National Awards for Thermal Power Plants

Why in News?

Three thermal power plants in Madhya Pradesh have been honored with **the National Award** for their efficient and effective management of **fly ash.**

Key Points

- **About the Award:**
  - This award was given to Shri **Singaji Thermal Power Station Dongalia, Satpura Thermal Power Station Sarni** and **Amarkantak Thermal Power Station Chachai** of Madhya Pradesh Power Generating Company (MPPGCL) .
  - This honour was given during **the 14th International Housing Conference held in Goa on the theme of Fly Ash Utilisation-2025.**
    - The conference was organised by **Mission Energy Foundation , a non-profit organisation** .
- **Award Category:**
  - Satpura Thermal Power Station and Amarkantak Thermal Power Station were given this award in **the category of less than 500 MW installed capacity .**
  - Whereas this award was given to Shri Sinhaji Thermal Power Station in **the category of more than 500 MW installed capacity .**
  - Shri Singaji Thermal Power Station has made sustainable and effective use of more than 100 percent fly ash.

Fly Ash

- **About:**
  - Fly ash is a pollutant typically **produced by coal-fired power plants** , carried by gases expelled from the combustion chamber.
  - It is collected from the expelled gases by electrostatic precipitators or bag filters.
  - **Electrostatic Precipitator (ESP)** is defined as a filter device used to remove fine particles such as smoke and dust from a flowing gas.
  - This device is often used for **air pollution** control activities.
- **Combination:**
  - Fly ash contains significant amounts of **silicon dioxide (SiO2), aluminium oxide (Al2O3), ferric oxide (Fe2O3) and calcium oxide (CaO) .**
- **Application:**
  - It is used in concrete and cement products, road base, metal recovery and mineral filler etc.
- **Harmful effects:**
  - Fly ash particles are toxic air pollutants . They can cause heart disease, cancer, respiratory disease, and stroke .