

# MAHARASHTRA POLLUTION CONTROL BOARD

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No. MPCB/PSO/BMW- 200320 FTS 0173

Date: 20/03/2020

To,

All RO, MPCB (List Enclosed)

All SRO, MPCB (List Enclosed)

All BMW CTFs, Maharashtra (List Enclosed)

**Sub:** - Implementation of Guidelines for Management of Bio-Medical Waste Contaminated / Suspected to be contaminated with COVID-19.

**Ref:** - 1. "महाराष्ट्र कोव्हीड १९ उपाययोजना नियम २०२०" (Maharashtra COVID-19 Measures, Rules 2020)

2. CPCB Guidelines for Handling, Treatment, and Disposal of waste generated during Treatment/ Diagnosis /Quarantine of COVID-19 patients\_ March 2020.
3. MPCB Guidelines for Management of Bio-Medical Waste Contaminated / Suspected to be contaminated with COVID-19 March 2020.

Pursuant to rules published by Public Health Department, GoM, "Maharashtra COVID-19 Measures, Rules 2020", Vide ref-1 MPCB has prepared guidelines for management of COVID-19 Contaminated / Suspected to be infected Bio-Medical Waste generated at Health Care Establishment (HCEs), Hospitals, Camp Sites, Households, and also for Bio Medical Waste Captive or Common BMW collection, transport, treatment and disposal facilities in the State of Maharashtra.

vide ref-2 Central Pollution Control Board has notified Guidelines on COVID-19 waste.

In view of above, it is directed that All Regional and Sub Regional Officers shall ensure strict implementation of these guidelines by all concerned including BMW CTFs.

Treat this as an urgent.

  
(Dr. Amar Supate)

Principal Scientific Officer

Copy submitted to: Hon'ble Chairman, MPCB, Sion, Mumbai - for favour of information  
Member secretary, MPCB, Sion, Mumbai - for favour of information

Copy submitted to:

1. Principal Secretary, Department of Environment, GoM.

2. Principal Secretary, Public Health Department, GoM  
3. Director, Public Health Department, GoM

Copy to:

1. PSO / JD-APC / JD-WPC / RO-HQ, for information.

**Guidelines for Management of Bio-Medical Waste  
Contaminated / Suspected to be Contaminated with COVID-19**

**March 2020**



**Maharashtra Pollution Control Board**

**SION, Mumbai-400022b**

**Guidelines for Management of Bio-Medical Waste  
Contaminated / Suspected to be contaminated with COVID-19**

MoEF and CC, Government of India (GoI) vide notification No. GSR 343 (E) Dated 28/03/2016 has notified Bio-Medical Waste Management Rules, 2016, as amended time to time. These Rules are applicable 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.

Under provision of Rules 9 of Bio Medical Waste Management (BMMWM) Rules, 2016 Maharashtra Pollution Control Board (MPCB) is prescribed Authority for enforcement of provisions of these rules in the State of Maharashtra.

As per provisions of Rule 6 of BMW Rules various authorities are specified and are mandated as per Rule 9 of the said rules to comply with the responsibilities stipulated in Schedule-III of these Rules. MPCB in exercise of its power to grant BMW Authorization has granted conditional authorizations for HCEs and BMW CTFs in the state

Public Health Department, Government of Maharashtra (GoM) vide Notification Dated 14<sup>th</sup> March 2020 has notified “महाराष्ट्र कोव्हड १९ उपाययोजना नियम २०२०” (Maharashtra COVID-19 Measures, Rules 2020)” to ensure containment and control of COVID-19 in the state.

Pursuant to rules published by Public Health Department, GoM, “Maharashtra COVID-19 Measures, Rules 2020”, it is felt necessary to issue guidelines for management of COVID-19 Contaminated / Suspected to be infected Bio-Medical Waste generated at Health Care Establishment (HCEs), Hospitals, Camp Sites, Households, and also for Bio Medical Waste Captive or Common BMW collection, transport, treatment and disposal facilities in the State of Maharashtra.

**1. Guidelines for Bio Medical Waste Treatment facilities: -**

**a. Use and Disposal of Personal Protective Equipment (PPEs) by Waste collectors, vehicle drivers and attendants.**

CTF Operator shall provide appropriate and adequate personal protective equipment's, as per recommendations of Public Health Department to all personal involved in management of BMW, such as,

- i. Head cover
- ii. N-95 Respirator or equivalent
- iii. Eye goggles/Face shield

- iv. Full sleeved outer impermeable gown / Cover alls
- v. Gloves and vi. Shoe Covers.

\*An extra set of Personal Protective Equipment and Spill Management Kit shall be kept in BMW Transportation Vehicle.

**b. Sanitization of gadgets and vehicle used for collection**

CTF operators shall provide separate vehicle for collection & transportation of COVID-19 waste, such vehicles shall be properly disinfected after every round the trip, using **certified sanitizers / floor & surface cleaners** meeting recommended specification as per US EPA circular dated 3<sup>rd</sup> March , 2020 <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2> or equivalent disinfectant. Also, gadgets used in such Special vehicle shall be disinfected at regular frequency or daily using **1.0% hypochlorite or equivalent disinfectant**.

**c. Treatment and Disposal**

Upon receipt at facility COVID -19 Waste shall disposed off immediately through incineration.

**d. Maintaining records of receipt, transportation and disposal of waste.**

GPS enabled BMW transportation vehicles will equipped with a) Floor & Surface sanitizers compliant with US EPA Covid-19 b) Spill Kit and c) 3 Sets of Spare PPEs CTF operators shall maintain record of receipts, transportation and disposal of COVID-19 Contaminated / Suspected to be infected Bio-Medical Waste collected from Isolation wards of HCEs, which shall be accessible to government Authority in the Format prescribed at Format-A (Annexure)

**e. Health inspection and reporting of symptoms, if any by Waste Handlers, Transporters and Other involved engaged at CTFs.**

CTF operators shall deploy healthy trained workers for Collection & transportation of COVID-19 Contaminated / Suspected to be infected Bio-Medical Waste. Pre-Medical Examination for Preclinical symptoms shall be conducted for such workers before deployment for collection of such waste. Also, a post Medical Examination of such workers shall be conducted at an interval of every 07 days and report for symptoms if any, to authority designated by Public Health Department.

**2. Guidelines for Healthcare Establishment and Pathology / R&D Laboratories handling COVID-19 cases: -**

**a. Disposal of PPEs and liquid waste to Bio Medical Waste Common Treatment Facilities.**

PPEs used and other contaminated waste generated from patients or by COVID-19 Waste handlers and Pathologist shall be stored separately in “Yellow” bag at separate BMW Storage point and shall be Pre-treated with Autoclaving / Microwaving before transfer to temporary storage area and then hand over to Common treatment Facility in Yellow Coloured bags with specific marking as “COVID-19 Waste”.

Liquid Waste generated during diagnosis of COVID-19 shall be Pre-Treated with Autoclave / Microwave “in Autoclave / Microwave” safe container and then handed over to Common treatment Facility in double layered “Yellow” Coloured bags with specific marking as “COVID-19 Waste” and “Biohazard Symbol”.

Use dedicated trolleys and collection bins in COVID-19 isolation wards, label of “COVID-19 Waste” is also to be pasted on these items. COVID-19 waste generator shall have sole responsibility of packing and Labelling of waste as per protocol. CTF operator may deny accepting improperly packed / Damaged containers of COVID-19 Waste.

Non contaminated General Waste shall be deposited off as per Solid Waste Management rules, 2016.

**b. Sanitization of Trolleys and Bins used for collection**

The (inner and Outer) surface of containers /bins/ trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution or equivalent certified disinfectant.

**c. Maintaining record of waste generation, onsite disinfection and disposal to CTFs**

Report opening of or operation of COVID-19 ward to Local MPCB, SRO/RO office.

Healthcare Establishments and Pathology / R&D Laboratories handling COVID-19 cases shall maintain proper record of COVID-19 Contaminated / Suspected to be COVID-19 infected Bio-Medical Waste generation and disposal to BMW CTFs, which shall be accessible to government Authority in format prescribed at Format- F (Annexure)

**3. Guidelines for HCEs not handling COVID-19 cases and General public / Large Establishments (Airports, Railway Stations, Bus Stands, Malls, Theatres, Banquet Halls, Industries, IT Centre etc.): -**

**a. Disposal of PPE and sanitation of inhouse patient.**

HCEs/ Large establishments who are not handling COVID-19 cases, shall disposed off Mask, Aprons, Shoe Covers used by general public / Employee

in foot operated “Yellow” Bins with yellow bag liners having Bio-Hazard Symbol and shall hand over to Municipal waste collector for disposal at CTF or through local Public health centre.

**b. Reporting of suspected infectious patients.**

HCEs who have identified COVID-19 suspect patient shall report such cases to Local Bodies such as, Corporation / Council and Public Health Department and ensure sanitization of area and disposal of contaminated material to BMW CTF with specific label.

**4. Guidelines for Self-Quarantined COVID-19 suspects: -**

**a. Disposal of PPEs, medicines, clothing and other BMW generated during diagnosis and treatment.**

Self-Quarantined infectious patients' caretaker shall contact nearest BMW Common Treatment facility and request for “Yellow” Bags and hand over Bio Medical waste generated by Patient in “Yellow” bag to Treatment Facility. Common Treatment Facility shall provide or make available “Yellow bags” to such patients directly or through Public Health Centres at Nominal Cost and shall not charge for waste collected.

**b. Reporting of BMW handed over / disposed off to BMW CTFs.**

Self-Quarantined COVID-19 suspect patient shall inform about BMW handed over to BMW CTFs to Nearest Public Health Centre of Local Bodies such, Corporation / Council and Public Health Department.

**References:**

1. Maharashtra State Public Health Department Guidelines on Clinical management of severe acute respiratory illness (SARI) in suspect/confirmed novel coronavirus (nCoV) cases.\_  
<https://arogya.maharashtra.gov.in/Site/Uploads/NewsAndEvents/637193465948187743-Corona-Guidelines.pdf>
2. <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>
3. Infection prevention and control of epidemic-and pandemic-prone acute respiratory infections in health care. Geneva: World Health Organization; 2014 ([https://apps.who.int/iris/bitstream/handle/10665/112656/9789241507134\\_eng.pdf;jsessionid=BE25F8EAA4F631126E78390906050313?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/112656/9789241507134_eng.pdf;jsessionid=BE25F8EAA4F631126E78390906050313?sequence=1), accessed 27 February 2020)
4. Advice on the use of masks in the community, during home care and in healthcare settings in the context of the novel coronavirus (2019-nCoV) outbreak: interim guidance, 29 January 2020. Geneva: World Health Organization; 2020 (WHO/nCov /I PC\_Masks /2020; [https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak), accessed 27 February 2020)

5. Bio Medical Waste Management Rules, 2016, as amended.
6. Revised Guidelines for Common Bio Medical Waste treatment facilities published by CPCB on 21<sup>st</sup> December 2016.
7. Guidelines for Healthcare Establishment published by CPCB June 2018.
8. CPCB Guidelines for Handling, Treatment, and Disposal of waste generated during Treatment/ Diagnosis /Quarantine of COVID-19 patients\_ March 2020.
9. CFR 1910.132.133.138.134



## **Annexure - Formats**

### **A. Format for Daily Medical Examination of Waste Handlers, Transporters, and attendants involved in BMW disposal.**

**Date: -**

Name of the Worker(s)	Age	Residential Address	Date of Appointment	Training Date	COVID-19 Clinical Symptoms Yes/ No

### **B. Recommended PPEs Specifications for BMW Waste handlers at CTF.**

- i. Head cover
- ii. N-95 Respirator or equivalent
- iii. Eye goggles/Face shield
- iv. Full sleeved outer impermeable gown / Cover alls
- v. Hand Gloves
- vi. Shoe Covers.

### **C. Recommended Floor / Surface Cleaner (COVID-19) Compliant specification.**

Sr. No.	Active Ingredients / Chemical Composition	Typical Range
1	Alkyl (C14-50%, C12-40%, C16-10%) Dimethyl Benzyl Ammonium Chloride	0.034%-8.680%
2	Octyl Decyl Dimethyl Ammonium Chloride	0.025%-6.510%
3	Dioctyl Dimethyl Ammonium Chloride	0.010%-2.604%
4	Didecyl Dimethyl Ammonium Chloride	0.015%-3.906%

### **D. Format for Maintaining Daily record of COVID-19 BMW reception, transportation and disposal.**

Hospital Name & Address	Collection Date & Time (hrs)	Vehicle Registration Number	Time of Receipt at CTF (hrs)	Quantity collected (in KG)				Date and Time of Disposal (hrs)
				Y	R	B	W	

**E. Format for generation, Onsite Treatment and Disposal of PPEs (by HCEs, Handling COVID-19) and self-Quarantined.**

Date	Name of PPE used	Quantity (in PCs)	Onsite Treatment Given Autoclave / Microwave	Waste handed over to (Name of CTF)

**F. For Autoclave Details.**

Sr No.	Date	Time	Pressure	Temperature (0 C)	Waste Quantity in Kg	Cycle Time (in Min)