

LOK SABHA
UNSTARRED QUESTION No. 2781
TO BE ANSWERED ON 12 DECEMBER, 2024

Leakage and Rupture due to Corrosion

2781. Dr. Shrikant Eknath Shinde:

Smt. Shambhavi:

Shri Naresh Ganpat Mhaske:

Shri Rajesh Verma:

पेट्रोलियम और प्राकृतिक गैसमंत्री

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

- (a) the data on the number of leakage or rupture taken place due to corrosion in the pipelines during the last five years and the current year along with the action taken for addressing it;
- (b) the data on the number of Tank Truck crew given the defensive driving and simulator-based training;
- (c) the data on the number of safety audits conducted by the Oil Industry Safety Directorate across the petroleum industry during the last five years along with data where safety standards were prescribed; and
- (d) whether any initiatives have been taken by the Government for increasing public awareness about the opportunities and the safety measures in petroleum transportation and storage, especially in the rural areas and if so, the details thereof?

ANSWER

पेट्रोलियम और प्राकृतिक गैस मंत्रालय में राज्यमंत्री
(श्री सुरेश गोपी)

MINISTER OF STATE IN THE MINISTRY OF PETROLEUM & NATURAL GAS
(SHRI SURESH GOPI)

- (a) A total of five accidents have occurred due to leakage or rupture caused by corrosion during the last 5 years and so far in the current year.

Oil Industry Safety Directorate (OISD) has notified the standards related to pipeline safety namely OISD-STD-141 (for liquid pipelines), OISD-STD-214 (for LPG pipelines), and OISD-STD-226 (for natural gas pipelines) to enhance the pipeline integrity.

Advanced diagnostic tools such as intelligent pigging and Magnetic Tomography Method (MTM) are used to detect internal defects or corrosion in pipelines as per relevant standards. Corrosion protection and mitigation measures like external coating systems, dosing

of corrosion inhibitors and injection of biocides are implemented in pipelines whenever needed.

Furthermore, oil and gas companies have implemented various measures to protect underground pipelines from leakage and rupture which inter-alia, include use of Supervisory Control and Data Acquisition (SCADA) systems for real-time monitoring, regular security patrolling, Leak Detection Systems (LDS), Pipeline Intrusion Detection Systems (PIDS), negative pressure wave leak detection system, Geographic Information System (GIS)-based pipeline mapping, etc.

(b) Public Sector Oil Marketing Companies (OMCs) have conducted various training sessions, including defensive driving and simulator-based training, covering more than 3.5 lakh crew members over the past five years.

(c) Oil Industry Safety Directorate (OISD) has conducted 1,316 external safety audits of oil and gas installations, covering over 51,600 km of cross-country pipelines during the past five years.

(d) The oil PSUs have undertaken various initiatives to raise public awareness about the opportunities and safety measures in petroleum transportation and storage, particularly in rural areas. These initiatives include:

- i. Village awareness programs around oil & gas installations to highlight the potential dangers, associated risks, and necessary safety measures.
- ii. Awareness campaigns on emergency scenarios, environmental protection, and general safety practices.
- iii. Displaying hazardous chemical (HAZCHEM) signs on tank trucks.
- iv. Vehicle tracking is implemented
- v. Defensive driving and simulator-based training to Tank Truck (TT) crew.
- vi. Safety measures like limiting device, Terminal Automation System (TAS), advanced fire fighting systems and Remote Operated Shut-off Valves (ROSOV)
- vii. Promoting safety measures at Retail Outlets including awareness campaigns through billboards.
- viii. Promoting safe handling of LPG cylinders through various mediums such as TV/ Radio jingles, short clips, LPG Panchayat, awareness campaigns etc.

Offsite mock drills are also conducted by the District Administration, with active participation from Oil and Gas Companies, to ensure preparedness for emergency situations and to enhance coordination during crises.
