

GUIDELINES FOR 'HANDLING, TREATMENT, AND DISPOSAL OF WASTE GENERATED DURING TREATMENT /DIAGNOSIS/QUARANTINE OF COVID- PATIENTS



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BACKGROUND

Biomedical Waste generated from Healthcare Facilities required to be treated and disposed off as per provisions laid under BMWM Rules, 2016 notified under E (P) Act, 1986.

Biomedical waste generated from the COVID hospitals, quarantine centers, home care etc. involved in treatment and diagnosis of COVID-19 patients also needs to be disposed off as per said Rules.

CPCB initiated to give guidance for management of biomedical waste generated during COVID-19 Pandemic.

Prepared separate guidelines for 'Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients' in mid of March, 2020.

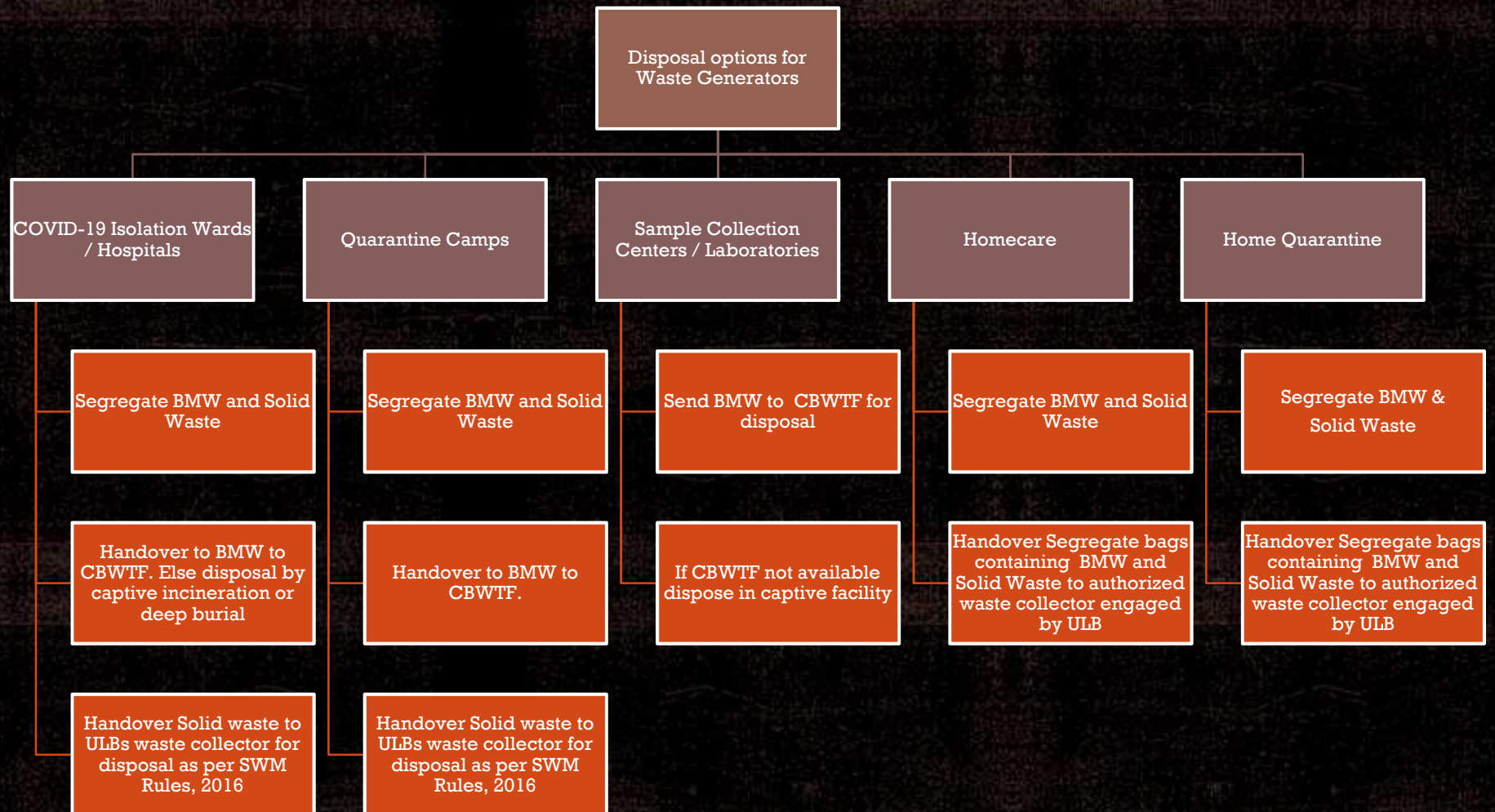
As per the situation requirement, said guidelines were revised four times incorporating additional provisions to be followed for ensuring scientific disposal of biomedical waste.

APPLICABILITY

- (a) COVID-19 Isolation wards at Healthcare Facilities, Railways, etc.
- (b) Sample Collection Centers and Laboratories for COVID-19 suspected patients
- (c) Quarantine Centers/Camps/Home Quarantine or Home-Care facilities
- (d) Common Biomedical Waste Treatment Facility (CBWTF)
- (e) SPCBs/PCCs
- (f) Urban Local Bodies



OPTIONS FOR MANAGEMENT OF COVID-19 BMW





Medical waste generation during treatment of patient



Generated BMW should be segregated as per BMW Rules, 2016



Temporary storage area for waste generated in HCFs



Disposal of BMW in CBWTF



BMW received by CBWTF from different generators



Transportation of BMW from site of generation to CBWTF

Flow chart of COVID-19 BMW management from generation to disposal

WHAT TO DO??

ID-19 Isolation wards

medical Waste Management:

Segregation as per BMW Rules, 2016.

Segregate biomedical waste and general solid waste separately, as per their respective prevailing Rules.

Keep separate color coded bins in wards.

Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Ha
suit, nitrile gloves into Red bag.

Collect used mask (including Triple layer mask, N95 mask etc.), head cover/cap, shoe-c
disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags.

Used masks, tissues and toiletries, of COVID-19 patient shall become biomedical waste
shall be segregated in yellow bag.

Use double layered bags for collection of waste from ward to ensure no leakage.

Label the COVID-19 biomedical waste bags as 'COVID-19 Waste'.

Use dedicated trolley for transportation of COVID waste.

Disinfect the bags with 1% sodium hypochlorite solution.

Separate records for generation, collection and storage.

Provide training to staff.

WHAT TO DO??

ID-19 Isolation wards

Solid Waste:

General solid waste comprising of wrappers of medicines/syringes, fruit peel offs, empty juice cans or tetra packs, used water bottles, discarded papers, carton boxes of medicines, empty bottles of disinfectants, left-over food, disposable food plates etc., should be collected separately per SWM Rules, 2016.

In order to minimize waste generation, as far as possible, non-disposable items must be used for eating food.

If use of disposable items is inevitable, use bio-degradable cutlery.

Wet and dry solid waste bags to be tied securely in leak-proof bags, sprayed with sodium hypochlorite solution and hand over to authorized waste collector of ULB's on daily basis.

Low colored bags should not be used for collecting general solid waste.

Water Management:

ETPs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate corona viruses.

Operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards should adopt standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for operation of STPs. PPEs should include goggles, face mask, liquid repellent coveralls, waterproof gloves and Rubber boots.

MANAGEMENT OF COVID-19 BMW BY QUARANTINE CENTERS/CAM HOME CARE AND HOME QUARANTINE

- Identify and designate the person responsible for management of COVID-19 waste.
- Segregate the biomedical waste like used mask, gloves, tissues etc. in yellow bag.
- Agreement with CBWTF operator for collection of biomedical waste.
- In case of Home care or home quarantine, ULBs shall be responsible for collection of waste. Waste may be deposit at waste deposition centers identified by ULBs.
- General waste should comprise of waste generated from kitchen, packaging material, waste food material, waste papers, waste plastics, floor cleaning dust, etc. including left-over food, disposable utensils, water bottles, tetra packs.
- Masks or gloves used by person other than COVID-19 patient shall be stored separately for min. 72 hrs and after cutting or shredding dispose the same alongwith solid waste.

ROLE OF COMMON BIOMEDICAL WASTE TREATMENT FACILITIES

- Report to SPCB/PCC regarding receipt of COVID-19 biomedical waste at their facility.
- Ensure:
 - ✓ Sanitization of workers
 - ✓ Give adequate PPEs to workers
 - ✓ Shall not allow any worker with symptom to work
- Use dedicated vehicle for collection of COVID waste.
- Disinfection of vehicle and bins/container after every trip
- Maintain record for waste treatment & disposal
- Usage of COVID19BWM tracking App. for daily data feeding
- Provide regular training to workers.

DUTIES OF STATE BOARDS

- Overall management of COVID-19 biomedical waste as per BMWWM Rules, 2016.
- Ensure implementation of CPCB guidelines for scientific disposal of waste.
- Maintain records for COVID-19 Biomedical Waste Management for their State/UT.
- Allow extra operational hours to CBWTF, if required.
- Allow disposal of COVID waste through captive treatment facilities where there is no access of CBWTFs.
- Permit hazardous waste incinerators or industrial incinerators for treatment & disposal of COVID waste.
- Coordination with ULBs for collection of waste from quarantine centers/camps, home care or home quarantines.
- Reporting daily data through COVID19BWM app and ensure usage of same by waste generators and CBWTFs.

DUTIES OF URBAN LOCAL BODIES

- Provide updated list of quarantine centers, home care and home quarantines to concerned State Board.
- Collection of biomedical waste and general waste separately.
- ULBs should ensure that left-over food and general solid waste is not collected in yellow bags.
- In quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB.
- Provide necessary support, security including authorisation to staff of CBWTFs.
- Dedicate separate team for door to door collection of waste from home care & home quarantines.
- Provide yellow colour bags for storage of biomedical waste.
- Provide adequate PPEs to workers involved in collection or handling of COVID waste.
- Use dedicated trolley/cart/vehicles for transportation of waste and shall disinfect the same with 1 % sodium hypochlorite solution.
- Establish waste deposition centers.
- Create awareness among citizens for segregation of general solid waste and biomedical waste.
- Dedicate nodal officer to maintain records for COVID waste management and feeding daily data on COVID19BWM app.
- General solid waste may be disposed as per SWM Rules, 2016, which may include disposal in landfills, waste to energy plants, depending on available infrastructure.

MANAGEMENT OF USED PERSONAL PROTECTIVE EQUIPMENT

- Used masks and gloves at other households, commercial centers, offices etc. shall be kept separately for min 72 hrs to dispose the same as general solid waste after cutting or shredding.
- At Material Recovery Facilities (MRFs), discarded PPEs containing plastic should be shredded and sent to SPCB authorised plastic waste recyclers, or may be converted into refuse derived fuel (RDF) for co-processing or energy recovery (in Waste to Energy Plants) or for road making.
- Shredded PPEs may be disposed at landfill only in case the requisite infrastructure as required under SWM Rules is not available in the State.
- PPEs doffed by healthcare workers accompanying diseased body of COVID-19 patient to crematorium / graveyard should be treated as biomedical waste and disposed as per provisions under SWM Rules, 2016 and BMW Management Rules, 2016.
- Crematoriums/graveyards may opt for disposal of such PPEs is given below;
 - ✓ Should be collected in separate bin with yellow-bag and handed over to authorized waste picker engaged by of ULBs for disposal through CBWTFs. OR
 - ✓ Dispose as domestic hazardous waste (biomedical waste) and may be deposited at designated deposition centers identified by ULBs for pick-up by CBWTFs. Or
 - ✓ May ask healthcare staff to take-back the PPEs after collecting it in red and yellow bags/bins provided in the hospital ambulance itself. Or
 - ✓ May ask the healthcare workers to doff the PPEs at the hospital or healthcare unit from where they collected the corpse.

COVID19BWM App developed by CPCB



The application is for tracking of COVID-19 biomedical waste generated at different sources from point of generation to its disposal.

Generators should register in App and report waste generated in the mobile App for daily .

Waste handler should be registered by corresponding CBWTF operator and accept the waste from generator through the App during its collection.

CBWTF operator should use mobile App for accepting the waste received from vehicles and also use its web version and approve the data.

SPCB/PCC should use web version of App and approve daily data of BMW in their respective States /UTs

Login to your Account

User ID

Password

Log in

[Give Feedback](#) [Forgot password](#)

[New BioMedical Waste Generator ?](#)

Register

COVID-19 Bio-medical Waste Management App.

Log in

User ID *

CPCB

Password *

Continue

[Click here to download Android app](#)

For any Technical assistance kindly contact below

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Activate Windows
Go to Settings to activate Windows

Web version of COVID19BWM Application

COVID-19 WASTE MANAGEMENT – DO'S & DON'TS (Quarantine Camp/Centre or Home-care)

Do's



Care takers of COVID-19 patients under home-care shall store the biomedical waste in yellow coloured bag provided by Urban Local Body.



Person taking care of suspected or confirmed (asymptomatic and mild symptomatic) COVID-19 patient at home-care shall handover the yellow bag to authorized waste collector from urban local body or common biomedical waste treatment facility operator.



Home-care care-taker may also deposit the yellow bag at designated deposition center of ULB.



General waste from home care or quarantine center or quarantine camp shall be handed over as solid waste to authorized waste collector of Urban Local Body (ULB - Municipal Corporation / Municipality).



Home quarantine or other households shall store used masks & gloves immediately in paper bag for minimum of 72 hours prior to handing over the same to waste collector of ULB as general solid waste.



Used masks & gloves from Home quarantine or other households after keeping aside in paper bag for 72 hours may be cut into pieces prior to disposal to prevent re-use.



Person operating quarantine camp or quarantine center shall contact the CBWTF operator for lifting of biomedical waste as and when generated.



Persons operating quarantine camp or quarantine center or care-takers of homecare may contact ULB in case of any difficulty in getting the service.

Don'ts



Home-care taker shall never mix general waste with biomedical waste such as used syringes, date expired or discarded medicines, used masks/gloves etc.



Never dispose off used masks of suspected or confirmed (mild symptomatic or asymptomatic) COVID-19 patients in bags other than yellow bag.



Positive or suspected COVID-19 patient shall never use fabric mask home-made masks, if any.



Do not leave your used mask within the reach of others.



Do not re-use surgical masks or gloves.



Quarantine center or camp or homecare shall never store biomedical waste for more than 48 hrs.



Dedicated waste collector of ULB cannot deny collection of waste from quarantine center / quarantine camp / home-care.

COVID-19 WASTE MANAGEMENT – DO'S & DON'TS (Urban Local Bodies)

Do's



Arrange collection of biomedical waste from every quarantine centers/camps, home quarantine and home-cares.



Provide yellow coloured bags to the persons operating Quarantine Camp and to care takers of homecare.



Identify a Common Biomedical Waste Treatment and Disposal Facility (CBWTF) for collection of biomedical waste from quarantine centers / home-cares from designated locations.



Share details of ULBs with Quarantine Camps / Quarantine Homes / Home-Cares State Pollution Control Boards / Pollution Control Committees to facilitate disposal of biomedical waste.



Provide necessary support and security to waste handlers of CBWTF while collection of biomedical waste.



Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste.



Provide adequate Personnel Protective Equipment (PPEs) such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles to workers involved in handling of COVID-19 biomedical waste.



Form a dedicated team of workers for collection of waste from quarantine centers or home care.



Arrange regular awareness programs and training to the workers engaged in Solid waste handling



Ensure dedicated trolleys / cart / vehicles are used for collection of waste and ensure regular sanitization with 1% sodium hypochlorite solution after every trip of collecting biomedical waste from home care / home quarantine.

Don'ts



Never mix general solid waste with biomedical waste at quarantine centre / quarantine home / home-care.



Workers of ULBs shall never deny collection of waste from quarantine center / quarantine home / home-care.



Never store biomedical waste at waste deposition center / collection point for more than 24 hrs, the same should be immediately handed over to CBWTF for final disposal.



Never send worker without PPEs for collection of waste from quarantine center / quarantine home / home-care.



Don't use the trolley / cart dedicated for collection COVID-19 biomedical waste for collection of general waste.

THANK YOU