen must render Form 38 report in duplicate to repairman, for each failure.

DISCONNECTED SIGNALS AND SWITCHES.

Disconnected Signals

36. When it becomes necessary to disconnect any signal governing movements with current of traffic over facing switch, the switch must first be spiked in normal position and remain so until signal is again connected to its lever.

Exception to this procedure may be made only by permission of the Superintendent.

While the signal is disconnected, it may be cleared by hand; and only upon instructions from the signalman.

The signalman shall each time reverse the lever of the signal *before* giving instructions for the signal to be cleared, and shall not restore the lever to normal position until *after* the signal arm is in normal stop position; this to secure protection of the locking.

Disconnected Switches

36A. When a switch, frog or lock, is disconnected from the lever that operates it, making it necessary for it to be operated by hand, the switch points must not be moved from their normal position until *after* the levers operating switch, frog, or lock, have been reversed.

When the disconnected switch or frog is to be changed from reverse to normal position, it must be done *before* the lever for operating it is placed normal; this to secure protection of the locking.

The repairman will, of course, securely spike the disconnected switch or frog before signals are cleared for movements over it.

37. When a signalman is relieved he must show in transfer book any unfinished business, unusual condition of traffic or apparatus, over-due trains, and trains in block on each side of block station; also show Form 39 that is posted each day until it is withdrawn.

If there is "nothing to report," he shall so state in transfer book.

Signalman relieved must sign the transfer, also have it signed by the signalman who relieves him.

TO RECEIVE TRAIN.

(Block being clear and signals at normal).

38. When three bells are received, give the unlock, handling the apparatus carefully. This frees the block signal at rear block station; it also leaves your unlocking apparatus so it cannot again be operated until train has passed the home signal and the signal has been restored to "normal."

If block is clear and for any reason the unlock cannot be given, answer by twelve (12) rings of the bell at once. Also by twelve (12) rings of the bell if second request for unlock is received while in the act of unlocking, or just after the unlock has been given.

An unlock must be given ONLY by the signalman on duty, and by operating plunger slide in prescribed manner.

TO FORWARD TRAIN.

39. When train is announced from block station in rear, ring three (3) bells to signalman in block station in advance. As soon as unlock is received from him, acknowledge its receipt by ringing him two (2) bells; then clear the signals.

As soon as the entire train passes a signal, restore it to "normal" position. When train has passed block signal two hundred (200) yards, and you have observed the markers, ring "block is clear" bell to block station in the rear.

SIGNALMEN ARE ENJOINED TO OBSERVE TRAINS PASSING THEIR BLOCK STATIONS VERY CLOSELY, AND, SHOULD ANYTHING BE WRONG, TO NOTIFY BLOCK STATION IN ADVANCE.

BELL CODE FOR OPERATION OF SIGNALS.

Bells must be rung slowly and distinctly.

2. All right; yes.

1-2. Block is clear.

3. Unlock my lever. To be answered by unlock or by 5 or 12 bells.

4. Train has entered block. To be answered by two bells.

5. Block is not clear.

6. Has train entered this block? To be answered by 2 or 7.

7. No.

8. Testing signal by inspector. To be answered by 8, rung slowly.

9. Must go out of block station for short time. To be answered by 2 or 7.

10. Send electrical repairman. When using this signal, follow it by number of block station in trouble. To be answered by repeating back entire signal.

11. Send mechanical repairman. When using this signal follow it by number of block station in trouble. To be answered by repeating back entire signal.

Signalmen receiving either of the above trouble calls shall pass it along to the next telegraph block station. Operator there will notify the Superintendent and repairman by wire, and will also pass the bell signal through the rest of the block stations on that repairman's section.

12. "Have unlocked" or "Am unlocking" you. To be answered by 12, which should be answered by 2. Train may then be given a caution card and allowed to proceed, being properly announced.

4-3. Unlock outlying switch. See instructions. (Rule 14).

4-4. Train proceeding toward you will take middle track or siding. To be answered by 4-4.

5-5. Obstruction. Danger signal; stop all trains proceeding toward this block station. To be answered by 5-5.

If, after reasonable length of time, no information is received as to the nature of the obstruction, a caution card may be given, with cause for being given written on the back. The train may then proceed, very cautiously.

5-5-5. Train or engine has disregarded signal or signals and entered advance block. To be answered by 5-5-5.

When 5-5-5 bell signal is received by signalman at advance block station, the stop signal indication must be displayed at once and one torpedo placed on the track involved. (Rule 26).

5-2. Train is at my block station as per rule for use of 5-2 signal. (Rule 27).

4-5. Train passing this block station west bound, parted. (To be given to block stations on each side). To be answered by 4-5.

4-5-1. Train passing this block station east bound, parted. (To be given to block stations on each side). To be answered by 4-5-1.

When train parted signal is received, trains on opposite track must not be allowed to proceed until it is known that the track is not obstructed.

2-2. Train is proceeding toward you on middle track or siding. To be answered by 2-2.

2-2-2. Stop and examine train. Where possible, inform signalman ahead what the trouble is with train. To be answered by 2-2-2.

2-3-2. Previous signal given in error. To be answered by 2.

1-3-2. Repeat last signal.

4-1. Train proceeding to you on opposite track. To be answered by 4-1.

4-5-4. Am forwarding train to you on caution card. To be answered by 4-5-4.

When this signal is received after request

for unlock has been answered by five (5) bells, it will be understood that second train is being sent in block, the first being a work train or broken down.

5-5-4. Forward train at your block station to me on caution card. To be answered by 5-5-4.

This signal is to be used only when emergency requires it.

1 long bell. I want to talk to you on telephone. When this signal is used, the pedal of the foot switch is not to be pressed down until one short bell has been received in reply. Foot must be removed from pedal immediately, when conversation is finished.

BELL CODE FOR OPERATION OF DRAW-BRIDGES.

DRAW-BRIDGE TENDER TO SIGNALMAN.

1 short followed by 3 long bells. May draw be opened; or give unlock so draw may be opened. (Where bridge is electrically locked from block station, unlock must be acknowledged by two (2) bells.

1-2 bells. Draw is closed and all right for trains to run over. To be answered by two (2) bells.

5 bells. Draw is open or not right for trains to run over.

SIGNALMAN TO DRAW-BRIDGE TENDER.

1-2 bells. Draw may be opened. If draw is electrically or mechanically controlled from block station, unlock must be given before 1-2 bells are rung.

5 bells.	Do not open draw. As soon as it may be opened signalman shall ring 1-2 bells to bridge. Tender shall then ring the three (3) bells and receive the 1-2 again.
3 bells.	Is draw all right for train to run over? To be answered by 5 or 1-2.

LIST OF BLOCK STATIONS WITH THEIR NUMBERS, LOCATIONS AND TELEGRAPH CALLS.

No. of Block Station.	Call.	Location.
8	DV	Spuyten Duyvil.
9		East of Riverdale.
10		Riverdale.
11		Mt. St. Vincent.
12	RA	Ludlow.
13	NS	Yonkers.
14		Wells Ave., Yonkers.
14 1-2		Ashburton Ave., Yonkers.
15	GD	Glenwood.
16		Bridge 33, West of Glenwood.
17		Bridge 38, East of Hastings-on-Hudson.
18		Hastings-on-Hudson.
19	DB	Dobbs Ferry.
20		West of Dobbs Ferry.
21		Irvington.
22		Eastmans.
23	OW	Tarrytown.
24		West of Tarrytown.
25		Rockefellers.
26		East of Scarborough.
27	MY	Mt. Murray.
28	SV	Ossining.
29		East end of Crawbuckie Siding.
30		West end of Crawbuckie Siding.
31		Harmon.
32	CD	Croton-on-Hudson.
33		Oscawana.
34		Crugers.
35		East end of Montrose Siding.
36	MN	West end of Montrose Siding.
37		Fleischmann's
37A		East of Peekskill.
38	KN	Peekskill.
39		Roa Hook.
40		Ft. Montgomery.
40A	GW	Ft. Montgomery Loop.
41	HB	East end of Manitou Siding.
42		West end of Manitou Siding.

No. of Block Station.	Call.	Location.
43		Glenclyffe.
44		Garrison.
45	CG	East end Cold Spring Siding.
45 1-2		West end Cold Spring Siding.
46		Cold Spring.
47	BK	Storm King.
48		East end Dutchess Jct. Siding.
49		Dutchess Junction.
50	F	Fishkill Landing.
51		Hart's Switch.
52	OX	East end Chelsea Middle.
53		West end Chelsea Middle.
54	N	New Hamburgh.
55		Clinton Point.
56		West of Camelot.
57		East end Poughkeepsie Middle.
58	PO	West end Poughkeepsie Middle.
58 1-2		West of Poughkeepsie Frt. House.
59		Poughkeepsie Pass. Station.
60		West end Poughkeepsie Pass. Yard.
61		Rooseevelts.
62		Hyde Park.
63	CY	East end Lacys Siding.
64		West end Lacys Siding.
65	AX	Staatsburg.
66		West of Staatsburg.
67		East end Rhinecliff Middle.
68	RH	West end Rhinecliff Middle.
69		West of Rhinecliff.
70		East end Barrytown Siding.
71	BA	West end Barrytown Siding.
72		West of Barrytown.
73		East end Tivoli Siding.
74	VO	West end Tivoli Siding.
75		West of Tivoli.
76		East end Germantown Middle.
77	GN	West end Germantown Middle.
78		North Germantown.
79		Linlithgo.
80		Burdens.
81	HN	East end Hallenbecks Middle.
82		West end Hallenbecks Middle.
83		East of Hudson.
84	UD	Hudson.

No. of Block Station.	Call.	Location.
85		West of Hudson.
86		Bridge 304.
87		Stockport.
88	CK	East end Newton Hook Middle.
89		West end Newton Hook Middle.
90	XN	East end Stuyvesant Siding.
91		West end Stuyvesant Siding.
92		Poolsburg.
93	SM	East end of Schodack Ldg., Middle.
94		West end of Schodack Ldg., Middle.
95		Castleton.
96	GI	Staats Crossing, West of Castleton.
97		Teller's Crossing.

F. T. SLACK,
Superintendent.

C. F. SMITH,
General Superintendent.