# ACCIDENT

# **Definition:**

For the purpose of Railway working, accident is an occurrence in the course of working of Railway which does or may affect the safety of the Railway, its engine, rolling stock, permanent way and works, fixed installations, passengers or servant or which affects the safety of others or which does or may cause delay to train or loss to the Railway.

# **Classification of Accident:**

According to the Railway Accident manual Accident is classified under the following heads

- I. Train Accidents
- II. Yard accidents
- III. Indicative accident
- IV. Equipment failures
- V. Unusual accidents

# (I) Train Accidents: further divided as-

- Consequential train accidents
- Other train accidents
- **Consequential train accident-** include train accidents having serious repercussion in terms of loss of human life, human injury, loss to Railway property or interruption to Railway traffic

#### **Classification of Consequential train accidents**

0	Collision	: Categories A-1 to A-4
0	Fire	: Categories B-1 to B-4
0	Level crossing	: Categories C-1 to C-4
0	Derailment	: Categories D-1 to D-4
0	Miscellaneous	: Categories E-1

• Other train accidents- which are not covered under the definition of consequential train accidents are to be treated as other train accidents. These include accidents under categories B-5, B-6, C-5 to C-8, D-5 & E-2

# (II) Yard accidents

- ➢ All accidents that take place in a yard & do not involve a train are termed as Yard accidents.
- > Yard accidents fall under categories A-5, B-7, C-9 & D-6

#### (III) Indicative accident

In real term they are not accidents but are serious potential hazards and include all cases of train passing signal at danger, averted collision, brea1`ch of block rule coming under classification F, G & H

## (IV) Equipment failures

These include all failures of railway equipment i.e. failure of locomotive, rolling stock, permanent way, overhead wire, signaling & telecommunication equipment & include cases falling under classification J, K, L & M

## (V) Unusual accidents

These included cases related to law & order but not resulting in train accidents and other incidents under classification N, P, Q & R

# **Detailed Classification of Accident**

<u>Class 'A' - Collision</u>: When a train collides head on or from the rear against any other train or vehicle, whether moving or stationary is called collision. Collision also includes side collision. Collision of a train with road vehicle at a level crossing is not to be taken as a collision but as a level crossing accident.

Class 'A' accident further classified as

- > A-1 Collision involving a train carrying passenger resulting in
  - i. Loss of human life and /or Grievous hurt
  - ii. Damage to railway property of the value exceeding Rs. 2,00,00,000
  - iii. Interruption of any important through line of communication for at least 24 Hrs.
- ► A-2 Collision involving a train NOT carrying passenger with results as per A-1 above
- A-3 Collision involving a train carrying passenger not falling under A-1 above
- A-4 Collision involving a train NOT carrying passenger not falling under A-2
- A-5 Other collisions i.e. collisions occurring in shunting, marshalling yard, loco yard & siding etc. but not involving a train

<u>Class 'B' Fire in TRAIN:</u> A fire in train should be treated as a train accident only when it results in death or physical injury or in loss of railway property.

- ▶ B-1- Fire or explosion in a train carrying passengers resulting in-
  - Loss of life, grievous hurt
  - Damage to railway property exceeding Rs. 25,00,000
  - Interruption of through communication for at least 24 Hrs.
- > B-2- Fire or explosion in a train not carrying passengers resulting in-
  - Loss of life, grievous hurt
  - Damage to railway property exceeding Rs. 25,00,000
  - Interruption of through communication for at least 24 Hrs.
- ▶ B-3- Fire or explosion in a train carrying passengers not falling under B-1 but-
  - Loss of railway property & or interruption of traffic is more than the threshold value & or derailment of rolling stock requiring relief engine
- > B-4- Fire or explosion in a train not carrying passengers not falling under B-2 but-
  - Loss of railway property & or interruption of traffic is more than the threshold value & or derailment of rolling stock requiring relief engine
- ▶ B-5- Fire or explosion in a train carrying passengers not falling under B-1 or B-3 above
- ▶ B-6- Fire or explosion in a train not carrying passengers & not falling under B-2 or B-4

B-7- Fire or explosion in a train occurring in shunting, marshalling yard, loco yard & siding involving rolling stock but not involving a train.

# Class 'C' Train running into road traffic

- C-1- Train carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-2- Train not carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-3- Train carrying passengers running into road traffic &/or road traffic running into such trains at unmanned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-1- Train carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-2- Train not carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-3- Train carrying passengers running into road traffic &/or road traffic running into such trains at unmanned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-4- Train not carrying passengers running into road traffic &/or road traffic running into such trains at unmanned level crossing resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- C-5- Train carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing but not falling under C-1
- C-6- Train not carrying passengers running into road traffic &/or road traffic running into such trains at manned level crossing but not falling under C-2
- C-7- Train carrying passengers running into road traffic &/or road traffic running into such trains at unmanned level crossing but not falling under C-3
- C-8- Train not carrying passengers running into road traffic &/or road traffic running into such trains at unmanned level crossing but not falling under C-4

C-9- shunting engine with or without vehicles or loose vehicles running into road traffic &/or road traffic running into shunting engine with or without vehicles or loose vehicles, at level crossings.

### **Class 'D' Derailments**

- > D-1- Derailment of a train carrying passengers resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property of the value exceeding Rs. 25,00,000
  - Interruption of any important through line of communication for at least 24 Hrs.
- > D-2- Derailment of a train not carrying passengers resulting in-
  - Loss of human life &/or grievous hurt
  - Damage to railway property of the value exceeding Rs. 25,00,000
  - Interruption of any important through line of communication for at least 24 Hrs.
- > D-3- Derailment of a train carrying passengers, not falling under D-1 above
- D-4- Derailment of a train not carrying passengers, not falling under D-2 above but loss to railway property &/or interruption to traffic is more than threshold value
- > D-5- derailment of a train not carrying passengers not falling under either D-2 or D-4 above
- Other derailments, i.e. derailments occurring in shunting, marshalling yard, loco yard & siding etc. but not involving a train

# **Class 'E' other train accident**

- E-1- Train running over or against any obstruction including fixed structure other than included under class 'C' resulting in –
  - Loss of human life &/or grievous hurt
  - Damage to railway property
  - Interruption to traffic
- E-2- Train running into any obstruction including fixed structure but not covered up under class 'C' or 'E-1'

# INDICATIVE ACCIDENTS

# **Class 'F' Averted Collision**

- ▶ F-1- Averted collision between trains at least one of which is carrying passengers
- ► F-2- Averted collision between a train carrying passengers & an obstruction
- ➢ F-3- Averted collision between trains not carrying passengers
- ➤ F-4- Averted collision between train not carrying passengers & an obstruction

#### Class 'G' breach of block rules

- G-1- Trains carrying passengers, entering a block section without any authority or without a proper "Authority to Proceed"
- G-2- Trains not carrying passengers, entering a block section without any authority or without a proper "Authority to Proceed"
- ▶ G-3- Train received on a blocked line, not constituting an averted collision
- G-4- Train received on or entering a wrong line at a station or catch siding or slip siding or sand Hump etc

# Class 'H' train passing signal at danger

- H-1- Train carrying passengers running past a "Stop" signal at danger without proper authority
- H-2- Train not carrying passengers running past a "Stop" signal at danger without proper authority

## EQUIPMENT FAILURE

#### Class 'J' Failure Of Engine & Rolling Stock

- > J-1- Failure of engine, hauling a train carrying passenger
- ▶ J-2- Failure of engine, hauling a train not carrying passengers or light engine
- > J-3- Parting of train carrying passengers
- > J-4- Parting of train not carrying passengers
- J-5- Failure of rolling stock (wheel, axles, braking apparatus )on a passenger carrying train leading to detachment of rolling stock
- J-6- Failure of rolling stock (wheel, axles, braking apparatus )on a train not carrying passenger leading to detachment of rolling stock
- J-7- Failure of rolling stock (wheel, axles, braking apparatus )on passenger carrying trains, not leading to detachment of rolling stock
- J-8- Failure of rolling stock (wheel, axles, braking apparatus )on a train not carrying passenger, not leading to detachment of rolling stock
- > J-9- A train or a portion of a train running away, out of control
- > J-10- Poor brake in a train but not covered in class-9

# Class 'K' failure of permanent way

- ➢ K-1- Buckling of track
- ➢ K-2- Weld failure
- ➢ K-3- Rail fracture
- K-4- An unusual slack or rough running or heavy lurch experienced by drivers of running trains while passing over any length of permanent way leading to blockage of communication
- ➤ K-5- Failure of Railway tunnel, bridge, viaduct/ formation/cutting and culvert etc.
- K-6- Damage to track of such a nature other than those covered under class K-1 to K-5 so as to render it temporarily unsafe for passage of trains
- K-7- Damage to track of such a nature other than those covered under class K-1 to K-6 so as to render it temporarily unsafe for passage of trains

# Class 'L' Failure of electrical equipment

- L-1- Snapping off or any damage to OHE wire requiring switching off of OHE for more than 3 minutes
- L-2- No tension in OHE for more than 3 minutes
- ► L-3 Pantograph entanglement not covered up under L-1 & L-2
- L-4- Defect in AC or other electric equipment leading to detachment of a rolling stock from a train

# Class 'M' failure of signaling & telecommunication

- M-1- Failure of part or complete Panel / RRI
- > M-2- Failure of interlocking / track circuit or axle counter
- ➢ M-3- Failure of block instruments
- M-4- Failure of point machine & equipment
- ➢ M-5- Failure of signal / point
- ➤ M-6- Failure of control / station communication for more than15 minutes
- M-7- Failure of communication from station to station or station to level crossing gate for more than 15 minutes

# UNUSUAL INCIDENTS

#### Class 'N' Train Wrecking

▶ N-1- Attempted wrecking of or sabotage to a train carrying passengers

- ▶ N-2- Attempted wrecking of or sabotage to a train not carrying passengers
- ▶ N-3- Attempted sabotage or tempering with track not involving any train

#### **Class 'P' Casualties**

- P-1- Person or persons falling out of a running train resulting in loss of human life or grievous hurt
- P-2- Person or persons run over or knocked down by a train resulting in loss of human life or grievous hurt
- P-3- Person or persons falling out of a running train or knocked down by a train or engine or railway vehicle, not resulting in loss of human life or grievous hurt

#### Class 'Q' other incidents

- Q-1 accidental or natural death or grievous hurt to any person whether passenger, railway employee or tress passer (or any other person), within railway premises (excluding railway quarters)
- > Q-2- Murder or suicide in a train or within railway premises
- Q-3- Robbery, attempted robbery, theft or attempted theft in railway premises, including trains
- > Q-4- Fire or explosion within railway premises but not involving trains
- > Q-5- Fire or explosion resulting in damage to Railway Bridge and viaduct etc.
- Blocked to train services due to agitation

#### **Class 'R' Miscellaneous**

- R-1- Vehicle or vehicles running away
- ➢ R-2- Train running over cattle
- R-3- Floods, Breaches, & land slides, etc. resulting in interruption of an important through line of communication more than the threshold value
- R-4- Other cases of Floods, Breaches, land slides etc. resulting in interruption to traffic
- ▶ R-5- Any accident not included in the foregoing classifications

# Note- 1. The term 'cattle' does not include sheep, goat, pigs,

dogs, donkeys, rams, ewe, & lambs

2. A train includes a trolley, lorry, motor, motor trolley, when worked under the rules for working trains.

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