GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:3939
ANSWERED ON:17.12.2014
LIGHT WATER REACTORS
Singh Deo Shri Kalikesh Narayan

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether the Government is aware of reports alleging quality deficiencies in the Light Water Reactors (LWRs) exported to India and if so, the details thereof;

(b) the details of current projects based on the imported LWRs;

(c) whether these reactors have been tested for quality specifications and if so, whether they fulfil quality requirements and if so, the details thereof and if not, whether action has been taken against suppliers of faulty equipments;

(d) whether the Government has made any efforts to develop indigenous light water reactors and if so, the details thereof and the progress made in development and construction of these reactors;

(e) the percentage of nuclear energy capacity that is based on indigenous reactors vis-a-vis imported reactors; and

(f) whether this proportion is estimated to change in the next ten years and if so, the details thereof?

Answer

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

(a) There have been some reports in the media raising certain issues regarding the quality of equipment and components in the Light Water Reactor (LWRs) at Kudankulam, Tamil Nadu which has been set up in technical collaboration with M/s Atomstroyexport (ASE) of the Russian Federation.

(b) Presently, Kudankulam Nuclear Power Project (KKNPP) Units 1 & 2 (2X1000 MW), set up in technical cooperation with M/s ASE of the Russian Federation are under implementation. Unit-1 has been commissioned and connected to the grid in October 2013 and Unit-2 is under commissioning. In addition, Government has also accorded admini- strative and financial approval for construction of KKNPP-3&4 (2x1000 MW) to be located at the same site.

(c) Yes, Sir. Before the commencement of manu- facturing of components and equipment for KKNPP, a detailed Quality Assurance Plan (QAP) was prepared by the manufacturers which was reviewed by the Russian designers and other Russian organi- sations and approved by Nuclear Power Corporation of India Limited (NPCIL). All the equipments and components have cleared all the stages of this Quality Assurance Plan. Thus it has been ascertained by means of establishing systems for controlling the manufacturing process, that there is no compromise in the quality of the components supplied to KKNPP from M/s ASE of the Russian Federation.

(d) Yes, Sir. We have indigenously developed a Light Water Reactor of small size, operational for the last eight years. This technology is being up graded for making a 900 MWe Light Water Reactor indigenously. Presently, we are in the process of preparation of detailed designs for approval by the Regulatory Authority, i.e. the Atomic Energy Regulatory Board (AERB).

(e) The present installed capacity of nuclear power capacity in the country, of 4780 MW comprises 4160 MW based on the indigenous technology and 620 MW [Tarapur Atomic Power Station Units 1&2 (TAPS 1&2) − 2X160 MW and Rajasthan Atomic Power Station Units 1&2 (RAPS 1&2) − 100 + 200 MW] based on foreign technical cooperation. In addition, seven reactors with an aggregate capacity of 5300 MW are at various stages of construction / commissioning. On progressive completion of these reactors the installed capacity of nuclear power in the country is expected to reach 10080 MW, of which, 2620 MW (TAPS 1&2 − 2X160 MW, RAPS 1&2 − 100+ 200 MW and Kudankulam Nuclear Power Project Units 1&2 (KKNPP 1&2) − 2 X 1000), or about 26% would be based on foreign cooperation.

(f) The present installed capacity is planned to be tripled in the next ten years, based on both indigenous technologies and with foreign technical cooperation. The capacity based on foreign technical cooperation is expected to be about 31% after ten years.