GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
UNSTARRED QUESTION NO. 2821
TO BE ANSWERED ON 03.08.2016

ACHIEVEMENT IN ATOMIC ENERGY

2821. SHRI BHAIRON PRASAD MISHRA:
SHRI ABHIJIT MUKHERJEE:

Will the PRIME MINISTER be pleased to state:

(a) the success achieved by the Government in the field of atomic energy during the last two years;

(b) the new schemes/projects proposed to be taken up by the Government in the field of Atomic Energy; and

(c) the obstacles/hindrances faced in achieving its set targets in the application of Atomic Energy in various fields?

ANSWER

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

(a) During the last two years some of the major achievements in the field of Atomic Energy have been:

- Start of Commercial Operation of Kudankulam Unit-1
- Criticality (start of controlled self sustaining nuclear fission chain reaction for the first time) of Kudankulam Unit-2
- Commencement of excavation at Kudankulam Nuclear Power Plant (KKNPP) 3&4 (2X1000 MW) and placement of order for long delivery critical equipments for Gorakhpur Haryana Anu Vidyut Pariyojana (GHAVP) 1&2 (2X700 MW).
- Longest continuous run of 765 days by a unit Rajasthan Atomic Power Station (RAPS-5), second longest in the world.
- Dhruva completed 30 yrs of criticality. This year it achieved highest ever capacity factor, peak power of 100 MWth and lowest fuel failure rate.

…2

- The Fast Breeder Test Reactor (FBTR) was operated at the highest ever power level of 24.5 MWt and 5 MWe
- Sodium submersible annular induction pump, first of its kind has been designed, manufactured indigenously and tested in sodium facility.
- The Indus-2 synchrotron radiation source at Raja Ramanna Centre for Advanced Technology (RRCAT) operating at 2.5 GeV energy and up to 200 mA current.
- Nuclear Fuel Complex (NFC) has achieved highest ever production of 1332.973 tonnes of Pressurised Heavy Water Reactor (PHWR) fuel compared to 1008.867 MT in previous year.
- Heavy Water Board (HWB) achieved breakthrough in indigenous development of closed cell technology for Nuclear Grade Sodium production on sustained basis.
- Installation of Radiation Detection Equipment at major seaports completed by Electronics Corporation of India Limited (ECIL).
- Tata Memorial Hospital (TMH) research facility earned the prestigious AAHRPP (Association for the Accreditation of Human research Protection Program) accreditation which certifies towards the highest standard of research in cancer care and patient safety measures.
- A large number of medical centres in the country are using radiopharmaceuticals supplied by DAE Units, Board of Radiation and Isotope Technology (BRIT) & Bhabha Atomic Research Centre (BARC), for diagnosis and therapy of certain diseases, particularly cancer.
- Technologies developed by DAE help enhancing the environmental safety, and in turn, support the Swachh Bharat Abhiyaan Mission. These technologies can become part of the ‘smart cities’, which are planned by the Government. The BARC biogas plant Nisargruna for processing bio-waste for production of energy or cooking gas has been installed in over 195 places until June 2015. Many more such plants are planned in the coming years.

…3

(b) In the field of nuclear power generation, new nuclear power projects based on both indigenous technologies and with foreign technical cooperation are planned. In this regard, the Government has accorded 'in principle' approval for the following sites for locating nuclear power projects in the future:

Site & Location	Capacity (MW)
Indigenous Reactors	
Gorakhpur, Haryana	2 x 700 [@]
Chutka, Madhya Pradesh	2 x 700
Mahi Banswara, Rajasthan	4 x 700
Kaiga, Karnataka	2 x 700
Bhimpur, Madhya Pradesh	4 X 700
Kalpakkam, Tamil Nadu	2 x 500
Reactors with Foreign Cooperation	
Kudankulam, Tamil Nadu	2 x 1000 [$]
Jaitapur, Maharashtra	6 x 1650
Kovvada, Andhra Pradesh	6 x 1000 *
Chhaya Mithi Virdi, Gujarat	6 x 1000 *
Haripur, West Bengal	6 x 1000 *

[@] ***In addition to GHAVP 1&2*** [$] ***In addition to KKNPP 1 to 4*** **** Nominal Capacity***

(c) The setting up of nuclear power plants are mainly impacted due to delay in acquisition of land for new projects, addressing issues of Rehabilitation & Resettlement (R&R), addressing issues of component manufacturers & suppliers related to Civil Liability for Nuclear Damage (CLND) Act, 2010 and conclusion of discussions with foreign technology partners.

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