

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

LOK SABHA

**STARRED QUESTION NO. 48
TO BE ANSWERED ON 06.12.2023**

INSTALLATION OF FIRE SAFETY SYSTEM IN PASSENGER COACHES

***48. DR T. R. PAARIVENDHAR :
SHRI SRIDHAR KOTAGIRI:**

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Union Government is aware of the fact that many train accidents have occurred in various parts of the country due to various reasons during the last five years;**
- (b) if so, the details thereof;**
- (c) the total number of such trains accidents including incidents of train compartments that caught fire which have been brought to the notice of the Government for the last five years along with the causes of these accidents, zone-wise;**
- (d) whether the Railways is considering to install three types of fire safety systems on all types of passenger coaches and if so, the details thereof;**
- (e) whether the reasons for the loss of lives on account of rail coaches catching fire were because of the absence of fire extinguishers and if so, the details thereof;**
- (f) whether it is true that the ill-fated tourist coach that went up in flames in Madurai killing nine persons was not fitted with fire extinguishers and if so, the details in this regard;**
- (g) whether any negligence was reported on the part of the shunting staff in moving the coach with passengers on board to the yard without provision of any amenities in the recent past and if so, the details thereof; and**
- (h) the details of the safety measures being taken by the Railways in its operations to ensure the safety of passengers?**

ANSWER

**MINISTER OF RAILWAYS, COMMUNICATIONS AND
ELECTRONICS & INFORMATION TECHNOLOGY
(SHRI ASHWINI VAISHNAW)**

(a) to (h): A Statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (h) OF STARRED QUESTION NO. 48 BY DR. T. R. PAARIVENDHAR AND SHRI SRIDHAR KOTAGIRI TO BE ANSWERED IN LOK SABHA ON 06.12.2023 REGARDING INSTALLATION OF FIRE SAFETY SYSTEM IN PASSENGER COACHES

(a) to (h): The number of consequential train fire accidents during the last five years is as below:-

Year	No. of Fire Accidents	Zones
2018-19	6	CR(2), NCR(1), NFR(1), SCR(1), Metro(1)
2019-20	8	NR(3), CR(1), ER(1), Konkan(1), NCR(1), SER(1)
2020-21	3	NR(2), WR(1)
2021-22	4	NCR(1), NER(1), NR(1), WR(1)
2022-23	4	CR(2), ECR(1), SCR(1)

The fire safety systems prevalent in Indian Railways are as under:-

- 1. Fire Extinguishers (FE)**
- 2. Fire and Smoke Detection System (FSDS)**
- 3. Fire Detection and Suppression Systems (FDSS)**

Measures taken by Indian Railways in train operations to ensure safety of passengers

Indian Railways has been taking a large number of steps to improve safety in train operations. Some of the major steps taken in recent years are as follows:

- i. Rashtriya Rail Sanraksha Kosh (RRSK) has been introduced in 2017-18 for replacement / renewal / upgradation of critical safety assets,**

with a corpus of Rupees 1 lakh crore for five years. From 2017-18 till 2021-22, Gross expenditure of Rs. 1.08 lakh crore was incurred on RRSK works.

- ii. **Electrical/Electronic Interlocking Systems with centralized operation of points and signals have been provided at 6498 stations upto 31.10.2023 to eliminate accident due to human failure.**
- iii. **Interlocking of Level Crossing (LC) Gates has been provided at 11137 level Crossing Gates up to 31.10.2023 for enhancing safety at LC gates.**
- iv. **Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at 6548 stations upto 31.10.2023.**
- v. **Detailed instructions on issues related with safety of Signalling e.g. mandatory correspondence check, alteration work protocol, preparation of completion drawing, etc. have been issued.**
- vi. **System of disconnection and reconnection for S&T equipment as per protocol has been re-emphasized.**
- vii. **All locomotives are equipped with Vigilance Control Devices (VCD) to improve alertness of Loco Pilots.**
- viii. **Retro-reflective sigma boards are provided on the mast which is located two OHE masts prior to the signals in electrified territories to warn the crew about the signal ahead when visibility is low due to foggy weather.**
- ix. **A GPS based Fog Safety Device (FSD) is provided to loco pilots in fog affected areas which enables loco pilots to know the distance of the**

approaching landmarks like signals, level crossing gates etc.

- x. Modern track structure consisting of 60kg, 90 Ultimate Tensile Strength (UTS) rails, Pre-stressed Concrete Sleeper (PSC) Normal/Wide base sleepers with elastic fastening, fan-shaped layout turnout on PSC sleepers, Steel Channel/H-beam Sleepers on girder bridges is used while carrying out primary track renewals.**
- xi. Mechanization of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.**
- xii. Maximizing supply of 130m/260m long rail panels for increasing progress of rail renewal and avoiding welding of joints, thereby ensuring safety.**
- xiii. Laying of longer rails, minimizing the use of Alumino Thermit Welding and adoption of better welding technology for rails i.e. Flash Butt Welding.**
- xiv. Monitoring of track geometry by OMS (Oscillation Monitoring System) and TRC (Track Recording Cars).**
- xv. Patrolling of railway tracks to look out for weld/rail fractures.**
- xvi. The use of Thick Web Switches and Weldable CMS Crossing in turnout renewal works.**
- xvii. Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.**
- xviii. Web based online monitoring system of track assets viz. Track database and decision support system has been adopted to decide rationalized maintenance requirement and optimize inputs.**

- xix. Detailed instructions on issues related with safety of Track e.g. integrated block, corridor block, worksite safety; monsoon precautions etc. have been issued.**
- xx. Preventive maintenance of railway assets (Coaches & Wagons) is undertaken to ensure safe train operations.**
- xxi. Replacement of conventional ICF design coaches with LHB design coaches is being done.**
- xxii. All unmanned level crossings (UMLCs) on Broad Gauge (BG) route have been eliminated by January 2019.**
- xxiii. Safety of Railway Bridges is ensured through regular inspection of Bridges. The requirement of repair/rehabilitation of Bridges is taken up based upon the conditions assessed during these inspections.**
- xxiv. Indian Railways has displayed Statutory “Fire Notices” for widespread passenger information in all coaches. Fire posters are provided in every coach so as to inform and alert passengers regarding various Do’s and Don’ts to prevent fire. These include messages regarding not carrying any inflammable material, explosives, prohibition of smoking inside the coaches, penalties etc.**
- xxv. Production Units are providing Fire detection and suppression system in Power Cars and Pantry Cars, Fire and Smoke detection system and fire extinguishers in coaches.**
- xxvi. Regular counseling and training of staff is undertaken.**
- xxvii. Concept of Rolling Block introduced in Indian Railways (Open Lines) General Rules vide gazette notification dated 30.11.2023, wherein work of maintenance/repair/replacement is planned for 52 weeks in advance on rolling basis and executed as per plan.**