

GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

LOK SABHA
UNSTARRED QUESTION NO.2130
TO BE ANSWERED ON 29.11.2016

Emission from Thermal Power Plants

2130. SHRI MAHEISH GIRRI:

Will the Minister of ENVIRONMENT, FOREST AND CLIMATE CHANGE be pleased to state:

- (a) whether the Government has notified regulations on carbon emissions and other pollution caused by thermal power plants;
- (b) if so, the details thereof;
- (c) the status of compliance of such regulations by thermal power plants;
- (d) whether the Government has taken steps to move the power sector towards renewable energy; and
- (e) if so, the details thereof?

ANSWER

MINISTER OF STATE (INDEPENDENT CHARGE) FOR ENVIRONMENT, FOREST AND CLIMATE CHANGE

(SHRI ANIL MADHAV DAVE)

(a)&(b) The Government has notified revised Standards for Thermal Power Plants (TPPs) on 07/12/2015, which lays down emission norms for specified pollutants as under:

- (i) Particulate Matter (PM) emission limits of 30 milligram per normal cubic meter (mg/Nm^3) for new power plants to be commissioned after 01/01/2017, $50\text{mg}/\text{Nm}^3$ for plants commissioned during 01/01/2004 to 31/12/2016, and $100\text{mg}/\text{Nm}^3$ for plants commissioned prior to 31/12/2003 as against the existing limit of $150\text{ mg}/\text{Nm}^3$;
- (ii) Emission limits of Sulphur Dioxide (SO_2), Oxides of Nitrogen (NO_x) and Mercury for the first time vide Notification dated 07/12/2015.
- (iii) Water consumption limits of 2.5 cubic meter per megawatt hour (m^3/MWh) for new power plants to be commissioned after 01/01/2017 with achievement of zero liquid discharge, $3.5\text{m}^3/\text{MWh}$ for existing Cooling Tower (CT) based plants within two years and mandating installation CT in those plants where once through cooling is in operation with a view to achieve higher Cycle of Concentration (COC) and limit of $3.5\text{m}^3/\text{MWh}$ within two years;
- (iv) Installation of Flue Gas Desulphurization (FGD) system for control of SO_2 emission in seven plants located at Dahanu, Trombay, Ratnagir, Vindhyachal, Bongaigaon, Mundra and Udipi;
- (v) Use of beneficiated coal in thermal power plants located 500-1000 kilometers from coal mine / urban area/ critically polluted area;

- (vi) 100% flyash utilization vide notification dated 03/11/2009 within 5 year for existing plants and 4 years for new plants from the date of commissioning;
- (vii) Implementation of cleaner power generation technologies like Circulating Fluidized Bed Combustion, Atmospheric Fluidized bed Combustion, Pressurized Fluidized Bed Combustion, Integrated Gasification Combined Cycle, Super Critical technology etc.

(c) The Central Pollution Control Board (CPCB) has taken steps to control pollution from thermal power stations and reported that all the 164 coal based thermal power plants have provided pollution control systems for control of air and water pollution. However, 19 thermal power plants were found to be non-compliant with prescribed norms. The CPCB has issued directions to the non-compliant thermal power plants.

(d)& (e) The Government has up-scaled the target of renewable energy capacity to 175 gigawatt (GW) by the year 2022 which includes 100 GW from solar, 60 GW from wind, 10 GW from bio-power and 5 GW from small hydro-power.
