Will the Minister of RAILWAYS be pleased to state:

(a) the details of safety rule violations by railway staff in the Indian railway system over the last three years;

(b) whether the Government has modernized the locomotive signal system and coupling mechanism, if so, the details thereof;

(c) whether the Indian Railways is fully equipped with modern safety systems, including Anti-collision devices, in each and every engine, if so, the details thereof;

(d) whether any robust mechanism has been adopted by the Indian Railways to check human error; and

(e) if so, the details in this regard?

ANSWER

MINISTER OF RAILWAYS, COMMUNICATIONS AND ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

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

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STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (e) OF UNSTARRED QUESTION NO 1128 BY SHRIMATI SAJDA AHMED AND PROF. SOUGATA RAY TO BE ANSWERED IN LOK SABHA ON 26.07.2023 REGARDING VIOLATION OF SAFETY RULES

(a): In order to regulate train operations in a safe manner, the Indian Railways (Open Line) General Rules, 1976, have been notified, which are further supplemented in the form of Subsidiary Rules by Zonal Railways. Maintenance manuals have been issued for maintenance of assets (P. Way, Signal, Rolling Stock, OHE, Bridge etc.). Staff and officials are imparted regular training in various training centers across Zonal Railways to improve their knowledge of rules and maintenance instructions. They are regularly counselled and their work is intensively monitored. Regular Safety drives are undertaken to ensure that extant rules and procedures are adhered to. However, despite all such efforts, a few cases of Safety rule violations have occurred in the last three years, such as issues related to track maintenance, work site protection, Signal passing at danger, etc.

(b) & (c): As an aid to loco pilots, a GPS based Fog Safety Device (FSD) is provided in fog affected areas, which enables them to know the distance of approaching landmarks like signals, level crossing gates etc. Retro-reflective sigma boards are also 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. In addition, all locomotives are
equipped with Vigilance Control Devices (VCD) to improve alertness of Loco Pilots.

Kavach equipment is also being provided in Locomotives as a part of Kavach project. Till now 121 Locomotives are equipped with these equipments. Kavach aids the loco pilot in train running within specified speed limits by automatic application of brakes in the case Loco Pilot fails to do so. Kavach has so far been deployed on 1465 Route km on South Central Railway.

(d)&(e): Yes, Sir. The following mechanisms have been adopted by Indian Railways to check human error:

1. In order to regulate train operations in a safe manner, the Indian Railways (Open Line) General Rules, 1976, have been notified. These are further supplemented in the form of Subsidiary Rules by Zonal Railways.

2. For maintenance of assets (P.Way, Signal, Rolling Stock, OHE, Bridge etc.), maintenance manuals have been issued.

3. Staff and officials are imparted regular training in various training centers across Zonal Railways to improve their knowledge and get acquainted with new technology/maintenance tools, etc.
4. There is a well-established system of inspection of railway bridges on Indian Railways. All the bridges are inspected twice a year, once before the onset of monsoon and detailed inspection after the monsoon by the designated officials.

5. Concept of Rolling Block has been introduced, wherein work of maintenance/repair/replacement is planned for 2 weeks in advance on rolling basis and executed as per plan.

6. All locomotives are equipped with Vigilance Control Devices (VCD) to monitor and ensure alertness of Loco Pilots.

7. Simulator based training for improving the driving skills and the reaction time of Loco Pilots is emphasized.

8. Retro-reflective sigma (Σ) boards have been provided on the OHE mast located two OHE masts prior to the Signal location in electrified territories to alert / warn the crew of the Stop signal ahead.

9. A GPS based Fog Pass device is provided to loco pilots during fog (poor visibility) which facilitates loco pilots to know the distance of the approaching landmarks like signals, level crossing gates etc.

10. Provision of Electrical/Electronic Interlocking System with centralized operation of points and signals in place of old mechanical signaling.
11. Complete Track Circuiting of stations to enhance safety for verification of track occupancy by electrical means has been provided at stations.

12. Interlocking of Level Crossing Gates (LC) for enhancing safety at LC Gate.

13. Mechanisation of track laying activity through use of track machines like PQRS, TRT, T-28 etc to reduce human errors.

14. Inspections at regular intervals are carried out to monitor and educate staff for observance of safe practices.

15. Safety drives are carried out at regular intervals to check adherence to extant rules and procedures, and counsel staff accordingly.

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