

**GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA**

STARRED QUESTION NO:315
ANSWERED ON:24.08.2011
REPROCESSING CAPACITY
Kumar Shri P.;Rajesh Shri M. B.

Will the Minister of ATOMIC ENERGY be pleased to state:

- (a) the details of the nuclear plants having reprocessing/recycling of nuclear waste/spent fuel facilities, plant-wise and State-wise;
- (b) whether the Government has made any estimate of reprocessing capacity required in the near future to handle nuclear waste/spent fuel generated in the country;
- (c) if so, the details thereof and the steps taken/proposed to be taken to enhance the indigenous reprocessing/recycling capacity of nuclear plants as per requirement;
- (d) whether the Government has already increased the reprocessing/recycling capacity of some of the nuclear plants including the Tarapur Nuclear Power Plant;
- (e) if so, the details thereof, plant-wise and State-wise;
- (f) whether any foreign country has offered to extend technical assistance in handling nuclear waste; and
- (g) if so, the details thereof, country wise and the response of the Government thereto?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND IN THE PRIME MINISTER'S OFFICE
(SHRI V. NARAYANASAMY):

(a) to (g) A statement is laid on the Table of the House

STATEMENT REFERRED IN REPLY TO LOK SABHA STARRED QUESTION NO.315 BY SHRI M.B. RAJESH AND SHRI P.KUMAR REGARDING REPROCESSING CAPACITY FOR ANSWER ON 24.08.2011

(a) As on date, nuclear spent fuel reprocessing/waste management plants are located at the following sites:

S.No. Name of site Details of plants in operation

1. Trombay, Maharashtra (a) A Plutonium Plant for reprocessing of Research Reactor metallic fuel.

(b) A Waste Management Plant.

2. Tarapur, Maharashtra (a) Power Reactor Spent Fuel Reprocessing Plants-PREFRE 1&2.

(b) Waste Management Facilities of matching capacity to handle the Waste from the above plants.

3. Kalpakkam, Tamilnadu (a) Kalpakkam Reprocessing Plant (KARP) for reprocessing the spent fuel from Pressurized Heavy Water Reactors (PHWRs).

(b) Centralized Waste Management Facility(CWMF) for managing the waste from KARP and other facilities at Kalpakkam.

(b) India follows 'Closed Fuel Cycle' policy. Spent fuel coming out of 1st stage [Pressurized Heavy Water Reactor (PHWR)], is being reprocessed for recovering fissile elements, Uranium and Plutonium, the latter being the major constituent of the fast reactor (2nd stage) fuel. The reprocessing capacity, currently existing and planned for future, is consistent with the requirement of fast reactor fuel.

Reprocessing and Waste Management plants of various types and capacities have been built/being built / being planned also to match the annual spent fuel discharge from our reactors.

Indian origin fuel is being processed in non-safeguarded plants and safeguarded reprocessing plants will be built to process fuel of foreign origin.

(c),(d)&(e)

(i) Reprocessing capacity at Tarapur was enhanced by the addition of Power Reactor Fuel Reprocessing (PREFRE)-2.

(ii) Reprocessing capacity at Kalpakkam will be doubled by the addition of PREFRE-3A and matching increment in capacity will be done in Waste Management Plant WIP-3A.

(iii) Construction of Integrated Nuclear Recycle Plant for a three fold rise in the present reprocessing capacity by 2018 has been taken up. The plant will be constructed at Tarapur and cover all reprocessing and Waste Management activities.

(iv) Design activities for construction of Integrated Nuclear Recycle Plant for processing of fuel of foreign origin under safeguards is being initiated.

(v) Fast Reactor Fuel Cycle Facility for reprocessing Fast Breeder Reactor Oxide fuel is being started.

(f) No, Sir.

(g) Does not arise.