

BIOMEDICAL WASTE MANAGEMENT RULES AND REGULATIONS

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*Let the waste of "the sick" not
contaminate lives of "the healthy"*

-Kapral

Bio-Medical Waste(Management and Handling) Rules,2011 :- 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:-

- (a)Radioactive wastes
- (b)hazardous chemicals
- (c)Wastes covered under the Municipal Solid Waste Rules,2000 made under the Act
- (d)The lead acid batteries and
- (e)Hazardous wastes

DEFINITIONS

“Occupier” means a person having administrative control over the institution and the premises generating bio-medical waste.

“Operator of a common bio-medical waste treatment facility” means who disposes bio-medical waste.

DUTIES OF THE OCCUPIER

1. To handle bio medical waste without any adverse effect to human health and the environment.
2. Training to health care workers.
3. To immunize all its health care workers for protection against diseases that are likely to be transmitted by handling of bio-medical waste.

DUTIES OF THE OCCUPIER contd..

4. Segregation of bio medical waste at the point of generation .

5.To ensure occupational safety of all its health care workers and adequate personal protective equipments.

6.To conduct health check up annually for all its health care workers

DUTIES OF THE OCCUPIER contd..

7. Install necessary equipments and regular supply of materials required for proper in house handling of bio-medical waste.

8.To maintain and update every day the bio-medical waste management register .

9. Develop a system of reporting of unintended accidents like sharp injuries, mercury spills, fire hazards.

DUTIES OF THE OCCUPIER contd..

10. Inform the prescribed authority immediately in case the operator of a facility does not collect the bio-medical waste within the intended time or as per the agreed schedule.

11. Establish a bio-medical waste management committee, which shall meet once in six months.

Treatment and disposal:-

- Bio-medical waste shall be treated and disposed of in accordance with Schedule I, and in compliance with the standards provided in Schedule IV.
- Every occupier, shall either set up his own bio-medical waste treatment equipments or through an authorized common bio-medical waste treatment facility.

Treatment and disposal contd..

- Use of chlorinated plastic bags for handling of bio-medical waste shall be prohibited and shall not be disposed by incineration.
- Plastics and glass shall be disposed through recyclers having valid authorization .
- In the event of breakage of mercury containing medical instruments, necessary precautions shall be taken in order to avoid or minimize mercury releases into the environment.

Segregation, packaging, transportation and storage

- (1) No untreated bio-medical waste shall be mixed with other wastes.
- (2) The bio-medical waste shall be segregated into containers or bags at the point of generation in accordance with Schedule II prior to its storage, transportation, treatment and disposal.
- (3) The containers or bags shall be labeled as specified in Schedule III.
- (4) The transporter shall transport the bio-medical waste only with the label .


Contd..

- Untreated bio-medical waste shall be transported only in authorized vehicle by the Government.
- Untreated bio-medical waste shall not be stored beyond a period of forty-eight hours.
- The segregated non bio-medical solid waste is disposed by local municipal body.


Annual report.-

Every occupier shall submit an annual report to the prescribed authority by the 31st day of January of every year, to include information about the categories and quantities of bio-medical wastes handled during the preceding year.

ANNUAL REPORT
BY OCCUPIER OR OPERATER
TO AUTHORITY IN FORM II OR IIA
SHOULD BE SUBMITTED BY THE 31ST JANUARY EVERY YEAR



ANNUAL REPORT
BY AUTHORITY
TO THE CENTRAL POLLUTION CONTROL BOARD
BY THE 31ST OF MARCH OF EVERY YEAR



ANNUAL REPORT
BY CENTRAL POLLUTION CONTROL BOARD
TO MINISTRY OF ENVIRONMENT AND FORESTS
BY 30th JUNE OF EVERY YEAR

Maintenance of records.-

(1) Every authorized person shall maintain records related to the generation, collection, reception, storage, transportation, treatment, disposal or any other form of handling of bio-medical waste in accordance with the rules.

(2) All records shall be subject to inspection and verification by the prescribed authority at any time.

Accident reporting.-

(1) When any accident occurs , the authorized person shall intimate in writing to the prescribed authority with in one month.

(2) The relevant information about the accidents shall be included in the Annual Report.

Schedule I

Category	Waste Category(type)	Treatment and Disposal Option
Category no.1	Human Anatomical Waste	Incineration
Category no.2	Animal Waste	incineration
Category no.3	Microbiology and Biotechnology Waste and other laboratory waste	Disinfection at source by chemical treatment or by Autoclaving/microwaving followed by mutilation/shredding and after treatment final disposal in secure landfill or disposal of recyclable wastes through registered or authorized recyclers.

Category no.4	Waste sharps	Disinfection by chemical treatment or destruction by needle and tip cutters, Autoclaving/microwaving followed by mutilation/shredding whichever is applicable and final disposal through authorized CBWTF or disposal in secured landfill
Category no.5	Discarded Medicines and Cytotoxic Drugs	Disposal in secured land fill or Incineration
Category no.6	Soiled waste	incineration
Category no.7	Infectious solid waste	Disinfection by chemical treatment or Autoclaving/microwaving followed by mutilation/shredding and after treatment final disposal through registered recyclers
Category no.8	Chemical waste	Chemical treatment and discharge in to drains

Table 5. Color coding and type of Container for Disposal of BMW.

Colour	Category	Waste category	Treatment
Yellow	Category 1	Human anatomical waste (human tissues, organs, body parts)	Incineration
Yellow	Category 2	Animal waste (animal tissues, organs, body parts carcasses, bleeding parts, fluid, blood and experimental animals used in research, waste generated by veterinary hospitals/colleges, discharge from hospitals, animal houses)	Incineration
Yellow	Category 5	Discarded medicines and Cytotoxic drugs (wastes comprising of outdated, contaminated and discarded medicines)	Disposal in secured land fill or Incineration @
Yellow	Category 6	Solid waste (Items contaminated with blood, and body fluids including cotton, dressings, soiled plaster casts, linen, beddings, other material contaminated with blood)	Incineration
Red	Category 3	Microbiology & biotechnology waste and other laboratory waste	Disinfection by chemical treatment or autoclaving or microwaving followed by mutilation or shredding and after treatment- authorized recyclers.
Red	Category 4	Waste sharps (needles, glass syringes, scalpels, blades etc)	Disinfection by chemical treatment or Destruction by needle and tip cutters, autoclaving or microwaving followed by mutilation or shredding", whichever is applicable and final disposal through authorized CBWTF or disposal in secured landfill or designated concrete waste sharp pit.
Red	Category 7	Infectious waste (disposable items i.e. gloves, saline bottles, tubings, catheters, glass intravention sets etc.	Disinfection by chemical treatment or autoclaving or microwaving followed by mutilation or shredding and after treatment- authorized recyclers.
Blue	Category 8	Chemical waste (chemical used in production of biologicals, chemical used in disinfection, as an insecticide etc.	Chemical treatment and discharge into drains meeting the norms notified under these rules and solids disposal in secured landfill.

Major Difference between BMW Rules 1998 & 2011

	1998	2011
1	Occupiers with more than 1000 beds required to obtain authorisation	Every occupier generating BMW, requires to obtain authorisation
2	Operator duties absent	Duties of the operator listed
3	Biomedical waste divided in ten categories	Biomedical waste divided in 8 categories
4	Rules restricted to HCEs with more than 1000 beds	Treatment and disposal of BMW made mandatory for all the HCEs
5	No format for annual report	A format for annual report appended with the rules
6	Form VI is absent	Form VI i.e. the report of the operator on HCEs not handing over the BMW added to the Rules

Schedule III

label for biomedical waste containers/ Bags

BIOHAZARD SYMBOL

जैविक परिसंकट चिन्ह



BIOHAZARD

जैविक परिसंकट

CYTOTOXIC HAZARD SYMBOL

कोषिकाविष परिसंकट चिन्ह



CYTOTOXIC

कोषिकाविष

Label shall be non washable and prominently visible

LEGAL ASPECTS

- The punishment may lead to imprisonment up to 5 years with fine up to 1 lakh
- For failure or continued contravention a fine @ Rs 5000/ Day may be charged.
- If the failure or the contravention continues beyond one year, the imprisonment may be extended up to 7 years.

Only Chennai, Mumbai have system for biomedical waste management, finds study

The survey by the International Clinical Epidemiology Network (INCLEN), published in the Indian Journal of Medical Research, covered 400 hospitals, both government and private, in 20 states. It found that around 82% of primary, 60% of secondary and 54% of tertiary health care facilities have no credible biomedical waste management system in place.

Vehicles Transporting Biomedical Waste to be Tracked with GPS

- There are nine biomedical waste treatment plants in Hyderabad which receive bio medical waste generated from hospitals across Telangana. As many as 38 vehicles belonging to these centres are engaged in transportation of biomedical waste from hospitals and nursing homes to the plants. To ensure that these vehicles do not dump the biomedical waste in open places, we have decided to track them by installing GPS in every vehicle, said N Raveendhar, senior environmental scientist, TSPCB.

Reference: The New Indian Express

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