

# Bio-medical Waste Management Rules-2016

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**In news:** During COVID-19, Central Government Hospitals have been advised to manage and dispose the bio-medical waste as per Bio-medical Waste Management Rules-2016.

## Background

Government of India (GoI) has notified the Bio-medical Waste (Management & Handling) Rules, 1998 under the Environment (Protection) Act, 1986 and these rules are further amended in the year 2000 and 2003. In supersession of the Bio-medical Waste (Management & Handling) Rules, 1998, Government of India (GoI) has notified the revamped Bio-medical Waste Management Rules, 2016 which came into force from 28.03.2016. According to Rule 7 (i) Treatment and disposal, the health care facilities (HCFs) and common bio-medical waste treatment facility (CBWTF) shall treat and dispose of the Bio-medical waste in accordance with Schedule-I, and in compliance with the standards provided in Schedule-II.

## Application of the rules

These rules shall apply to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio-medical waste in any form and **shall not apply to:**

- radioactive wastes
- wastes covered under the MSW Rules, 2000
- lead acid batteries
- hazardous wastes
- E- waste
- hazardous microorganisms.

## Salient features of Bio-medical Waste Management Rules-2016:

- The **ambit of the rules has been expanded to include vaccination camps, blood donation camps,** surgical camps or any other healthcare activity
- Phase-out the use of chlorinated plastic bags, gloves and blood bags within two years
- **Pre-treatment of the laboratory waste,** microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site in the manner as prescribed by WHO or NACO
- Provide training to all its health care workers and immunise all health workers regularly
- **Establish a Bar-Code System for bags** or containers containing bio-medical waste for disposal
- Report major accidents
- Existing incinerators to achieve the standards for retention time in secondary chamber and Dioxin and Furans within two years
- **Bio-medical waste has been classified in to 4 colour coded categories** instead 10 to improve the segregation of waste at source
- **Common methods of treatment and disposal of bio-medical waste are**
  - By incineration/plasma pyrolysis/deep-burial for Yellow Category waste
  - Autoclaving/microwaving/chemical disinfection for Red Category waste
  - Sterilization and shredding, disinfection followed by burial in concrete pit/recycling through foundry/encapsulation for White Category sharps waste; and
  - Washing, disinfection followed by recycling for Blue Category glass waste.
- Procedure to get authorisation simplified and automatic authorisation for bedded hospitals.
- The validity of authorization synchronised with the validity of consent orders for Bedded HCFs. One time Authorisation for Non-bedded HCFs

- The new rules prescribe more stringent standards for incinerator to reduce the emission of pollutants in environment
- Inclusion of emissions limits for Dioxin and furans
- State Government to provide land for setting up common bio-medical waste treatment and disposal facility
- **No occupier shall establish on-site treatment and disposal facility**, if a service of `common bio-medical waste treatment facility is available at a distance of seventy-five kilometer.
- **Operator of a common bio-medical waste treatment and disposal facility to ensure the timely collection of bio-medical waste from the HCFs** and assist the HCFs in conduct of training

#### Monitoring and Implementation

Ministry of Environment, Forest and Climate Change shall review the implementation of the rules in the country once in a year through the State Health Secretaries CPCB and SPCBs

#### **Bio-Medical Waste Management During Covid-19 pandemic**

As informed by Central Pollution Control Board (CPCB), disposal of bio-medical waste including Personal Protective Equipment (PPE) kit worn by healthcare professionals as well as general public became a challenge during the on-going Corona Virus Disease of 2019 (COVID-19) pandemic.

As per Bio-medical Waste Management (BMWM) Rule, 2016, waste generated from Healthcare Facilities is required to be treated and disposed as per provisions under said Rules. CPCB has also prepared guidelines, which gives guidance on Handling, Treatment & Disposal of bio-medical waste in line with provisions under BMWM Rules, 2016.

Further, CPCB issued separate guidelines for 'Handling, Treatment & Disposal of bio-medical waste generated during Treatment/Diagnosis/Quarantine of COVID-19 patients' which

gives guidance on management of COVID-19 related bio-medical waste including used masks and gloves. These guidelines were initially issued on 19.03.2019 and later revised on 17.07.2020.

As per CPCB Guidelines, used PPEs like face shields, goggles, hazmat suit, plastic coverall, used masks, head cover, shoe cover etc. generated from COVID-19 isolation wards at Healthcare Facilities shall be segregated and sent to Common Facilities for disposal as per Bio-medical Waste Management Rules, 2016 (BMWM Rules).

Guidelines issued by Central Pollution Control Board (CPCB) "Handling, Treatment & Disposal of Bio-medical Waste Generated during Treatment/Diagnosis/Quarantine of COVID-19 Patients", are being followed by all Central Govt. Hospitals.

**The following additional measures have been taken by CPCB for improvement of management of bio-medical waste during COVID-19 pandemic:**

1. In order to monitor COVID-19 related bio-medical waste, CPCB developed COVID-19 waste tracking App named "COVID19BWM". Both Android Mobile and Web versions of software applications were designed for waste generators, CBWTF Operators, SPCBs/PCCs and Urban Local Bodies (ULBs). 1st version of the App. has been introduced and a demonstration was given to SPCBs/PCCs and other stakeholders in May, 2020. SPCBs and CBWTFs were directed to ensure usage of Tracking App.
2. Directions under section 5 of Environment (Protection) Act were issued in July, 2020 to all the SPCBs/PCCs to ensure compliance to CPCB guidelines for effective management of bio-medical waste. However, CPCB has also created a separate page on its website for dissemination of awareness on management of COVID-19 related waste, including safe disposal of masks and PPEs by the general public.