

BIO-MEDICAL WASTE MANAGEMENT GUIDELINES -17TH JULY 2020

Central Pollution Control Board
(Ministry of Environment, Forest &
Climate Change)
New Delhi



Area of Intervention

Health Care Facilities

Quarantine Camps

Quarantine-homes

Home-care Health Camps

Sample Collection Centers

SPCBs/PCCs, ULBs and CBWTFs

COVID-19 Isolation wards

Separate color-coded bins (with foot operated lids)2/bags/containers in wards and maintain proper segregation

Double layered bags (using 2 bags) should be used

Collect and store biomedical waste labelled as “COVID-19” can also be lifted directly from ward into CBWTF collection van

Bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as “COVID-19 Waste”

Maintain separate records, Register in CPCB mobile application namely ‘COVID19BWM’ to update

Dedicated trolleys and collection bins in COVID-19 isolation wards. A label “COVID-19 Waste”





COVID-19 Isolation wards

- The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution daily.
- Dedicated sanitation workers separately for biomedical waste and general solid waste
- If patient unable to use toilets
 - Excreta is collected in diaper
 - Placed in yellow bag/container.
- if a bedpan is used
 - Faeces to be washed into toilet
 - Cleaned with a neutral detergent and water
 - Disinfected with a 0.5% chlorine solution
 - Rinsed with clean water.
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag
- Collect used mask (including Triple layer mask, N95 mask etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags.

Sample Collection Centers and Laboratories for COVID-19 suspected patients

- Report opening or operation of COVID-19 sample collection centres to SPCB/PCC
- Same guidelines for isolation wards should be applied



Responsibilities of persons operating Quarantine Centers/Camps/Home Quarantine or Home- Care facilities

- General solid waste (household waste) bags, securely tied and handed-over to municipal solid waste collector
- Only the used masks, gloves and tissues or swabs contaminated with blood / body fluids of COVID-19 patients, including used syringes, medicines, etc., if any generated should be treated as biomedical waste
- Collection should be done separately in yellow bags, General waste should not be stored in yellow bags
- Designate a nodal person for maintenance of its record
- Upload data on daily basis on Biomedical waste Tracking App 'COVID19BWM'
- Contact details of CBWTFs would be available with Local Authorities.
- Waste generated from suspected or confirmed COVID-19 patients in homecare should be handed over in yellow bags at door-steps engaged by local bodies or at designated centres.

Duties of SPCBs (State Pollution Control Boards) /PCCs (Pollution Control Committees)

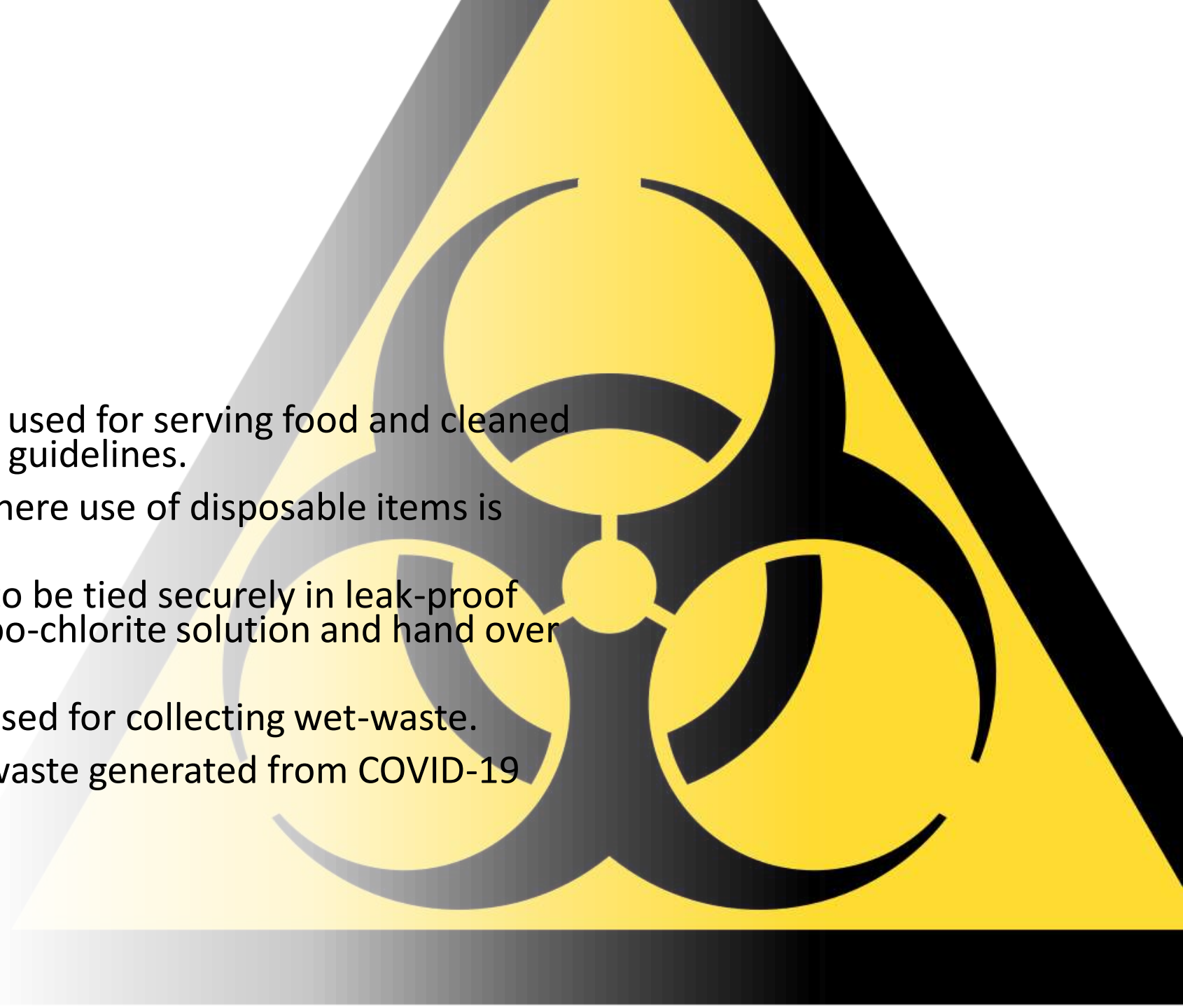
- Maintain records of all sites of waste generation
- Ensure proper segregation, collection and disposal.
- Allow CBWTFs to operate for extra hours as per requirement.
- Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.
- Generation of large volume of yellow colour coded (incinerable) COVID-19 waste permit HW incinerators at existing TSDFs or captive industrial incinerators if any exist in the State/UT.
- ULBs to collect dry general solid waste in bags from quarantine Centres / Quarantine homes / Homecare units, and sprayed with disinfectant solution, for disposal in waste to energy plants/ industrial incinerators/ landfills, as per existing practice or availability in the state
- Every SPCB/PCC shall use 'COVID19BWM' web-portal

Duties of Urban Local Bodies (ULBs)

- Ensure that general solid waste and biomedical waste generated from quarantine camps/ quarantine homes / Homecare is not mixed.
- Inform the persons responsible to collect solid waste and biomedical waste in separate bags securely tied prior to hand over to authorized waste collectors of ULBs.
- Provide necessary support, security including authorisation to staff of CBWTFs.
- Engage authorized waste collectors for door-steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF
- If quarantined homes/Home-care units are less, CBWTFs to collect the waste directly from door-steps
- Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste
- Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs/PCCs from time to time



Minimal General solid waste Generation Principles

- Non-disposable items must be used for serving food and cleaned and disinfected as per hospital guidelines.
 - Use bio-degradable cutlery (where use of disposable items is inevitable).
 - Wet and dry solid waste bags to be tied securely in leak-proof bags, sprayed with sodium hypo-chlorite solution and hand over on daily basis.
 - Compostable bags should be used for collecting wet-waste.
 - Maintain separate records of waste generated from COVID-19 isolation wards.
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Solid Waste Handling

- Use dedicated trolleys and collection bins in COVID-19 isolation wards labelled with “COVID-19 Waste”
- The (inner and outer) surface of containers/bins/trolleys used for storage of COVID-19 waste should be disinfected with 1% sodium hypochlorite solution daily.
- Report opening or operation of COVID-19 ward and COVID-19 ICU ward to SPCBs/PCCs and respective CBWTF located in the area.
- Register in CPCB mobile application namely ‘COVID19BWM’ to update the details of COVID-19 biomedical waste generation.
- Dedicated sanitation workers separately for biomedical waste and general solid waste



Handling Faeces of COVID-19 patient

If patient unable to use toilets

- Excreta is collected in diaper
- Placed in yellow bag/container.

If a bedpan is used

- Faeces to be washed into toilet
- Cleaned with a neutral detergent and water
- Disinfected with a 0.5% chlorine solution
- Rinsed with clean water.

Management of wastewater from HCFs / Isolation Wards

- The risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low.
- 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 use PPEs (Goggles, face mask, liquid repellent coveralls, waterproof gloves and Rubber boots)
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided.





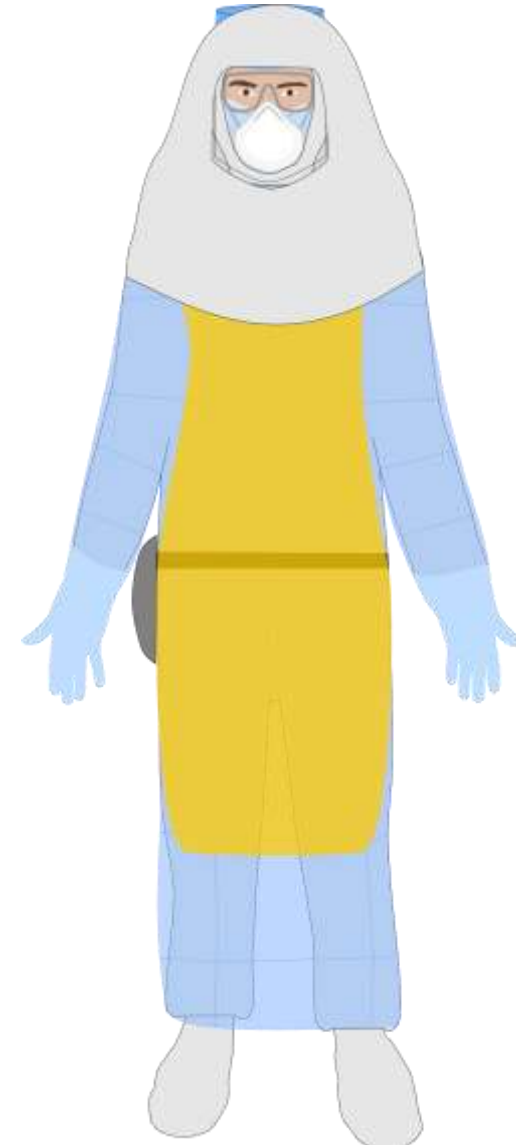
Disposal of used PPEs

- Waste masks and gloves in general households should be kept in paper bag .
- Minimum of 72 hours prior to disposal of the same as dry general solid waste after cutting the same to prevent reuse.
- Discarded PPEs from general public (shopping malls, Cinema Hall, airport, Institutions) should be stored in separate bin for 3 days, disposed of as dry general solid waste after cutting/shredding.

PPEs doffed by healthcare workers accompanying diseased body of COVID-19 patient to crematorium / graveyards

- ✓ Collected in separate bin with yellow-bag and handed over to authorized waste picker engaged by of ULBs for disposal through CBWTFs
- ✓ Deposited at designated deposition centre
- ✓ Red and yellow bags/bins provided in the hospital ambulance itself.
- ✓ Doff the PPEs at the hospital or healthcare unit from where they collected the corpse.

Used masks from visitors to crematorium/ graveyards separate bins and stored for 72 hours prior to disposal as dry general solid waste through local bodies.



Disposal of used PPE

RED BIN

- Eye Gear
- Face-shield
- Splash proof apron
- Helmet
- Plastic coverall
- Sterile gloves

YELLOW BIN

- Mask (including Triple layer mask, N95 mask etc.)
- Head cover/cap
- Shoe-cover
- Disposable linen Gown
- Non-plastic or semi-plastic coverall