(b) The safety of the radiation workers in the nuclear installations, including the Uranium mines, is fully ensured by the Health Physics Unit (HPU) situated in every plant. It is also enforced by regular monitoring and regulatory inspections. Various types of protective equipment are provided depending on the type of operations being undertaken to ensure radiological safety of the workers. Moreover, they are periodically monitored by appropriate dosimeters to ascertain that the dose received by them does not exceed the stipulated/permissible limit.

For example, at all Nuclear Power Plants, as a first step of prevention, radiation exposure to occupational workers is controlled and maintained at very low levels. The occupational workers are imparted training on safety aspects prior to their employment. In addition, they undergo periodic refresher safety training courses during the period of their employment. For carrying out jobs in the Nuclear Power Plant, the occupational workers are provided with protective clothing like coveralls, boiler suits, lab coats etc., respiratory protective equipment like oro-nasal, iodine and airline respirators, ventilated plastic suits etc., and protective gears like rubber gloves and shoes, head caps, etc. Further, all occupational radiation workers are provided with dosimetry devices for close monitoring of their radiation exposure to maintain it well below the stipulated limits as set by Atomic Energy Regulatory Board (AERB).

Steps to deal with nuclear waste

487. SHRI AHMED PATEL: Will the PRIME MINISTER be pleased to state:

(a) whether as per the latest records, nuclear energy is cheaper than pit based energy for the final consumer, if so, the details thereof, State-wise/UT-wise;

(b) whether Government has been able to effectively deal with nuclear waste; and

(c) what is the impact of disposing nuclear waste on the overall cost that the final consumer would have to pay?

(d) THE MINISTER OF STATE IN THE PRIME MINISTER'S OFFICE (DR.JITENDRA SINGH): (a) The tariffs of electricity through nuclear energy are comparable to those of the contemporary conventional base load power generating units (like coal based thermal power) located in the area/region. The tariffs of nuclear power projects presently in operation range from 94 paise per unit for the first generation plants at Tarapur Atomic Power Station Units 1 & 2 (TAPS-1 & 2) to 388 paise per unit for latest commissioned plant in Dec., 2014 at Kudankulam Nuclear Power Project (KKNPP). The average tariff of nuclear power was about 278 paise per unit in 2014-15. The range of tariffs of fossil fuel based sources of electricity in the central sector are given below:

Technology	Tariff Range (paise/kWh) as on 31.03.2015
Coal (Pithead Generating Stations)	163 – 347
Coal (Non Pithead Generating Stations)	360 – 529
Natural Gas (APM)	431 – 579
Natural Gas (NAPM)	590 – 657
Liquified Natural Gas (LNG)	1040 – 1273
Naphtha/ HSD	790– 1500

Source: CERC Report on short term power market in India 2014-15.

(b) Yes, Sir. The wastes generated at the nuclear power stations during the operation are of low and intermediate activity level and are managed at the site itself. These wastes are treated, concentrated, compacted, immobilised in solid materials like cement, bitumen, polymers etc. in high integrity steel containers and stored in specially constructed structures such as reinforced concrete trenches and tile holes, located at the site. Such facilities are located at all the nuclear power stations. The area around the facility including ground water is monitored for radioactivity. The radioactivity level of the stored wastes reduces with time and by the end of the plant life, falls to normal levels.

(c) The cost of waste management, including waste storage at the nuclear power plant sites, is small and is internalised in the Operation and Maintenance (O&M) cost.

Incentives under Industrial and Investment Promotion Policy

488. DR. SANJAY SINH: Will the Minister of DEVELOPMENT OF NORTH EASTERN REGION be pleased to state:

(a) the progress of Industrial packages of incentives under North East Industrial and Investment Promotion Policy (NEIIPP), 2007 for the States of North Eastern Region (NER), including Sikkim, in the last three years;

(b) whether fresh registrations under the Scheme have been suspended; if so, the reasons therefor; and

(c) whether there is any proposed project/scheme for Industrial Development of the Region, if so, details thereof, if not, reasons therefor?