

Director (Sub-Division) (SM)



Government of West Bengal
Department of Environment

Prani Sampad Bhawan, 5th Floor, LB-2, Sec-III, Saltlake City, Kolkata-106

No. EN/766/3C-09/2020

Dated, Kolkata 8th June, 2020

From :: Shri Vivek Kumar, IAS
Principal Secretary
Govt. of West Bengal

To :: 1. Khalil Ahmed, IAS
Principal Secretary
Urban Development & Municipal Affairs Department

2. N.S. Nigam, IAS
Secretary
Health & Family Welfare Department

3. Dr. Rajesh Kumar, IPS
Member Secretary
West Bengal Pollution Control Board

~~JS (JC)~~
JS (JC)
kindly follow it up.
10.07.2020

Sub: O.A.30 /2020 (Subhas Datta -Vs- State of West Bengal & Ors.)
Ref: Handling, Treatment, and Disposal of Covid-19 waste.

Sir

With reference to the above-mentioned subject matter, Hon'ble National Green Tribunal, Principal Bench, New Delhi (through Video Conferencing) in its Order dated 18.05.2020, directed the Chief Secretary, GOWB in co-ordination with the other Departments to file a report on the implementation of the guidelines referred to in O.A.72/2020 (storage, transport, handling, management and disposal of Covid 19 waste) (photocopy enclosed).

You are requested to kindly send an updated report to this Department within 15 days of the receipt of the letter so that a consolidated report of Chief Secretary may be filed before the Tribunal within time.

WBPCB is requested to file a separate report giving specific information on the manner in which Covid 19 waste is being disposed of.

Yours faithfully

Enc: Order dated 18.05.2020

Order of O.A.72/2020

Principal Secretary

Item No. 03

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
(Through Video Conferencing)**

Original Application No. 30/2020/EZ

Subhas Datta

Applicant

Versus

State of West Bengal & Ors

Respondent(s)

Date of hearing: 18.05.2020

**CORAM : HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER**

Applicant(s) : Mr. Subhas Datta, Applicant in person

ORDER

1. Case taken up by video conference on *Vidyo App*.
2. In this application the applicant alleges non-compliance of the guidelines prescribed by the Central Pollution Control Board on handling, treatment and disposal of Bio Medical Waste of Covid-19 patient with specific reference to the Bio Medical Waste arising out of home quarantine in the State of West Bengal.
3. It is contended that the State Government has failed to implement the guidelines causing serious health hazard to the general public.

4. By referring to some photographs, the applicant contends that the Covid-19 wastes are being disposed of indiscriminately in open dumping grounds.
5. It may be relevant to note that the matter relating to implementation of the guidelines referred to by the applicant has been dealt with specifically in O.A. No. 72/2020 taken up *Suo Moto* by the Tribunal where concern has been expressed with regard to the inadequacy of the rules as well as its implementation.
6. By order dated 23.04.2020, it has been observed as follows:

7. *“COVID 19 pandemic has emerged in the last few months and has affected number of people across the world. More than one and a half lac people have died world over and more than 600 in India. The virus spreads mainly by droplets and also by touch of contaminated articles. To prevent spread, lock down has been enforced, restricting people to their homes, so as to avoid social contact. Affected persons are treated in hospitals and those suspected are quarantined in various facilities or at home. Large scale testing has been and is being done. By way of precaution, masks, gloves, PPE etc. are used which are disposed of thereafter. In the process, huge bio-medical waste is generated which itself can be source of disease. While the BMW Rules generally take care of the situation by way elaborate provisions to deal with biomedical waste generated in dealing with infectious diseases such as HIV, HINI etc., present pandemic has presented further challenge inter-alia on account of:*

- i. *Existing gaps in compliance of BMW Rules in terms of capacity to scientifically dispose of generated waste and non-compliance of procedural and monitoring aspects;*
- ii. *COVID-19 virus has emerged suddenly and is highly infectious, requiring more precautions compared to other infectious diseases.*

8. To deal with the situation, CPCB has issued guidelines which were last updated on 18.04.2020. The updated guidelines are:

"Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.2

"In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This Revision-2 of guidelines is mainly to incorporate specific requirements and responsibilities of persons operating sewage treatment plants at Healthcare Facilities and to clarify on management of general waste from quarantine homes and masks/gloves from other households.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

(a) COVID-19 Isolation wards: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- *Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.*

- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016.
- Maintain separate record of waste generated from COVID-19 isolation wards
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.
- 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 ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellow bag/container. However, if a bedpan is used, then faces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water.^{a1}
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag;^{a2}
- Collect used masks (including triple layer mask, N95 mask, etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-

plastic coverall in Yellow bags. a³

[a1 to a3 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(b) Sample Collection Centers and Laboratories for COVID-19 suspected patients

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories. Pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 and collect in Red bags. b¹

[b¹ Inserted in Rev. 2 of guidelines dated 18/04/2020]

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities'

Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Home-care facilities. However, the persons responsible for operating quarantine camps/centers/home-care for suspected COVID-19 persons need to follow the below mentioned steps to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.
- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated. Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
- Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
- Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or

container; or

- Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
- Persons operating Quarantine camps/centers or Quarantine-homes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

Clarifications:

- Quarantine Camps / Quarantine-Home are the places where suspected people or the contacts of suspected / confirmed cases who have been directed by authorized hospitals or local authorities to stay at home for at least 14 days or more for observation for any symptom of COVID-19, if any.

- Homecare – Home care facility is a home where care is to be provided to a COVID-19 positive patient at home. c1

- Biomedical waste at Quarantine Camps / Home-care may also comprise of used syringes, date expired or discarded medicines, used masks/gloves and in case of patients with other chronic diseases may also include drain bags, urine bags, body fluid or blood soaked tissues/cotton, empty ampules etc.

- Biomedical waste generated from Quarantine Camps / Quarantine-Home / Home-care would be treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines.

- General waste from Quarantine Camps / Quarantine-Home / Home-care shall be disposed as solid waste as per provisions under SWM Rules, 2016

- Used masks and gloves generated from home quarantine or other households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste. It is advisable to cut the masks prior to disposal to prevent reuse. c2

[*Amended in Rev. 1 of guidelines dated 25/03/2020]

[c1 and c2 Amended in Rev. 2 of guidelines dated 18/04/2020]

[c2: Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators]

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

- Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;

- Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
- Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;
- Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;
- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
- COVID-19 waste should be disposed-off immediately upon receipt at facility.

In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/ PCCs.

- Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
- Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

(e) Duties of SPCBs/PCCs

- Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantine homes in respective States.
- Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SOPs given in this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;
- May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required.
- In case of States not having CBWTFs as well as rural or remote areas, not having access to CBWTFs, the existing captive facilities of any hospital may be identified for disposal of COVID- 19 waste as per provisions under BMWM Rules, 2016 and these guidelines. This may include permitting use of deep burial pits for disposal of yellow category waste as per standards prescribed in Schedule II of Bio-medical Waste Management Rules, 2016. g'
- Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.
- In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement

for handling and waste feeding.

[e¹Amended in Rev. 2 of guidelines dated 18/04/2020]

(f) Duties of Urban Local Bodies +

Urban Local Bodies are responsible for ensuring safe collection and disposal of biomedical waste, if any, generated from Quarantine Camps/ Quarantine Homes/ Home Care for COVID-19 suspected persons.

- *Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;*
- *In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;*
- *Provide necessary support, security including authorisation to staff of CBWTFs;*
- *ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.*
- *ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/ Home care;*
 - a) *Engage authorized waste collectors for door steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF; and/or*
 - b) *In case number of quarantined homes/Home-care units are less, ULBs may engage services of CBWTFs to collect the waste directly from door-steps.*
- *Provide yellow colored bags (designated for BMW) to the persons responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.*
- *ULBs shall ensure the following in engaging authorized waste collectors at door-steps or at waste deposition centers;*
 - o *Create a separate team of workers who shall be engaged in door step waste collection at waste deposition centres or at quarantine homes or home care.*
 - o *Ensure that only designated staff collects biomedical waste from quarantine homes or home care.*

- Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste.
- Impart training to waste collector in handling of biomedical waste including methods of sanitization. Training to waste collectors should be arranged through CBWTF operators;
- The staff involved in handling and collection of waste from quarantine homes or home care centers shall be provided with adequate Personnel Protective Equipment such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles. These PPEs are required to be worn all the time while collecting of waste from quarantine center/quarantine homes/home care/waste deposition centres.
- Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% hypochlorite after each trip.
- Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos if any may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed of as per SWM Rules, 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.
- Local agencies / ULBs may take additional measures considering prevailing ground situations and feasibility, however while implementing such measures requirements outlined in these guidelines should be complied. 11

[+ Inserted in Rev. 1 of
guidelines dated
25/03/2020] [1
Amended in Rev. 2 of
guidelines dated
18/04/2020]

(g) Management of wastewater from HCFs / Isolation Wards **

As per the information available at CDC, the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants, however there is no evidence to date that this has occurred. Therefore, following guidance recommended for HCFs and the operators of STPs;

- Responsible agencies are Healthcare Facilities / Isolation Wards / operators of terminal sewage treatment plants (PHED/Jal Board/ etc.).
- HCFs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses.
- 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.

During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided.

[+ + inserted in Rev. 2 of guidelines dated 18/04/2020] ”

9. There appears to be need for further revision of the guidelines to cover all aspects covering not merely institutions but also individual households and dealing with situations where scientific disposal facilities like incinerators are not available and any unmindful deep burial without adequate safeguards can adversely affect the ground water and pose danger to health and safety of people.

Disposal of COVID-19 waste in general bins so as to be part of municipal waste or unscientific handling sewage and other liquid waste without safeguards can also be hazardous. There is also need to incorporate best practices in the light of further experience and new thoughts emerging from time to time, apart from continued supervision and monitoring, compiling data in an online format, use of electronic /digital manifest system to track and log COVID-19 waste from all sources, preventing its accidental spillage, analyzing the data for strategic planning and the feedback by creating necessary software, to the extent viable.

There is also need for creating awareness about the precautions and steps to be taken by all handlers and workers as well as citizens, making a model plan, to be adopted locally by the Panchayat, Sub-division, District and State authorities with such

further changes as may be necessary in local conditions. Health of all operators has been protected and preventive measures taken. There is need for orientation/training of persons responsible for compliance in Local Bodies and Health department by an online mechanism besides providing them with adequate protective gear. CPCB has to take lead and coordinate with media as well as the concerned Central/State departments.

Let the Chief Secretary of States/UTs by coordinating the activities of State's concerned departments like of Urban Development, Health, Irrigation & Public Health also closely monitor the scientific storage, transport, handling, management and disposal of COVID-19 waste as its unscientific handling poses a grave threat environment and health of people. At the national level, let a high level task team of Ministry of MoEF&CC, Health UD, Jal Shakti, Defence and CPCB supervise the handling and scientific disposal of COVID-19 waste in accordance with the guidelines.

Let the State Departments of Environment and PCBs/PCCs ensure compliance of Biomedical Waste Management Rules, 2016 and furnish action take report to CPCB and CPCB take further steps and furnish a consolidated report to this Tribunal of the steps taken and the ground status as on 31.5.2020. The report may be furnished by 15.06.2020.

List for further consideration on 22.06.2020."

7. As will be evident from the above, the questions raised by the applicant in the present case has been directly dealt with in O.A No. 72/2020. The Chief Secretaries have been directed to co-ordinate the activities of the concerned departments like the Urban Development, Health, Irrigation and Public Health and to also closely monitor the scientific storage, transport, handling, management and disposal of Covid-19 waste as its unscientific handling poses a grave threat environment and health of

people. Specific directions have also been issued upon the State Departments of Environment and Pollution Control Boards to ensure compliance of the Bio Medical Waste Management Rules, 2016 and to furnish action taken report to the Central Pollution Control Board.

8. Having regard to the seriousness of the question raised by the applicant, and the fact that it is specific to the State of West Bengal, we direct the Chief Secretary, Government of West Bengal, in coordination with the concerned departments and the State Pollution Control Board to look into the matter and take tangible and urgent steps to implement the CPCB guideline on Covid-19.

9. Disposal of the Covid-19 waste requires specific special attention considering its potential of adding to the pandemic.

10. It may be observed that various issues related to disposal of the Covid-19 waste have been considered and the necessity to make the guidelines more effective discussed in the order dated 21.04.2020, the relevant observations of which are as follows:

"We have perused the 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients' issued by the CPCB, last revised on 18.4.2020 and heard

Dr. Prashant Gargava, Member Secretary, CPCB. We had interaction broadly on the need for revision of the laid down guidelines to address all concerns in the light of best practices and experience from time to time so that all aspects of scientific disposal of liquid and solid waste management are taken care of not only at institution level but also at individual levels (such as manner of disposal of used PPEs, used bags, gloves, goggles, etc., without the same getting straightaway mixed with other municipal solid waste causing contamination etc.), dealing with situations where adequate facilities (like incinerators) are not available, distinct colour guidelines for the bins etc., reviewing effectiveness of the monitoring mechanism, including securing information by way of electronic manifest system from the handlers of such waste and its online reporting by the State PCBs/PCCs on daily basis by developing necessary software, creating awareness by special awareness programmes, organizing trainings in concerned Local Bodies, Health Departments, etc., providing workers handling COVID-19 waste with adequate protective gear, adequate coordination with media and other concerned regulatory authorities in the States and the Central Government. We have also observed that out of 2.7 lakh HCFs identified, only 1.1 lakh HCFs are authorized under the BMW Management Rules, 2016 so far. The State PCBs/PCCs have to make serious efforts to bridge this gap to mitigate possible risk in terms of unscientific disposal of bio-medical waste and to enforce rule of law.

We are of the view that to the above extent, the task of PCBs and the CPCB is part of essential health services for COVID-19. The CPCB may convey this to all concerned."

11. In the facts and circumstances, the Chief Secretary shall submit a report on the implementation of the guidelines in

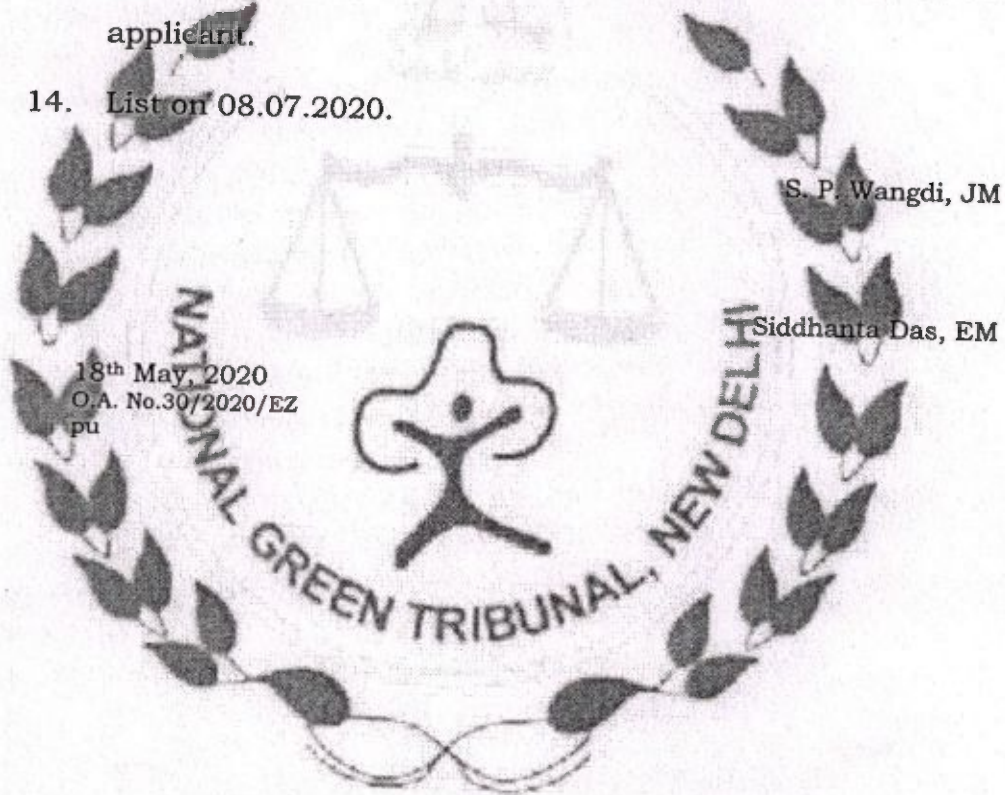
the light of the observations in O.A. No. 72/2020 referred to above.

12. The State Pollution Control Board on its part shall file a separate report dealing with the implementation of the guidelines giving specific information on the manner in which Covid-19 waste is being disposed of.
13. Let both the reports be filed by 08.07.2020 with copy on the applicant.
14. List on 08.07.2020.

S. P. Wangdi, JM

Siddhanta Das, EM

18th May, 2020
O.A. No.30/2020/EZ
pu





রাজ্য নগর উন্নয়ন সংস্থা



STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA- 691/2020/10690

08.06.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDA

To : Shri Joly Chaudhuri, WBCS(Exe.),
Jt. Secretary, UD & MA Department

Sub : Report in connection with scientific disposal of Bio-Medical Waste
arising out of Covid-19.

Ref. : Memo No.228(Law)/C-12/NGT/3S-03/2020 dated 05.06.2020

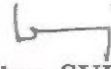
Sir,

Please find annexed the report in connection with O.A. No.72/2020 read with O.A. No.30/2020 related to the scientific disposal of Bio-Medical Waste arising out of Covid-19 and compliance of Bio-Medical Waste Management Rules 2016. The report is updated upto 8th June, 2020.

Department may like to forward the report to Environment Department for action.

Enclo : As stated

Yours faithfully,

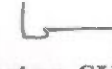
 8.6.2020.
Director, SUDA

SUDA- 691/2020/10690/1(2)

08.06.2020

Copy forwarded for kind information to :

- (1) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (2) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.

 8.6.2020.
Director, SUDA

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

Report in connection with O.A. No. 72/2020 report read with O.A. No.
30/2020/EZ

The National Green Tribunal passed an order on 21st April, 2020 in connection with Scientific Disposal of Bio Medical Waste arising out of Covid-19 Treatment and compliance of Bio Medical Waste Management Rules 2016. The Central Pollution Control Board (CPCB) also issued for Handling Treatment and Disposal of waste generated during treatment / diagnosis / quarantine of Covid-19 Patients.

The matter was discussed in two separate meetings chaired by Principal Secretary, Environment Department on 30th April, 2020. Officers of the Health & Family Welfare Department, UD & MA Department and Environment Department were also present. The roles and responsibilities of different departments in for Handling Treatment and Disposal of waste generated during treatment / diagnosis / quarantine of Covid-19 Patients were delineated.

While the waste generated from the COVID Hospitals, Isolation facilities and Quarantine Centers will continue to manage by the Health & Family Welfare Department, the waste generated from the Quarantine Households will be handled and disposed by the UD & MA Department through the Urban Local Bodies.

Action Taken :

1. It was initially decided to start collection and disposal of Covid Waste from the Quarantine Households of seven Municipal Corporation areas.
2. a. In this connection a coordination meeting was held at SUDA on 4th of May, 2020. Principal Secretary, UD & MA Department chaired the meeting. Officers from the West Bengal Pollution Control Board, UD & MA Department and Commissioners / or their Representatives of KMC, HMC, BMC, Chandernagore Municipal Corporation, Asansol Municipal Corporation, Durgapur Municipal Corporation and Siliguri Municipal Corporation.

b. VC with all ULBs held on 5th May, 6th May and 7th May, 2020
3. The two existing authorized agencies of the Health & Family Welfare Department for collection of Bio Medical Waste namely GreenTech Environ Management Pvt. Ltd and Medicare Environmental Management Pvt. Ltd. Have been assigned to collect the Bio Medical Waste of the Quarantine Households from identified hospitals in the seven Municipal Corporation areas. A negotiated cost for per trip has been agreed with both the agencies and approved by the UD & MA Department.

L

4. All Personal Protective Equipment (PPE) including Hand Sanitizers has been provided to the staff engaged by the two authorized agencies for collection of the Bio Medical Waste from the common collection site of the identified health facilities have been provided by SUDA centrally.
5. The Bio Medical Waste to be collected from the Quarantine Households and deposited at the common collection sites of the identified hospitals by the conservancy staff / any other category staff as decided by the Municipal Corporations.
6. The Bio Medical Waste to be collected in yellow bags as per the norms of Bio Medical Waste Management have been procured centrally by SUDA and delivered to the ULBs. Initially 1 lakh yellow bags have been procured and delivered as per following distribution :-

Sl. No.	Municipal Corporation	Quantity to be delivered
(1)	Kolkata MC	32,000
(2)	Asansol MC	10,000
(3)	Bidhannagar MC	20,000
(4)	Howrah MC	20,000
(5)	Chandernagore MC	5,000
(6)	Durgapur MC	5,000
(7)	Siliguri MC	5,000
(8)	SUDA Office	3,000

Further yellow bags will be delivered as per requisition.

7. A coordination meeting between representatives of the seven Municipal Corporations, Superintendent / Assistant Superintendent of identified health facilities (Points of collection for the Bio Medical Waste) and the concerned agencies assigned to lift the Bio Medical Waste for treatment was held as per the detail below.

Sl. No.	Municipal Corporation	Coordination Meeting Date
(1)	Kolkata MC	Specifics of meeting will be intimated in due course
(2)	Asansol MC	24.04.2020
(3)	Bidhannagar MC	27.05.2020
(4)	Howrah MC	28.05.2020
(5)	Chandernagore MC	27.05.2020
(6)	Durgapur MC	03.06.2020
(7)	Siliguri MC	Specifics of meeting will be intimated in due course

The Minutes of the Meeting are annexed.

8. The Minutes of the seven separate meeting are kept on record.
9. The collection of Bio Medical Waste is being monitored by SUDA on behalf of the UD & MA Department.
10. 30th April – VC with CPCB regarding Covid-19 waste followed by discussion with Principal Secretary, Environment and Member Secretary, WBPCB regarding Action Points.
11. The Corporations have been asked to submit compliance report immediately. In all Municipal Corporations process of collection of bio medical wastes (Covid-19) have started.
12. For rest of ULBs instruction has been sent already for compliance and phase wise video conference have been held on 5th May, 6th May and 7th May, 2020
13. All correspondence / supply orders etc. issued are annexed for kind perusal.

Further updated may be reported.

8.6.2020.

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-11011(16)/1/2020/10628

03.06.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDATo : Additional Secretary,
Health & Family Welfare Department, West Bengal.Sub : Collection of Bio-Medical Waste from the households quarantined
at the 7 (seven) Municipal Corporations area.

Sir,

Apropos the captioned subject, as you are aware in terms of the order issued by the National Green Tribunal vide no.OA/72/2020 dated 21.04.2020 and the directives of the Central Pollution Control Board vide no.B-31011/BMW(94)/2020 dated 19.04.2020, the Urban Development & Municipal Affairs Department is entrusted to collect the Bio-Medical Waste generated from the households that are quarantined. The Bio-Medical Waste of the Covid hospitals of the quarantined centres are being taken care of by the Health & Family Welfare Department.

After detail discussions, it has been decided to initiate the collection of Bio-Medical Waste from quarantined households at the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC. Yellow bags have been procured centrally by SUDA and will be delivered to the ULBs within 19.05.2020. The households will keep the Bio-Medical Waste in yellow bags and conservancy staff of the ULB with necessary protection will collect the bags twice every week on Tuesday and Friday from the quarantined residents.

It has been further decided that the yellow bags collected from the quarantined residents will be deposited at the Common Collection Site of the nearest Medical College/ District Hospital/ Sub-Divisional Hospital. The Corporation-wise list of Hospitals as collection points are annexed. The Health & Family Welfare Department may communicate the arrangement to the concerned MSVP / Superintendent of the Hospital to extend necessary cooperation.

The filled up yellow bags will be collected by the same agency authorised to collect Bio-Medical Waste from the facility by the Health & Family Welfare Department. The weightment of the Bio-Medical Waste collected and trips undertaken by the agencies will be recorded by the Municipal Corporations in coordination with the local Hospitals. Payment will be made directly to the agency from SUDA on submission of certified bills by the Municipal Corporations. Copy of the engagement order issued to the 2 (two) agencies are annexed.

This is for kind information & necessary action.

Encl : As stated

Yours faithfully,

3.6.2020.

Director, SUDA

দুরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

Copy forwarded for kind information to :

- (1) Commissioner, Kolkata MC.
- (2) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/ Durgapur/ Siliguri Municipal Corporation.
- (3) Director, Health Services, Health & Family Welfare Department, Govt. of West Bengal.
- (4) Smt. Nandini Ghosh, Joint Secretary, UD & MA Department.
- (5) MSVP, R.G.Kar MCH / ID&BG Hospital.
- (6) CMOH, Howrah / North 24 Parganas / Hooghly / Paschim Burdwan / Darjeeling.
- (7) Superintendent, M.R.Bangur Hospital/ Asansol DH/ Durgapur SDH/ Chandernagore SDH/ Howrah DH/ Salt Lake SDH.
- (8) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (9) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.
- (10) PS to Secretary, Health & Family Welfare Department, Govt. of West Bengal.

6-1 3.6.2020
Director, SUDA

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-11011(16)/1/2020/10629

03.06.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDA

To : (1) Commissioner, Kolkata MC.
(2) Commissioner, Asansol MC/ Bidhannagar MC/ Howrah MC/
Chandernagore MC/ Durgapur MC/ Siliguri MC.

Sub : Collection of Bio-Medical Waste from the households quarantined
at the 7 (seven) Municipal Corporations area.

Sir,

Apropos the captioned subject, as you are aware in terms of the order issued by the National Green Tribunal vide no.OA/72/2020 dated 21.04.2020 and the directives of the Central Pollution Control Board vide no.B-31011/BMW(94)/2020 dated 19.04.2020, the Urban Development & Municipal Affairs Department is entrusted to collect the Bio-Medical Waste generated from the households that are quarantined. The Bio-Medical Waste of the Covid hospitals of the quarantined centres are being taken care of by the Health & Family Welfare Department.

- (1) After detail discussions, it has been decided to initiate the collection of Bio-Medical Waste from quarantined households at the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC will be the responsibility of the UD & MA Department.
- (2) Yellow bags have been procured centrally by SUDA and will be delivered to the ULBs within 19.05.2020 (copy of the work order annexed) for the quarantined households to collect the Bio-Medical Waste.
- (3) An IEC to be done by the ULBs on the different types of Bio-Medical Waste to be collected in the yellow bags. A specimen leaflet is annexed. The leaflet to be printed at the local level and distributed at the quarantined houses.
- (4) The households will keep the Bio-Medical Waste in yellow bags and conservancy staff of the ULB will collect the bag twice every week on Tuesday & Friday from the quarantined residents.
- (5) It has been further decided that the yellow bags collected from the quarantined residents will be deposited at the Common Collection Site of the nearest Medical College/ District Hospital/ Sub-Divisional Hospital. The Corporation-wise list of Hospitals as collection points are annexed. The Health & Family Welfare Department will communicate the arrangement to the concerned MSVP / Superintendent of the Hospital (list of the assigned facilities attached).
- (6) The filled up yellow bags will be collected by the same agency authorised to collect Bio-Medical Waste from the facility by the Health & Family Welfare Department. The Municipal Corporation wise facilities from where the Bio-Medical Waste to be collected is annexed. The contact details of the Nodal Officers are also mentioned in the Annexure.

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

- (7) Municipal Corporation will make necessary arrangement for weightment of the Bio-Medical Waste and the trips undertaken by the Agency in consultation with the attached Hospital.
- (8) Payment will be made directly to the agency from SUDA on submission of certified bills by the Municipal Corporations.
Copy of the engagement order issued to the 2 (two) agencies are annexed.

All concerned may be briefed accordingly.

Enclo : As stated

Yours faithfully,

3.6.2020
Director, SUDA

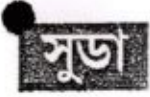
SUDA-11011(16)/1/2020/10629/1(10)

03.06.2020

Copy forwarded for kind information to :

- (1) Mayor, Bidhannagar MC/ Durgapur MC/ Asansol MC.
- (2) Director, Health Services, Health & Family Welfare Department, Govt. of West Bengal.
- (3) Shri Subhra Chakraborty, Additional Secretary, Health & Family Welfare Department, Govt. of West Bengal.
- (4) Smt. Nandini Ghosh, Joint Secretary, UD & MA Department.
- (5) MSVP, R.G.Kar MCH / ID&BG Hospital.
- (6) CMOH, Howrah / North 24 Parganas / Hooghly / Paschim Burdwan / Darjeeling.
- (7) Superintendent, M.R.Bangur Hospital/ Asansol DH/ Durgapur SDH/ Chandernagore SDH/ Howrah DH/ Salt Lake SDH.
- (8) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (9) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.
- (10) PS to Secretary, Health & Family Welfare Department, Govt. of West Bengal.

3.6.2020
Director, SUDA



রাজ্য নগর উন্নয়ন সংস্থা



STATE URBAN DEVELOPMENT AGENCY

"ইলগাস ভবন", এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

"ILGUS BHAVAN", H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ক্রমিক নং SUDA-11011(16)/1/2020/10538

তারিখ 18.05.2020

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDA

To : GreenTech Environ Management Pvt. Ltd.,
847/1A, Block-A, Lake Town,
Kolkata-700089.

Sub : Engagement order for lifting of Bio-Medical Waste in connection
with Covid-19 from designated Municipal Corporations

Sir,

Apropos the captioned subject, in compliance with the orders issued by the National green Tribunal and directives given by the Central Pollution Control Board, Bio-Medical Waste in connection with Covid-19 will have to be lifted from all quarantined households initially in the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC.

Your offer received vide no.Nil dated 16.05.2020 has been accepted by SUDA to lift the Bio-Medical Waste generated by the quarantined households in the Kolkata MC area from the designated pick up point at ID&BG Hospital and M.R.Bangur Hospital as per the following commercial details.

Sl. No.	Particulars	Rate
(1)	Per trip cost for carrying Bio-Medical Waste from designated points at the Municipal Corporation (list annexed)	Rs.1300
(2)	Variable cost for treatment of the Bio-Medical Waste per Kg	Rs.50

All personal protection equipments will be provided from this office for the safety of the Driver and the Picker assigned to lift the Bio-Medical Waste from the designated points to be collected twice every week on Wednesday & Saturday (list of pickup point annexed). The per trip certification and weightment of the Bio-Medical Waste will be the responsibility of the respective Municipal Corporation.

Payment will be made after submission of bill and certification on the number of trips and weight of waste collected in each trip duly certified by the Municipal Corporation.

This engagement is valid for the period from 20.05.2020 to 30.06.2020 as per commercial terms noted above and may be extended at the sole discretion of the Department.

Encl : As stated.

Yours faithfully,

18.05.2020.
Director, SUDA

SUDA-11011(16)/1/2020/10538/1(5)

18.05.2020

Copy forwarded for kind information to :

- (1) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/ Durgapur/ Siliguri Municipal Corporation.
- (2) CMHO, Kolkata MC.
- (3) Chief Engineer, West Bengal Pollution Control Board.
- (4) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (5) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.

18.05.2020.
Director, SUDA

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

**Detail mapping of Nodal Officers of Municipal Corporations and
contact details of Officers at pickup points**

SL. No.	Municipal Corporation	Municipal Commissioner / Nodal Officer of the ULB	Contact No.	Assigned Agency	Pick up points	Nodal person (Name & designation)	Contact No.
1	Kolkata MC	Dr. Soumitra Ghosh, CMHO	9830061346	GreenTech Environ Management Pvt. Ltd.	ID&BG Hospital	Chaitali Sengupta (Asst.Super).	9051475777
2	Kolkata MC	Dr. Soumitra Ghosh, CMHO	9830061346	GreenTech Environ Management Pvt. Ltd.	M.R.Bangur Hospital	Mr.Sagar Chandra Sit(Asst.Super).	8617344125

18.05.2020.

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ
 “ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-11011(16)/1/2020/10539

18.05.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
 Director, SUDA

To : GreenZen Bio Pvt. Ltd.,
 Shop No.S-25, 2nd Floor,
 PBR Tower, 2nd Mile, Sevoke Road,
 Don Bosco More, Siliguri-734001.

Sub : Engagement order for lifting of Bio-Medical Waste in connection
 with Covid-19 from designated Municipal Corporations

Sir,

Apropos the captioned subject, in compliance with the orders issued by the National green Tribunal and directives given by the Central Pollution Control Board, Bio-Medical Waste in connection with Covid-19 will have to be lifted from all quarantined households initially in the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC.

Your offer received vide no.Nil dated 16.05.2020 has been accepted by SUDA to lift the Bio-Medical Waste generated by the quarantined households in the Siliguri MC area from the designated pick up point at Siliguri DH as per the following commercial details.

Sl. No.	Particulars	Rate
(1)	Per trip cost for carrying Bio-Medical Waste from designated points at the Municipal Corporation (list annexed)	Rs.1300
(2)	Variable cost for treatment of the Bio-Medical Waste per Kg	Rs.50

All personal protection equipments will be provided from this office for the safety of the Driver and the Picker assigned to lift the Bio-Medical Waste from the designated points to be collected twice every week on Wednesday & Saturday (list of pickup point annexed). The per trip certification and weightment of the Bio-Medical Waste will be the responsibility of the respective Municipal Corporation.

Payment will be made after submission of bill and certification on the number of trips and weight of waste collected in each trip duly certified by the Municipal Corporation.

This engagement is valid for the period from 20.05.2020 to 30.06.2020 as per commercial terms noted above and may be extended at the sole discretion of the Department.

Encl : As stated.

Yours faithfully,

18.05.2020.
 Director, SUDA

SUDA-11011(16)/1/2020/10539/1(5)

18.04.2020

Copy forwarded for kind information to :

- (1) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/
 Durgapur/ Siliguri Municipal Corporation.
- (2) CMHO, Kolkata MC.
- (3) Chief Engineer, West Bengal Pollution Control Board.
- (4) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (5) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.

18.05.2020.
 Director, SUDA

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

**Detail mapping of Nodal Officers of Municipal Corporations and
contact details of Officers at pickup points**

SL. No.	Municipal Corporation	Municipal Commissioner / Nodal Officer of the ULB	Contact No.	Assigned Agency	Pick up points	Nodal person (Name & designation)	Contact No.
1	Siliguri MC	Shri Sonam Bhutia, Commissioner	9733380198	GreenZen Bio Pvt. Ltd.	Siliguri District Hospital	Mr. Biplab Burma (Asst. Super)	9832361072

6
18.05.2016.

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-11011(16)/1/2020/10541

18.05.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDATo : Additional Secretary,
Health & Family Welfare Department, West Bengal.Sub : Collection of Bio-Medical Waste from the households quarantined
at the 7 (seven) Municipal Corporations area.

Sir,

Apropos the captioned subject, as you are aware in terms of the order issued by the National Green Tribunal vide no.OA/72/2020 dated 21.04.2020 and the directives of the Central Pollution Control Board vide no.B-31011/BMW(94)/2020 dated 19.04.2020, the Urban Development & Municipal Affairs Department is entrusted to collect the Bio-Medical Waste generated from the households that are quarantined. The Bio-Medical Waste of the Covid hospitals of the quarantined centres are being taken care of by the Health & Family Welfare Department.

After detail discussions, it has been decided to initiate the collection of Bio-Medical Waste from quarantined households at the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC. Yellow bags have been procured centrally by SUDA and will be delivered to the ULBs within 19.05.2020. The households will keep the Bio-Medical Waste in yellow bags and conservancy staff of the ULB with necessary protection will collect the bags twice every week on Tuesday and Friday from the quarantined residents.

It has been further decided that the yellow bags collected from the quarantined residents will be deposited at the Common Collection Site of the nearest Medical College/ District Hospital/ Sub-Divisional Hospital. The Corporation-wise list of Hospitals as collection points are annexed. The Health & Family Welfare Department may communicate the arrangement to the concerned MSVP / Superintendant of the Hospital to extend necessary cooperation.

The filled up yellow bags will be collected by the same agency authorised to collect Bio-Medical Waste from the facility by the Health & Family Welfare Department. The weightment of the Bio-Medical Waste collected and trips undertaken by the agencies will be recorded by the Municipal Corporations in coordination with the local Hospitals. Payment will be made directly to the agency from SUDA on submission of certified bills by the Municipal Corporations. Copy of the engagement order issued to the 2 (two) agencies are annexed.

This is for kind information & necessary action.

Encl : As stated

Yours faithfully,

18.05.2020.

Director, SUDA

দুরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

Copy forwarded for kind information to :

- (1) Commissioner, Kolkata MC.
- (2) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/ Durgapur/ Siliguri Municipal Corporation.
- (3) Director, Health Services, Health & Family Welfare Department, Govt. of West Bengal.
- (4) Smt. Nandini Ghosh, Joint Secretary, UD & MA Department.
- (5) MSVP, R.G.Kar MCH / ID&BG Hospital.
- (6) CMOH, Howrah / North 24 Parganas / Hooghly / Paschim Burdwan / Darjeeling.
- (7) Superintendent, M.R.Bangur Hospital.
- (8) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (9) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.
- (10) PS to Secretary, Health & Family Welfare Department, Govt. of West Bengal.

18.05.2020.
Director, SUDA

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

SUDA-11011(16)/1/2020/10540

18.05.2020

ক্রমিক নং

তারিখ

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDATo : Medicare Environmental Management Pvt. Ltd.,
41 'F' Road, Belgachia,
Howrah-711105.Sub : Engagement order for lifting of Bio-Medical Waste in connection
with Covid-19 from designated Municipal Corporations

Sir,

Apropos the captioned subject, in compliance with the orders issued by the National green Tribunal and directives given by the Central Pollution Control Board, Bio-Medical Waste in connection with Covid-19 will have to be lifted from all quarantined households initially in the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC.

Your offer received vide no.Nil dated 15.05.2020 has been accepted by SUDA to lift the Bio-Medical Waste generated by the quarantined households in the Howrah MC, Chandernagore MC, Bidhannagar MC, Asansol MC, Durgapur MC & Kolkata MC area from the designated pick up point (detail annexed) as per the following commercial details.

Sl. No.	Particulars	Rate
(1)	Per trip cost for carrying Bio-Medical Waste from designated points at the Municipal Corporation (list annexed)	Rs.1300
(2)	Variable cost for treatment of the Bio-Medical Waste per Kg	Rs.50


All personal protection equipments will be provided from this office for the safety of the Driver and the Picker assigned to lift the Bio-Medical Waste from the designated points to be collected twice every week on Wednesday & Saturday (list of pickup point annexed). The per trip certification and weightment of the Bio-Medical Waste will be the responsibility of the respective Municipal Corporation.

Payment will be made after submission of bill and certification on the number of trips and weight of waste collected in each trip duly certified by the Municipal Corporation.

This engagement is valid for the period from 20.05.2020 to 30.06.2020 as per commercial terms noted above and may be extended at the sole discretion of the Department.

Enclo : As stated.

Yours faithfully,


 18.05.2020.
Director, SUDA

SUDA-11011(16)/1/2020/10540/1(5)

18.04.2020

Copy forwarded for kind information to :

- (1) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/ Durgapur/ Siliguri Municipal Corporation.
- (2) CMHO, Kolkata MC.
- (3) Chief Engineer, West Bengal Pollution Control Board.
- (4) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (5) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.

 18.05.2020.
Director, SUDA

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

**Detail mapping of Nodal Officers of Municipal Corporations and
contact details of Officers at pickup points**

SL. No.	Municipal Corporation	Municipal Commissioner / Nodal Officer of the ULB	Contact No.	Assigned Agency	Pick up points	Nodal person (Name & designation)	Contact No.
1	Kolkata MC	Dr. Soumitra Ghosh, CMHO	9830061346	Medicare Environmental Management Pvt. Ltd.	R.G.Kar MCH	Prof. Manas Kumar Bandopadhyay, MSVP Mr. Arkendra Mohan Sinha, Assist. Super	9830295321 9064757772
2	Asansol MC	Khursheed Ali Qadri, Commissioner	9083254849	Medicare Environmental Management Pvt. Ltd.	District Hospital Asansol	Dr. Nikhil Das, Superintendent Kankon Roy, Assist. Super	9475379132 9832142228
3	Bidhannagar MC	Shri Monodip Mukherjee, Executive Engineer	9830276345	Medicare Environmental Management Pvt. Ltd.	Salt Lake Sub-divisional Hospital	Sr. Swati Pramanik, Superintendent Mrs. Priyangana Bhuiaya, Assist. Super	9088897309 2337-3953
4	Howrah MC	Shri Tapash Bhattacharjee, Deputy Commissioner	8617309134	Medicare Environmental Management Pvt. Ltd.	Howrah District Hospital	Dr. Narayan Chattopadhyay, Superintendent Shri Ashish Chakraborty, Assist. Super	8334900993 9674837136
5	Chandernagore MC	Shri Swapan Kundu, Commissioner	9474867141	Medicare Environmental Management Pvt. Ltd.	Chandernagore Sub-divisional Hospital	Dr. Jagannath Mondai, Superintendent Santanu Mukherjee, Assist. Super	9434430512 7001478705
6	Durgapur MC	Shri Puspendu Mitra, Commissioner	6295894735	Medicare Environmental Management Pvt. Ltd.	Durgapur Sub-divisional Hospital	Dr. Deabrata Das, Superintendent Dr. Soumyadeep Mondal, Assist. Super	8900011006 8583804624

18.05.2020

রাজ্য নগর উন্নয়ন সংস্থা

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ক্রমিক নং SUDA-11011(16)/1/2020/10542

তারিখ 18.05.2020

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDA

To : (1) Commissioner, Kolkata MC.
(2) Commissioner, Asansol MC/ Bidhannagar MC/ Howrah MC/
Chandernagore MC/ Durgapur MC/ Siliguri MC.

Sub : Collection of Bio-Medical Waste from the households quarantined
at the 7 (seven) Municipal Corporations area.

Sir,

Apropos the captioned subject, as you are aware in terms of the order issued by the National Green Tribunal vide no.OA/72/2020 dated 21.04.2020 and the directives of the Central Pollution Control Board vide no.B-31011/BMW(94)/2020 dated 19.04.2020, the Urban Development & Municipal Affairs Department is entrusted to collect the Bio-Medical Waste generated from the households that are quarantined. The Bio-Medical Waste of the Covid hospitals of the quarantined centres are being taken care of by the Health & Family Welfare Department.

- (1) After detail discussions, it has been decided to initiate the collection of Bio-Medical Waste from quarantined households at the 7 (seven) Municipal Corporations of Kolkata MC, Asansol MC, Bidhannagar MC, Howrah MC, Chandernagore MC, Durgapur MC & Siliguri MC will be the responsibility of the UD & MA Department.
- (2) Yellow bags have been procured centrally by SUDA and will be delivered to the ULBs within 19.05.2020 (copy of the work order annexed) for the quarantined households to collect the Bio-Medical Waste.
- (3) An IEC to be done by the ULBs on the different types of Bio-Medical Waste to be collected in the yellow bags. A specimen leaflet is annexed. The leaflet to be printed at the local level and distributed at the quarantined houses.
- (4) The households will keep the Bio-Medical Waste in yellow bags and conservancy staff of the ULB will collect the bag twice every week on Tuesday & Friday from the quarantined residents.
- (5) It has been further decided that the yellow bags collected from the quarantined residents will be deposited at the Common Collection Site of the nearest Medical College/ District Hospital/ Sub-Divisional Hospital. The Corporation-wise list of Hospitals as collection points are annexed. The Health & Family Welfare Department will communicate the arrangement to the concerned MSVP / Superintendent of the Hospital (list of the assigned facilities attached).
- (6) The filled up yellow bags will be collected by the same agency authorised to collect Bio-Medical Waste from the facility by the Health & Family Welfare Department. The Municipal Corporation wise facilities from where the Bio-Medical Waste to be collected is annexed. The contact details of the Nodal Officers are also mentioned in the Annexure.

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com


Account Section : 2358 6408

- (7) Municipal Corporation will make necessary arrangement for weightment of the Bio-Medical Waste and the trips undertaken by the Agency in consultation with the attached Hospital.
- (8) Payment will be made directly to the agency from SUDA on submission of certified bills by the Municipal Corporations.
Copy of the engagement order issued to the 2 (two) agencies are annexed.

All concerned may be briefed accordingly.

Encl : As stated

Yours faithfully,


 18.05.2020.
Director, SUDA

SUDA-11011(16)/1/2020/10542/1(10)

18.05.2020

Copy forwarded for kind information to :

- (1) Mayor, Bidhannagar MC/ Durgapur MC/ Asansol MC.
- (2) Director, Health Services, Health & Family Welfare Department, Govt. of West Bengal.
- (3) Shri Subhra Chakraborty, Additional Secretary, Health & Family Welfare Department, Govt. of West Bengal.
- (4) Smt. Nandini Ghosh, Joint Secretary, UD & MA Department.
- (5) MSVP, R.G.Kar MCH / ID&BG Hospital.
- (6) CMOH, Howrah / North 24 Parganas / Hooghly / Paschim Burdwan / Darjeeling.
- (7) Superintendent, M.R.Bangur Hospital.
- (8) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (9) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.
- (10) PS to Secretary, Health & Family Welfare Department, Govt. of West Bengal.

 18.05.2020.
Director, SUDA

STATE URBAN DEVELOPMENT AGENCY

“ইলগাস ভবন”, এইচ-সি ব্লক, সেক্টর-৩, বিধাননগর, কলকাতা-৭০০ ১০৬, পশ্চিমবঙ্গ

“ILGUS BHAVAN”, H-C Block, Sector - III, Bidhannagar, Kolkata - 700 106, West Bengal

ক্রমিক নং SUDA-11011(16)/1/2020/10533

তারিখ 16.04.2020

From : Shri Santanu Mukherjee, WBCS(Exe.),
Director, SUDATo : Prova Irrigation Equipments Co.,
55, Chanditala Main Road,
Kolkata-700053.

Sub : Supply order for Bio-Medical Waste bags for 1,00,000 pcs. (Yellow)

Sir,

Apropos the captioned subject, your quotation vide no.PIE/BIO/SUDA/01/20-21 dated 05.05.2020 for supply of 1,00,000 pieces Bio-Medical Waste bags (Yellow) as per detail below has been accepted by SUDA.

Sl. No.	Particulars	Quantity	Price
1	Bio-Medical Waste bags (Yellow)	1 lakh	Rs.3.55 + 18% GST

You are requested to supply the entire consignment immediately to the following locations.

Sl. No.	Municipal Corporation	Quantity to be delivered
(1)	Kolkata MC	30,000
(2)	Asansol MC	10,000
(3)	Bidhannagar MC	20,000
(4)	Howrah MC	20,000
(5)	Chandernagore MC	5,000
(6)	Durgapur MC	5,000
(7)	Siliguri MC	5,000
(8)	SUDA office	5,000

Payment will be made after submission of bill along with challan duly certified.

Yours faithfully,

Director, SUDA

16.04.2020

SUDA-11011(16)/1/2020/10533/1(5)

Copy forwarded for kind information to :

- (1) Commissioner, Bidhannagar/ Howrah/ Chandernagore/ Asansol/ Durgapur/ Siliguri Municipal Corporation.
- (2) CMHO, Kolkata MC.
- (3) Chief Engineer, West Bengal Pollution Control Board.
- (4) PS to Hon'ble MIC, UD & MA Department, Govt. of West Bengal.
- (5) PS to Principal Secretary, UD & MA Department, Govt. of West Bengal.

Director, SUDA

দূরভাষ : ২৩৫৮ ৬৪০৩ / ৫৭৬৭, ফ্যাক্স : ২৩৫৮ ৫৮০০

Tel : 2358 6403/5767, Fax : 2358 5800, E-mail : wbsudadir@gmail.com

Account Section : 2358 6408

Report in connection with O.A. No. 72/2020 report read with O.A. No. 30/2020/EZ

The National Green Tribunal passed an order on 21st April, 2020 in connection with Scientific Disposal of Bio Medical Waste arising out of Covid-19 Treatment and compliance of Bio Medical Waste Management Rules 2016. The Central Pollution Control Board (CPCB) also issued for Handling Treatment and Disposal of waste generated during treatment / diagnosis / quarantine of Covid-19 Patients.

The matter was discussed in two separate meetings chaired by Principal Secretary, Environment Department on 30th April, 2020. Officers of the Health & Family Welfare Department, UD & MA Department and Environment Department were also present. The roles and responsibilities of different departments in for Handling Treatment and Disposal of waste generated during treatment / diagnosis / quarantine of Covid-19 Patients were delineated.

While the waste generated from the COVID Hospitals, Isolation facilities and Quarantine Centers will continue to manage by the Health & Family Welfare Department, the waste generated from the Quarantine Households will be handled and disposed by the UD & MA Department through the Urban Local Bodies.

Action Taken :

1. It was initially decided to start collection and disposal of Covid Waste from the Quarantine Households of seven Municipal Corporation areas.
2. a. In this connection a coordination meeting was held at SUDA on 4th of May, 2020. Principal Secretary, UD & MA Department chaired the meeting. Officers from the West Bengal Pollution Control Board, UD & MA Department and Commissioners / or their Representatives of KMC, HMC, BMC, Chandernagore Municipal Corporation, Asansol Municipal Corporation, Durgapur Municipal Corporation and Siliguri Municipal Corporation.

b. VC with all ULBs held on 5th May, 6th May and 7th May, 2020
3. The two existing authorized agencies of the Health & Family Welfare Department for collection of Bio Medical Waste namely GreenTech Environ Management Pvt. Ltd and Medicare Environmental Management Pvt. Ltd. Have been assigned to collect the Bio Medical Waste of the Quarantine Households from identified hospitals in the seven Municipal Corporation areas. A negotiated cost for per trip has been agreed with both the agencies and approved by the UD & MA Department.

4. All Personal Protective Equipment (PPE) including Hand Sanitizers has been provided to the staff engaged by the two authorized agencies for collection of the Bio Medical Waste from the common collection site of the identified health facilities have been provided by SUDA centrally.
5. The Bio Medical Waste to be collected from the Quarantine Households and deposited at the common collection sites of the identified hospitals by the conservancy staff / any other category staff as decided by the Municipal Corporations.
6. The Bio Medical Waste to be collected in yellow bags as per the norms of Bio Medical Waste Management have been procured centrally by SUDA and delivered to the ULBs. Initially 1 lakh yellow bags have been procured and delivered as per following distribution :-

Sl. No.	Municipal Corporation	Quantity to be delivered
(1)	Kolkata MC	32,000
(2)	Asansol MC	10,000
(3)	Bidhannagar MC	20,000
(4)	Howrah MC	20,000
(5)	Chandernagore MC	5,000
(6)	Durgapur MC	5,000
(7)	Siliguri MC	5,000
(8)	SUDA Office	3,000

Further yellow bags will be delivered as per requisition.

7. A coordination meeting between representatives of the seven Municipal Corporations, Superintendent / Assistant Superintendent of identified health facilities (Points of collection for the Bio Medical Waste) and the concerned agencies assigned to lift the Bio Medical Waste for treatment was held as per the detail below.

Sl. No.	Municipal Corporation	Coordination Meeting Date
(1)	Kolkata MC	Specifics of meeting will be intimated in due course
(2)	Asansol MC	24.04.2020
(3)	Bidhannagar MC	27.05.2020
(4)	Howrah MC	28.05.2020
(5)	Chandernagore MC	27.05.2020
(6)	Durgapur MC	03.06.2020
(7)	Siliguri MC	Specifics of meeting will be intimated in due course

The Minutes of the Meeting are annexed.

8. The Minutes of the seven separate meeting are kept on record.
9. The collection of Bio Medical Waste is being monitored by SUDA on behalf of the UD & MA Department.
10. 30th April – VC with CPCB regarding Covid-19 waste followed by discussion with Principal Secretary, Environment and Member Secretary, WBPCB regarding Action Points.
11. The Corporations have been asked to submit compliance report immediately. In all Municipal Corporations process of collection of bio medical wastes (Covid-19) have started.
12. For rest of ULBs instruction has been sent already for compliance and phase wise video conference have been held on 5th May, 6th May and 7th May, 2020
13. All correspondence / supply orders etc. issued are annexed for kind perusal.

Further updated may be reported.

Government of West Bengal
Urban Development & Municipal Affairs Department
(Municipal Affairs Branch)
"NAGARAYAN"
DF-8, Sector-I, Salt Lake City, Kolkata 700 064

No.228 (Law)/C-12/NGT/3S-03/2020

Dated, Kolkata, 5th June, 2020

From : Joint Secretary to the Govt. of W.B.

To : The Director, State Urban Development Agency (SUDA),
ILGUS Bhavan, Block-HC,
Sector-III, Salt Lake City, Kolkata – 700091

Sub: O.A. No. 72/2020/EZ
(In Re:Scientific disposal of Bio-medical Waste arising out of Covid-19
treatment-Compliance of BMW Rules,2016)
Ref: NGT Order dated 21.04.2020
&
O.A. No. 30/2020/EZ
(Subhas Datta -vs- State of West Bengal & Ors.)
Ref: NGT Order dated 18.05.2020

Sir,

With reference to the above subject matter, I am directed to inform you that in the first case (OA No.72/2020), Hon'ble NGT has passed an order on 21.04.2020 directing *inter-alia* the State Department of Environment and PCBs /PCCs to ensure the compliance BWM Rules'2016 and furnish an action taken report to CPCB and CPCB take further steps and furnish a consolidated report to the Tribunal of the steps taken and the ground status as on **31.05.2020**. In the second case (OA No.30/2020/EZ), Hon'ble NGT has passed an order on 18.05.2020 directing *inter-alia* the Chief Secretary, Government of West Bengal, in coordination with the concerned Departments and the State Pollution Control Board, to look into the matter and take tangible and urgent steps to implement the CPCB guidelines on Covid-19 and to submit a report on the implementation of the guidelines in the light of the observations in O.A. No.72/2020.

In view of the above, in the first case (OA No.72/2020), SUDA may be requested to send a report to Environment Department and WBPCB immediately so that Environment Department may compile the report and send it to CPCB within stipulated time with an intimation to this Department and in the second case (OA No.30/2020/EZ), a report may also be sent to Environment Department so that they may file the report on behalf of the Chief Secretary in compliance with the order of Hon'ble NGT.

This may be treated as extremely urgent.

Encl: As stated above.

Yours faithfully,

Chandhwa
05.06.2020

Joint Secretary

No.228/1(1)/ (Law)/C-12/NGT/3S-03/2020

Dated, Kolkata, 5th June, 2020

Copy forwarded for information to:

Sr. P.A. to the Principal Secretary, UD & MA Department, "NAGARAYAN", DF-8, Sector-I, Salt Lake City, Kolkata 700 064

Chandhwa
05.06.2020
Joint Secretary

Item No. 03

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
(Through Video Conferencing)**

Original Application No. 30/2020/EZ

Subhas Datta

Applicant

Versus

State of West Bengal & Ors

Respondent(s)

Date of hearing: 18.05.2020

**CORAM : HON'BLE MR. JUSTICE S. P. WANGDI, JUDICIAL MEMBER
HON'BLE MR. SIDDHANTA DAS, EXPERT MEMBER**

Applicant(s) : Mr. Subhas Datta, Applicant in person

ORDER

1. Case taken up by video conference on *Vidyo App*.
2. In this application the applicant alleges non-compliance of the guidelines prescribed by the Central Pollution Control Board on handling, treatment and disposal of Bio Medical Waste of Covid-19 patient with specific reference to the Bio Medical Waste arising out of home quarantine in the State of West Bengal.
3. It is contended that the State Government has failed to implement the guidelines causing serious health hazard to the general public.

4. By referring to some photographs, the applicant contends that the Covid-19 wastes are being disposed of indiscriminately in open dumping grounds.
5. It may be relevant to note that the matter relating to implementation of the guidelines referred to by the applicant has been dealt with specifically in O.A. No. 72/2020 taken up *Suo Moto* by the Tribunal where concern has been expressed with regard to the inadequacy of the rules as well as its implementation.
6. By order dated 23.04.2020, it has been observed as follows:
 7. *“COVID 19 pandemic has emerged in the last few months and has affected number of people across the world. More than one and a half lac people have died world over and more than 600 in India. The virus spreads mainly by droplets and also by touch of contaminated articles. To prevent spread, lock down has been enforced, restricting people to their homes, so as to avoid social contact. Affected persons are treated in hospitals and those suspected are quarantined in various facilities or at home. Large scale testing has been and is being done. By way of precaution, masks, gloves, PPE etc. are used which are disposed of thereafter. In the process, huge bio-medical waste is generated which itself can be source of disease. While the BMW Rules generally take care of the situation by way elaborate provisions to deal with biomedical waste generated in dealing with infectious diseases such as HIV, HINI etc., present pandemic has presented further challenge inter-alia on account of:*
 - i. *Existing gaps in compliance of BMW Rules in terms of capacity to scientifically dispose of generated waste and non-compliance of procedural and monitoring aspects;*
 - ii. *COVID-19 virus has emerged suddenly and is highly infectious, requiring more precautions compared to other infectious diseases.*

8. To deal with the situation, CPCB has issued guidelines which were last updated on 18.04.2020. The updated guidelines are:

“Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.2

“In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This Revision-2 of guidelines is mainly to incorporate specific requirements and responsibilities of persons operating sewage treatment plants at Healthcare Facilities and to clarify on management of general waste from quarantine homes and masks/gloves from other households.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

(a) COVID-19 Isolation wards: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- *Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.*

- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016.
- Maintain separate record of waste generated from COVID-19 isolation wards
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.
- 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 ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellow bag/container. However, if a bedpan is used, then feces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water.^{a1}
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag;^{a2}
- Collect used masks (including triple layer mask, N95 mask, etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-

plastic coverall in Yellow bags. a³

[a1 to a3 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(b) Sample Collection Centers and Laboratories for COVID-19 suspected patients

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories. Pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 and collect in Red bags. b¹

[b1 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities*

Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Home-care facilities. However, the persons responsible for operating quarantine camps/centers/home-care for suspected COVID-19 persons need to follow the below mentioned steps to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.
- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated. Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
- Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
- Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or

container; or

- Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
- Persons operating Quarantine camps/centers or Quarantine-homes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

Clarifications:

- Quarantine Camps / Quarantine-Home are the places where suspected people or the contacts of suspected / confirmed cases who have been directed by authorized hospitals or local authorities to stay at home for at least 14 days or more for observation for any symptom of COVID-19, if any.
- Homecare – Home care facility is a home where care is to be provided to a COVID-19 positive patient at home. ^{c1}
- Biomedical waste at Quarantine Camps / Home-care may also comprise of used syringes, date expired or discarded medicines, used masks/gloves and in case of patients with other chronic diseases may also include drain bags, urine bags, body fluid or blood soaked tissues/cotton, empty ampules etc.
- Biomedical waste generated from Quarantine Camps / Quarantine-Home / Home-care would be treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines.
- General waste from Quarantine Camps / Quarantine-Home / Home-care shall be disposed as solid waste as per provisions under SWM Rules, 2016
- Used masks and gloves generated from home quarantine or other households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste. It is advisable to cut the masks prior to disposal to prevent reuse. ^{c2}

[*Amended in Rev. 1 of guidelines dated 25/03/2020]

[c1 and c2 Amended in Rev. 2 of guidelines dated 18/04/2020]

[c2: Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators]

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

- Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;

- Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
- Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;
- Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;
- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
- COVID-19 waste should be disposed-off immediately upon receipt at facility.

In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCs.

- Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
- Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

(e) Duties of SPCBs/PCCs

- Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantines homes in respective States.
- Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SOPs given in this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;
- May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required;
- *In case of States not having CBWTFs as well as rural or remote areas, not having access to CBWTFs, the existing captive facilities of any hospital may be identified for disposal of COVID- 19 waste as per provisions under BMW Rules, 2016 and these guidelines. This may include permitting use of deep burial pits for disposal of yellow category waste as per standards prescribed in Schedule II of Bio-medical Waste Management Rules, 2016.*
- Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.
- In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement

for handling and waste feeding.

[e¹Amended in Rev. 2 of guidelines dated 18/04/2020]

(f) Duties of Urban Local Bodies +

Urban Local Bodies are responsible for ensuring safe collection and disposal of biomedical waste, if any, generated from Quarantine Camps/ Quarantine Homes/ Home Care for COVID-19 suspected persons.

- Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;
- In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;
- Provide necessary support, security including authorisation to staff of CBWTFs;
- ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.
- ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/ Home care;
 - a) Engage authorized waste collectors for door steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF; and/or
 - b) In case number of quarantined homes/Home-care units are less, ULBs may engage services of CBWTFs to collect the waste directly from door-steps.
 - Provide yellow colored bags (designated for BMW) to the persons responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.
 - ULBs shall ensure the following in engaging authorized waste collectors at door-steps or at waste deposition centers;
 - o Create a separate team of workers who shall be engaged in door step waste collection at waste deposition centres or at quarantine homes or home care.
 - o Ensure that only designated staff collects biomedical waste from quarantine homes or home care.

- Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste.
- Impart training to waste collector in handling of biomedical waste including methods of sanitization. Training to waste collectors should be arranged through CBWTF operators;
- The staff involved in handling and collection of waste from quarantine homes or home care centers shall be provided with adequate Personnel Protective Equipment such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles. These PPEs are required to be worn all the time while collecting of waste from quarantine center/quarantine homes/home care/waste deposition centres.
- Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% hypochlorite after each trip.
- Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos if any may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed of as per SWM Rules, 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.
- Local agencies / ULBs may take additional measures considering prevailing ground situations and feasibility, however while implementing such measures requirements outlined in these guidelines should be complied.^{f1}

[+ Inserted in Rev. 1 of
guidelines dated
25/03/2020] ^{f1}
Amended in Rev. 2 of
guidelines dated
18/04/2020]

(g) Management of wastewater from HCFs / Isolation Wards **

As per the information available at CDC, the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants, however there is no evidence to date that this has occurred. Therefore, following guidance recommended for HCFs and the operators of STPs:

- Responsible agencies are Healthcare Facilities / Isolation Wards / operators of terminal sewage treatment plants (PHED/Jal Board/etc.).
- HCFs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses.
- 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.
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided."

[+ + inserted in Rev. 2 of guidelines dated 18/04/2020] "

9. There appears to be need for further revision of the guidelines to cover all aspects covering not merely institutions but also individual households and dealing with situations where scientific disposal facilities like incinerators are not available and any unmindful deep burial without adequate safeguards can adversely affect the ground water and pose danger to health and safety of people.

Disposal of COVID-19 waste in general bins so as to be part of municipal waste or unscientific handling sewage and other liquid waste without safeguards can also be hazardous. There is also need to incorporate best practices in the light of further experience and new thoughts emerging from time to time, apart from continued supervision and monitoring, compiling data in an online format, use of electronic /digital manifest system to track and log COVID-19 waste from all sources, preventing its accidental spillage, analyzing the data for strategic planning and the feedback by creating necessary software, to the extent viable.

There is also need for creating awareness about the precautions and steps to be taken by all handlers and workers as well as citizens, making a model plan, to be adopted locally by the Panchayat, Sub-division, District and State authorities with such

further changes as may be necessary in local conditions. Health of all operators has been protected and preventive measures taken. There is need for orientation/training of persons responsible for compliance in Local Bodies and Health department by an online mechanism besides providing them with adequate protective gear. CPCB has to take lead and coordinate with media as well as the concerned Central/State departments.

Let the Chief Secretary of States/UTs by coordinating the activities of State's concerned departments like of Urban Development, Health, Irrigation & Public Health also closely monitor the scientific storage, transport, handling, management and disposal of COVID-19 waste as its unscientific handling poses a grave threat environment and health of people. At the national level, let a high level task team of Ministry of MoEF&CC, Health UD, Jal Shakti, Defence and CPCB supervise the handling and scientific disposal of COVID-19 waste in accordance with the guidelines.

Let the State Departments of Environment and PCBs/PCCs ensure compliance of Biomedical Waste Management Rules, 2016 and furnish action take report to CPCB and CPCB take further steps and furnish a consolidated report to this Tribunal of the steps taken and the ground status as on 31.5.2020. The report may be furnished by 15.06.2020.

List for further consideration on 22.06.2020."

- 7. As will be evident from the above, the questions raised by the applicant in the present case has been directly dealt with in O.A No. 72/2020. The Chief Secretaries have been directed to co-ordinate the activities of the concerned departments like the Urban Development, Health, Irrigation and Public Health and to also closely monitor the scientific storage, transport, handling, management and disposal of Covid-19 waste as its unscientific handling poses a grave threat environment and health of

people. Specific directions have also been issued upon the State Departments of Environment and Pollution Control Boards to ensure compliance of the Bio Medical Waste Management Rules, 2016 and to furnish action taken report to the Central Pollution Control Board.

8. Having regard to the seriousness of the question raised by the applicant, and the fact that it is specific to the State of West Bengal, we direct the Chief Secretary, Government of West Bengal, in coordination with the concerned departments and the State Pollution Control Board to look into the matter and take tangible and urgent steps to implement the CPCB guideline on Covid-19.
9. Disposal of the Covid-19 waste requires specific special attention considering its potential of adding to the pandemic.
10. It may be observed that various issues related to disposal of the Covid-19 waste have been considered and the necessity to make the guidelines more effective discussed in the order dated 21.04.2020, the relevant observations of which are as follows:

"We have perused the 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients' issued by the CPCB, last revised on 18.4.2020 and heard

Dr. Prashant Gargava, Member Secretary, CPCB. We had interaction broadly on the need for revision of the laid down guidelines to address all concerns in the light of best practices and experience from time to time so that all aspects of scientific disposal of liquid and solid waste management are taken care of not only at institution level but also at individual levels (such as manner of disposal of used PPEs, used bags, gloves, goggles, etc., without the same getting straightaway mixed with other municipal solid waste causing contamination etc.), dealing with situations where adequate facilities (like incinerators) are not available, distinct colour guidelines for the bins etc., reviewing effectiveness of the monitoring mechanism, including securing information by way of electronic manifest system from the handlers of such waste and its online reporting by the State PCBs/PCCs on daily basis by developing necessary software, creating awareness by special awareness programmers, organizing trainings in concerned Local Bodies, Health Departments, etc., providing workers handling COVID-19 waste with adequate protective gear, adequate coordination with media and other concerned regulatory authorities in the States and the Central Government. We have also observed that out of 2.7 lakh HCFs identified, only 1.1 lakh HCFs are authorized under the BMW Management Rules, 2016 so far. The State PCBs/PCCs have to make serious efforts to bridge this gap to mitigate possible risk in terms of unscientific disposal of bio-medical waste and to enforce rule of law.

We are of the view that to the above extent, the task of PCBs and the CPCB is part of essential health services for COVID-19. The CPCB may convey this to all concerned."

11. In the facts and circumstances, the Chief Secretary shall submit a report on the implementation of the guidelines in

the light of the observations in O.A. No. 72/2020 referred to above.

12. The State Pollution Control Board on its part shall file a separate report dealing with the implementation of the guidelines giving specific information on the manner in which Covid-19 waste is being disposed of.
13. Let both the reports be filed by 08.07.2020 with copy on the applicant.
14. List on 08.07.2020.

S. P. Wangdi, JM

Siddhanta Das, EM

18th May, 2020
O.A. No.30/2020/EZ
pu

Corrected Order Dated 24.04.2020

Item No.01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

(Through Video Conferencing)

Original Application No. 72/2020

In Re: Scientific Disposal of Bio-Medical Waste arising out of
COVID-19 treatment- Compliance of BMW Rules, 2016

Date of hearing: 21.04.2020

Date of uploading of order: 23.04.2020

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For CPCB :

Dr. Prashant Gargava, Member Secretary
for CPCB with Mr. Rajkumar, Advocate

ORDER

1. The issue for consideration is the remedial action to address the gaps in compliance of the BMW Rules, 2016, as applicable to the disposal of bio-medical waste arising out of handling of COVID-19 disease, so as to ensure protection of environment and public health, in view of potential of such infectious waste adversely affecting public health, concerned workers and professionals etc.
2. The matter was heard on 21.04.2020 when we interacted with the Member Secretary, CPCB and perused the guidelines issued by the CPCB, last revised on 18.04.2020. It was observed:

"2. We have also taken into consideration the concern on the subject expressed in news item dated 19.04.2020, published in the Indian Express titled 'Biomedical waste facilities, a red flag in coronavirus fight', authored by Apurva Vishwanath and Karishma Mehrotra.

3. *This Tribunal is already dealing with the subject of addressing gaps in bio-medical waste management generally in O.A No.710/2017, Shailesh Singh v. Sheela Hospital & Trauma Center, Shahjahanpur & Ors. and has given further directions on 22.1.2020 in respect of gaps emerging from report of CPCB dated 15.11.2019 based on information furnished by the States/UTs. The waste generated on account of Covid-19 disease has presented further challenge which calls for this order.*
 4. *We have perused the 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients' issued by the CPCB, last revised on 18.4.2020 and heard Dr. Prashant Gargava, Member Secretary, CPCB. We had interaction broadly on the need for revision of the laid down guidelines to address all concerns in the light of best practices and experience from time to time so that all aspects of scientific disposal of liquid and solid waste management are taken care of not only at institution level but also at individual levels (such as manner of disposal of used PPEs, used bags, gloves, goggles, etc., without the same getting straightaway mixed with other municipal solid waste causing contamination etc.), dealing with situations where adequate facilities (like incinerators) are not available, distinct colour guidelines for the bins etc., reviewing effectiveness of the monitoring mechanism, including securing information by way of electronic manifest system from the handlers of such waste and its online reporting by the State PCBs/PCCs on daily basis by developing necessary software, creating awareness by special awareness programmes, organizing trainings in concerned Local Bodies, Health Departments, etc., providing workers handling COVID-19 waste with adequate protective gear, adequate coordination with media and other concerned regulatory authorities in the States and the Central Government. We have also observed that out of 2.7 lakh HCFs identified, only 1.1 lakh HCFs are authorized under the BMW Management Rules, 2016 so far. The State PCBs/PCCs have to make serious efforts to bridge this gap to mitigate possible risk in terms of unscientific disposal of bio-medical waste and to enforce rule of law.*
 5. *We are of the view that to the above extent, the task of PCBs and the CPCB is part of essential health services for COVID-19. The CPCB may convey this to all concerned.*
 6. *Further order reserved. The same will be uploaded on or before 27.04.2020, after due interaction with the members."*
3. As already noted, the matter of addressing gaps in compliance of Bio-Medical Waste Management Rules, 2016 generally is already subject matter of consideration before the Tribunal in O.A No. 710/2017,

Shailesh Singh v. Sheela Hospital & Trauma Center, Shahjahanpur &

Ors. which last came up for hearing on 22.01.2020. It was observed:

“2. .. **..unscientific disposal of bio-medical waste had potential of serious diseases such as Gastrointestinal infection, Respiratory infection, Eye infection, Genital infection, Skin infection, Anthrax, Meningitis, AIDS, Haemorrhagic fevers, Septicaemia, Viral Hepatitis type A, Viral Hepatitis type B and C, etc. Such unscientific disposal also causes environmental pollution leading to unpleasant smell, growth and multiplication of vectors like insects, rodents and worms and may lead to the transmission of diseases like typhoid, cholera, hepatitis and AIDS through injuries from syringes and needles contaminated with various communicable diseases**”

3. Reference was also made to the report of the CAG placed on its website in May, 2017 as follows:

“Inadequate facility of bio-medical waste (BMW) treatment. As per the report paragraph 2.1.9.5 there were 8,366 Health Care Establishments (HCEs) out of which 3,362 HCEs were operating without authorization. Total BMW generated in the State was 37,498 kg/day out of which only 35,816 kg/day was treated and disposed of. BMW of 1,682 kg/day was being disposed of untreated due to inadequate treatment facility. But UPPCB failed to monitor unauthorised operation and untreated disposal of BMW and did not take any action against the defaulters.”

4. The matter was again reviewed on 15.07.2019 in the light of the report of the CPCB particularly with reference to inventory of HCFs and biomedical waste generation, operation of healthcare facilities without authorization, **action by the States with no treatment & disposal facilities, implementation of Barcode system, constitution of State Level Advisory Committees, submission of Action Plans by State Governments, key performance indicators, Environmental Compensation for violation by the healthcare facilities and Environmental Compensation for common biomedical waste treatment facility.**

5. The recommendations in the report were accepted. All the States/UTs were directed to take further action on that basis. The Tribunal also directed:-

“1to7 xxx xxx xxx

7. The States/UTs may furnish complete inventory of HCFs and BMW generation within two months and where the inventories are incomplete, the same may be completed. We place on record our disapproval of the inaction of States in furnishing the inventory studies as well as for incomplete inventories. **It is regretful to note that 25% of identified HCFs have not even taken authorization from the**

concerned State PCBs in absence of which, monitoring of waste management is not taking place. The States which have not set up common treatment and disposal facility must do so within two months as per Rules. The States who have not furnished the information on the barcode system may also furnish such information at the earliest but not beyond two months. The States which have not yet constituted State Level Advisory Committee may also do so within two months. The action plans and their execution must be carried out having regard to the key performance indicators. **The States which have inadequate action plans, not satisfactory action plans, needing further actions must also do the needful within two months realizing their responsibility to the environment and public health which ought to be monitored directly by the Chief Secretaries in terms of order of this Tribunal dated 16.01.2019 in O.A. No. 606/2018 and further orders in the said matter.** By the further order in the said matter in the case of all the States, directions were issued that Chief Secretaries may personally monitor compliance of environmental norms (including BMW Rules) with the District Magistrate once every month. The District Magistrates may conduct such monitoring twice every month. We find it necessary to add that in view of Constitutional provisions under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016, it is necessary to have a District Environment Plan to be operated by a District Committee (as a part of District Planning Committee under Article 243 ZD) with representatives from Panchayats, Local Bodies, Regional Officers, State PCB and a suitable officer representing the administration, which may in turn be chaired and monitored by the District Magistrate. Such District Environment Plans and Constitution of District Committee may be placed on the website of Districts concerned. The monthly report of monitoring by the District Magistrate may be furnished to the Chief Secretary and may be placed on the website of the District and kept on such websites for a period of one year. This may be made operative from 1.08.2019. Compliance of this direction may also be seen by the Chief Secretaries of the States/UTs. This may not only comply with mandate of law but provide an institutional mechanism for effective monitoring of environment norms. Needless to say that right to clean environment being part of right to life, such effective monitoring is a must. Such monitoring must include issues specified in the order of this Tribunal dated 16.01.2019, O.A No. 606/2018, Para 40 which is as follows:-

- "a. Status of compliance of SWM Rule, 2016, Plastic Waste Management Rules, 2016 and **Bio-Medical Waste Management Rules, 2016** in their respective areas.
- b. Status of functioning of Committees constituted by this order.

- c. *Status of the Action Plan in compliance vide order dated 20.09.2018 in the News Item published in "The Hindu" authored 25 by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).*
 - d. *Status of functioning of Committees constituted in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple 5 timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018.*
 - e. *Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.*
 - f. *Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.*
 - g. *Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.*
 - h. *Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State."*
9. *Further important issues flagged for monitoring include training programs for the officers concerned with enforcement of environment norms at the ground level, reuse of treated water, recharge of ground water, conservation of water bodies.¹ It has been brought to our notice that State PCBs are facing certain handicaps in performing their functions for want of adequate staff and infrastructure. While this is a matter to be reviewed by concerned Chief Secretaries, the State PCBs/PCCs are free to prepare and execute appropriate plans for utilizing the environment restoration fund with the approval of CPCB. The expenditure may include hiring of experts and consultants, expanding air and water quality monitoring network, procurement of scientific equipment, undertaking restitution remediation and specialized studies on contaminated sites so that there is effective oversight for enforcement of law. Under no circumstances these funds be spent on salaries, logistics etc.*
 10. *The compensation regime suggested by the CPCB may be adopted. It will be open to the State PCBs/PCCs to adopt a higher scale of compensation, having regard to the problems faced in such States/UTs.*
 11. *It is made clear that if even after two months the States/UTs are found to be non-compliant, the compensation will be liable to be recovered from the said States/UTs at the rate of Rs. 1 Crore per month till the non-compliance continues.*

¹ See order dated 17.05.2019, O.A. No 606/2018, Para No. 27 (vi, vii, viii)

12. *The CPCB may file further progress report in the matter after coordination through the concerned authorities of the States, including the State Boards/other Health Departments.*
 13. *The Chief Secretaries may furnish their respective compliance reports as per orders passed in O.A No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016."*
6. *The CPCB has filed further report dated 15.11.2019 which sets out the reports from different States/ UTs with reference to the following action points:-*
1. *Complete inventory of HCFs generating biomedical waste.*
 2. *Authorization to all non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. identified in inventory of HCFs within 3 months.*
 - 3(i). *Adequate number of Common Facilities and to cover all HCFs in the State. [Also to ensure adequate number of Common Biomedical].*
 - 3(ii). *Restriction of Deep Burial pits [should be permitted only if necessary and to ensure that they are constructed as per standards given under BMW Rules, 2016.]*
 4. *Constitution of State and District Advisory Committees. 5. Barcodes system in every HCF and CBWTFs.*
 6. *Monitoring of Healthcare Facilities other than hospitals/clinics – Veterinary Hospitals, Animal Houses, AYUSH Hospitals, blood banks, Pathological labs etc.*
 7. *Availability of adequate infrastructure with SPCBs/PCCs to monitor compliance.*
 - 8(i). ***Training and Capacity Building of officials of health Department and SPCBs.***
 - 8(ii). ***Training and Capacity Building of Healthcare workers in HCFs.***
 9. ***Installation of OCEMS by CBWTFs as a tool for self monitoring and compliance verification by SPCBs/PCCs.***
 10. *Submission of Annual Reports to CPCB.*
 11. ***Compliance to standards by CBWTFs.***
 12. ***Compliance of HCFs [For on-site segregation, pretreatment of infectious waste-yellow (h), separate storage space for BMW and treatment of wastewater].***
 13. *Monitoring of compliance of BMW management as per District environmental Plan by the District Magistrates."*
7. COVID 19 pandemic has emerged in the last few months and has affected number of people across the world. More than one and a half lac people have died world over and more than 600 in India. The virus

spreads mainly by droplets and also by touch of contaminated articles. To prevent spread, lock down has been enforced, restricting people to their homes, so as to avoid social contact. Affected persons are treated in hospitals and those suspected are quarantined in various facilities or at home. Large scale testing has been and is being done. By way of precaution, masks, gloves, PPE etc. are used which are disposed of thereafter. In the process, huge bio-medical waste is generated which itself can be source of disease. While the BMW Rules generally take care of the situation by way elaborate provisions to deal with biomedical waste generated in dealing with infectious diseases such as HIV, HINI etc., present pandemic has presented further challenge inter-alia on account of:

- i. Existing gaps in compliance of BMW Rules in terms of capacity to scientifically dispose of generated waste and non-compliance of procedural and monitoring aspects;
 - ii. COVID-19 virus has emerged suddenly and is highly infectious, requiring more precautions compared to other infectious diseases.
8. To deal with the situation, CPCB has issued guidelines which were last updated on 18.04.2020. The updated guidelines are:

“Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.2

“In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including

isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This Revision-2 of guidelines is mainly to incorporate specific requirements and responsibilities of persons operating sewage treatment plants at Healthcare Facilities and to clarify on management of general waste from quarantine homes and masks/gloves from other households.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

(a) COVID-19 Isolation wards: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMWM Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.
- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016.
- Maintain separate record of waste generated from COVID-19

isolation wards

- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.
- 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 ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellow bag/container. However, if a bedpan is used, then faces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water. ^{a1}
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag; ^{a2}
- Collect used masks (including triple layer mask, N95 mask, etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags. ^{a3}

[a1 to a3 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(b) Sample Collection Centers and Laboratories for COVID-19 suspected patients

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories. Pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMWM Rules, 2016 and collect in Red bags. ^{b1}

[b1 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities*

Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Home- care facilities. However, the persons responsible for operating quarantine camps/centers/home-care for suspected COVID-19 persons need to follow the below mentioned steps

to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.
- Biomedical waste if any generated from quarantine centers/ camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated. Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
 - Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
 - Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container; or
 - Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
- Persons operating Quarantine camps/centers or Quarantine-homes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

Clarifications:

- Quarantine Camps / Quarantine-Home are the places where suspected people or the contacts of suspected / confirmed cases who have been directed by authorized hospitals or local authorities to stay at home for at least 14 days or more for observation for any symptom of COVID-19, if any.
- Homecare – Home care facility is a home where care is to be provided to a COVID-19 positive patient at home. ^{C1}
- Biomedical waste at Quarantine Camps / Home-care may also comprise of used syringes, date expired or discarded medicines, used masks/gloves and in case of patients with other chronic diseases may also include drain bags, urine bags, body fluid or blood soaked tissues/cotton, empty ampules etc.
- Biomedical waste generated from Quarantine Camps / Quarantine-Home / Home-care would be treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines.

- *General waste from Quarantine Camps / Quarantine-Home / Home-care shall be disposed as solid waste as per provisions under SWM Rules, 2016*
- *Used masks and gloves generated from home quarantine or other households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste. It is advisable to cut the masks prior to disposal to prevent reuse.^{c2}*

*[*Amended in Rev. 1 of guidelines dated 25/03/2020]*

[c1 and c2 Amended in Rev. 2 of guidelines dated 18/04/2020]

[c2: Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators]

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

- *Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;*
- *Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;*
- *Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;*
- *Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;*
- *Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.*
- *COVID-19 waste should be disposed-off immediately upon receipt at facility.*

In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCs.

- *Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.*
- *Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.*

(e) Duties of SPCBs/PCCs

- *Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantines homes in respective States.*
- *Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SOPs given in this guidance document;*
- *Allow CBWTFs to operate for extra hours as per requirement;*
- *May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to*

collect biomedical waste as and when required;

- In case of States not having CBWTFs as well as rural or remote areas, not having access to CBWTFs, the existing captive facilities of any hospital may be identified for disposal of COVID- 19 waste as per provisions under BMWM Rules, 2016 and these guidelines. This may include permitting use of deep burial pits for disposal of yellow category waste as per standards prescribed in Schedule II of Bio-medical Waste Management Rules, 2016.g¹
- Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.
- In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement for handling and waste feeding.

[e¹Amended in Rev. 2 of guidelines dated 18/04/2020]

(f) Duties of Urban Local Bodies +

Urban Local Bodies are responsible for ensuring safe collection and disposal of biomedical waste, if any, generated from Quarantine Camps/ Quarantine Homes/ Home Care for COVID-19 suspected persons.

- Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;
- In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;
- Provide necessary support, security including authorisation to staff of CBWTFs;
- ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.
- ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/Home care;
 - a) Engage authorized waste collectors for door steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF; and/or
 - b) In case number of quarantined homes/Home-care units are less, ULBs may engage services of CBWTFs to collect the waste directly from door-steps.
- Provide yellow colored bags (designated for BMW) to the persons

responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.

- ULBs shall ensure the following in engaging authorized waste collectors at door-steps or at waste deposition centers;
 - o Create a separate team of workers who shall be engaged in door step waste collection at waste deposition centres or at quarantine homes or home care.
 - o Ensure that only designated staff collects biomedical waste from quarantine homes or home care.
 - o Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste.
 - o Impart training to waste collector in handling of biomedical waste including methods of sanitization. Training to waste collectors should be arranged through CBWTF operators;
 - o The staff involved in handling and collection of waste from quarantine homes or home care centers shall be provided with adequate Personnel Protective Equipment such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles. These PPEs are required to be worn all the time while collecting of waste from quarantine center/quarantine homes/home care/waste deposition centres.
 - o Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% hypochlorite after each trip.
 - o Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos if any may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed of as per SWM Rules, 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.
- Local agencies / ULBs may take additional measures considering prevailing ground situations and feasibility, however while implementing such measures requirements outlined in these guidelines should be complied. ¹

[⁺ Inserted in Rev. 1 of guidelines dated

25/03/2020] [1 Amended
in Rev. 2 of guidelines dated
18/04/2020]

(g) Management of wastewater from HCFs / Isolation Wards **

As per the information available at CDC, the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants, however there is no evidence to date that this has occurred. Therefore, following guidance recommended for HCFs and the operators of STPs;

- Responsible agencies are Healthcare Facilities / Isolation Wards / operators of terminal sewage treatment plants (PHED/Jal Board/ etc.).
- HCFs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses.
- 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.
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided."

[**inserted in Rev. 2 of guidelines dated 18/04/2020] "

9. There appears to be need for further revision of the guidelines to cover all aspects covering not merely institutions but also individual households and dealing with situations where scientific disposal facilities like incinerators are not available and any unmindful deep burial without adequate safeguards can adversely affect the ground water and pose danger to health and safety of people.

Disposal of COVID-19 waste in general bins so as to be part of municipal waste or unscientific handling sewage and other liquid waste without safeguards can also be hazardous. There is also need to incorporate best practices in the light of further experience and new thoughts emerging from time to time, apart from continued supervision

and monitoring, compiling data in an online format, use of electronic /digital manifest system to track and log COVID-19 waste from all sources, preventing its accidental spillage, analyzing the data for strategic planning and the feedback by creating necessary software, to the extent viable.

There is also need for creating awareness about the precautions and steps to be taken by all handlers and workers as well as citizens, making a model plan, to be adopted locally by the Panchayat, Sub-division, District and State authorities with such further changes as may be necessary in local conditions. Health of all operators has been protected and preventive measures taken. There is need for orientation/training of persons responsible for compliance in Local Bodies and Health department by an online mechanism besides providing them with adequate protective gear. CPCB has to take lead and coordinate with media as well as the concerned Central/State departments.

Let the Chief Secretary of States/UTs by coordinating the activities of State's concerned departments like of Urban Development, Health, Irrigation & Public Health also closely monitor the scientific storage, transport, handling, management and disposal of COVID-19 waste as its unscientific handling poses a grave threat environment and health of people. At the national level, let a high level task team of Ministry of MoEF&CC, Health UD, Jal Shakti, Defence and CPCB supervise the handling and scientific disposal of COVID-19 waste in accordance with the guidelines.

Let the State Departments of Environment and PCBs/PCCs ensure compliance of Biomedical Waste Management Rules, 2016 and

furnish action take report to CPCB and CPCB take further steps and furnish a consolidated report to this Tribunal of the steps taken and the ground status as on 31.5.2020. The report may be furnished by 15.06.2020.

List for further consideration on 22.06.2020.

Copies of this order be sent to Chief Secretaries, PCBs/PCCs of all States/UTs, CPCB and Ministries of EF&CC, Health UD, Jal Shakti and Defence.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

April 23, 2020
Original Application No. 72/2020
AK

Item No.01

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI****(Through Video Conferencing)**

Original Application No. 72/2020

In Re: Scientific Disposal of Bio-Medical Waste arising out of
COVID-19 treatment- Compliance of BMW Rules, 2016

Date of hearing: 21.04.2020

Date of uploading of order: 23.04.2020

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE S.P WANGDI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For CPCB :

Dr. Prashant Gargava, Member Secretary
for CPCB with Mr. Rajkumar, Advocate**ORDER**

1. The issue for consideration is the remedial action to address the gaps in compliance of the BMW Rules, 2016, as applicable to the disposal of bio-medical waste arising out of handling of COVID-19 disease, so as to ensure protection of environment and public health, in view of potential of such infectious waste adversely affecting public health, concerned workers and professionals etc.
2. The matter was heard on 21.04.2020 when we interacted with the Member Secretary, CPCB and perused the guidelines issued by the CPCB, last revised on 18.04.2020. It was observed:

"2. *We have also taken into consideration the concern on the subject expressed in news item dated 19.04.2020, published in the Indian Express titled 'Biomedical waste facilities, a red flag in coronavirus fight', authored by Apurva Vishwanath and Karishma Mehrotra.*

3. *This Tribunal is already dealing with the subject of addressing gaps in bio-medical waste management generally in O.A No.710/2017, Shailesh Singh v. Sheela Hospital & Trauma Center, Shahjahanpur & Ors. and has given further directions on 22.1.2020 in respect of gaps emerging from report of CPCB dated 15.11.2019 based on information furnished by the States/UTs. The waste generated on account of Covid-19 disease has presented further challenge which calls for this order.*
 4. *We have perused the 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients' issued by the CPCB, last revised on 18.4.2020 and heard Dr. Prashant Gargava, Member Secretary, CPCB. We had interaction broadly on the need for revision of the laid down guidelines to address all concerns in the light of best practices and experience from time to time so that all aspects of scientific disposal of liquid and solid waste management are taken care of not only at institution level but also at individual levels (such as manner of disposal of used PPEs, used bags, gloves, goggles, etc., without the same getting straightaway mixed with other municipal solid waste causing contamination etc.), dealing with situations where adequate facilities (like incinerators) are not available, distinct colour guidelines for the bins etc., reviewing effectiveness of the monitoring mechanism, including securing information by way of electronic manifest system from the handlers of such waste and its online reporting by the State PCBs/PCCs on daily basis by developing necessary software, creating awareness by special awareness programmers, organizing trainings in concerned Local Bodies, Health Departments, etc., providing workers handling COVID-19 waste with adequate protective gear, adequate coordination with media and other concerned regulatory authorities in the States and the Central Government. We have also observed that out of 2.7 lakh HCFs identified, only 1.1 lakh HCFs are authorized under the BMW Management Rules, 2016 so far. The State PCBs/PCCs have to make serious efforts to bridge this gap to mitigate possible risk in terms of unscientific disposal of bio-medical waste and to enforce rule of law.*
 5. *We are of the view that to the above extent, the task of PCBs and the CPCB is part of essential health services for COVID-19. The CPCB may convey this to all concerned.*
 6. *Further order reserved. The same will be uploaded on or before 27.04.2020, after due interaction with the members."*
3. As already noted, the matter of addressing gaps in compliance of Bio-Medical Waste Management Rules, 2016 generally is already subject matter of consideration before the Tribunal in O.A No. 710/2017, Shailesh Singh v. Sheela Hospital & Trauma Center, Shahjahanpur & Ors. which last came up for hearing on 22.01.2020. It was observed:

“2. .. **..unscientific disposal of bio-medical waste had potential of serious diseases such as Gastrointestinal infection, Respiratory infection, Eye infection, Genital infection, Skin infection, Anthrax, Meningitis, AIDS, Haemorrhagic fevers, Septicaemia, Viral Hepatitis type A, Viral Hepatitis type B and C, etc. Such unscientific disposal also causes environmental pollution leading to unpleasant smell, growth and multiplication of vectors like insects, rodents and worms and may lead to the transmission of diseases like typhoid, cholera, hepatitis and AIDS through injuries from syringes and needles contaminated with various communicable diseases** ..

3. Reference was also made to the report of the CAG placed on its website in May, 2017 as follows:

*“Inadequate facility of bio-medical waste (BMW) treatment. As per the report paragraph 2.1.9.5 there were 8,366 Health Care Establishments (HCEs) out of which 3,362 HCEs were operating without authorization. **Total BMW generated in the State was 37,498 kg/day out of which only 35,816 kg/day was treated and disposed of. BMW of 1,682 kg/day was being disposed of untreated due to inadequate treatment facility.** But UPPCB failed to monitor unauthorised operation and untreated disposal of BMW and did not take any action against the defaulters.”*

4. The matter was again reviewed on 15.07.2019 in the light of the report of the CPCB particularly with reference to inventory of HCFs and biomedical waste generation, operation of healthcare facilities without authorization, **action by the States with no treatment & disposal facilities, implementation of Barcode system, constitution of State Level Advisory Committees, submission of Action Plans by State Governments, key performance indicators, Environmental Compensation for violation by the healthcare facilities and Environmental Compensation for common biomedical waste treatment facility.**

5. The recommendations in the report were accepted. All the States/UTs were directed to take further action on that basis. The Tribunal also directed:-

“1to7 xxx xxx xxx

7. The States/UTs may furnish complete inventory of HCFs and BMW generation within two months and where the inventories are incomplete, the same may be completed. We place on record our disapproval of the inaction of States in furnishing the inventory studies as well as for incomplete inventories. **It is regretful to note that 25% of identified HCFs have not even taken authorization from the concerned State PCBs in absence of which, monitoring of waste management is not taking place. The States which have not set up common treatment and disposal facility must do so within two months**

as per Rules. The States who have not furnished the information on the barcode system may also furnish such information at the earliest but not beyond two months. The States which have not yet constituted State Level Advisory Committee may also do so within two months. The action plans and their execution must be carried out having regard to the key performance indicators. **The States which have inadequate action plans, not satisfactory action plans, needing further actions must also do the needful within two months realizing their responsibility to the environment and public health which ought to be monitored directly by the Chief Secretaries in terms of order of this Tribunal dated 16.01.2019 in O.A. No. 606/2018 and further orders in the said matter.** By the further order in the said matter in the case of all the States, directions were issued that Chief Secretaries may personally monitor compliance of environmental norms (including BMW Rules) with the District Magistrate once every month. The District Magistrates may conduct such monitoring twice every month. We find it necessary to add that in view of Constitutional provisions under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016, it is necessary to have a District Environment Plan to be operated by a District Committee (as a part of District Planning Committee under Article 243 ZD) with representatives from Panchayats, Local Bodies, Regional Officers, State PCB and a suitable officer representing the administration, which may in turn be chaired and monitored by the District Magistrate. Such District Environment Plans and Constitution of District Committee may be placed on the website of Districts concerned. The monthly report of monitoring by the District Magistrate may be furnished to the Chief Secretary and may be placed on the website of the District and kept on such websites for a period of one year. This may be made operative from 1.08.2019. Compliance of this direction may also be seen by the Chief Secretaries of the States/UTs. This may not only comply with mandate of law but provide an institutional mechanism for effective monitoring of environment norms. Needless to say that right to clean environment being part of right to life, such effective monitoring is a must. Such monitoring must include issues specified in the order of this Tribunal dated 16.01.2019, O.A No. 606/2018, Para 40 which is as follows:-

- "a. Status of compliance of SWM Rule, 2016, Plastic Waste Management Rules, 2016 and **Bio-Medical Waste Management Rules, 2016** in their respective areas.
- b. Status of functioning of Committees constituted by this order.
- c. Status of the Action Plan in compliance vide order dated 20.09.2018 in the News Item published in "The Hindu" authored 25 by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB (Original Application No. 673/2018).

- d. Status of functioning of Committees constituted in News Item Published in "The Times of India" Authored by Shri Vishwa Mohan Titled "NCAP with Multiple 5 timelines to Clear Air in 102 Cities to be released around August 15" dated 08.10.2018.
 - e. Status of Action Plan with regard to identification of polluted industrial clusters in O.A. No. 1038/2018, News item published in "The Asian Age" Authored by Sanjay Kaw Titled "CPCB to rank industrial units on pollution levels" dated 13.12.2018.
 - f. Status of the work in compliance of the directions passed in O.A. No. 173 of 2018, Sudarsan Das v. State of West Bengal & Ors. Order dated 04.09.2018.
 - g. Total amount collected from erring industries on the basis of 'Polluter Pays' principle, 'Precautionary principle' and details of utilization of funds collected.
 - h. Status of the identification and development of Model Cities and Towns in the State in the first phase which can be replicated later for other cities and towns of the State."
9. Further important issues flagged for monitoring include training programs for the officers concerned with enforcement of environment norms at the ground level, reuse of treated water, recharge of ground water, conservation of water bodies.¹ It has been brought to our notice that State PCBs are facing certain handicaps in performing their functions for want of adequate staff and infrastructure. While this is a matter to be reviewed by concerned Chief Secretaries, the State PCBs/PCCs are free to prepare and execute appropriate plans for utilizing the environment restoration fund with the approval of CPCB. The expenditure may include hiring of experts and consultants, expanding air and water quality monitoring network, procurement of scientific equipment, undertaking restitution remediation and specialized studies on contaminated sites so that there is effective oversight for enforcement of law. Under no circumstances these funds be spent on salaries, logistics etc.
 10. The compensation regime suggested by the CPCB may be adopted. It will be open to the State PCBs/PCCs to adopt a higher scale of compensation, having regard to the problems faced in such States/UTs.
 11. It is made clear that if even after two months the States/UTs are found to be non-compliant, the compensation will be liable to be recovered from the said States/UTs at the rate of Rs. 1 Crore per month till the non-compliance continues.
 12. The CPCB may file further progress report in the matter after coordination through the concerned authorities of the States, including the State Boards/other Health Departments.

¹ See order dated 17.05.2019, O.A. No 606/2018, Para No. 27 (vi, vii, viii)

13. The Chief Secretaries may furnish their respective compliance reports as per orders passed in O.A No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016."
6. The CPCB has filed further report dated 15.11.2019 which sets out the reports from different States/UTs with reference to the following action points:-
1. Complete inventory of HCFs generating biomedical waste.
 2. Authorization to all non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. identified in inventory of HCFs within 3 months.
 - 3(i). Adequate number of Common Facilities and to cover all HCFs in the State. [Also to ensure adequate number of Common Biomedical].
 - 3(ii). Restriction of Deep Burial pits [should be permitted only if necessary and to ensure that they are constructed as per standards given under BMW Rules, 2016.]
 4. Constitution of State and District Advisory Committees. 5. Barcodes system in every HCF and CBWTFs.
 6. Monitoring of Healthcare Facilities other than hospitals/clinics – Veterinary Hospitals, Animal Houses, AYUSH Hospitals, blood banks, Pathological labs etc.
 7. Availability of adequate infrastructure with SPCBs/PCCs to monitor compliance.
 - 8(i). **Training and Capacity Building of officials of health Department and SPCBs.**
 - 8(ii). **Training and Capacity Building of Healthcare workers in HCFs.**
 9. **Installation of OCEMS by CBWTFs as a tool for self monitoring and compliance verification by SPCBs/PCCs.**
 10. Submission of Annual Reports to CPCB.
 11. **Compliance to standards by CBWTFs.**
 12. **Compliance of HCFs [For on-site segregation, pretreatment of infectious waste-yellow (h), separate storage space for BMW and treatment of wastewater].**
 13. **Monitoring of compliance of BMW management as per District environmental Plan by the District Magistrates."**
7. COVID 19 pandemic has emerged in the last few months and has affected number of people across the world. More than one and a half lac people have died world over and more than 600 in India. The virus spreads mainly by droplets and also by touch of contaminated articles. To prevent spread, lock down has been enforced, restricting people to their homes, so as to avoid social contact. Affected persons are treated

in hospitals and those suspected are quarantined in various facilities or at home. Large scale testing has been and is being done. By way of precaution, masks, gloves, PPE etc. are used which are disposed of thereafter. In the process, huge bio-medical waste is generated which itself can be source of disease. While the BMW Rules generally take care of the situation by way elaborate provisions to deal with biomedical waste generated in dealing with infectious diseases such as HIV, HINI etc., present pandemic has presented further challenge inter-alia on account of:

- i. Existing gaps in compliance of BMW Rules in terms of capacity to scientifically dispose of generated waste and non-compliance of procedural and monitoring aspects;
 - ii. COVID-19 virus has emerged suddenly and is highly infectious, requiring more precautions compared to other infectious diseases.
8. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020. The updated guidelines are:

“Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.2

“In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and

existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This Revision-2 of guidelines is mainly to incorporate specific requirements and responsibilities of persons operating sewage treatment plants at Healthcare Facilities and to clarify on management of general waste from quarantine homes and masks/gloves from other households.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

(a) COVID-19 Isolation wards: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.
- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016.
- Maintain separate record of waste generated from COVID-19 isolation wards
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.

- 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 ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellow bag/container. However, if a bedpan is used, then feces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water. ^{a1}
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag; ^{a2}
- Collect used masks (including triple layer mask, N95 mask, etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags. ^{a3}

[a1 to a3 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(b) Sample Collection Centers and Laboratories for COVID-19 suspected patients

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories. Pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 and collect in Red bags. ^{b1}

[b1 Inserted in Rev. 2 of guidelines dated 18/04/2020]

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities*

Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Home-care facilities. However, the persons responsible for operating quarantine camps/centers/home-care for suspected COVID-19 persons need to follow the below mentioned steps to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing

general solid waste.

- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated. Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
- Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
- Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container; or
- Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
- Persons operating Quarantine camps/centers or Quarantine-homes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

Clarifications:

- Quarantine Camps / Quarantine-Home are the places where suspected people or the contacts of suspected / confirmed cases who have been directed by authorized hospitals or local authorities to stay at home for at least 14 days or more for observation for any symptom of COVID-19, if any.
- Homecare – Home care facility is a home where care is to be provided to a COVID-19 positive patient at home. ^{C1}
- Biomedical waste at Quarantine Camps / Home-care may also comprise of used syringes, date expired or discarded medicines, used masks/gloves and in case of patients with other chronic diseases may also include drain bags, urine bags, body fluid or blood soaked tissues/cotton, empty ampules etc.
- Biomedical waste generated from Quarantine Camps / Quarantine-Home / Home-care would be treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines.
- General waste from Quarantine Camps / Quarantine-Home / Home-care shall be disposed as solid waste as per provisions under SWM Rules, 2016

- Used masks and gloves generated from home quarantine or other households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste. It is advisable to cut the masks prior to disposal to prevent reuse.^{c2}

[*Amended in Rev. 1 of guidelines dated 25/03/2020]

[c1 and c2 Amended in Rev. 2 of guidelines dated 18/04/2020]

[c2: Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators]

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

- Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;
- Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
- Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;
- Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;
- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
- COVID-19 waste should be disposed-off immediately upon receipt at facility.

In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCs.

- Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
- Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

(e) Duties of SPCBs/PCCs

- Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantines homes in respective States.
- Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SOPs given in this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;
- May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required;
- In case of States not having CBWTFs as well as rural or remote areas, not having access to CBWTFs, the existing captive facilities of any

hospital may be identified for disposal of COVID- 19 waste as per provisions under BMW Rules, 2016 and these guidelines. This may include permitting use of deep burial pits for disposal of yellow category waste as per standards prescribed in Schedule II of Bio-medical Waste Management Rules, 2016. g¹

- *Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.*
- *In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement for handling and waste feeding.*

[e¹ Amended in Rev. 2 of guidelines dated 18/04/2020]

(f) Duties of Urban Local Bodies +

Urban Local Bodies are responsible for ensuring safe collection and disposal of biomedical waste, if any, generated from Quarantine Camps/ Quarantine Homes/ Home Care for COVID-19 suspected persons.

- *Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;*
- *In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;*
- *Provide necessary support, security including authorisation to staff of CBWTFs;*
- *ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.*
- *ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/ Home care;*
- a) *Engage authorized waste collectors for door steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF; and/or*
- b) *In case number of quarantined homes/Home-care units are less, ULBs may engage services of CBWTFs to collect the waste directly from door-steps.*
- *Provide yellow colored bags (designated for BMW) to the persons responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.*
- *ULBs shall ensure the following in engaging authorized waste*

collectors at door-steps or at waste deposition centers;

- Create a separate team of workers who shall be engaged in door step waste collection at waste deposition centres or at quarantine homes or home care.
- Ensure that only designated staff collects biomedical waste from quarantine homes or home care.
- Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste.
- Impart training to waste collector in handling of biomedical waste including methods of sanitization. Training to waste collectors should be arranged through CBWTF operators;
- The staff involved in handling and collection of waste from quarantine homes or home care centers shall be provided with adequate Personnel Protective Equipment such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles. These PPEs are required to be worn all the time while collecting of waste from quarantine center/quarantine homes/home care/waste deposition centres.
- Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% hypochlorite after each trip.
- Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos if any may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed of as per SWM Rules, 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.
- Local agencies / ULBs may take additional measures considering prevailing ground situations and feasibility, however while implementing such measures requirements outlined in these guidelines should be complied.¹

[* Inserted in Rev. 1 of guidelines dated 25/03/2020] [1 Amended in Rev. 2 of guidelines dated 18/04/2020]

(g) Management of wastewater from HCFs / Isolation Wards **

As per the information available at CDC, the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants, however there is no evidence to date that this has occurred. Therefore, following guidance recommended for HCFs and the operators of STPs;

- Responsible agencies are Healthcare Facilities / Isolation Wards / operators of terminal sewage treatment plants (PHED/ Jal Board/ etc.).
- HCFs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses.
- 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.
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided."

[** inserted in Rev. 2 of guidelines dated 18/04/2020] "

9. There appears to be need for further revision of the guidelines to cover all aspects covering not merely institutions but also individual households and dealing with situations where scientific disposal facilities like incinerators are not available and any unmindful deep burial without adequate safeguards can adversely affect the ground water and pose danger to health and safety of people.

Disposal of COVID-19 waste in general bins so as to be part of municipal waste or unscientific handling sewage and other liquid waste without safeguards can also be hazardous. There is also need to incorporate best practices in the light of further experience and new thoughts emerging from time to time, apart from continued supervision and monitoring, compiling data in an online format, use of electronic /digital manifest system to track and log COVID-19 waste from all

sources, preventing its accidental spillage, analyzing the data for strategic planning and the feedback by creating necessary software, to the extent viable.

There is also need for creating awareness about the precautions and steps to be taken by all handlers and workers as well as citizens, making a model plan, to be adopted locally by the Panchayat, Sub-division, District and State authorities with such further changes as may be necessary in local conditions. Health of all operators has been protected and preventive measures taken. There is need for orientation/training of persons responsible for compliance in Local Bodies and Health department by an online mechanism besides providing them with adequate protective gear. CPCB has to take lead and coordinate with media as well as the concerned Central/State departments.

Let the Chief Secretary of States/UTs by coordinating the activities of State's concerned departments like of Urban Development, Health, Irrigation & Public Health also closely monitor the scientific storage, transport, handling, management and disposal of COVID-19 waste as its unscientific handling poses a grave threat environment and health of people. At the national level, let a high level task team of Ministry of MoEF&CC, Health UD, Jal Shakti, Defence and CPCB supervise the handling and scientific disposal of COVID-19 waste in accordance with the guidelines.

Let the State Departments of Environment and PCBs/PCCs ensure compliance of Biomedical Waste Management Rules, 2016 and furnish action take report to CPCB and CPCB take further steps and furnish a consolidated report to this Tribunal of the steps taken and

the ground status as on 31.5.2020. The report may be furnished by 15.06.2020.

List for further consideration on 22.06.2020.

Copies of this order be sent to Chief Secretaries, PCBs/PCCs of all States/UTs, CPCB and Ministries of EF&CC, Health UD, Jal Shakti and Defence.

Adarsh Kumar Goel, CP

S.P Wangdi, JM

Dr. Nagin Nanda, EM

April 23, 2020
Original Application No. 72/2020
AK

Central Pollution Control Board

(Ministry of Environment, Forest and Climate Change, GoI)

Parivesh Bhawan, East Arjun Nagar, Delhi 110032

B-31011/BMW(94)/2020/WM-I

April 19, 2020

By E-mail To,

MoEF&CC / MoH&FW / MoHUA / State Departments of Health

SPCBs/PCCs/ Association of CBWTFs/State Departments of Urban Development

Sub: Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Revision 2 dated 18/04/2020– reg.

Issued by

**(Prashant Gargava)
Member Secretary**

Encl.: As above

List of Ministries/Departments

1.	The Special Secretary, Ministry of Health & Family Welfare, Room No. 344-A, Nirman Bhawan, Near Udyog Bhawan Metro Station, Maulana Azad Road, New Delhi, Delhi -110011
2.	The Principle Secretary, Ministry of Urban Development, (NULM) Room No. 114-C, Nirman Bhawan, New Delhi.
3.	Joint Secretary, HSM Division, Ministry of Environment, Forest & Climate Change, Indira Paryavaran Bhawan, Jorbagh Road, New Delhi-110 003
4.	Director General, Armed Force Medical Services, Room No. -8, 'M' Block, Ministry of Defence New Delhi -110001
5.	Sh. Vinod Kachhadia, CBWTF Association of India, 307-308, Century Centre, Near Gujarat Samachar Press, Kanta Stri Vikas Gurh Road, Rajkot -36002

List of all the State Pollution Control Boards (SPCBs) & Pollution Control Committees (PCCs)

1.	The Member Secretary Telangana Pollution Control Board Paryavaran Bhawan, A-111 Institutional Estate, Sanathnagar Hyderabad - 500018.	11.	The Member Secretary Shiekh-ul-Campus, behind Govt. Silk Factory, Raj Bagh, Srinagar(J&K)
2.	The Member Secretary Andhra Pradesh Pollution Control Board D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamvari Street, Kasturibaipet, Vijayawada - 520 010	12.	The Member Secretary Jharkhand State Pollution Control Board T.A. Building, HEC, P.O. Dhurwa, Ranchi-834 004
3.	The Member Secretary Arunachal Pradesh Pollution Control Board Department of Environment & Forests, Paryavaran Bhawan, Yupia Road, Papu Nalah, Naharlagun- 791110	13.	The Member Secretary Karnataka State Pollution Control Board "Parisara Bhavan", #49, 4th & 5th Floor, Church Street, Bangalore-560001
4.	The Member Secretary Assam Pollution Control Board Bamunimaiden, Guwahati - 781 021	14.	The Member Secretary Kerala Pollution Control Board Pattom Palace, P.O. Thiruvananthapuram - 695 004
5.	The Member Secretary Bihar Pollution Control Board Pariवेश Bhawan, Plot No. NS-B/2 Patliputra Industrial Area, Patliputra, Patna (Bihar)-800023	15.	The Member Secretary Maharashtra Pollution Control Board Kalptaru Point, 2nd - 4th floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai - 400 022
6.	The Member Secretary Chhattisgarh Environment Conservation Board Paryavas Bhawan, North Block Sector-19, Naya Raipur (C.G.)- 492002	16.	The Member Secretary Madhya Pradesh Pollution Control Board Paryavaran Parisar, Sector E-5, Aera Colony, Bhopal - 462 016
7.	The Member Secretary Goa Pollution Control Board Opp. Saligao Seminary, Saligao - Bardez Goa - 403511	17.	The Member Secretary Manipur Pollution Control Board Near Imphal West D.C. Office Complex, Lamphelpat, Imphal - 795 004.
8.	The Member Secretary Gujarat Pollution Control Board Paryavaran Bhawan, Sector 10-A, Gandhi Nagar - 382010	18.	The Member Secretary Meghalaya Pollution Control Board Arden, Lumpyngngad, Shillong - 793 014
9.	The Member Secretary Haryana Pollution Control Board C-11, Sector-6 Panchkula Haryana-134 109	19.	The Member Secretary Mizoram Pollution Control Board New Secretariat Complex, Khatla, Aizawl, Mizoram - 796001
10.	The Member Secretary Himachal Pradesh Pollution Control Board Paryavaran Bhawan, Phase-III, Below BCS, New Shimla - 171 009.	20.	The Member Secretary Nagaland Pollution Control Board Signal Point, Dimapur, Nagaland - 797112
		21.	The Member Secretary State Pollution Control Board, Odisha Paribesh Bhawan, A-118, Nilakantha Nagar, Unit-VIII, Bhubaneswar - 751 012.
		22.	The Member Secretary Punjab Pollution Control Board Vatavaran Bhawan, Nabha Road Patiala - 147 001
		23.	The Member Secretary Rajasthan Pollution Control Board 4, Institutional Area, Jhalana Doongri Jaipur - 302 004, Rajasthan.

24.	The Member Secretary State Pollution Control Board Forest, Environment Wildlife Management Department Government of Sikkim Forest Secretariat Annex I, Ground Floor, Deorali, Gangtok -737102 East Sikkim
25.	The Member Secretary Tamil Nadu Pollution Control Board No. 76, Mount Salai Guindy, Chennai - 600 032
26.	The Member Secretary Tripura Pollution Control Board, Parivesh Bhawan, Pandit Nehru Complex, Gorkhabasti P.O. Kunjaban, Agartala Tripura - 799 006,
27.	The Member Secretary Uttar Pradesh Pollution Control Board Building No TC-12V Vibhuti Khand, Gomti Nagar Lucknow - 226 010
28.	The Member Secretary Uttarakhand Environment Protection & Pollution Control Board 29/20, Nemi Road, Dehradun - 248001.
29.	The Member Secretary West Bengal Pollution Control Board Paribesh Bhawan, 10A, Block- LA, Sector III, Salt Lake City, Calcutta- 700106
30.	The Member Secretary Chandigarh Pollution Control Committee Paryavaran Bhawan, Ground Floor Madhya Marg, Sector C19-B, Chandigarh - 160 019
31.	The Member Secretary Delhi Pollution Control Committee 4th Floor, ISBT Building, Kashmere Gate, Delhi - 110006.
32.	The Member Secretary Daman, Diu & Dadra & Nagar Haveli Pollution Control Committee Fort Area, Court Compound, Moti Daman- 396220
33.	The Member Secretary Lakshadweep Pollution Control Committee Lakshadweep Administration, Dept. Of Sc. and Technology & Environment Kavaratti Island-682 555
34.	The Member Secretary Andaman & Nicobar Pollution Control Committee Dept. Of Sc. and Technology Dollygunj Van Sadan, Haddo P.O. Port Blair - 744 102
35.	The Member Secretary Puducherry Pollution Control Committee Department of Science, Technology and Environment IIIrd floor, PHB Building, 5, Anna Nagar, Puducherry - 605005

List of State Urban Development Department

1.	Mission Director Municipal Administration & Urban Development Department, 3rd Floor, E in C complex Kasana Building, AC Guards ,Lakdipool,Hyderabad-500004 Andhra Pradesh
2.	Tedir, CE-cum Director Urban Development & Housing Department, Mowb II,Itanagar-791111 Arunachal Pradesh
3.	Director Municipal Administration, Dispur,Guwahati-781006
4.	Deputy Director Urban Development & Housing Department, Room No 107 Vikash Bhavan Belly Road, New Secretariat,Patna-800015
5.	Director & CEO State Urban Development Agency, 4th Floor, Indravati Bhavan,HOD Building, Naya Raipur-492001 Chhattisgarh
6.	Mission Director Member-Secretary, GSUDA, 6th Floor, Shramashakti Bhavan ,Pattoo Plaza,Panaji-403001
7.	Mission Director Gujarat Urban Livelihood Mission, G.M.F.B Building Nigam Area, Sector 10 A,Gandhinagar-382010
8.	Special Secretary-cum-Mission Director State Urban Development Agency, SCO No.20, 1st Floor, Sector 7 C, Madhya Marg,Chandigarh-160019
9.	Director Urban Development Department, Palika Bhavan,Talland,Shimla-171002
10.	Director Housing & Urban Development Department, Room No 3/9,Civil Secretariat,Jammu-181001
11.	Mission Director Directorate of Municipal Administration Room No 342,HEC Project Building, Ranchi-834002
12.	Director Directorate of Municipal Administration, 9th Floor, Vishveshwaraiah Towers,

	Dr BR Ambedkar Road-Bangaluru-560001
13.	Executive Director State Poverty Eradication Mission, 2nd Floor, TRIDA Rehabilitation, Chalakuzy Road,Thiruvananthapuram-695011
14.	Commissioner/CEO Directorate of Urban Administration & Development Department,Palika Bhavan, 6 No. Bus Stop,Shivaji Nagar,Bhopal-462016
15.	Principal Secretary Directorate of Municipal Administration, Government Transport Service Building, Sir Pochakhanwala Road, Worli,Mumbai-400030
16.	State Mission Director (SULM), Deputy Secretary Manipur Urban Development Agency, PDA Complex,North of AOC,Imphal-795001
17.	Director Meghalaya Urban Development Agency, Raitong Building,Secretariat Hills, Shillong-793001
18.	Director Urban Development & Poverty Alleviation Department, Thakthing Tlang,Aizwal-796001
19.	Project Director (NULM) Urban Development & Poverty Alleviation Department, Thakthing Tlang,Aizwal-796001
20.	Joint Director State Urban Development Agency, Nagaland,Kohima-797004
21.	Mission Director Housing & UD Department, Odhisha Secretariat,Bhubaneswar-751001
22.	Director State Urban Development Agency, SCO 131-132,Sector 17C,Juneja Building, Chandigarh-160017
23.	Director Local Bodies Department, G3 Raj Mahal, Residency Palace Area, 2nd Godown,Near Civil Line Phatak, Jaipur-302015

List of State Urban Development Department

24.	Special Secretary Municipal Administration, 6 Floor Ehilagam Annex Municipal Administration, Chepauk, Chennai-600005
25.	Mission Director MA & UD Department, 3rd Floor, E N C Complex, A.C Guards, Lakdipool, Hyderabad-500004
26.	Director Urban Development Department, 3rd Floor, Khadya Bhavan, Pandit Nehru Complex, Agartala-799001
27.	Director Urban Development Directorate, 43/6 Mata Mandir Marg, Dharampur, Dehradun-248001
28.	Director State Urban Development Agency, Nav Chetna Kendra, 10, Ashoka Marg, Lucknow-226001
29.	Director State Urban Development Agency, H Block, Sector 3 Salt Lake, ILGUS Bhavan, Bidhan Nagar, Kolkata- 700106
30.	Joint Secretary Urban Development, A&N Administration, Port Blair-744101
31.	Joint Commissioner Municipal Corporation of Chandigarh, Room No.202, Sector 17, New Delux Building , Municipal Corporation, Chandigarh- 160017
32.	Joint Secretary Urban Development Department, Administration of Dadra & Nagar Haveli, U.T.. Silvassa-396220
33.	Collector Collectorae Dholar Modi Daman-396220
34.	Special Secretary Urban Development, A Wing, 10th Level Room 1004, Delhi Secretariat, IP Estate, New Delhi-110002
35.	Project Director Pondicherry Urban Development Agency, No.16 Suffren, Puducherry-605001

36.	Collector- cum Development Commissioner Kavaratti-682555
37.	UD & Housing Department, Gangtok-737101 Sikkim

List of Health Department

1.	Principal Secretary (H&FW), Department of Health & family Welfare Government of Bihar, Vikas Bhawan, New Secretariat, Patna - 800 015 Bihar
2.	Secretary (H&FW) Department of Health & Family Welfare, Government of Chhattisgarh, R. N. 54-10, Maha Nadi Bhawan Mantralaya, Atal Nagar-492002 Chhattisgarh
3.	Secretary (H&FW) Department of Health & Family welfare Government of Jharkhand Nepal House, Doranda, Ranchi- 834002. Jharkhand.
4.	Principal Secretary (H&FW), Department of Health & Family welfare Government of Madhya Pradesh, 4th Floor, Annexe-III, New Mantralaya Arera Hills, Bhopal-462 004, Madhya Pradesh
5.	Addl. Chief Secretary (Medical H&FW), Department of Health&Family Welfare, Government of Rajasthan, Room No. 5208, Govt. Secretariat, Main Building, Jaipur-302005, Rajasthan
6.	Commissioner Cum Secretary (H&FW), Department of Health & Family Welfare, Government of Odisha, Secretariat Building, Bhubaneswar -751 001, Odisha
7.	Shri Prashant Trivedi Principal Secretary (H&FW), Department of Health & Family Welfare, Government of Uttar Pradesh, 5th floor, Room No. 516, Vikas Bhawan, Janpath Market, Vidhan Sabha Road, Hazrat Ganj Lucknow - 226

	001, Uttar Pradesh
8.	Secretary (Medical, H&FW), Government of Uttarakhand Room No. 301, Vishwakarma Building Uttarakhand Secretariat, 4 B , Subhash Road, Dehradun, Uttarakhand -248001
9.	Secretary (Medical HFW) Department of Health & Family Welfare Govt. of Jammu & Kashmir, Room No. 108 Civil Secretariat Srinagar -180001
10.	Addl Chief Secretary (H&FW) Department of Health & Family Welfare, Govt of Himachal Pradesh Room No 419 HP secretariat, Govt of Himachal Pradesh, Shimla- 171002, H.P
11.	Principal Secretary (H&FW) Department of Health & Family Welfare Govt. of Assam, C.M Block 3rd Floor Assam Secretariat, Dispur, Guwahati, Assam - 781006
12.	Commissioner (H&FW) Government of Arunachal Pradesh, Civil Secretariat Building Block No.- 2 Unit No.- 5, 3rd Floor, District Papumpare, Ita Nagar- 791111 Arunachal Pradesh
13.	Principal Secretary (H&FW) Department of Health & Family Welfare, Room 233, Manipur Secretariat, South Block , Imphal - 795 001 . Manipur
14.	Addl. Chief Secretary (H&FW) Department of Health & Family Welfare, R.N. 201, Addational Building, Shillong- 793 001, Meghalaya
15.	Commissioner & Secretary (H&FW)

List of Health Department

	Department Health & Family Welfare, Government of Mizoram, Room No.205 Mizoram New Secretariat, Aizawl - 796001 Mizoram		Welfare Government of Gujarat, Block No 5, 1st Floor old Sachiwalay. Dr. Jivraj Mehta Bhavan, Sector No.10, Gandhinagar-Gujarat 382010
16.	Principal Secretary (H&FW) Department of Health & Family Welfare, Government of Nagaland, Nagaland Civil Secretariat Kohima- 797001, Nagaland	23.	Addl. Chief Secretary (H&FW) Department of Health & Family Welfare, Government of Haryana, R.No. 41, 7th Floor, Haryana Secretariat Building, Sec-1, Chandigarh - 160001
17.	Secretary (H&FW), Department of Health & Family Welfare, Government of Tripura, Secretariat, New Capital Complex, P.O- Kunjban , Agartala- 799006 (Tripura)	24.	Principal Secretary (H&FW), Department Health and Family Welfare Government of Karnataka Room No. 104 1st Floor, Vikas Souda, Bangalore-560001, Karnataka
18.	Commissioner-cum-Secretary (H&FW) Department of Health & Family Welfare, Government of Sikkim, Tashiling, Gangtok - 737101, Sikkim	25.	Addl. Chief Secretary (H&FW) Department of Health & Family Welfare, Government of Kerala, Room No- 656, South Block, 6th Floor Government Secretariat Building, Thiruvananthapuram-695001, Kerala
19.	Special Chief Secretary (Medical H&FW) & Mission Director (NHM) incharge Department of Medical Health & Family Welfare Government of Andhra Pradesh, 5th Block Ground Floor Room No. 157, AP Secretariate Velagapudi Amaravathi -522503 -AP	26.	Principal Secretary, (Public H&FW) Department of Health & Family Welfare Government of Maharashtra, 10th Floor, B Wing GT Hospital Complex Building Mumbai - 400001, Maharashtra
20.	Principal Secretary (Medical H&FW) Department of Medical Health & Family Welfare Government of Telangana, Room No. 315, D- Block Telangana Secretariat, Hyderabad-500022	27.	Addl. Chief Secretary (H&FW), Department of Health & Family Welfare Government of Punjab, R. No. 314, 3th Floor, Mini Secretariat Punjab, Sector 9, Chandigarh, Punjab- 160009
21.	Secretary (H&FW), Department of Health & Family Welfare Government of Goa, Ministrial Block CM Office Secretariat, Porvorim, Goa - 403521	28.	Secretary (H&FW) Department of Health & Family Welfare Government of Tamilnadu, 4th Floor, Fort St. George,
22.	Commissioner & Principal Secretary (Public H&FW) Department of Health & Family		

List of Health Department

	Secretariat, Chennai - 600009, Tamil Nadu
29.	Addl. Cheif Secretary (H&FW), Department of Health & Family Welfare Government of West Bengal, Swasthya Bhawan, 4th Floor, 'B' Wing, GN- 29, Sector- V, Bidhan Nagar, Kolkata - 700091, West Bengal.
30.	Principal Secretary (H&FW), Department of Health & Family Welfare, Government of Andaman & Nicobar Island Andaman & Nicobar Administration, Secretariat, Port Blair- 744101 Andaman & Nicobar Island
31.	Principal Secretary (H&FW) Department of Health & Family Welfare, Government of Chandigarh UT Secretariat, Deluxe Building, Sector-9, Chandigargh- 160017
32.	Secretary (H&FW) Department of Health & Family Welfare Government of Daman & Diu Dadar & Nagar Haveli Secretariat UT Daman & Diu Dadar & Nagar Haveli Silvassa - 396230,
33.	Secretary (H&FW), Department of Health & Family Welfare, Government of NCT of Delhi, Room No. A-907, A Wing, 9th Level, Delhi Secretariat, I.P. Estate, New Delhi - 110002
34.	Secretary (H&FW), Department of Health & Family Welfare Government of Lakshadweep, UT of Lakshadweep, Kavaratti - 682555, Lakshadweep
35.	Secretary (H&FW) Department of Health & Family Welfare Government of Puducherry, Chief Secretariat, Government of Puducherry

Puducherry - 605 001

Revision 2:

Guidelines for Handling, Treatment and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients

18th April, 2020

[In suppression of earlier guidelines uploaded at CPCB website on 25/03/2020. Text pertaining to
additional information is underlined]



Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change)

Parivesh Bhawan, East Arjun Nagar

Delhi – 110032

6

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 2**

In order to deal with COVID-19 pandemic, State and Central Governments have initiated various steps, which include setting up of quarantine centers/camps, Isolation wards, sample collection centers and laboratories.

Following specific guidelines for management of waste generated during diagnostics and treatment of COVID-19 suspected / confirmed patients, are required to be followed by all the stakeholders including isolation wards, quarantine centers, sample collection centers, laboratories, ULBs and common biomedical waste treatment and disposal facilities, in addition to existing practices under BMW Management Rules, 2016.

These guidelines are based on current knowledge on COVID-19 and existing practices in management of infectious waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises. This Revision-2 of guidelines is mainly to incorporate specific requirements and responsibilities of persons operating sewage treatment plants at Healthcare Facilities and to clarify on management of general waste from quarantine homes and masks/gloves from other households.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred.

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/ Quarantine-homes/ Home-care, Sample Collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs is give below;

(a) COVID-19 Isolation wards: (isolation wards are those where COVID-19 positive patients are being kept for treatment / diagnosis)

Healthcare Facilities having isolation wards for COVID-19 patients need to follow these steps to ensure safe handling and disposal of biomedical waste generated during treatment;

- Keep separate color coded bins/bags/containers in wards and maintain proper segregation of waste as per BMWM Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules.
- As precaution double layered bags (using 2 bags) should be used for collection of waste from COVID-19 isolation wards so as to ensure adequate strength and no-leaks;
- Collect and store biomedical waste separately prior to handing over the same CBWTF. Use a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep separately in temporary storage room prior to handing over to authorized staff of CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.
- In addition to mandatory labelling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labelled as "COVID-19 Waste". This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.
- General waste not having contamination should be disposed as solid waste as per SWM Rules, 2016.

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 2**

- Maintain separate record of waste generated from COVID-19 isolation wards
- Use dedicated trolleys and collection bins in COVID-19 isolation wards. A label "COVID-19 Waste" to be pasted on these items also.
- 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 ICU ward to SPCBs and respective CBWTF located in the area.
- Depute dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to temporary waste storage area.
- Feces from COVID-19 confirmed patient, who is unable to use toilets and excreta is collected in diaper, must be treated as biomedical waste and should be placed in yellow bag/container. However, if a bedpan is used, then faeces to be washed into toilet and cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, then rinsed with clean water.^{a1}
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag; a²
- Collect used masks (including triple layer mask, N95 mask, etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags. a³

[^{a1 to a3} Inserted in Rev. 2 of guidelines dated 18/04/2020]

(b) Sample Collection Centers and Laboratories for COVID-19 suspected patients

Report opening or operation of COVID-19 sample collection centers and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in in case of test centers and laboratories. Pre-treat viral transport media, plastic vials, vacutainers, eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 and collect in Red bags.^{b1}

[^{b1} Inserted in Rev. 2 of guidelines dated 18/04/2020]

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities*

Less quantity of biomedical waste is expected from quarantine Camps / Quarantine Home/ Home-care facilities. However, the persons responsible for operating quarantine camps/centers/home-care for suspected COVID-19 persons need to follow the below mentioned steps to ensure safe handling and disposal of waste;

- General solid waste (household waste) generated from quarantine centers or camps should be handed over to waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 2**

- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size.
- Persons operating Quarantine camps/centers should call the CBWTF operator to collect biomedical waste as and when it gets generated. Contact details of CBWTFs would be available with Local Authorities.
- Persons taking care of quarantine home / Home-care should deposit biomedical waste if any generated from suspected or recovered COVID-19 patients, by following any of the following methods as may be arranged by ULBs;
 - Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies; or
 - Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container; or
 - Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.
- Persons operating Quarantine camps/centers or Quarantine-homes/Home-care should report to ULBs in case of any difficulty in getting the services for disposal of solid waste or biomedical waste.

Clarifications:

- Quarantine Camps / Quarantine-Home are the places where suspected people or the contacts of suspected / confirmed cases who have been directed by authorized hospitals or local authorities to stay at home for at least 14 days or more for observation for any symptom of COVID-19, if any.
- Homecare – Home care facility is a home where care is to be provided to a COVID-19 positive patient at home. ^{c1}
- Biomedical waste at Quarantine Camps / Home-care may also comprise of used syringes, date expired or discarded medicines, used masks/gloves and in case of patients with other chronic diseases may also include drain bags, urine bags, body fluid or blood soaked tissues/cotton, empty ampules etc.
- Biomedical waste generated from Quarantine Camps / Quarantine-Home / Home-care would be treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and shall be disposed as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines.
- General waste from Quarantine Camps / Quarantine-Home / Home-care shall be disposed as solid waste as per provisions under SWM Rules, 2016
- Used masks and gloves generated form home quarantine or other households should be kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste. It is advisable to cut the masks prior to disposal to prevent reuse. ^{c2}

[*Amended in Rev. 1 of guidelines dated 25/03/2020]

[c1 and c2 Amended in Rev. 2 of guidelines dated 18/04/2020]

[c2: Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators]

(d) Duties of Common Biomedical Waste Treatment Facility (CBWTF):

- Report to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers;
- Operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste;
- Workers shall be provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles;
- Use dedicated vehicle to collect COVID-19 ward waste. It is not necessary to place separate label on such vehicles;
- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.
- COVID-19 waste should be disposed-off immediately upon receipt at facility.

In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTF may operate their facilities for extra hours, by giving information to SPCBs/PCCs.

- Operator of CBWTF shall maintain separate record for collection, treatment and disposal of COVID-19 waste.
- Do not allow any worker showing symptoms of illness to work at the facility. May provide adequate leave to such workers and by protecting their salary.

(e) Duties of SPCBs/PCCs

- Shall maintain records of COVID-19 treatment wards / quarantine centers / quarantines homes in respective States.
- Ensure proper collection and disposal of biomedical waste as per BMW Rules, 2016 and SoPS given in this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;
- May not insist on authorisation of quarantine camps as such facilities does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required;
- In case of States not having CBWTFs as well as rural or remote areas, not having access to CBWTFs, the existing captive facilities of any hospital may be identified for disposal of COVID-19 waste as per provisions under BMW Rules, 2016 and these guidelines. This may include permitting use of deep burial pits for disposal of yellow category waste as per standards prescribed in Schedule II of Bio-medical Waste Management Rules, 2016.^{g1}
- Coordinate with CBWTFs and ULBs in establishing adequate facilities for collection and disposal of COVID-19 waste.
- In case of generation of large volume of yellow color coded (incinerable) COVID-19 waste, permit HW incinerators at existing TSDFs to incinerate the same by ensuring separate arrangement for handling and waste feeding.

Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 2

[e¹Amended in Rev. 2 of guidelines dated 18/04/2020]

(f) Duties of Urban Local Bodies +

Urban Local Bodies are responsible for ensuring safe collection and disposal of biomedical waste, if any, generated from Quarantine Camps/ Quarantine Homes/ Home Care for COVID-19 suspected persons.

- Information on each Quarantine Camps/ Quarantine Homes/ Home-Care should be available with local administration and provide updated list to SPCBs from time to time;
- In case of quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Waste from quarantine camps to be lifted by CBWTFs on call basis as and when the biomedical waste gets generated. Provide contact details of CBWTF operator at Quarantine Camps;
- Provide necessary support, security including authorisation to staff of CBWTFs;
- ULB shall engage CBWTF operator for ultimate disposal of biomedical waste collected from quarantine home/home care or waste deposition centers or from door steps as may be required depending on local situation; ULB shall make agreement with CBWTF in this regard.
- ULBs envisage following options to facilitate safe collection and disposal of biomedical waste from quarantined homes/Home care;
 - a) Engage authorized waste collectors for door steps collection of biomedical waste and transfer to collection points for further pick-up by CBWTF; and/or
 - b) In case number of quarantined homes/Home-care units are less, ULBs may engage services of CBWTFs to collect the waste directly from door-steps.
- Provide yellow colored bags (designated for BMW) to the persons responsible for operating Quarantine Camp or home-care. If required, such bags may be provided through CBWTF.
- ULBs shall ensure the following in engaging authorized waste collectors at door-steps or at waste deposition centers;
 - o Create a separate team of workers who shall be engaged in door step waste collection at waste deposition centres or at quarantine homes or home care.
 - o Ensure that only designated staff collects biomedical waste from quarantine homes or home care.
 - o Training should be provided for sanitization, about collection of biomedical waste, precautionary measures to handle biomedical waste.
 - o Impart training to waste collector in handling of biomedical waste including methods of sanitization. Training to waste collectors should be arranged through CBWTF operators;
 - o The staff involved in handling and collection of waste from quarantine homes or home care centers shall be provided with adequate Personnel Protective Equipment such as three layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles. These PPEs are required to be worn all the time while collecting of waste from quarantine center/quarantine homes/home care/waste deposition centres.

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 2**

- Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% hypochlorite after each trip.
- Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.
- Establish common waste deposition centers (as stipulated under SWM Rules, 2016) for receiving / collection of biomedical waste. For this purpose, existing Dhalaos if any may be converted suitably.
- The general solid waste collected from quarantine homes or home care shall be disposed off as per SWM Rules, 2016.
- Services of Common Biomedical Waste Treatment & Disposal Facilities (CBWTFs) and staff associated with CBWTFs for collection, transportation, treatment and disposal of biomedical waste generated from hospitals including COVID-19 isolation wards, Quarantine Camps, etc. may be considered an essential service as part of health infrastructure.
- Facilitate smooth operations of CBWTFs.
- Local agencies / ULBs may take additional measures considering prevailing ground situations and feasibility, however while implementing such measures requirements outlined in these guidelines should be complied.^{f1}

[* Inserted in Rev. 1 of guidelines dated 25/03/2020]

[^{f1} Amended in Rev. 2 of guidelines dated 18/04/2020]

(g) Management of wastewater from HCFs / Isolation Wards **

As per the information available at CDC, the risk of transmission of virus that causes COVID-19 through sewerage systems is thought to be low. Transmission to operators may be possible during treatment of sewage treatment plants, however there is no evidence to date that this has occurred. Therefore, following guidance recommended for HCFs and the operators of STPs;

- Responsible agencies are Healthcare Facilities / Isolation Wards / operators of terminal sewage treatment plants (PHED/Jal Board/etc.).
- HCFs and the agencies operating Sewage Treatment Plants should continue to ensure disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses.
- 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.
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided.

[** Inserted in Rev. 2 of guidelines dated 18/04/2020]
