GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO- 3157
ANSWERED ON 19/03/2025

AWAY FROM REACTOR SPENT FUEL STORAGE FACILITY

3157. SHRI ROBERT BRUCE C

Will the PRIME MINISTER be pleased to state:-

(a) the status of the proposed Away From Reactor (AFR) Spent Fuel Storage facility in the Kudankulam Nuclear Power Plant (KKNPP);

(b) the quantity of spent fuel proposed to be stored in the facility;

(c) the details of safeguards and containment standards of the said facility;

(d) the details of the proposals for the Deep Geological Repository (DGR) for the final disposal of radioactive waste; and

(e) whether the Radioactive wastes from other Nuclear sites are being stored at KKNPP and the details thereof?

ANSWER

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

(a) Each of the three twin Units at Kudankulam are provided with an Away From Reactor (AFR) facility for storage of spent fuel till it is sent for reprocessing. At present, the construction of AFR facility in KKNPP-3&4 is in progress. In respect of AFR for KKNPP 1&2, conduct of public hearing which is a part of the process of obtaining environmental clearance, is awaited.

(b) Each AFR is designed for storing spent fuel discharged by twin reactor units over a period of 40 years. However, the actual storage at any given time would depend on the amount of fuel discharged from the reactors and drawn from the AFR for reprocessing.

(c) The AFR facility is designed with a comprehensive approach to safety to withstand extreme natural events like earthquakes and tsunamis with provisions of large operational safety margins for safe, sound and reliable performance. It is designed to ensure that there would be no adverse impact on plant personnel, general public or the environment.

Atomic Energy Regulatory Board (AERB) conducts a rigorous and comprehensive safety review of AFR facility designs to ensure compliance with the requirements specified in AERB Safety Documents, including AERB Safety Standards [AERB/NF/SS/CSE (Rev.1)], AERB Safety Guide (AERB/SG/D-24) among others.

(d) India is pursuing a closed fuel cycle, where the quantity of radioactive waste generated is very less. Further technologies for separation, partitioning and burning of waste are being developed in the country, which will further bring down the quantity of radioactive waste. Considering the small quantity of radioactive waste, there is no need for a Deep Geological Repository in the near future.

(e) No.

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