

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
RAJYA SABHA
UNSTARRED QUESTION NO- 489
ANSWERED ON 24/07/2025

SAFETY PROTOCOLS FOR NUCLEAR POWER PLANTS

489. SMT. RAJANI ASHOKRAO PATIL

Will the PRIME MINISTER be pleased to state:-

- (a) whether any safety breaches or incidents have been reported in nuclear power plants over the last 18 months;
- (b) the details of safety protocols currently in place for radioactive waste disposal and disaster preparedness;
- (c) whether periodic independent audits are conducted for all installations; and
- (d) if so, the number and findings of such audits in the last two years?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS
AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH)

- (a) No.
- (b) In respect of radioactive waste management, a well established system is in place at all the nuclear power plant sites. The wastes generated at the nuclear power stations during their operation are of low and intermediate radioactivity level. These wastes are appropriately treated, concentrated and subjected to volume reduction. The concentrates are immobilized in inert materials like cement, bitumen, polymers etc. and stored in specially constructed structures (near surface disposal facilities) located at the site under monitoring. The treated liquids and gases are diluted and discharged under continuous monitoring, ensuring that the discharges are well within the stipulated limits set by Atomic Energy Regulatory Board (AERB). The radioactivity level of the stored wastes reduces with time and by the end of the plant life, falls to very low levels. The releases are also monitored by the AERB.

Emergency Preparedness Plans (EPPs) approved by the regulatory authority are also put in place at all Nuclear Power Plant sites before the start of operation. Periodic exercises are also carried out involving various stakeholders. Feedback from the exercises is used to validate and improve the emergency preparedness plans.

- (c) Yes.
- (d) Periodic audits are being conducted by Atomic Energy Regulatory Board (AERB) for each operating station. Additionally, AERB has constituted Site Observer Teams (SOT) which are posted at Rajasthan, Kudankulam and Madras sites. The audit frequency is three inspections per year per station for SOT supervised sites and four inspections per year per station for non SOT site (Narora, Kaiga, Kakrapar and Tarapur). Thus, in a period of two years, there have been about 86 audits. There were no major findings. The findings / recommendations of the audits are addressed / complied with by stations at the earliest.
