

### **Karnataka State Pollution Control Board**

Bangalore Anekal

Second Floor, "Nisarga Bhavan", Thimaiah Main Rd, 7th 'D' Main, 3rd Stage, 2nd Block, Shivanagar, Opp Pushpanjali Theatre,

> Basaveshwaranagar, Bangalore-560079.,080-23229538

## Authorization under Bio-Medical Waste Management Rules, 2016

Authorization type: BMW-FRESH Authorization No: 201020 Valid from: 31/01/2023

(Document contains 6 No. of pages excluding Additional Document)

Authorization No: 201020 PCB ID: 139517 Date :31/01/2023

# AUTHORIZATION FOR OPERATING A FACILITY FOR GENERATION, COLLECTION, RECEPTION, TREATMENT, STORAGE, TRANSPORT AND DISPOSAL OF BIOMEDICAL WASTES

Type of health care establishment: Clinic

Ref: 1. Authorization application submitted by the HCF on 31/01/2023

2. Inspection of the project site/organization by Regional Officer, Bangalore Anekal

- 1. File number of authorization and date of issue , -
- 2. M/s. K. Madhu Sudhana Sankar an occupier or operator of the hospital located at Jigani Industrial Area, Anekal Taluk, 8329528480, 8329528480, akshay.more@tasl.aero is hereby granted an authorization for Activity: Generation, Storage, Disposal
- 3. M/s Tata Advanced Systems Ltd , Jigani Industrial Area, Anekal Taluk is hereby authorized for handling of biomedical waste as per the capacity given below;

(i) Number of beds of HCF: 0

| Category               | Type of Waste   | Quantity generated   | Method of treatment & |  |
|------------------------|---|----------------------|-----------------------|--|
|                        |   | or collected, kg/day | disposal              |  |
| Yellow                 | Human Anatomical Waste  | 0.00000              |                       |  |
|                        | Animal Anatomical Waste   | 0.00000              |                       |  |
|                        | Soiled Waste  | 0.04000              | As per BMW Rules      |  |
|                        | Expired or Discarded Medicines  | 0.00000              |                       |  |
|                        | Chemical Solid Waste  | 0.01000              | As per BMW Rules      |  |
|                        | Chemical Liquid Waste   | 0.00000              |                       |  |
|                        | Discarded linen, mattresses, beddings contaminated with blood or body fluid | 0.01000              | As per BMW Rules      |  |
|                        | Microbiology, Biotechnology & other clinical laboratory Waste               | 0.00000              |                       |  |
| Red                    | Contaminated Waste (Recyclable)   | 0.01000              | As per BMW Rules      |  |
| White<br>(Translucent) | Waste sharps including Metals   | 0.01000              | As per BMW Rules      |  |
| Blue                   | Glassware   | 0.00000              |                       |  |
|                        | Metallic Body Implants  | 0.00000              |                       |  |

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**BMW** 

## Form III -[Rule10]

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- 4. This authorisation shall be in force from the date of issue until cancelled/ withdrawn /Suspended by the Board..
- 5. This authorisation is subject to the conditions stated below and to such other conditions as may be specified in the rules for the time being in force under the Environment (Protection) Act, 1986.

#### Terms and conditions of authorization

- 1. The applicant/authorisation shall comply with the provisions of the Environment (Protection) Act. 1986 and the rules made there under.
- 2. This authorisation or its renewal shall be produced for inspection at the request of an officer authorised by the prescribed authority.
- 3. The person authorized/applicant shall not rent, lend, sell, transfer or otherwise transport the biomedical wastes without obtaining prior permission of the prescribed authority.
- 4. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
- 5. It is the duty of the authorised person/applicant to take prior permission of the prescribed authority to close down the facility and such other terms and conditions may be stipulated by the prescribed authority.
- 6. Applicant shall take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with the BMW rules.
- 7. Applicant shall make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical waste in colored bags or containers in the manner as specified in Schedule I of the Bio-Medical Waste Management Rules, 2016.
- 8. Applicant shall ensure that there shall be no secondary handling, pilferage of recyclables or inadvertent scattering or spillage by animals and the bio-medical waste from such place or premises shall be directly transported in the manner as prescribed in the BMW rules to the common bio-medical waste treatment facility or for the appropriate treatment and disposal, as the case may be, in the manner as prescribed in Schedule I of the Bio-Medical Waste Management Rules, 2016.
- 9. Applicant shall Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilization on-site in the manner as prescribed by the World Health Organization (WHO) or National AIDs Control Organization (NACO) guidelines and then send to the common bio-medical waste treatment facility for final disposal;
- 10. Applicant shall phase out use of chlorinated plastic bags, gloves and blood bags within two years from the date of notification of the BMW rules;
- 11. Applicant shall dispose of solid waste other than bio-medical waste in accordance with the provisions of respective waste management rules made under the relevant laws and amended from time to time;
- 12. Applicant shall not to mix treated/untreated bio-medical waste with municipal solid waste;
- 13. Applicant shall provide training to all its health care workers and others, involved in handling of bio-medical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the Annual Report;
- 14. Applicant shall immunise all its health care workers and others, involved in handling of biomedical waste for protection against diseases including Hepatitis B and Tetanus that are likely to be transmitted by handling of bio-medical waste, in the manner as prescribed in the National Immunisation Policy or the guidelines of the Ministry of Health and Family Welfare issued from time to time;
- 15. Applicant shall establish Bar- Code System for bags or containers containing bio-medical waste to be sent out of the premises or place for any purpose;

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- 16. Applicant shall ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities;
- 17. Applicant shall ensure treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act, 1974 ( 6 of 1974);
- 18. Applicant shall ensure occupational safety of all its health care workers and others involved in handling of biomedical waste by providing appropriate and adequate personal protective equipments;
- 19. Applicant shall conduct health check up at the time of induction and at least once in a year for all its health care workers and others involved in handling of bio- medical waste and maintain the records for the same:
- 20. Applicant shall maintain and update on day to day basis the bio-medical waste management register and display the monthly record on its website according to the bio-medical waste generated in terms of category and colour coding as specified in Schedule I the Bio-Medical Waste Management Rules, 2016;
- 21. Applicant shall report major accidents including accidents caused by fire hazards, blasts during handling of biomedical waste and the remedial action taken and the records relevant thereto, (including nil report) in Form I to the prescribed authority and also along with the annual report;
- 22. Applicant shall make available the annual report on their web-site and all the health care facilities
- 23. Applicant shall 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 time;
- 24. Applicant shall establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority and the healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities
  - relating to bio-medical waste management within that establishment and submit the annual report;
- 25. Applicant shall maintain all record for disposal of biomedical waste for a period of five years;
- 26. The applicant shall update COVID Bio Medical Waste data in CPCB tracking software at **bmw.cpcbccr.com**/#/**p/login.**

## SCHEDULE I

[See rules 3 (e), 4(b), 7(1), 7(2), 7(5), 7 (6) and 8(2)]

## Part-1

Biomedical wastes categories and their segregation, collection, treatment, processing and disposal options

| Category | Type of Waste | Type of Bag or<br>Container<br>to be used | Treatment and Disposal options |
|----------|---------------|---|--------------------------------|
| 1        | 2             | 3   | 4                              |





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| Yellow | (a)Human<br>Anatomical Waste:  | Yellow coloured non-<br>chlorinated plastic bags                        | Incineration or Plasma Pyrolysis or deep burial*  |
|--------|--|---|---|
|        | (b) Animal<br>Anatomical Waste:  | Not applicable  |   |
|        | (c) Soiled Waste:  |   | Incineration or Plasma Pyrolysis or deep burial* In absence of above facilities, autoclaving or micro-waving/ bags containing residual or discarded blood and blood components. Hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent for energy recovery.   |
|        | (d) Expired or<br>Discarded<br>Medicines:  | Yellow coloured non-<br>chlorinated plastic bags<br>or containers       | Expired cytotoxic drugs and items contaminated with cytotoxic drugs to be returned back to the manufacturer or supplier for incineration at > 1200° C or to CBMWTF or hazardouswaste treatment, storage and disposal facility for incineration at >1200 □ C or Encapsulation or Plasma Pyrolysis at >1200 □ C.All other discarded medicines shall be either sent back to manufacturer |
|        |  | 3505  | or disposed by incineration.  |
|        | (e) Chemical Waste:  | Yellow coloured<br>containers or non-<br>chlorinated plastic bags       | Disposed of by incineration or Plasma<br>Pyrolysis or Encapsulation in hazardous<br>waste treatment, storage and disposal<br>facility.  |
|        | (f) Chemical Liquid<br>Waste :   | Separate collection<br>system leading to effluent<br>treatment system   | After resource recovery, the chemical liquid waste shall be pre-treated before mixing with other wastewater. The combined discharge shall conform to the discharge norms given in <b>Annexure -I</b>  |
|        | (g) Discarded linen,<br>mattresses,<br>beddings<br>contaminated with<br>blood or body fluid. | Non- chlorinated<br>yellow plastic bags or<br>suitable packing material | Non-chlorinated chemical disinfection followed by incineration or Plazma Pyrolysis or for energy recovery. In absence of above facilities, shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent for  |
|        |  |   | shredding. Treated waste to be sent for<br>energy recovery or incineration or<br>Plasma Pyrolysis.  |







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|                        | (h) Microbiology,<br>Biotechnology and<br>other clinical<br>laboratory waste | Autoclave safe plastic<br>bags or containers                   | Pre-treat to sterilize with non-<br>chlorinated chemicals on-site as per<br>National AIDS Control Organization or<br>World Health Organization guidelines<br>thereafter for Incineration.  |
|------------------------|--|--|--|
| Red                    | Contaminated<br>Waste (Recyclable)   | Red coloured<br>non- chlorinated plastic<br>bags or containers | Autoclaving or micro-waving/ hydroclaving followed by shredding or mutilation or combination of sterilization and shredding. Treated waste to be sent to registered or authorized recyclers or for energy recovery or plastics to diesel or fuel oil or for road making, whichever is possible.Plastic waste should not be sent to landfill sites.   |
| White<br>(Translucent) | Waste sharps including Metals:   | Puncture proof, Leak<br>proof, tamper proof<br>containers      | Autoclaving or Dry Heat Sterilization followed by shredding or mutilation or encapsulation in metal container or cement concrete; combination of shredding cum autoclaving; and sent for final disposal to iron foundries (having consent to operate from the State Pollution Control Boards or Pollution Control Committees) or sanitary landfill or designated concrete waste sharp pit. |
| Blue                   | a. Glassware:  | Cardboard boxes with blue colored marking                      | Disinfection (by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment) or through autoclaving or microwaving or hydroclaving and then sent for recycling.  |
|                        | b. Metallic Body<br>Implants   | Cardboard boxes with blue colored marking                      |  |

<sup>\*</sup>Disposal by deep burial is permitted only in rural or remote areas where there is no access to common bio-medical waste treatment facility. This will be carried out with prior approval from the prescribed authority and as per the Standards specified in Schedule-III. The deep burial facility shall be located as per the provisions and guidelines issued by Central Pollution Control Board from time to time.

Annexure-I





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### STANDARDS FOR LIQUID WASTE.

1. The effluent generated or treated from the premises of occupier or operator of a common bio medical waste treatment and disposal facility, before discharge into the sewer should conform to the following limits-

| PARAMETERS       | PERMISSIBLE LIMITS                                    |
|------------------|---|
| pН               | 6.5-9.0   |
| Suspended solids | 100 mg/l  |
| Oil and grease   | 10 mg/l   |
| BOD              | 30 mg/l   |
| COD              | 250 mg/l  |
| Bio-assay test   | 90% survival of fish after 96 hours in 100% effluent. |

2. Sludge from Effluent Treatment Plant shall be given to common bio-medical waste treatment facility for incineration or to hazardous waste treatment, storage and disposal facility for disposal.

## SCHEDULE IV [See rule 8(3) and (5)]

# Part A LABEL FOR BIO-MEDICAL WASTE CONTAINERS or BAGS CYTOTOXIC HAZARDSYMBOL

CYTOTOXIC HAZARD SYMBOL







HANDLE WITH CARE

FOR AND ON BEHALF OF KARNATAKA STATE POLLUTION CONTROL BOARD

**ENVIRONMENAL OFFICER** 

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