



Bio Medical Waste

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Why in News

The **National Green Tribunal** (NGT) has recently directed various authorities to ensure compliance from the **biomedical waste management facilities** in the country.

Key Points

- **Central Level:** The **Central Pollution Control Board (CPCB)** to ensure strict compliance of biomedical waste management rules and scientific disposal of the waste.
- **State Level:** The Chief Secretaries of all the States/UTs to oversee compliance and ensure that authorisation is secured by every health care facility in their respective jurisdiction and also there is adherence to the norms.
- **District Level:** The District Magistrates in accordance with the District Environmental Plans.
- **Groundwater Contamination:** While permitting deep burials, it may be ensured that groundwater contamination does not take place.
- **Segregation:** Ensure that hazardous bio-medical waste is not mixed with the general waste.
- **Frequent Violation of Rules:** The direction came as a result of regular fines being imposed on various healthcare facilities and biomedical waste treatment facilities
- **Earlier Observation:** The segregation of **Covid-19 biomedical waste** from general garbage is a must to avoid further contamination adversely affecting public health.

Bio-Medical Waste Management Rules, 2016

- **Definition:** Biomedical waste is defined as **human and animal anatomical waste, treatment apparatus like needles, syringes and other materials used in health care** facilities in the process of treatment and research.
Objective: The objective of the rules is to **properly manage** the per day bio-medical waste from **Healthcare Facilities** (HCFs) across the country.
- **Ambit:** The ambit of the rules has been expanded to include **vaccination camps, blood donation camps, surgical camps** or any other **healthcare activity**.

- **Phase Out: Chlorinated plastic bags, gloves and blood bags** has been phased out **within two years** starting **from March 2016**.
- **Pre-treatment:** Pre-treatment of the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner prescribed by the **World Health Organization** (WHO) or by the **National AIDS Control Organisation** (NACO).
- **Categorisation:** Bio-medical waste has been classified into **4 categories instead of the earlier 10 categories** to improve the segregation of waste at source.
- **Stringent Standards for Pollutants:** The rules prescribe more stringent standards for **incinerators to reduce the emission** of pollutants in the environment.
- **Role of State Government:** The State Government provides the **land for setting up common bio-medical waste treatment and disposal facilities**.
- **Concerns:**
 - **Pandemic:** The pandemic has presented a challenge in terms of capacity to scientifically dispose of generated waste and a challenge for civic authorities in charge of its collection and disposal.
 - **Poor Compliance:** States are not following the **CPCB guidelines** on Covid-19 related waste.
 - In some states, improper segregation of waste has been reported from **Covid-19 facilities and quarantine homes**.
 - **Non Segregation:** The non-segregation of waste results in the incineration of contaminated plastics producing toxic gases and adding to air pollution.
 - **Increase in Waste:** The **rise in residential biomedical waste** and its collection without adhering to safety protocols could also trigger a surge in caseload.
 - **Health of Workers Associated:** Without proper scientific management of such waste, it can potentially affect patients and can affect the **concerned workers and professionals**.
 - Discarded masks and gloves risk the lives of thousands of **sanitation workers** who work often without any protection or training to handle such hazardous material.

- **Suggestions:**

- **Proper Segregation:** Left-over food, disposable plates, glasses, used masks, tissues, toiletries, etc used by Covid-19 patients should be put in **yellow-coloured bags**, while used gloves should be put in **red bags** and sent for sterilisation and recycling at the CBWTFs.

Where waste is not going to incinerators, **deep burial systems** should be properly maintained as per protocols taking all due precautions to prevent harm to the environment. A deep burial system involves burying biomedical waste in **2-meter-deep ditches and covering them with a layer of lime and soil.**

- **Awareness Campaign:** Initiatives like conducting an appropriate programme on Doordarshan, All India Radio and other media platforms to create mass awareness about the correct disposal of biomedical waste.
- **Creating Infrastructure:** The government should set up recycling plants **across the country** (as envisaged under the **Smart cities project**) under the **Public-Private Partnership** (PPP) Model.
- **Coherency in Rules:** The Centre should form a national protocol combining the Biomedical Waste Management Rules, 2016 with the guidelines on Extended Producer Responsibility (EPR) for producers of plastic.
- **Innovation:** Incentivise **start-ups** and **Small and Medium Enterprises** (SMEs) offering solutions for waste segregation and treatment.
- **Monitoring:** There should be constant and regular monitoring by the central and state PCBs, Health Departments in the states/UTs and by the high-level task team at Central level with further coordination by CPCB.

Source:TH