

ERIE RAILROAD COMPANY

New York, Susquehanna & Western R. R. Co.
Wilkes-Barre & Eastern R. R. Co.
The New Jersey & New York R. R. Co.
Chicago & Erie R. R. Co.

RULES MANUAL BLOCK SYSTEM

IN EFFECT
SEPTEMBER 1, 1923.

THIS BOOK

IS THE PROPERTY OF

The Erie Railroad Company,

AND IS LOANED TO

Name	Employed as
<i>J. C. Bryan</i>	<i>Op. r.</i>

who hereby agrees to return it to the proper officer when called for, or upon leaving the service.

DEFINITIONS.

BLOCK. A length of track of defined limits, the use of which by trains is governed 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 governing the use of a block.

HOME BLOCK SIGNAL. A fixed signal at the entrance of a block to govern trains in entering and using that block.

DISTANT BLOCK SIGNAL. A fixed signal used in connection with a Home (and Advance if used) 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 series of consecutive blocks, governed by block signals operated manually, upon information by telegraph, telephone or other means of communication.

ABSOLUTE BLOCK. A block which may be occupied by but one train at a time.

PERMISSIVE BLOCK. A block which may be occupied by two or more trains at the same time.

CLEAR BLOCK. A block not occupied by a train.

TRAIN ORDER SIGNAL. A fixed signal used in connection with the movement of trains by train orders.

The Rules herein contained will not be effective except as designated in the Time-Table.

MANUAL BLOCK SYSTEM.

301. HOME AND ADVANCE BLOCK SIGNALS.

When a signal arm is displayed in a horizontal position, thus (—), (Red light by night), it indicates Stop.

When a signal arm is displayed above horizontal, thus (/), (Yellow light by night), it indicates Caution, and permits a train to proceed at safe speed, prepared to stop short of train or obstruction, provided it can reach the next block station without encroaching upon the time of a superior train.

When a signal arm is displayed below horizontal, thus (\), or above horizontal, thus (I), (Green light by night), it indicates Clear, and permits a train to proceed, provided it can reach the next block station without encroaching upon the time of a superior train.

Combined block, train-order and interlocking signals as designated in the time-table, will also be used to govern the operation of the block system and for stopping trains when there are orders for them.

NOTE.—At points where upper quadrant block signals, thus (/), are not in use, permission for a train to proceed under Caution will be given by Caution Card (Form B), under Stop Signal and when the block signal is also used as a train-order signal, a Clearance Card (Form 1012) must also be used.

The position of the governing arm displayed to the right of the signal mast, and the color of the light by night as seen from an approaching train, give the indication.

302. Block signals govern 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; nor dispense with the observance of Special Instructions and Rules of the Operating Department.

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 such block station to the indications of the block signals.

SIGNALMEN.

311. The normal indication of the Home (and Advance if used) Block Signals, including Combined Interlocking, Block and Train-Order Signals, as designated in the time-table, is Stop; of Distant Block Signals (if used) Caution.

311A. Block signals for a track apply only to trains moving with the current of traffic on that track.

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 indication of the signals corresponds 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 on the prescribed form, beginning at 12:01 A.M., daily.

When a train is passed by another, at a block station, it must be re-entered upon the block record. The last train entering a block must be the last recorded.

316. The prescribed communicating Telephone and Bell code is as follows:

NOTE.—WHEN THE TELEPHONE IS USED, THE DEFINITION OF THE CODE MUST BE SPOKEN.

COMMUNICATING TELEPHONE AND BELL CODE SIGNALS

- 1 Answer telegraph or telephone call.
- 1-3 Acknowledgment of any signal except as herein provided.
- 2 Block is clear.
- 3 Is block clear? Answer by 2 or 5.
- When clear has been received for each train that has entered the block in advance and there is a train to be forwarded, the signalman is required to give 3 to the block station in advance. If answered by 2, clear signal may be displayed.
- 4 Train has entered block.

When a train enters a block, the signalman is required to give 4 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 is required to display the Stop-signal, and when the rear of the train has passed 500 feet beyond the Home Block Signal and train still moving he is required to give 4-2 to the next block station in the rear. It is required that this information be entered on the block records.

5 Block is not clear. Acknowledge by 5.

6 Has a train entered this block? Answer by 4 or 2-1.

2-1 No. Acknowledge by 2-1.

2-4 Has train cleared block? Answer by 4-2 or 5.

This signal to be given when a signalman has not received 4-2 for each train that has entered the block and which has had time to clear. If, on account of error or confusion in bell signals, a signalman is not sure that a signal has been received indicating that each train which has entered the block in advance has cleared, and is unable to obtain information by telegraph or telephone, the next train to be forwarded must be stopped. Should no cause for detaining a train be known, it may then be permitted to proceed as provided in Rule 322 under Caution Signal or with Caution Card (Form B) under Stop-signal, provided 10 minutes have elapsed since the passage of the last preceding train. When the block signal is also used as a train-order signal, a Clearance Card (Form 1012) must also be used.

4-2 Train has cleared block. Acknowledge by 1-3.

It is required that this signal be given to the signalman at the block station in the rear when

the rear of the train has passed 500 feet beyond the Home Block Signal and train still moving and the signalman has seen the markers and displayed the Home Block Signal at Stop. It is required that this information be entered on the block records.

2-5 Stop train approaching and have it examined. Answer by 2-5.

It is required that signalmen observe all passing trains and note whether they are complete and in order and markers properly displayed. Should a train pass a block station with any indication of conditions endangering the train, or a train on another track, the signalman is required to immediately notify the signalman at the next block station in advance, when it is required that each signalman display Stop-signals to all trains that may be affected.

Signalmen are forbidden (unless otherwise instructed by the train dispatcher) to permit any train to proceed until it is known that its track is not obstructed. When practicable, the signalman giving 2-5 is required to inform the signalman at the advance block station what was noticed wrong with the train.

3-3 Train is on siding clear of main track. Acknowledge by 3-3.

When a train takes a siding at a block station, the signalman must have a report from the conductor that his train is clear of the main track and switches closed before giving "2" or displaying a Clear-signal for that block. The signalman is required to obtain control of the block before permitting a train on a siding to re-enter the block.

When a train clears a block between block

stations, the signalman when he knows that it is clear, is required to report the train to the signalman at the other end of that block.

A train having passed beyond the limits of a block is forbidden to back into that block without permission from the Signalman.

The signalman is required to obtain control of the block before permitting a train to enter the block between block stations.

3-3-3 Train to you broken in two. Answer by 3-3-3.

Should a train pass a block station in two or more parts, the signalman is required to stop all trains moving in the same direction and notify the signalman at the next block station in advance.

A signalman having received this notice is required to stop any train moving in the opposite direction.

It is forbidden to display the Stop-signal to the engineman of the parted train if the train can be admitted to the block in advance under Block Signal Rules; but it is required that the train parted signal 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.

4-4 Train is going on siding.

5-5 Have train to cross over into block. Hold all trains. Answer by 5-5.

Signalman receiving 5-5 from the block station in advance is forbidden to answer by 5-5 until it is known that the block is clear and entrance to block protected. To permit a train carrying passengers to cross over or return, the signalman is required to examine the block record, and, if all the blocks

affected are clear of approaching trains, he is required to 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.

To permit a train other than a train carrying passengers to cross over or return, the signalman is required to examine the block record, and, if all the blocks affected are clear of approaching trains, he is required to 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 until after first receiving permission from the train dispatcher and the conductor and engineman notified in writing that train has crossed over at the next block station in advance. The train may then be permitted to proceed with Caution Card (Form B).

It is required that all cross-over movements be entered on the block records.

3-5 Have train to return to its own track. Answer by 3-5.

When a train is ready to return to its own track, after having crossed over or is to take main track from a siding, the signalman is required to ascertain from the block station in the rear if any train is approaching. If block is clear, the signalman is required to give 3-5 to block station in rear, and, when 3-5 is received in answer, may allow train to return to its own track. A signalman receiving 3-5 from the block station in advance is forbidden to answer by 3-5 until it is known that

the block is clear and entrance to block protected until the signal 4-2 is received from the signalman at the block station in advance.

3-1-3 Train in block will take intermediate siding. Answer by 3-1-3.

It is required that this signal be given to the block station in advance after a train enters a block and is to take intermediate siding.

4-1 Train from intermediate siding is proceeding toward you. Answer by 4-1.

It is required that this signal be given to the block station in advance, when a train is allowed to proceed from an intermediate siding for which the signal 3-1-3 has been given.

Signalmen are required to obtain control of the block before permitting a train on a siding to re-enter the block.

3-2 Train from you passed without markers. Answer by 3-2.

Should a train pass a block station without markers, a signalman is required to give 3-2 to the signalman at the block station in the rear and 9 to the signalman at the block station in advance. It is forbidden to give 4-2 to the signalman at the block station in the rear until the signalman at the block station in advance has reported that the train is complete.

9 Train to you passed without markers. Answer by 9.

A signalman having received this notice is required to stop train and notify the conductor that markers are not displayed.

It is forbidden to give 4-2 to the block station in the rear until it is known that the train is complete.

4-4-4 Cars running away against the current of traffic and proceeding toward you. Answer by 4-4-4.

It is required that the signalman receiving this signal take such measures for the protection of trains as may be practicable.

4-6-4 Cars running away with the current of traffic and proceeding toward you. Answer by 4-6-4.

It is required that the signalman receiving this signal take such measures for the protection of trains as may be practicable.

5-5-5 Obstruction in block. Stop all trains approaching this station. Answer by 5-5-5.

A signalman informed of any obstruction in a block is required to immediately notify the signalman at the other end of the block and each are required to display Stop-signals to all trains that may be affected and are forbidden to permit any train to proceed until it is known that its track is not obstructed. The signalman is then required to inform the train dispatcher of the circumstances and be governed by his instructions.

6-3 Train proceeding toward you has disregarded Stop-signal. Answer by 6-3.

A signalman receiving this signal is required to take such measures for the protection of trains as may be practicable.

2-3-2 Signal just received, not understood. Please repeat.

2-2-2 Error signal. Answer by 2-2-2.

6-4 Testing signals. Answer by 6-4 until acknowledged by 1-3.

7-1-7 Opening block station.

To open a block station the signalman is required to give 7-1-7 to the next block station in each direction, and record the trains that are in the extended block. The signalman is then required to 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 had passed his block station before it was opened, clear the block in advance, the signalman is required to repeat the record to the block station in the rear.

7-7 Closing block station.

It is forbidden to close a block station except upon authority of the Superintendent.

Unless otherwise provided, it is forbidden to close a block station until the block in each direction is clear of all trains.

To close a block station, the signalman is required to give 7-7 to the next block station in each direction, and when he receives 1-3, he is required to enter it on his block record with the time it is received from each block station.

After obtaining permission from the train dispatcher, it is required that the block signals then be set in the clear position, all lights extinguished and the block wires arranged to work through the closed station.

COMMUNICATING TELEPHONE AND BELL CODE SIGNALS FOR SIGNALING BETWEEN BLOCK STATIONS AND OUTLYING SWITCHES.

1-2-3 Train on siding or side track. Main track clear. Switches closed. Answer by 1-2-3. Acknowledge by 1-3.

It is required that this signal be given immediately by the conductor of a train taking siding at an outlying point when the train is on siding, main track clear and switches closed. When a signalman receives the signal 1-2-3 from the conductor of a train at an outlying siding, he is required to give the signal 1-2-3 to the signalman at the next block station in the direction of the outlying siding, and the signalmen at both block stations are then required to give signal indications to control trains in entering and using the block, in the same manner as though the train had cleared the block.

3-4 Train is ready to leave siding or side track. Answer by 3-4 or 5.

When a train is ready to depart from an outlying siding, the conductor is required to give 3-4 to the signalman at the block station. If 3-4 is received in reply, it is required that it be acknowledged by 1-3 and the conductor may then start his train.

The signalman is forbidden to give 3-4 unless the block is clear. If 5 is received in reply, repeat 5 to the signalman, who is required to give 1-3 in acknowledgment. If 5 is received, the conductor is forbidden to start the train.

317. To admit a train to a block, the signalman must examine the block record, and, if the block is clear, give "3" 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." If the block is not clear, he must reply "5." The signalman at the entrance of the block must 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 train carrying passengers, and a train carrying passengers must not be admitted to a block which is occupied by any train, except as provided in Rule 322 or by train-order.

To permit a train other than a train carrying passengers to follow a train other than a train carrying passengers into a block, the signalman after first receiving permission from the Train Dispatcher, may admit the approaching train to the block under Caution Signal or with Caution Card (Form B), under Stop-signal, provided 5 minutes have elapsed since the passage of the last preceding train. When the block signal is also used as a train-order signal, a Clearance Card (Form 1012), must also be used.

318. When coupled trains are separated as prescribed by Rule 364, the signalman must regard each portion as an independent train.

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

320. A signalman having train orders for a train must display the block signal at Stop, and in addi-

tion, must display a Red flag by day and a Red light by night outside of the block station window in full view of enginemen and trainmen, and until the orders have been delivered or annulled, the signal must not be restored to Clear or Caution.

Signalmen may permit trains so stopped to proceed under Block Signal Rules after having given them train orders or a Clearance Card (Form 1012). When admitting a train to a clear block by the use of a Clearance Card (Form 1012), signalmen are required to write thereon, "Block is clear."

321. 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 Clearance Card (Form 1012), writing thereon "Block is clear."

If the block is occupied by a train, other than an opposing train or a train carrying passengers, the signalman may, after first receiving permission from the Train Dispatcher, admit a following train by the use of Caution Card (Form B), provided 5 minutes have elapsed since the passage of the last preceding train. When the block signal is also used as a train-order signal, a Clearance Card (Form 1012) must also be used.

Information relating to the condition of an obstructed block must not be written on a Caution Card (Form B) or a Clearance Card (Form 1012).

322. If, from any cause, a signalman is unable to communicate with the next block station in advance or with the Train Dispatcher, he must stop all trains approaching in that direction. Should no cause for

detaining a train be known, it may then be permitted to proceed under Caution Signal or with Caution Card (Form B), under Stop-signal, provided ten minutes have elapsed since the passage of the last preceding train. When the block signal is also used as a train-order signal, a Clearance Card (Form 1012), must also be used.

323. 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 prescribed by Rules 319, 320, 329 and 374.

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.

Hand signaling includes the use of lamp, flag, torpedo and fusee signals.

Signalmen are required to see that their stations are supplied with the following signaling equipment:

- One Red Flag.
- One Yellow Flag.
- One Green Flag.
- One White Lantern.
- Two Red Lanterns.
- One Yellow Lantern.
- One Green Lantern.
- Two White Globes.
- Two Red Globes.
- One Yellow Globe.
- One Green Globe.
- Twelve Torpedoes.
- Six Red Fusees.

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

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

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

327. If a train over-runs a Stop-signal, the fact, with the number of the train, must be reported to the Superintendent.

328. If a Stop-signal is disregarded, the fact, with the number of train, must be reported to the next block station in advance and then to the Superintendent.

329. When a block station is open 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.

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

331. Signalmen must promptly report to the Train Dispatcher the condition of the weather in case of fog or storm.

332. When relieved, signalmen must make written transfer on the prescribed form of all train orders not delivered, as provided in Rule 420 of the Operating Department. If there are no undelivered train orders signalmen are required to so indicate on the transfer.

The relieving signalman's attention must also be called to all trains or obstructions within the block in each direction and to all pledges to block then in effect.

ENGINEMEN AND TRAINMEN.

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

361A. Trains must not proceed on hand signals as against block signals.

362. Trains must not pass a Stop-signal without receiving Clearance Card (Form 1012), Caution Card (Form B), or a train order authorizing them to do so.

When a train is admitted to a clear block by the use of Clearance Card (Form 1012), a notation "Block is clear" must be written thereon. When the block is not clear a train must not pass a block signal in the Stop position without receiving Caution Card (Form B). When the combined block and interlocking signals are also used as train-order signals, Clearance Card (Form 1012), must also be received in addition to any train orders. No notation to be written on Clearance Card or Caution Card as to the condition of the obstructed block.

(A) When all other signals, right and schedule permit, a train carrying passengers, against which a block signal or train-order signal is displayed at a passenger station, may pull by such signal a sufficient distance to receive or discharge passengers at that station.

(B) When all other signals, right and schedule permit, and after first receiving permission from the signalman and providing for proper protection, a train (other than a train carrying passengers), against which a block signal or train-order signal is displayed, may pass the Stop-signal to do station

work, enter the block station siding in advance of the signal, go to the block station switch where an opposing train is to take siding, return to its own track after having crossed over at a block station or take main track from the block station siding.

A train having passed a signal indicating Stop, as permitted under (A) and (B) of this rule must not proceed except as provided by the rules and then not until the conductor and engineman have been authorized to do so by the signalman.

363. A train carrying passengers must not pass a Caution Home, or Advance Block Signal, except when to meet an opposing train at a non-block or closed block station by train order.

If, from any other cause, a train carrying passengers receives a Caution Home or Advance Block Signal, the engineman must stop and before proceeding must report the fact to the Superintendent by wire.

364. Unless otherwise directed, when two or more trains have been coupled and so move past any block station, they must be separated only at a block station and the signalman notified.

365. When a train takes a siding it must not again enter the block without the permission of the signalman.

A train having passed beyond the limits of a block must not back into that block without permission from the signalman.

366. Unless otherwise provided, when it is necessary for a train to cross over, the signalman must be notified and permission obtained before crossing over or returning.

367. The engineman of a train which has parted must sound the whistle signal for train-parted when approaching a block station.

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

369. When a parted train is recoupled the signalman must be notified.

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

371. If a train is stopped by a block signal, the conductor must immediately ascertain the cause.

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

373. Trains entering a block under Caution Signal or Caution Card (Form B) are required to proceed at a safe speed prepared to stop short of train or obstruction.

Enginemen and conductors will be held responsible in case of collision with another train or obstruction.

374. When a block station is open at an irregular hour, the required block signal 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.

375. A train must not cross over between block stations and run either in the opposite direction, or in the same direction on another track, without orders from the Superintendent and permission from the signalman.

376. Day block offices are specified as opening and closing at a certain time, but it is frequently necessary to have them open at hours before and after the time specified. All concerned will be governed by the signals at such points, regardless of the time specified for them to be operated. A train entering a block under a caution signal displayed at a day and night block signal office will run under caution to the next day and night block signal office, regardless of a "proceed" signal that may be displayed at intermediate day or night block signal office, except when enginemen have positive information that the day or night block signal office is actually in operation. If a Stop-signal is displayed, trains will stop and ascertain cause.

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

FORM B.

ERIE RAILROAD Co.

CHICAGO & ERIE R. R. CO.
NEW JERSEY & NEW YORK R. R. CO.
NEW YORK, SUSQUEHANNA & WESTERN R. R. CO.
WILKES-BARRE & EASTERN R. R. CO.

CAUTION CARD.

Block Station,;M.,19.....
To Conductor and Engineman, Train No.....
on.....Track.

Block is not clear. 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.

195. Walking on road during engine operation
Prohibited. Cars and load equipment or cars
on adjacent track.

196. Crossing tracks closely adjacent to main
ing tracks or locomotives or cars in position.

197. Working for clearance when passing
with the leading vehicle in about tracks is
prohibited.

198. Stopping or walking on rail is prohibited.

199. Sitting on rails in track or riding on
side of station platform adjacent to track is
prohibited.

200. Walking or sitting on sides of tracks
or grounds cars is prohibited.

201. Walking or being on the railroad tracks
when required in performance of duty is
prohibited.

202. Property maintained for use by
employees is company property.

203. Employees responsible in an engine house
for in condition of cars must have ventilation
for a few minutes before entering engine and
must be accompanied by another employee who
will remain on top of engine while ventilation
When necessary to enter top of car containing
boilers they should be left over a few minutes
before entering. Employees are warned against
remaining in cars with doors closed while heat
is on. Employees entering engine houses or
cars equipped with pressure relief devices
should be warned that other cars may be
in the hands of engine on top of cars.