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.

The CPCB notified the 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 infections waste generated in hospitals while treating viral and other contagious diseases like HIV, H1N1, etc. These guidelines will be updated if need arises.

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

MoEF and CC, Government of India (GoI) vide notification No. G.S.R. 343 (E) Dated 28/03/2016 has notified Bio-Medical Waste Management Rules, 2016, as amended time to time. These Rules are applicable to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form including hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, AYUSH hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs.

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

Guidelines for handling, treatment and disposal of COVID-19 waste at Healthcare Facilities, Quarantine Camps/Home-care, Sample collection Centers, Laboratories, SPCBs/PCCs, ULBs and CBWTFs:

(a) COVID-19 Isolation wards:

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 bins/bags/containers (yellow colour) in isolation 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 to CBWTF. Use a dedicated collection bin labeled as “COVID-19” to store COVID-19 waste and keep separately in temporary storage room prior to handing over to CBWTF. Biomedical waste collected in such isolation wards can also be lifted directly from ward into CBWTF collection van.

- In addition to mandatory labeling, bags/containers used for collecting biomedical waste from COVID-19 wards, should be labeled as “COVID-19 Waste”. This marking would enable CBWTFs to identify the waste easily for priority treatment and disposal immediately upon the receipt.

- Mixing of COVID-19 waste with the biomedical waste from other wards, general waste etc. should be avoided.

- General waste other than biomedical waste should be disposed as per SWM Rules, 2016 only after proper disinfection.

- 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.

- Report opening or operation of COVID-19 isolation ward to SPCBs

- Depute dedicated sanitation workers separately for BMW and general solid waste so that waste can be collected and transferred timely to respective temporary waste storage area.

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

Report opening or operation of COVID-19 sample collection centres and laboratories to concerned SPCB. Guidelines given at section (a) for isolation wards should be applied suitably in case of test centers and laboratories also.

(c) Quarantine Camps/Home Care for COVID-19 suspected patients

Less Quantity of biomedical waste is expected from quarantine centres. However, quarantine camps/centers/home-care for suspected COVID-19 cases need to follow these steps to ensure safe handling and disposal of waste;

- Treat the routine waste generated from quarantine centers or camps as general solid waste and the same need to be disposed after disinfection as per SWM Rules, 2016. However, biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow colored bags and bins.

- Quarantine camps/centres shall inform CBWTF operator as and when the waste is generated so that waste can be collected for treatment and disposal
- In case of home-care for suspected patients, biomedical waste should be collected separately in yellow bags and the same shall be handed over to authorized waste collectors engaged by local bodies. ULB should report about the startup of quarantine camps or home care to CBWTFs and to request them to pick-up such waste either directly from such quarantined houses or from identified collection points.

**(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 vehicle;

- Vehicle should be sanitized with sodium hypochlorite or any appropriate chemical disinfectant after every trip.

- COVID-19 waste should be disposed-off immediately with high priority upon receipt at facility.

- In case it is required to treat and dispose more quantity of biomedical waste generated from COVID-19 treatment, CBWTFs 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) COVID-19 Isolation wards in HCEs having captive treatment facility**

Guidelines given at (a) and (d) should be applied suitably by HCEs having captive biomedical waste treatment facility.

- As per CPCB guideline referred above KSPCB will not insist on authorization of quarantine camps as such facility does not qualify as health facilities. However, may allow CBWTFs to collect biomedical waste as and when required.