

## Biomedical Waste Management in India- A Legal Perspective

Unregulated biomedical waste management (BMWM) is a public health problem. This has posed a grave threat to not only human health and safety but also to the environment for the current and future generations. Safe and reliable methods for handling of biomedical waste (BMW) are of paramount importance. Effective BMWM is not only a legal necessity but also a social responsibility.

This article reviews the current perspectives on BMWM and rules, conventions and the treatment technologies used worldwide. BMWM should ideally be the subject of a national strategy with dedicated infrastructure, cradle-to-grave legislation, competent regulatory authority and trained personnel. Improving the management of biomedical waste begins with waste minimisation.

These standards, norms and rules on BMWM in a country regulate the disposal of various categories of BMW to ensure the safety of the health-care workers, patients, public and environment. Furthermore, developing models for the monitoring of hospital health-care waste practices and research into non-burn eco-friendly sustainable technologies, recycling and polyvinyl chloride-free devices will go in long way for safe carbon environment. Globally, greater research in BMWM is warranted to understand its growing field of public health importance.



**Photographs:** Showing indiscriminate Management of Biomedical waste by HCF and Picture-2 showing Proper Storage.

Bio-medical Waste (Management & Handling) Rules, 1998 were notified by the Ministry of Environment & Forests (MoEF) under the Environment (Protection) Act, 1986. In exercise of the powers conferred by Section 6, 8 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), and in supersession of the Bio-Medical Waste (Management and Handling) Rules, 1998 and further amendments made thereof, the Central Government

vide G.S.R. 343(E) dated 28<sup>th</sup> March, 2016 published the Bio-medical Waste Management Rules, 2016. These rules apply to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form including hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, Ayush hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs.

The 'prescribed authority' for enforcement of the provisions of these rules in respect of all the health care facilities located in any State/Union Territory is the respective State Pollution Control Board (SPCB)/ Pollution Control Committee (PCC) and in case of health care establishments of the Armed Forces under the Ministry of Defence shall be the Director General, Armed Forces Medical Services (DGAFMS). These rules stipulate duties of the Occupier or Operator of a Common Bio-medical Waste Treatment Facility as well as the identified authorities.

According to these rules, every occupier or operator handling bio-medical waste, irrespective of the quantity is required to obtain authorisation from the respective prescribed authority i.e. State Pollution Control Board and Pollution Control Committee, as the case may be. These rules consist of four schedules and five forms.

**[Important Guidelines for Biomedical Waste Management \(Some guidelines are under drafting and available for review on CPCB website\)](#)**

[Draft Guidelines for Management of Healthcare Waste in Health Care Facilities as per Bio Medical Waste Management Rules, 2016](#)

[Draft Guidelines for Bar Code System to be adopted by the Occupier or Operator of a CBWTF for ensuring compliance to the BMW Rules, 2016](#)

[Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities](#)

[Guidelines on Management of BMW Generated during UIP](#)

[Environmentally Sound Management of Mercury Waste Generated from Health Care Facilities](#)

## Salient features of new Biomedical waste rules 2016 and associated guidelines.

1. The ambit of the rules has been expanded to include vaccination camps, blood donation camps, surgical camps or any other healthcare activity.
2. Phase-out the use of chlorinated plastic bags, gloves and blood bags within two years.
3. 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.
4. Provide training to all its health care workers and immunise all health workers regularly
5. Establish a Bar-Code System for bags or containers containing bio-medical waste for disposal.
6. Report Major Accidents along with form IV i.e. yearly returned.
7. Existing incinerators to achieve the standards for retention time in secondary chamber and Dioxin and Furans within two years.
8. Bio-medical waste has been classified in to 4 categories instead 10 to improve the segregation of waste at source.
9. Procedure to get authorisation simplified. Automatic authorisation for bedded hospitals. The validity of authorization synchronised with validity of consent orders for Bedded HCFs. One time Authorisation for Non-bedded HCFs
10. The new rules prescribe more stringent standards for incinerator to reduce the emission of pollutants in environment.
11. Inclusion of emissions limits for Dioxin and furans
12. State Government to provide land for setting up common bio-medical waste treatment and disposal facility
13. 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 Kilometre
14. 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.

### Sources:

<http://pib.nic.in/newsite/PrintRelease.aspx?relid=138353%20>

[http://cpcb.nic.in/wast/bioimediawast/AR\\_BMWM\\_2015.pdf](http://cpcb.nic.in/wast/bioimediawast/AR_BMWM_2015.pdf)

<https://www.ncbi.nlm.nih.gov/pubmed/2868180>

### Image Sources

<https://www.google.co.in/search?biw=1137&bih=735&tbm=isch&sa=1&ei=sX4SWqO0EYnlvgTI1YioCg&q=biomedical+waste+&o>