Deficiencies found in Kudankulam

2405. DR. CHANDAN MITRA: Will the PRIME MINISTER be pleased to state:

(a) whether the Atomic Energy Regulatory Board (AERB) has pointed out certain deficiencies in the Valve component of Kudankulam Atomic Power Plant, if so, the details thereof;

(b) the steps taken by Government to reinforce safety measures with a close scrutiny of all the components of the plants and to take corrective action in the plant; and

(c) the punitive action taken by Government against the Russian company for supplying substandard equipment and parts for the plant?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH): (a) The process of commissioning of a nuclear power plant or any other operating facility has the objective of determining the performance of various components and systems after integration of the facility section by section. Any deviations noted have to be thereafter corrected and repeat tests are to be conducted till the performance is found to match the stipulated requirements. Accordingly, the commissioning of a nuclear power plant includes performance testing of thousands of valves and other components, as well as of the integrated system. The commissioning process is an iterative one in which deficiencies observed are rectified and retesting is done till satisfactory results are obtained. During commissioning of Kudankulam-Nuclear Power Plant Unit-1, a few of the valves had been found deficient in initial testing, for which corrective actions, including replacement of their internals, where required, were done to achieve acceptable performance.

(b) and (c) There is a well established quality assurance programme laid down for various stages of fabrication/ manufacturing of components. All components installed in Kudankulam Nuclear Power Plant have been manufactured in line with prescribed quality requirements and stage-wise verification. Subsequent to installation, these have been tested on individual basis as well as verified meeting of the performance requirement in accordance with the prescribed quality standards during integrated system commissioning. As a part of the corrective actions, the performance of these valves has been brought to an acceptable level by improvement in the components.

Potential of nuclear power during energy shortage

2406. SHRI AJAY SANCHETI: Will the PRIME MINISTER be pleased to state:

(a) whether the nuclear power has the potential to resolve India's energy shortage;

(b) if so, the past experience of the nuclear power plants functioning in the country;

(c) in what manner Government deals with the outdated technology and the fuel supply issues; and

(d) how long it may take to operationalise the Jaitapur Nuclear Power Plant in Maharashtra?

THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH): (a) Nuclear power has the potential to meet the long term energy needs of the country using the vast indigenous resources of thorium for electricity generation by pursuing the indigenous three-stage nuclear power programme.

(b) India has recorded a safe and reliable operation of commercial nuclear power plants over 45 years. There has not been any accident or incidence of release of radioactivity, beyond stipulated limits, in the public domain during this period. Indian nuclear power plants have consistently operated at high availability factors and demonstrated operation at high Plant Load Factors.

(c) The nuclear power plants are maintained with state-of-the art safety standards by constant review in the light of evolving global standards and implementing necessary upgrades based on national and international experience feedback. The domestic fuel supply has been augmented with opening of new mines and processing facilities. Fuel supply contracts have been signed with several countries for import of fuel for reactors under International Atomic Energy Agency (IAEA) Safeguards.

(d) At Jaitapur, six units of 1650 MW each are planned in three phases of twin units. At present, discussions on the techno-commercial offer of M[1]s Areva, France are in progress. On conclusion of the discussions, the project proposal arrived at will be considered by the Government for accord of financial sanction. This will be followed by the project construction. The expected gestation period from the first pour of concrete (zero date for start of construction) of a twin unit project (2X1650 MW) is five and half years for the first unit and six and half years for the second unit. The operationalisation of the Jaitapur project would depend on the actual start and subsequent progress of the project on the above lines.

Doubling of nuclear capacity

2407. SHRI HUSAIN DALWAI: Will the PRIME MINISTER be pleased to state:

(a) whether India is likely to double nuclear capacity by 2017, if so, the details thereof; and