

Standards of Interlocking

Depending upon the provisions of isolation, type of signals, mode of operation of points, type of locking, mechanism of point detection, type of interlocking, level of track circuiting, type of block instrument etc., four standards of interlocking have been made, namely Std I (R), Std II (R), Std III (R) and Std IV (R). Based on the standard of interlocking, speeds allowed over the station yards have been permitted as up to 50kmph, up to 110 kmph, up to 140 kmph and up to 160 kmph respectively.

Station Equipment

Panel – In relay interlocked stations, the operation of points and signals are done by Station Masters through a panel of buttons and knobs. This panel can be locked by a SM's key so that no person other than authorized can use it. This key should always be under the custody of the on duty Station Master.

Visual Display Unit (VDU) – After the introduction of EI, which is based on software, conventional panel has been replaced by VDU (Visual Display Unit), a monitor connected to a CPU for operation of points and signals by the Station Master. It depicts the station diagram duly indicating track circuits, points, signals etc., as shown in conventional panels. Functions are listed through pop-up menus for operation of points, signals, as stipulated in Station Working Rules. Station Master uses mouse and keyboard for selecting the required function needed for train operation.



Relay racks



RRI panel



VDU

Block Instrument is provided for granting/obtaining line clear for trains. It is normally interlocked with the Block overlap or the Last Stop Signal of the station depending on the block section for which it is meant for.

Section isolators are provided in electrified yards for isolating the power supply of OHE in case of emergency. They shall be operated only by staff who have been trained and issued with competency certificate.

Data logger also known as event logger, is a microprocessor based digital storing equipment which logs all the events occurring in the relay room at micro second levels. Such data stored is useful for accident investigation, failure analysis as well

as preventive maintenance. Exceptional Reports can be obtained by designing suitable logics for extracting specified information, which is useful in bringing out unsafe procedures/working needing corrective action.

At important/originating/terminating/junction stations, a provision has been made for Station Master to enter the train details and log it against the berthing track occupation by the train. This enables the timings of trains at that station to be automatically updated in control office application.

Station Buildings

The station equipment are housed in buildings like Panel room, Relay room, Cabins etc. These along with other rooms critical to train running like Running rooms, Crew lobby are kept away from public. Relay rooms are double key locked so as to ensure only authorized S&T personnel can have access and only with the knowledge of the on duty SM. Service buildings like power supply room, ARME, Train lighting staff room are also located nearer so that they are readily accessible when required. Passenger and other user amenities are made with easy access for passengers / users as per the service they provide and foot fall expected.

Some of the passenger / user amenities found in a station are...

Platforms: Passenger platforms are provided at the station to facilitate the boarding/alighting of passengers. Goods shed platforms are provided to facilitate loading/unloading freight/parcel trains. Number of platforms varies from station to station based on the quantum of traffic dealt at that particular station. The length of the platform has to accommodate the longest train dealt on it. Platform meant for suburban trains are of higher level while goods shed platforms are generally of ground level so that unloading can be directly done into the trucks.

Enquiry/Booking office: These counters are available for issue of tickets and answering the enquiries of passengers. Reservation tickets are also issued at booking office dealing with less number of passengers.

Reservation office: Counters are provided at major stations for passengers to book their advance journey tickets.

Parcel Office: Separate office/sheds are provided for booking of Parcels/luggage by the passengers transported through coaching trains. At stations with high volume of parcel traffic separate inward and outward parcel offices are made along with required storage area and access to road vehicles.