

GOVERNMENT NOTICE NO. 403 Published on 10-8-2018

THE RAILWAYS (BLOCK WORKING AND SIGNAL INTERLOCKING) REGULATIONS,  
2018

ARRANGEMENT OF REGULATIONS

*Regulation*      *Title*

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GOVERNMENT NOTICE NO. 403 Published on 27-7-2018

THE RAILWAYS ACT  
(ACT NO. 10 OF 2017)

REGULATIONS

*(Made under section 95)*

THE RAILWAYS (BLOCK WORKING AND SIGNAL INTERLOCKING) REGULATIONS,  
2018

PART I  
PRELIMINARY PROVISIONS

- Citation 1. These Regulations may be cited as the Railways (Block Working and Signal Interlocking) Regulations 2018.
- Interpretation 2. In these Regulations, unless the context otherwise requires-
- Act No. 10 of 2017 “absolute block” means a system which allows only one train or rake to occupy a block section at a time, and no train can enter an empty block section without first obtaining the permission of the station in advance and respective control office;
- “Act” means the Railways Act;
- “approach locking” means an electrical locking system that is used when a train approaches a signal that has been set for it to proceed and is adapted to prevent manipulation of levers that would endanger that train;
- “aspect of signal” means the appearance of a colour light or semaphore signal;
- “automatic block system” means a traffic control system where signals are operated by the passage of trains without the need for coordination of operators at adjacent stations;
- “blocking device” means a mechanical, electrical or electronic gadget designed to achieve blocking and includes interlockings, track circuits, fixed signals, cabin in signal systems and communication equipment;

- “block section” means the stretch of rail line from one signal box or station to the next signal box or station;
- “block working” means the methods that are used for a train to enter and exit a block section safely;
- “cabin” means the compartment of train driver;
- “centralized traffic control” means a system of train control commanded and operated from one centre;
- “closed circuit principle” means the principle of circuit design where a normal energized electric circuit which may cause the controlled function to assume its most restrictive condition when interrupted or de-energized;
- “crew” means railway staff working on board a train and includes a driver;
- “driver” means an authorized employee responsible to operate a propelled vehicle;
- “fail safe principle” means a design principle, intended to ensure that failure of any part of the system shall cause affected signals to give the most restrictive indications that the condition requires;
- “indication locking” means electric locking adapted to prevent any manipulation of levers that may cause an unsafe condition where a signal, switch or other operated device fails to make a movement corresponding with that of the operating lever, or is adapted directly to prevent the operation of one device in case another device, to be operated first, fails to make the required movement;
- “interlocking” means a system that controls the setting of points, the detection of line occupation, the aspects of opposing signals and the clearance of signals for train movement, to prevent an unsafe condition of a signaling system during the passage of a train;
- “manual block system” means a traffic control system where passage of a train is coordinated by operators at adjacent stations and control office through a separate communication channel coupling the stations;
- “moving block system” means a traffic control system in which a train's position and speed are communicated to control equipment so as to manipulate the cabin signal aspects and speed controls for the trains on the track;
- “permissive block system” means a traffic control system where more than one train may occupy a block section at the same time;

- “points” means a point where two routes meet or diverge;
- “register” mean a train register established under regulation 15;
- “route locking” means electrical locking, effective when a train passes a signal displaying an aspect for it to proceed;
- “running line” means the railway line which is used for the passage of trains;
- “siding” means a railway line serving railway oriented industries from the main line and does not include a branch line;
- “shunting” means a movement of a train or rail vehicle from one line of rail to another for the purpose of forming a train, loading, offloading or placing a vehicle on sick line for repair;
- “time locking” means a method of electrical locking, that is used when a signal has been caused to display an aspect to proceed until after the expiration of a predetermined time interval after such signal has been caused to display its most restrictive aspect;
- “traffic control system” means mechanical, electrical or electronic signal systems and methods for safe control of train movements and includes interlockings, track circuits, fixed signals, cabin signal systems, communication equipment and blocking devices;
- “train” means a locomotive with a vehicle attached or a light locomotive or motor trolleys which is designated as a train.

## PART II

### BLOCK WORKING AND SIGNAL INTERLOCKING

Blocking  
system

3.-(1) The Corporation shall ensure that train operations are controlled by the absolute block system.

(2) Notwithstanding sub-regulation (1), permissive block system of operating train may be used under the following circumstances-

- (a) shunting operations;
- (b) repair and maintenance work; or
- (c) emergency operations,

provided that the procedures and limitations for such system are prescribed under the Tanzania Railway Corporation General Rules,1997.

Fixed and cabin  
signals

4. The Corporation shall ensure that-

- (a) a running line, whether on main track or on major

branch line, is continuously signaled by provision of wayside fixed signals or cabin signals or both;

- (b) fixed signals are located above and to the right of the track they govern;
- (c) where circumstances require that signals be placed other than in accordance with regulation 4(b), such conditions are as prescribed under the Tanzania Railway Corporation General Rules, 1997;
- (d) the distance between signals allow a train passing one signal at the prescribed line speed to be stopped before the next signal by application of service brakes without recourse to emergency brakes.

Range of governance of fixed signals

5.-(1) Cabin crew shall be governed by fixed signals located throughout the stretch of track from one signal point to the next signal point.

(2) Notwithstanding sub-regulation (1)-

- (a) where the aspect of cabin signal changes between two fixed signals, the new cabin signal aspect shall govern from that signal point;
- (b) a flag or lamp signal displayed by the Corporation or sounding of detonators placed along the track shall supersede the aspect of the fixed signal in the rear; or
- (c) any object waved by any person along the tracks shall be considered as an emergency and the train driver shall reduce speed and proceed with caution.

Application of different types of fixed signals

6. The application of fixed signals shall be by the placement of high signals and dwarf signals where-

- (a) high signals shall govern movements-
  - (i) in running lines designed for bidirectional travel;
  - (ii) in running lines designed for unidirectional travel, for travel toward the controlled points; and
  - (iii) in signaled sidings for travel towards the controlled points;
- (b) dwarf signals shall govern movements-
  - (i) in running lines designed for unidirectional travel, for travel away from the controlled points;
  - (ii) in signaled sidings for travel away from the

- controlled points; and  
(iii) in yard tracks, industrial spurs and similar low speed routes.
- Aspect of signals
7. Aspect of signals shall be displayed by colour, position, flashing of lights, or combination of both where-
- (a) indications of any such signal may be qualified or modified by an attached arm, arrow or plate;
  - (b) lights may be attached to either side of the signal mast and number plates may be provided for the purpose of identifying the location;
  - (c) indication of the signal aspects are prescribed under the Tanzania Railway Corporation General Rules,1997.
- Design principles
- 8.-(1) A Railway signal or traffic control system shall be designed using fail safe principles.  
(2) Control circuits shall be designed using the closed circuit principle.
- Interlocking of signals and points
- 9.-(1) A Railway Signal controlling movements on or into a running line shall be-
- (a) mechanically or electrically interconnected with the points they control in order to prevent conflicting movements; and
  - (b) designed to ensure that a signal cannot display an aspect to proceed unless-
    - (i) the route is unoccupied; and
    - (ii) all points within the route have been correctly set and locked.
- (2) Where a train has entered a block section, the signal at the entrance of that section shall be locked in stop position until the train has passed the next main signal.
- Track circuits and route locking
10. Track circuits and route locking shall be protected in every signaled territory in order to prevent unauthorized operation of power switches, derailleurs or movable-point frogs underneath or directly in front of the train.
- Approach or time locking
- 11.-(1) Approach locking or time locking shall be used in designing an interlocking of points and signals in connection with

signals displaying aspects that are more favorable than aspects directing a driver to proceed at restricted speed.

(2) Approach locking or time locking at centralized traffic control system territory shall be provided for all controlled signals.

Fitting with facing point lock or switch-and-lock movement

12. Mechanically operated switch, movable-point frog or split-point derailer shall be fitted with a facing point lock or switch-and-lock movement.

Indication locking

13. An approach signal of semaphore type, power-operated home signal, power-operated switch, movable-point frog and derailer shall be fitted with indication locking.

Authority to proceed

14.-(1) A train driver shall, before proceed to maneuver a train from one station to the other, obtain authorization from a person designated for that purpose.

Train Register

15.-(1) There shall be a train Register of the Corporation in which all train movement information and any other information shall be recorded.

(2) A person designated for that purpose shall keep and maintain the Register.

Testing and inspection

16.-(1) Testing and inspection of signals and traffic control systems shall be conducted by the Corporation.

(2) Testing and inspection shall be carried out at the minimum frequencies specified in the Corporation's signal inspection and test instructions.

(3) Testing and inspection shall be done by qualified persons conversant with the requirements of requisite standards.

(4) The Corporation shall audit signals and traffic control systems.

Training

17.-(1) The Corporation shall ensure that staffs responsible for signaling and telecommunication are trained in handling signal and telecommunication infrastructure.

(2) Training referred to under sub-regulation (1) shall include general guidelines and procedures to manage installation, operation, maintenance and repair of signal and telecommunication equipment.



PART III  
OFFENCES AND PENALTIES

Offences and penalties

18. A person who fails to comply with any provision of these Regulations or obstructs or hinders the implementation of these Regulations commits an offence and on conviction is liable to a fine of not less than five million Tanzania shillings or to imprisonment for a term not exceeding three years or to both.

Compound of offences

19.-(1) Notwithstanding the provisions of this Act relating to penalties, where a person admits in writing that he has committed an offence under these Regulations, the Director General or any other person authorised by him in writing may, at any time prior to the commencement of the proceedings by a court of competent jurisdiction compound such offence and order such person to pay sums of money, not exceeding one half of the amount of the fine to which such person would otherwise have been liable to pay if he had been convicted of such offence.

(2) Where an offence is compounded in accordance with subsection (1) and proceedings are brought against the offender for the same offence, it shall be a good defence for the offender to prove to the satisfaction of the court that the offence with which the offender is charged has been compounded under subsection (1).

(3) Where the person fails to comply with the compounding order issued under this section within the prescribed period, the Director General or any other person authorized by him in writing may-

- (a) in addition to the sum ordered, require the person to pay an interest at the rate prescribed in the regulations; and
- (b) enforce the compounding order in the same manner as a decree of a court for the payment of the amount stated in the order.

Dodoma,  
30 July, 2018

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*Minister for Works, Transport and Communication*