

GOVERNMENT OF INDIA  
MINISTRY OF PETROLEUM AND NATURAL GAS  
**RAJYA SABHA**  
**STARRED QUESTION NO - 386**  
ANSWERED ON - 30/03/2026

**SAFETY MEASURES IN PETROLEUM TRANSPORTATION**

\*386 SHRI MANAS RANJAN MANGARAJ:

Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

- (a) the number of accidents reported during transportation of petroleum products during the last three years;
- (b) whether Government has conducted any safety audits of petroleum storage depots and refineries; and
- (c) the measures being taken to enhance safety standards in transportation and storage of petroleum products?

**ANSWER**

MINISTER OF PETROLEUM AND NATURAL GAS

(SHRI HARDEEP SINGH PURI)

(a) to (c): A statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (C) IN RESPECT OF RAJYA SABHA STARRED QUESTION NO. 386 FOR REPLY ON 30.03.2026 REGARDING SAFETY MEASURES IN PETROLEUM TRANSPORTATION ASKED BY SHRI MANAS RANJAN MANGARAJ.**

(a) and (b) Periodical safety audits are being carried out for petroleum storage depots and refineries, such as internal safety audits by the operating company, external safety audits by the Oil Industry Safety Directorate (OISD), a technical directorate under the Ministry of Petroleum and Natural Gas (MoPNG), and audits by the Petroleum and Natural Gas Regulatory Board (PNGRB) through empanelled Third-Party Agencies (TPAs). Observations are addressed through time-bound corrective actions by the company. Compliance status is regularly monitored at multiple levels within the company for all types of safety audits. In case of external safety audits conducted by OISD, compliance to audit recommendations is also monitored by OISD on a quarterly basis, and the status is periodically reviewed in the Safety Council chaired by the Secretary, MoPNG.

The number of accidents reported during transportation of petroleum products by road and pipeline mode during the last three years is at **Annexure**.

(c) Measures being taken to enhance safety standards in transportation and storage of petroleum products are as under:

**I. Measures being taken to enhance safety standards in road transportation of petroleum products**

- i. Design and construction of tank trucks comply with the statutory, regulatory and OISD standard requirements. Approval of Petroleum and Explosives Safety Organization (PESO) is mandatory for tank truck as per applicable Acts and Rules.
- ii. Tank trucks are equipped with safety fittings in accordance with the statutory, regulatory and OISD standard requirements.
- iii. Periodic safety checks of tank trucks are being conducted by designated officers of Oil Marketing Companies (OMCs) as per statutory, regulatory and OISD standard requirements.
- iv. Drivers must hold a valid driving license with proper endorsement for hazardous goods transportation from the State Transport Authority.
- v. Transporters are contractually responsible for maintaining trucks in good road-worthy condition.
- vi. Companies have installed Vehicle Tracking Systems (VTS) to monitor tank trucks in real time deviations, if any.
- vii. Vehicles are dedicated for specific products and appropriate Hazard Class labels and HAZCHEM markings are displayed.
- viii. Tank truck carries a multilingual Transport Emergency Card (TREM Card) that details immediate emergency actions and emergency contact numbers.
- ix. Tank truck crew undergo an induction training program in compliance with Rule 9 of the Central Motor Vehicles Rules, 1989 and followed by refresher training periodically.

- x. The Industry Transport Discipline Guidelines (ITDG) governs the conduct and operations of transporters and tank truck crews. These guidelines include penal actions in case of safety violations, ensuring accountability and compliance.

## **II. Measures being taken to enhance safety standards in pipeline transportation of petroleum products**

- i. Monitoring of external and internal corrosion as per relevant OISD standard.
- ii. Supervisory Control and Data Acquisition (SCADA) system for on-line monitoring of operational parameters.
- iii. Application of software-based Leak Detection System (LDS) in liquid pipelines.
- iv. Patrolling of pipeline through line walkers.
- v. Pipeline Intrusion Detection System (PIDS), a new technology being adopted by industry
- vi. Adoption of pipeline mapping through Geographical Information System (GIS)
- vii. Adopting micro-tunneling/Horizontal Directional Drilling (HDD) system for river crossing instead of conventional or via suspended crossing through rail/road bridges.
- viii. Creating awareness on public safety of pipeline along Right of Way (ROW)

## **III. Measures being taken by Railway Board to enhance safety standards in transportation of petroleum products**

Railway Administration has elaborate rules for the carriage of Petroleum products by rail as provided in Indian Railways Act, 1989 (24 of 1989) and Chapter III of Red Tariff No. 20 (incorporating Railway Red Tariff Rules, 1960). Indian Railways also comply with the instructions issued from time to time by the PESO and OISD (OISD Standard-118).

## **IV. Measures being taken by Ministry of Ports, Shipping and Waterways to enhance safety standards in transportation of petroleum products**

Inland Vessels (Design and Construction) Rules, 2024 framed under Inland Vessel Act, 2021 provides special provisions and compliances for inland cargo vessels dealing in petroleum transportation.

## **V. Measures being taken to enhance safety standards in storage of petroleum products**

- i. Inherent installation design by adhering to separation distance between facilities based on risk assessment and OISD standard requirements.
- ii. Conducting Hazard Identification and Risk Assessment (HIRA) studies to identify potential hazards, evaluating risks and consistently controlling them with the organization's risk tolerance.
- iii. Safety instrumentation and interlock system for safe operations.
- iv. Companies are having well defined Health, Safety and Environment (HSE) policy.

- v. Implementation of Process Safety Management (PSM) in major installations like refineries
- vi. Work permit system and Management of Change (MOC) system as per OISD standard requirements.
- vii. Standard Operating Procedures (SOP) which inter-alia include operation, maintenance, safe start up, shutdown and emergency handling.
- viii. Mandatory usage of personal protective equipment.
- ix. Competency building through trainings as per OISD standard requirements covering employees as well as contractual workforce.
- x. Well defined Emergency Response and Disaster Management Plan (ERDMP) as per the requirement of PNGRB ERDMP 2010 regulation and its amendment thereof.
- xi. Fire fighting system designed as per relevant OISD standard.
- xii. On-site and off-site mock drills to review effectiveness of the ERDMP.

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**ANNEXURE REFERRED TO IN REPLY TO PARTS (A) TO (B) IN RESPECT OF  
RAJYA SABHA STARRED QUESTION NO. 386 FOR REPLY ON 30.03.2026  
REGARDING SAFETY MEASURES IN PETROLEUM TRANSPORTATION  
ASKED BY SHRI MANAS RANJAN MANGARAJ.**

**Number of accidents reported during transportation of petroleum products**

<b>Year</b>	<b>Number of accidents</b>
2022-23	118
2023-24	113
2024-25	107

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