

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO-6185
ANSWERED ON 01/04/2026

WATER TREATMENT FACILITIES

6185. SHRI ANURAG SHARMA
SHRI DAMODAR AGRAWA
SHRI P P CHAUDHARY
SHRI P C MOHAN
SHRI ALOK SHARMA
SHRI BHARTRUHARI MAHTAB
SHRI SUKANTA KUMAR PANIGRAHI
SHRI RAO RAJENDRA SINGH
SHRI PRAVEEN PATEL

Will the PRIME MINISTER be pleased to state:-

- (a) the details of the number of industrial or water treatment facilities where radiation-grafted cotton cloth-based matrix technology for treatment of textile or dye effluents has been deployed so far particularly in Rajasthan and Karnataka including Bengaluru;
- (b) whether the technology has been transferred to private entrepreneurs of industries for commercialisation particularly in Rajasthan and Karnataka;
- (c) if so, the details of the entities or industrial clusters involved and have adopted this technology and the current status of its adoption particularly in Rajasthan and Karnataka;
- (d) the extent to which the treated water from such facilities is being reused for industrial purposes along with the estimated volume of water treated using this technology; and
- (e) the steps taken by the Government to promote wider adoption of radiation-based technologies for treatment of industrial effluents and environmental protection particularly in Rajasthan and Karnataka including Bengaluru?

ANSWER

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

- (a) An industrial scale plant has been deployed in cotton textile printing and dyeing industry Jodhpur, Rajasthan for technology demonstration.
- (b) & (c) Till date technology has been transferred to six private entrepreneurs on non-exclusive basis for commercialisation, out of which three private entrepreneurs are from Rajasthan.

As a part of transfer of technology (ToT) process, the hands-on-training and technical know-how is provided to the licensees on various aspects of the technology, including fabrication of radiation grafted cartridges, installation and operation and maintenance of the treatment plants, as per the Standard operation Procedure (SoP).

- (d) So far, over 30,00,000 L of the coloured dye wastewater has been treated by the industry using the demonstration plant. The treated water has been reused for industrial applications by the same industry.
- (e) In order to promote and wider adoption of the radiation-based technology, a 75KLD Test facility, installed and being operated in the industry for demonstration of the technology to industrialists, private entrepreneurs, regulatory agencies – State pollution control boards, and local administration. Furthermore, for the wider dissemination the technology is exhibited to the target industries in various platforms / workshops / outreach programs through working models, audio/view display, posters/brochures and lectures.

The technology has been transferred to private entrepreneurs for commercialisation and deployment.
