

GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
**RAJYA SABHA**  
**STARRED QUESTION NO. 201**  
TO BE ANSWERED ON 12.05.2016

**SAFETY AUDIT OF NUCLEAR PLANTS**

\*201. SHRI RAJEEV SHUKLA:

Will the PRIME MINISTER be pleased to state:

- (a) the steps taken by Government for safety of nuclear plants in India, particularly those situated in high seismic zones; and
- (b) whether any safety audit of nuclear plants have been done during the last two 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):

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(a) & (b) A statement is placed on the Table of the House.

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STATEMENT REFERRED TO IN REPLY TO RAJYA SABHA STARRED QUESTION NO. 201 DUE FOR ANSWER ON 12.05.2016 BY SHRI RAJEEV SHUKLA REGARDING SAFETY OF NUCLEAR PLANTS.

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- (a) Atomic Energy Regulatory Board (AERB) has specified the safety requirements for siting, design, construction, commissioning and operation of Nuclear Power Plants (NPPs). All NPPs are required to obtain license from AERB, which are issued after detailed safety review to ensure compliance with the specified requirements. During operation of nuclear power plants, safety performance is continuously monitored through safety review, periodic safety review and periodic inspections to ensure compliance with safety requirements. The safety requirements include seismic aspects.

The Indian seismic design code [IS:1893,2002] groups the country into four seismic zones. Zone V is associated with the areas of maximum seismicity and zone II with minimum. No NPPs are allowed to be sited in Zone V. Further if there is an evidence of an active or a capable fault within 5km of site, the site is deemed unacceptable. The nuclear power plants are designed and constructed taking into account the seismic parameters applicable for the specific site and the necessary structures, systems and components are designed/qualified for ensuring safe operation under seismic activity. Further, AERB has given the requirement of providing automatic reactor trip on seismic event for all NPPs. NPP design follows a defense-in-depth approach towards nuclear and radiation safety that includes handling of radiation emergencies also, if any.

- (b) Yes Sir. All nuclear power projects/plants are under continuous safety monitoring of AERB through safety reviews and periodic inspections. All nuclear power projects undergo an in-depth safety review during the consenting stages, viz. siting, construction, commissioning, etc. After satisfactory review during project stage, AERB issues operating license to an NPP for a period of up to five years.

During the license period, safety performance of an operational NPP is continuously monitored in compliance with regulatory guidelines. AERB conducts inspections of operating NPPs once in every six months. In addition, the plants are required to undergo comprehensive safety review once in five years for renewal of license for its operation. A consolidated safety assessment of the plant is undertaken while renewing the operating license. Periodic safety audit of all atomic power plants in India is carried out by the Atomic Energy Regulatory Board (AERB). During last two years, such safety reviews were conducted for the RAPS-1&2, KAPS-1&2, RAPS-5&6, MAPS-1&2 and TAPS-1&2