

**REVISED REPORT OF OVERSIGHT COMMITTEE IN COMPLIANCE OF ORDER OF
HON'BLE NATIONAL GREEN TRIBUNAL PASSED IN O.A. NO. 72/2020 IN RE:
SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19
TREATMENT- COMPLIANCE OF BMW RULES, 2016**

Overview of the report:

1.	Introduction	
2.	NGT orders	<ul style="list-style-type: none"> The Hon'ble NGT dealing with the matter of O.A. No. 72/2020 addressed the gaps in compliance of the BMW Rules, 2016. The matter dealt with the disposal of bio-medical waste generated from the handling of COVID-19 disease to ensure the protection of environment and public health
3	Guidelines for COVID-19 Waste management by various organizations	<ul style="list-style-type: none"> CPCB has issued guidelines which were last updated on 10.06.2020 entitled "<i>Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.3</i>". On 23.04.2020, WHO has issued interim guidelines for COVID-19 waste management titled "<i>Water, sanitation, hygiene, and waste management for the COVID-19 virus: interim guidance</i>" On 19.05.2020, the Indian Council of Medical Research (ICMR), New Delhi has issued guidelines for the management of COVID-19 dead body titled "<i>Standard guidelines for medico-legal autopsy in Covid-19 deaths in India</i>"
4.	Compliances	<ul style="list-style-type: none"> Compliance Status of Uttar Pradesh Pollution Control Board (UPPCB) and Department of Health & Family Welfare (DHFV), Uttar Pradesh
5	Meetings of Oversight Committee, NGT, UP	<ul style="list-style-type: none"> The Oversight Committee conducted meetings on 13.05.2020, 22.05.2020 and 18.06.2020 regarding unscientific disposal of bio-medical waste/COVID-19 waste, Compliance of BMW Rules, 2016 and

A. Pandey

[Signature]

		Standard Operating Procedure (SOP) issued by CPCB regarding COVID-19 waste management.
6	Inspection reports	<ul style="list-style-type: none"> • In compliance with the order of Oversight Committee NGT the Regional Officers had inspected 4 health care facilities (HCFs), 2 Urban Local Bodies (ULBs) and 2 common biomedical waste treatment facilities (CBWTFs). The HCFs are: <ol style="list-style-type: none"> I. S.N. Medical College and Hospital (SNMC), Agra II. Yashoda Super Speciality Hospital, Ghaziabad III. District Combined Hospital, Ghaziabad IV. King George Medical University, (KGMU) Lucknow • The ULBs of Meerut and Gautambuddha Nagar • The CBWTFs are: <ol style="list-style-type: none"> I. M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. Bindowa, Mohanlalganj, Lucknow II. M/s Spectrum waste solution Pvt Ltd, Mastemau, Gosaiganj, Mohanlalganj, Lucknow
7	Issues	<ul style="list-style-type: none"> • Various issues related to non-compliance of COVID-19 waste management in UP
8	Recommendation	<ul style="list-style-type: none"> • Short term recommendations • Long term recommendations
9	Annexures	

Introduction:

1. Coronavirus Disease (COVID-19) is a pandemic disease affecting 213 countries and territories around the globe. Due to COVID-19, more than 5.68 lakhs deaths have occurred as on 12.07.2020 and currently, more than 128.73 lakh persons are infected globally. The global health care system has collapsed during this

A. eadley

[Signature]

pandemic. In India, first confirmed case of COVID-19 was reported in Kerala on 30th January 2020. Till 12.07.2020, more than 8.56 Lakhs laboratory-confirmed cases and over 22762 deaths have been reported due to COVID-19 disease.

2. COVID-19 is a highly communicable disease. The waste generated during the treatment of COVID-19 is highly contagious. The infection traveling through infected dead bodies can be a major threat. The present pandemic has presented further challenge inter-alia on account of:
 - a. Existing gaps in compliance of BMW Rules, 2016 in terms of capacity for scientific disposal of generated waste, non-compliance of procedural and monitoring aspects.
 - b. COVID-19 virus has emerged suddenly, has a high mortality rate and spreads at a faster pace compared to other infectious diseases. Thus, we need to be more cautious and the waste generated from COVID-19 requires more precautions in comparison to other infectious diseases
 - c. Another big problem in the treatment of this disease is that there is no effective treatment nor any vaccine is available for this pandemic disease.

NGT orders:

1. The Hon'ble NGT dealing with the matter of O.A. No. 72/2020, vide order dated 21.04.2020 considered the issue of addressing 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. It also considered the remedial action to ensure the protection of environment and public health, in view of the potential of such infectious waste adversely affecting public health, concerned workers and professionals, etc.



2. The Hon'ble NGT has also taken into consideration the concern on the subject expressed in a 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. Hon'ble National Green Tribunal is already dealing with the matter of non-compliance of BMW Rules, 2016 in OA No. 710/2017 in re: *Shailesh Singh v. Sheela Hospital & Trauma Center, Shahjahanpur & Ors.*
4. While dealing with the subject of addressing the gaps in biomedical waste management, the Hon'ble Tribunal noted that unscientific disposal of bio-medical waste has the potential of spreading serious infectious diseases, such as Gastrointestinal infection, Respiratory infection, Eye infection, Genital infection, Skin infection, Meningitis, AIDS, Hemorrhagic fevers, Septicemia, Viral Hepatitis type A, Viral Hepatitis type B and C. Such unscientific disposal also causes environmental pollution leading to unpleasant smell, growth and multiplication of vectors like insects, rodents and worms. These vectors may cause transmission of diseases like typhoid, cholera, hepatitis, AIDS and COVID-19. The unscientific disposal of BMW can cause the spread of infections through injuries from syringes and needles, which may be contaminated with various communicable diseases as mentioned above.
5. To deal with the biomedical waste generated on account of COVID-19, CPCB has issued guidelines which were last updated on 10.06.2020 entitled "*Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment /Diagnosis/Quarantine of COVID-19 patients-Rev.3*".
6. After a perusal of CBCP guidelines, the Hon'ble NGT noted that "*...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*

A conley

Shah

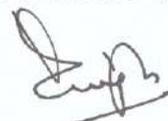
unmindful deep burial without adequate safeguards can adversely affect the groundwater and pose danger to health and safety of people”.

Guidelines for COVID-19 Waste management:

In the **CPCB guidelines**, they have assigned duties and responsibilities in regard to *Isolation wards, Sample Collection Centers and Laboratories, Quarantine Camps/Homes, CBWTFs, ULBs and SPCBs/PCCs* to deal with biomedical waste generated from COVID-19 infection. Some important points from the CPCB guidelines are summarized below:

1. All the HCFs having isolation wards for COVID-19 patients have to keep separate color-coded bins (with foot-operated lids)/bags/containers inwards and maintain proper segregation of waste as per BMW Rules, 2016 as amended and CPCB guidelines for implementation of BMW Management Rules, 2016.
2. Dedicated trolleys and collection bins labeled as “COVID-19” will be used by isolation wards for the collection and transportation of COVID-19 waste.
3. The isolation wards would maintain a separate record of COVID-19 waste generated.
4. General solid waste like wrappers of medicine/syringes, fruit peel offs, empty juice bottles or tetra packs, empty water bottles, discarded papers, carton boxes of medicines, empty bottles of disinfectants and any other items which were not contaminated by the patient's secretions, body fluids should be collected separately as per SWM Rules, 2016. In order to minimize waste generation, as far as possible, non-disposable items must be used, which are to be handle with appropriate precautions and cleaned and disinfected as per hospital guidelines. Securely tied wet and dry solid waste bags should be handed over to ULB's authorized waste collectors on daily basis.
5. Items used by the COVID-19 patient such as leftover food, disposable plates, glass, used masks, used tissues, used toiletries, etc. shall become biomedical





- waste and shall be segregated in yellow bags. Used gloves and plastic bottles from patients will be disposed of in red bags.
6. Provide training to Waste handlers about infection prevention measures such as Hand hygiene, Respiratory etiquette, social distancing, use of appropriate PPE, etc. via videos and demonstrations in local language. Designated nodal officer for biomedical waste management in hospital shall provide training. Nodal officers, in turn, need to be trained by Health Departments / professional agencies in association with SPCB/ PCC of the States/ UTs.
 7. Sanitation workers more than 50-yr of age should be posted for management of non-COVID waste.
 8. Biomedical waste generated from quarantine centers/camps will be collected separately in yellow-colored bags (suitable for biomedical waste collection) provided by Urban Local Bodies (ULBs). These bags can be placed in separate and dedicated dust-bins of appropriate size. General waste should not be stored in yellow bags.
 9. The Agency responsible for operation of quarantine center/camp shall designate a nodal person who will be responsible for waste management and maintenance of its record.
 10. Designated nodal person of the quarantine center/camp shall register the center/camp on CPCB's biomedical waste Tracking App 'COVID19BWM' (available on Google play store) and update the details of waste generated on daily basis.
 11. Every SPCB/PCC shall use 'COVID19BWM' web-portal developed by CPCB to track and verify COVID-19 biomedical waste. They should submit details of daily COVID-19 waste data to CPCB through said portal.
 12. CBWTF operator shall register on 'COVID19BWM' Tracking App developed by CPCB and also ensure registration of waste handler (with vehicle) for entering the data of COVID-19 biomedical waste received and disposed.





13. The operator of CBWTF shall ensure regular sanitization of workers involved in handling and collection of biomedical waste.
14. During COVID-19 pandemic, SPCBs/PCCs may direct the ULBs to collect dry general solid waste in bags from quarantine centers/quarantine homes/homecare units, and sprayed with disinfectant solution, for disposal in waste to energy plants/industrial incinerators/landfills, as per existing practice or availability in the state.
15. Urban Local Bodies (ULB) are responsible for ensuring safe collection and disposal of biomedical waste if any, generated from quarantine camps/quarantine homes/homecare for COVID-19 suspected persons.
16. ULB shall designate a Nodal person who will be responsible for waste management for quarantine centers or an area and for maintenance of its record.
17. The designated nodal person shall download and use biomedical waste Tracking App 'COVID19BWM' developed by CPCB to feed daily data on quantity of biomedical waste collected from home-cares or home quarantines.
18. Waste handlers must be given basic/elementary training by ULBs/SPCBs/PCCs with help from NGOs on SWM, hand hygiene, respiratory etiquette, social distancing, use of PPEs and its disposal, and screening clinics via videos and practical demonstrations in local language.
19. In case ULBs are unable to manage solid waste with their existing staff, professional solid waste management agencies may be engaged/authorized during COVID-19 situation for timely collection of solid waste and biomedical wastes separately from quarantine centers, home-care, COVID-19 isolation wards and quarantine homes.
20. The staff involved in handling and collection of waste from quarantine homes or homecare centers shall be provided with adequate Personnel Protective Equipment such as three-layer masks, splash-proof aprons/gowns, heavy-duty gloves, gumboots and safety goggles. These PPEs are required to be worn all the

A. Pandey

[Signature]

time while collecting waste from quarantine center/quarantine homes/homecare/waste deposition centers.

21. The revised guidelines issued by CPCB regarding the COVID-19 waste management are annexed as **Annexure 1**.

On 23.04.2020, **WHO** has issued **interim guidelines** for COVID-19 waste management titled "Water, sanitation, hygiene, and waste management for the COVID-19 virus: interim guidance". The guidelines for COVID-19 waste management are summarized below:

1. The best practices should be followed in HCFs for safe and proper management of health care waste, such as assigning responsibility and availability of sufficient material and human resources to dispose of such waste safely.
2. All health care workers/staff involved in the handling of health care waste should wear appropriate PPE (i.e. boots, apron, long-sleeved gown, thick gloves, mask, and goggles or a face shield) and perform hand hygiene after removing it. Single-use gloves made of nitrile or latex and gowns should be discarded as infectious waste after each use and should not be reused.
3. It is recommended that all sanitation workers should have proper training and access to personal protective equipment (PPE).
4. All COVID-19 waste produced generated in HCFs should be collected safely in designated containers/bags. It is preferable to treat waste on-site and then dispose it safely.
5. In all health-care settings, including those with suspected or confirmed COVID-19 cases, feces must be treated as a biohazard.
6. If the patient is unable to use a toilet, excreta should be collected in either a diaper or a clean bedpan. The collected excreta should be immediately and carefully disposed of into a separate toilet or latrine used only for suspected or confirmed COVID-19 cases.

A. eandey



7. After disposing of excreta, bedpans should be cleaned with a neutral detergent and water, disinfected with a 0.5% chlorine solution, and then rinsed with clean water.
8. Workers should be properly trained in how to put on and remove PPE so that these protective barriers are not breached.
9. If PPE is not available or the supply is limited, the frequency of correct hand hygiene should increase, and workers should keep at least 1m distance from suspected or confirmed cases.
10. Health care workers or mortuary staff handling dead bodies of COVID-19 patient should wear: scrub suit, impermeable disposable gown (or disposable gown with impermeable apron), gloves, mask, face shield (preferably) or goggles, and boots.
11. The body of a deceased confirmed or suspected COVID-19 patient should be wrapped in cloth or fabric and transferred as soon as possible to the mortuary area. Body bags are not necessary for the COVID-19 virus although they may be used for other reasons (e.g. excessive body fluid leakage).
12. Waste generated at quarantine home should be packed in strong black bags and closed completely before disposal and eventually collected by municipal waste services.

On 19.05.2020, the **Indian Council of Medical Research (ICMR)**, New Delhi has issued **guidelines for the management of COVID-19 dead body** titled "Standard guidelines for medico-legal autopsy in COVID-19 deaths in India". One of the main objectives of this guideline is to provide recommendations for safe and dignified management of COVID-19 dead bodies encompassing preservation, transportation, and disposal. Some important points of the guidelines are as follows:

1. A proper record of the dead body of COVID-19 patients should be maintained in the nursing logbooks.

A. endley

[Signature]

2. The Nursing Officer with assistance from the hospital attendant will pack the dead body in double packing in a leak-proof zipped body bag.
3. The exterior of the body bag should be decontaminated with 1% Sodium hypochlorite.
4. The status of COVID-19 infection should be mentioned on the exterior of body packing.
5. The trolley, on which the body is to be shifted, must be disinfected before it is taken out from the ICU/ward/emergency.
6. All mortuary staffs involved in the transfer of the dead body need to wear prescribed PPE for handling these dead bodies' i.e. N95 masks, coverall, goggles, head cover, and shoe cover. This is because shifting in mortuary requires direct handling and lifting of the body by the staff.
7. The health care worker who shifts the body to the mortuary should be wearing masks, coverall and gloves at all times. Complete PPE kit is not required for the transport of dead bodies if they are packed properly.
8. The vehicle/trolley after the transfer of the body to mortuary shall be decontaminated with 1% Sodium Hypochlorite.
9. The existing mortuary facility for body storage should be strictly divided into an area for COVID--19 bodies and area for Non-COVID-19 bodies and should be labeled.
10. For the safe transportation of the dead body of COVID-19 patient, the body should be tightly wrapped in a plastic sheet and then packed in a leak-proof double body bag.

Compliance status of UPPCB and health department

1. **Current Status Special Health Care Facilities, Number of Isolation Wards, Laboratories Sample Collection Centers, Quarantine Wards, and Quarantine**

A. eadley

[Signature]

Homes in the State of UP: As per the report, three-layer system, i.e. L-1, L-2 and L-3 are constituted for treatment of COVID-19 patents according to the severity of the infection, age and other medical factors. Health Department has established 78 L1 Hospitals, 77 L1 COVID Care Centres, 69 L2 Hospitals and 19 L3 hospitals for Isolation wards and Quarantine camps. The district-wise details of L1/L1 COVID Care Center, L2, L3 hospitals are as follows:

District wise L1/L1 COVID Care Center, L2, L3 Hospital Name					
S.N.	District	L1 Hospital Name	L1 COVID Care Centre	L2 Hospital Name	L3 Hospital Name
1	Agra	CHC Baroli Ahir	Hindustan Engg Collage RASA PUBLIC SCHOOL	Chauhan hospital	SNMC Medical College
2	Mathura	CHC Vrindavan	IVS SANSKRITI UNIVERSITY	K.D. Medical College Krishna Mohan Medical College & Hospital,	
3	Firozabad	CHC Jasrana	Pandit Deen Dayal Upadhyay Govt. Ashram Padwati Vidyalaya	F. H. Medical Collage ASMC	
4	Mainpuri	CHC Bhogon	Jawahar Navodayay Vidyalaya		
5	Aligarh	CHC Harduaganj	100 Bed Combined Hospital	DDU Joint Hospital J. N Medical Collage	
6	Etah	CHC Baghwala,	Jawahar Navodayay Vidyalaya	Dr. Shailendra Jain Hospital	
7	Hathras	CHC Mursan	J P Degree	Sri ram	

A. Pandey

[Signature]

			Collage	Hospital	
8	Kasganj	DC Hsoron	V K Jain College of Management		
9	Azamgarh	CHC-Kolhukhor	100 Bed Combined Hospital	GMC	
10	Ballia	CHC Basantpur	Town Polytechnic Collage	Gaurav Multispeciallity Hospital	
11	Mau	CHC PARDAHA	Sainik Nursing School	Fatima Hospital	
12	Amethi	CHC Gauriganj	District Combined Hospital		
13	Sultanpur	CHC Kurwar	KNIPSS	Aastha Hospital	
14	Ambedkarnagar	CHC Jalalpur	Eklaya Stadium	GMC	
15	Ayodhya	Mashudha	Junjunwala Nursing Collage	ASMC	
16	Barabanki	CHCSatarik	Chandra Hospital and Research Center	Hind Institute of Medical Sciences	Mayo Institute of Medical Sciences
17	Bareilly	Bithrichainpur	Divisional Railway Hospital	Rajshree Medical Research Institute	Sri Rammurti Smarak Institute of Medical Sciences
				Khushlok Hospital	Rohilkhand Medical College
18	Badaun	CHC Ujhani	Rajkiya Mahila Mahavidyalay	GMC	
19	Pilibhit	CHC Jahanabad	Ayurvedic Collage	Maikul Hospital	
20	Shahjahanpur	CHC-Dadraul	Hanumathdham Asraysthal	Varunarjun Medical	

A. Pandey

[Signature]

				College	
				ASMC	
21	Basti	Munderwa	Jawahar Navodayay Vidyalaya	ASMC	
22	Siddhartha Nagar	CHC Birdpur	MCH Wing		
23	Santkabir Nagar	CHC Khalilabad	St. Thomas Inter Collage		
24	Chitrakoot	CHC Shiv Rampur	ITI Collage		
25	Hamirpur	CHC Kurara	Saraswati VidyaMandir Inter Collage		
26	Mahoba	CHC Panwari	Govt. Inter Collage		
27	Banda	CHC Naraini	Agriculture University	GMC	
28	Shrawasti	CHC Bhangha	Girls Govt. Inter Collage		
29	Balrampur	Memorial Hospital	Jawahar Navodayay Vidyalaya		
30	Bahraich	CHC Chittaura	Maharishi Balak Hospital	ASMC	
31	Gonda	Pandrikripal	RN Pandey Hospital	Satish Chandra Pandey Memorial Hospital	
32	Gorakhpur	CHC, Chargawan	Sports Collage	Hope hospital	BRD Medical College Gorakhpur
33	Deoria	Guari Bazar	Central Academy	Shanti Nursing Home	
34	Mahrajanj	CHC Mithaura	Samekit Vidyaylay	KMC Digital	
35	Kushinagar	CHC Sapaha	Rajkiya Asharam		

A eady

Cup

			PadhatiVidyala ya		
36	Jalaun	CHC Konch	Jamuna Palace	GMC	
37	Jhansi	CHC Badagaon	Nirmal Hospital		MLB Medical College
38	Lalitpur	CHC Talbehat	Polytechnic Collage		
39	Kannauj	CHC Tirwa	Gautam Budh Hospital	GMC	
40	Etawah	CHCJaswant Nagar	Narayan Collage		UPUMS Saifai, Etawah
41	Auraiya	MCH wing CHC Dibiyapur,	PBRP Academy	Krishna Medical Care	
42	Farrukhabad	CHC Baraun	Shri Babu Singh Jai Singh Ayurvedic Medical and Hospital		
43	Kanpur Dehat	CHC Gajner	VPN Hospital	Guari Hospital	
44	Kanpur Nagar	CHC Sarsaul	ESI Hospital	Rama Institute of Medical Sciences Research Hospital	GSVM Medical College
				Kansiram Joint Hospital	
45	Lucknow	RSM 100 BED DCH BKT	SR Engineering Collage	Career Medical College	Era's Lucknow Medical College
		CHCMalihabad		Integral Institute of Medical Sciences	Dr. RMLIMS

A. eadley



				Prasad Institute of Medical Sciences	SGPGI Lucknow
		CHC Mohanlalganj	RR Engineering Collage	T.S.M. Institute of Medical Sciences	KGMU
				Sant Marry Hospital	
				Lokbandhu Rajnarayan Hospital	
46	Unnao	CHC, Bichhiya	Institute of Pharmaceutica I Science and Research Center	Saraswati Medical College	
47	Hardoi	CHC Bawan	Kendriya Vidyalay	Joint DH	
				Balaji Hospital	
48	Sitapur	CHC Khairabad	BCM Hospital	Hind Medical College	
49	Raibareili	CHC ROHANIYA	Batohi Guest House		
50	Lakhimpur Khiri	Bhejam	Omsain Vidya Mandir Inter Collage		
51	Bagpat	Khekra	Sarvodaya Paramedical Collage	Baroot Medicity	
52	Bulandshahr	SSMJ KHURJA	VIIT Nursing Training Collage	V. I. I. T. Hospital	
		JP Hospital Anupshahar		JP Hospital	
53	Meerut	CHC- JaniKhurd	Mahaveer	MSY MEDICAL	Subharti

A. eardley

[Signature]

			Ayurvedic Vidyalaya	COLLEGE AND HOSPITAL	Medical College
					LLRM Medical College Meerut
54	GB Nagar	CHC Bisrakh	Kailash Isolation	GIMS Greater	School of Medical Sciences (Sharda University)
				SSPHPGTI	
55	Ghaziabad	CHC Muradnagar	ESIC Hospital	Rama Medical College & Hospital	Santosh Medical College
				Joint DH	
56	Hapur	CHC Hapur	DH	Saraswati Institute of Medical Sciences, G.S. Medical College,	
57	Rampur	CHC Milak	Mohmd Ali Jauhar University	Narayana Hospital and Trama Center	
58	Sambhal	CHC Narauli	Bahaman zahra Public School		
59	Bijnor	CHC Nazibabad	Vardhmann Collage	Pulkit Memorial	
60	Moradabad	DWC Hospital	Vivekanand College of Nursing		Teerthankar Mahaveer Medical College & Research Center

A ready



61	Amroha	Old building of DCH	Part of Venkateshwar aHospital	Venkateshwar a	
62	Prayagraj	CHC Kotwa at Bani-	Unani Medical Collage	TB Sapru Hospital	MLN Medical College Prayagraj
63	Kaushambi	PHC Manjhanpur-VistarPatal	PDDU Ashram Paddhati Inter Collage	Purnima Hospital & Research center	
64	Pratapgarh	Trauma Centre sadar	St. Anthoni Inter Collage	Ruma Hospital	
65	Fatehpur	CHC Thariyaon	Allahabad Institute of Eng. And Management collage	Bardwell Christian Hospital	
66	Shamli	CHC Jhinhna	St. RC school	Ganga Amrit Multi Specialty Hospital	
67	Muzaffarnagar	CHC Makhiyall	Swami Kalyan Dev Govt. ayurvedic Collage		Muzaffar Nagar Medical College
68	Saharanpur	CHC Fatehpur	Glocal University	GMC	
69	Mirzapur	CHC VindhyachalMirzapur	Shemford school	Popular Hospital	
70	Bhadohi	CHC Bhadohi	Bhadohi Expro mart	Jeevan Jyoti	
71	Sonbhadra	CHC Madhupur	Nursing hostel		
72	Ghazipur	CHC, Mohamadabad	Govt. Inter Collage		
73	Chandauli	CHC Bhogawar	Rajkiya Adogic Prashikshan Prathisthan		

A. eandey



74	Jaunpur	CHC	Rain Bsera	Snehlata Super Speciality	
75	Varanasi	UCHC Shivpur	Ayurvedic Vidyalaya	Heritage Institute of Medical Sciences	
				Apex hospital	
				DDU Joint Hospital	
Total		L1-78	L1 CCC-77	L2-69	L3-19

- The UPPCB reported that the State has enough treatment capacity to manage COVID-19 waste. They are treating and disposing of all COVID-19 waste generated in the State on a day-to-day basis.
- UPPCB reported that they are inspecting and monitoring all the CBWTFs regularly.
- It was reported that the disposal of dead bodies of COVID-19 patients in the State is being done as per the ICMR guidelines.
- As per the report, the Health Department daily monitors the lifting and disposal of COVID-19 waste. In the State till 07/05/2020, 64752.11 Kgs of COVID- 19 waste was generated and disposed. Date wise detail of COVID-19 waste generated is as follows:

S. No.	Date	COVID-19 waste generated (Kg/Day)
1	25/04/2020	4211.59
2	26/04/2020	4282.90
3	27/04/2020	5498.10
4	28/04/2020	5609.04
5	29/04/2020	5903.03
6	30/04/2020	5915.96
7	01/05/2020	5393.46

A. Pandey

[Signature]

8.	02/05/2020	5348.92
9	03/05/2020	4867.05
10	04/05/2020	5718.22
11	05/05/2020	5997.76
12	06/05/2020	6001.11
	Total	64752.11 Kg

- As per the compliance report of UPPCB dated 23.06.2020, the total BMW generation in the State is approximately 23 MT/day (during lockdown). Out of which approximately 18 MT/day is incinerable and 5 MT/day is non-incinerable waste (recyclable waste).
- Currently, the total COVID-19 waste generation from dedicated HCFs in the State is approximately 9-10 MT/day. Total incinerable waste generation from dedicated HCFs in the State 28 MT/day (18 MT/day Non-COVID waste and 9-10MT/day is COVID-19 waste).
- As per the report, a total of 18 CBWTFs are operational in the State having a total capacity of 51.2 MT/day. At present, the amount of incinerable waste being generated in the state is 28 MT/day thus there is sufficient incinerable capacity in the state to treat the COVID-19 waste.
- Further, UPPCB mentioned that if in the near future the COVID-19 infection increases among the population then to manage the COVID-19 waste generated, the State has additional capacity 3 incinerators in TSDF for hazardous waste with capacity of 68 MT/day. The compliance report of UPPCB is annexed as **Annexure 2**.

Governance:

1. The Health Department informed that “the BMW committee has been constituted in all District-Level Hospitals. Nodal Officers have been designated in each district to ensure proper implementation of BMW Rules, 2016 and all have been given training through TOT modules for proper management and disposal

A. Sankar

[Signature]

of BMW from COVID- 19 facilities (Isolation hospital and Quarantine camps/ homes)”.

2. The District Monitoring Committee/District Environment Committee for Biomedical Waste management has been constituted in each district which is being chaired by the District Magistrate. During the meeting, special priority is being given to the handling and disposal of COVID-19.
3. It was also reported that the three-layer system has been set up comprising of L1, L1 attached, L2, L3 hospitals for isolation wards and quarantine camps for proper management of COVID-19 waste. Treatment and disposal of the COVID-19 waste are being done by the CBWTFs.
4. The CPCB has developed a web portal named as ‘COVID19BMW’. It is an application for tracking of generation, collection and disposal of COVID-19/Bio-medical waste, generated at various HCFs, quarantine centers, isolation wards, testing labs, sample collection centers and Urban Local Bodies.
5. The desktop version of COVID19BMW was accessed on 07.06.2020. The following information was available on the website:
 - 19 CBWTFs were registered on the web portal.
 - Information on different types of Biomedical waste i.e. Red, Yellow, Blue, Black and White was available on the website.
 - The information about the daily COVID-19 waste generated from specified generators viz. HCF, quarantine centers, labs, and testing labs were also available.
 - Real-time data of CBWTF involved in the process of waste received from different HCF, quarantine centers, Labs, Testing Labs was also available.
 - The detail of COVID-19 waste generated available on the website for the period of 24-04-2020 to 07.06.2020 are as follows:

S. No	Types of bags	No. of Bags	Total waste (in Kg)
1	Red	1189	4244.3 Kg



2	Yellow	4255	79565.6 Kg
3	Blue	118	590.8Kg
4	White	88	364.3 Kg
	Total	5650	84765kg

- As per the records available on the website, a total of 5650 bags were collected from 3791 HCFs, 877 quarantine centers, 324 labs and 191 sample collection centers. However, there was no record of waste collected from ULBs.
 - A total of 84765 kg of COVID-19 waste was collected by 11 trucks in 161 trips from the generation sources.
 - As per the details available on the COVID19BMW website, a total of 84765Kg waste was collected in 45 days and as per the UPPCB report, 64752.11 Kg waste was collected in 12 days. On comparing the above-mentioned details provided by UPPCB and collected from the website, the entries made on the website are less than what is provided by the UPPCB. This indicates that entries of BMW collection details on the website are not being done properly or still many HCFs, quarantine centers and testing labs are not registered on the website.
6. **Authorization status of Healthcare facilities:** It was informed that all the online pending authorization applications have been approved. The authorization procedure is now connected with the Nivesh Mitra portal. Notices have been issued against unauthorized HCFs.
- At present, there are 23,882 Health Care Facilities (HCFs) with a capacity of 2,53,927 beds as of 14-12-2019. Out of this 5240 are government HCFs and the remaining 18642 are private HCFs in the State.
 - 530 total HCFs are having 100 beds or more than 100 beds but only 37 HCFs are having ETP and STP, 28 HCFs are having only ETP, 13 HCFs having only STP.

A. eadley

[Signature]

- The continuous monitoring of Bio-medical waste generation is done through an online continuous emission monitoring system (OCEMS) to which the Combined Bio-medical Waste Treatment Facilities (CBWFs) are connected. Out of 18 operational CBWFs, 15 CBWFs has been installed and connected with the OCEMS. **Other 3 CBWFs are not connected with the online monitoring system.**
- The current capacity of the operational 18 CBWFs is 51.2MT/day.
 - Out of 18 CBWFs, M/S Envirad Medicare Pvt. Ltd. Bareilly has not complied with the closure direction and is still closed. This CBWTF was serving Bareilly, Pilibhit, Moradabad, Rampur, Amroha, J.P. Nagar, and Shahjahanpur districts.
 - To cater to waste generated from these districts, alternatives have been arranged. The Bio-Medical waste generated from Mathura, Etah, Aligarh, Kasganj, Firojabad, Sambhal and Hathras is being collected and disposed by M/S Bio-Medical Waste Disposal Agency, Mathura.
 - The biomedical waste generated from districts Bareilly, Rampur, Pilibhit, Sahjahanpur is being collected and disposed by M/S SP Green Light Environment Waste Management Sahjahanpur.
 - The biomedical waste generated from districts Moradabad, J.P. Nagar (Amroha), is being collected and disposed by M/S Synergy Waste Management Pvt. Meerut and M/S Medicare Environmental Management Pvt. Hapur.
 - Earlier only 71 districts were covered by 18 CBWFs. Remaining four districts namely Auraiya, Badaun, Banda and Shravasti were not covered by any CBWTF. Currently, these four districts are receiving the BMW treatment facilities from the following CBWFs. The details were provided in the compliance submitted by the DHFW on 12.06.2020. The details are as follows:

A. Pandey

[Signature]

S. No	Districts Covered	CBWTFs
1	Auriya	M/S Willword Environment Kanpur
2	Badaun	M/S S P Green Light Environment Waste Management Sahjanpur
3	Banda	M/S MPCC Jhansi
4	Shraswasti	M/S Spectrum Waste Solutions India Pvt Ltd Mohanlalganj, Lucknow

7. **Status of COVID-19 waste management by the Urban Local Bodies (ULBs):** It was reported by Secretary, Urban Department that they are conducting regular meetings through video-conferencing with Nagar Ayukts, Nagar Palikas and large ULBs regarding the availability of PPE kits for sanitary workers, health check-up of sanitary workers and availability of sanitizer. During the meetings held on 13.05.2020 and 22.05.2020 the following information was provided:

- They are using the PPEs as per the guidelines issued by ICMR.
- They are conducting regular health check-up of all the sanitary workers.
- All the sanitary workers are provided with hand-washing facilities.
- They are using dedicated vehicles for collection and transportation of COVID-19 waste and these vehicles are being sanitized by using a hypochlorite solution after each use.
- Secretary, Urban Development informed that they are regularly conducting sanitization work in urban areas.
- The ULBs are not dealing with BMW. They are only authorized for segregation and treatment of solid waste. They have distributed yellow colored bags in all the containment zones. All the BMW received by the ULBs is handed over to the DHFW for proper treatment and disposal at BMW treatment facilities.

8. **Training and IEC for management of COVID-19 Biomedical waste:** To tackle the problems arising due to COVID-19 Pandemic, 'Training of Trainers' (BMW Nodal

A. Pandey

[Signature]

Officer of Health Department, Regional officers of PCB and Regional Nagar Nigam Officials) workshops have been conducted through video conferencing on 30.04.2020 under the guidance of Secretary, Urban Development Department, GoUP and Member Secretary UPPCB.

- The UPPCB has informed that during this COVID-19 crisis, most of the Private HCFs were closed. Currently, the permission to reopen the emergency services at the HCFs are given only after proper training from the concerned CMO of the District.
- The government has issued orders to the CMOs regarding conducting training for all the PHCs.
- A perusal of the minutes of the meeting held on 22.05.2020 revealed that the health department has given training to all Chief Medical Officers and other stakeholders through video conferencing as per the guidelines of CPCB. The Health Department has also conducted the training for ACMOs and other officials associated with COVID-19 waste management. **However, during the meetings it has come to light that no training has been conducted for the Principals of Medical Colleges, CMs and Medical college staff.**
- **The committee has observed that the level of IEC activities in the state to spread awareness among the people is very less.** People are unaware of the threats due to mismanagement of COVID-19 waste. As a result used masks, PPE kits (used in providing the essential services), gloves and other suspected COVID-19 wastes from the households, quarantine homes, and during providing other essential services are disposed of with the general waste.
- There is an urgent need to spread awareness among the people regarding proper disposal of the COVID-19 waste at the individual level.





Meetings of Oversight Committee, NGT, UP:

The case was taken up by the Oversight Committee on 13.05.2020, 22.05.2020 and 18.06.20. The Member Secretary, UPPCB; Nodal Officer, Health Department, and Principal Secretary, Urban Development were present during the meeting.

1. During the meeting held on 13.05.2020, Secretary, DHFW informed that the COVID-19 waste is being managed as per the protocol prescribed by CPCB. The Health Department along with the UPPCB and Urban Development Department conducted training for all Administrative Officers (ADs, CMOs, and CMSs) regarding the management of COVID-19 waste. The Member Secretary, UPPCB informed that directions have been given to all the concerned departments to keep the COVID-19 waste separate from other waste and manage as per the guidelines. The minutes of the meetings are provided as **Annexure 3**.
- The case was further taken up again during the meeting held on 22.05.2020. During the meeting, it was informed that waste collection from L1, L1 attached, L2, L3 facilities and Isolation wards are being done properly. However, the details about the collected waste from sample collection centers, quarantine homes, and quarantine camps are not available with the Health Department.
- Member Secretary, UPPCB informed that the Health Department has prepared a time-bound action plan for the installation of STP/ETP in the HCFs where ETP/STP facilities are not available.
- The Oversight Committee directed UPPCB to conduct an inspection of all the CBWTFs and submit the reports within a week. The minutes of the meetings are annexed in **Annexure 4**.

Inspections Reports:

This committee had called for independent inspections of hospitals involved in treating COVID-19 patients, associated CBWTFs and the ULBs. The details of the inspection reports and the inference drawn are as follows:

A reader

[Signature]

1. Hospitals: On the directions of the Oversight Committee, Hospital from Agra, Ghaziabad and Lucknow were inspected by the regional officers of UPPCB regarding the scientific disposal of Biomedical Waste arising out of COVID-19 treatment in compliance of BMW Rules, 2016. The details of the hospitals inspected are as follows:

Hospital	District	Date of Inspection	CBWTF providing treatment facility to HCF	Registered on the CPCB 'COVID19B MW' Mobile Application	Sample collection and testing Lab facility	Quarantine Facility
S.N. Medical College and Hospital, (SNMC) (details are annexed in Annexure 5)	Agra	29.05.2020	M/s JRR Waste Management Pvt. Ltd., Agra	Yes	No	No
Yashoda Super Speciality Hospital (details are annexed in Annexure 6)	Ghaziabad	21.05.2020	During inspection, it was mentioned that HCF is attached to a CBWTF but name of the CBWTF was not provided	Yes, registered on 26.05.2020	Yes	No
District Combined Hospital (details are annexed in	Ghaziabad	21.05.2020	During inspection, it was mentioned that HCF is attached to a CBWTF but	Yes, registered on 26.05.2020	No	No

A ready



Annexure 7)			name of the CBWTF was not provided			
King George Medical University (KGMU) (details are annexed in Annexure 8)	Lucknow	01.06.2020	Synergy Waste Management Pvt. Ltd., Barabanki	No, as on 06.06.2020	Yes	Yes

- During inspection, it was informed that all the hospitals are collecting their COVID-19 waste in color-coded bins. The collection of waste is being done in yellow bags at most of the places except at Yashoda Super Speciality Hospital where they are segregating their COVID-19 waste into separate red and yellow bags. **However, it was observed that S.N. Medical College and Hospital, (SNMC) Agra, District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow are disposing their COVID-19 waste in yellow bags in place or separate red and yellow bags as directed in the guidelines.**
- At all the hospitals inspected the collection of COVID-19 waste generated from isolation wards is being done in double-layered bags. However at District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow, it was observed that the sealing of these bags was not done properly. **Any mismanagement in the handling of the COVID-19 waste may lead to harrowing situations. Any such ignorance is not acceptable. This Committee is of view that the accountability in this regard should be fixed and strict actions should be taken.**
- In all the hospitals there were dedicated collection bins labeled as "COVID-19" or "COVID-19 waste" for collection of COVID-19 waste. The District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow have

A. Sankar

[Signature]

entirely dedicated facility for COVID-19 treatment. In both these hospitals, the Central Storage Facility of the HCF is being used as a temporary storage facility for the COVID-19 waste.

- The general waste is being collected in black bags, which are lifted and disposed by respective Nagar Nigam. Also dedicated staff for collection of general waste from the hospitals has been appointed by the Nagar Nigam.
- The collection of COVID-19 waste within the hospitals is being done by dedicated trolleys. However, **S.N. Medical College and Hospital, (SNMC) Agra does not provide the details of dedicated trolleys used for the collection of COVID-19 waste.** At **District Combined Hospital, Ghaziabad** It was observed that there was no dedicated trolley for the transportation of the COVID-19 waste within the facility. In this regard, it was informed that the procurement of dedicated trolleys is under process.
- During the inspection, it was informed that regular disinfection is being done using 1% Sodium hypochlorite solution.
- At all the HCFs dedicated sanitary workers for the handling of COVID-19 waste have been deployed. At **S.N. Medical College and Hospital (SNMC), Agra, District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow** directions have been given that proper records of the sanitation workers deployed in the COVID-19 isolation wards should be maintained.
- **S.N. Medical College and Hospital, (SNMC) Agra is not maintaining the record of the actual quantity of the COVID-19 waste generated. Rather they maintain the record of the number of waste collection bags generated from the isolation wards.** The other three HCFs inspected were keeping records of the COVID-19 waste generated from the isolation wards.
- All the HCFs are sending their COVID-19 waste to the CBWTF for treatment.





- At S.N. Medical College and Hospital, (SNMC) Agra, collected COVID-19 waste is transferred to a temporary waste storage area. At District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow, Central Storage Facility of the HCF is being used as a temporary storage facility for the COVID-19 waste. In **King George Medical University (KGMU), Lucknow**, bounding off the Central Storage Facility was also recommended by the HCF to prevent and negate the chances of any contamination due to wastewater.
- All the HCFs have sent reports regarding opening and operation of the COVID-19 wards, ICU wards, sample collection centers and laboratories to UPPCB and respective CBWTFs. Likewise CMO, Ghaziabad and CMO, Lucknow have reported the opening and operation of COVID-19 facilities in **District Combined Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow, respectively.**
- At all the HCFs the collection of faeces of COVID-19 confirmed patients (who are unable to use toilets) are being done in bedpans. The health workers are following SoP for the disinfection of bedpans while handling the faeces of such patients.
- **The** sample collection centers and laboratories at **Yashoda Super Speciality Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow** are collecting their pre-treated viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips in red bags as per BMW Rules, 2016.
- At **King George Medical University (KGMU), Lucknow** the general waste generated from the quarantine facility is being given to Nagar Nigam, Lucknow for its proper disposal. The biomedical waste generated from the quarantine facility is being collected and treated as per the guidelines of SWM Rules, 2016. However, no record of waste generated (used mask and gloves) from the quarantine facility was available at the time of inspection.

A. Pandey

[Signature]

- **Yashoda Super Speciality Hospital, Ghaziabad** is a 300 bedded NABL accredited hospital and lab in the discipline of Molecular testing by RT-PCR method. The ICMR has approved the Hospital Lab to conduct COVID-19 testing by the RT-PCR method.
2. **Waste management at CBWTFs attached to the S.N. Medical College and Hospital (SNMC), Agra, District Combined Hospital, Ghaziabad, Yashoda Super Speciality Hospital, Ghaziabad and King George Medical University (KGMU), Lucknow:** These HCFs are handling their daily waste to the respective CBWTFs regularly. These CBWTFs attached to **S.N. Medical College and Hospital (SNMC), Agra and King George Medical University (KGMU), Lucknow** are providing information regarding the waste received from isolation wards/quarantine camps/quarantine homes/COVID-19 testing centers to the UPPCB. The CBWTFs are ensuring to sanitize the workers and vehicles involved in collection of COVID-19 waste with Sodium Hypochlorite solution regularly. Workers are being provided with adequate PPEs. The CBWTF is using dedicated vehicles for the collection of COVID-19 waste. The CBWTFs are disposing the COVID-19 waste immediately after receiving it at the facility as per the CPCB guidelines. The CBWTFs are maintaining separate records for collection, treatment and disposal of COVID-19 waste.
3. **Liquid waste management:**
- **S.N. Medical College and Hospital, (SNMC) Agra:** No information has been provided regarding the disinfection of treated wastewater as per prevailing practices to inactivate the coronavirus continuously. It was informed during the inspection that-
 - I. The HCF is connected with a terminal STP which is being operated by Third Party under One City One Operator Scheme.

A. Pandey

[Signature]

- II. The off-site treatment is done by the terminal STP facility. The STP is adopting precautionary measures while operating. The detailed inspection report is provided as **Annexure 5**.
 - III. The drain in which domestic effluent is discharged by the hospital is partially tapped.
 - IV. It was informed that the HCF is not using the treated wastewater.
- **Yashoda Super Speciality Hospital, Ghaziabad:** It was informed that the HCF and agency operating Sewage Treatment Plants are ensuring the disinfection of treated wastewater as per the prevailing practices to inactivate the coronaviruses continuously.
 - I. The HCF is pre-treating the wastewater generated from the lab as per the standard operational practices (SoP) and then discharging it to ETP inlet for further treatment.
 - II. The HCF is attached to an ETP and the operator of ETP is adopting the SoP for the treatment of liquid waste. During the inspection, the ETP operator staff was found wearing adequate PPE.
 - III. The HCF is not using the treated wastewater. A detailed inspection report is annexed as Annexure 6.
 - **District Combined Hospital, Ghaziabad:** No information has been provided by HCF regarding the disinfection of treated wastewater as per prevailing practices to inactivate the coronavirus continuously. It was informed during the inspection that-
 - I. The HCF is connected with a terminal STP which is being operated by Third Party under One City One Operator Scheme.
 - II. The off-site treatment is done by the terminal STP facility.
 - III. The Letter has been issued to the concerned Jal Nigam to look into the compliance of the treated wastewater discharge from the hospital by following the CPCB guidelines for its disinfection by STPs.

A. eandley

[Signature]

IV. It was informed that the HCF is not using the treated wastewater.

- **King George Medical University (KGMU):** KGMU has made arrangements for the disinfection of wastewater with 1% hypochlorite solution. The hospital is discharging its wastewater in a drain connected with STP at Bharwara, Lucknow. The STP is being operated by Third Party under One City One Operator Scheme. The STP is discharging their treated effluent into the downstream of the river Gomti. It was informed that the HCF is not using the treated wastewater.

4. **The inspection of Urban Local Bodies of Meerut and Gautambuddha Nagar:** In compliance with the order given by the Oversight Committee dated 01.07.2020, the authorized Regional Officer of Ghaziabad had inspected two ULBs viz Meerut on 02.07.2020 (details are annexed in Annexure 9) and Gautambuddha Nagar on 07.07.2020 (details are annexed in Annexure 10).

- The inspection report of the ULBs indicates that the ULBs are providing the information of quarantine camps/quarantine homes/ home-care to the UPPCB regularly and all these are connected to the COVID-19 waste treatment facility. **However, as per the details provided in the compliance report submitted by DHFW, it was reported that they are only receiving data from L1, L2, L3 COVID-19 treatment facilities and they are facing trouble in collecting all the information from the home-care / quarantine homes.** The observation drew after studying the inspection report and the compliance report is, **that there is a gap in the process of information collection and coordination among the departments.** Thus, resulting in the generation of an information gap in the management of the BMW and COVID-19 waste.
- The COVID-19 waste is collected directly by CBWTFs from quarantine camp. The ULB is ensuring that it should be done regularly.





- In GautamBuddha Nagar ULB has contracted/s A.G. Enviro whereas in Meerut ULB itself is providing yellow colored bags at all the quarantine camp or home-care for collection of COVID-19/Biomedical waste.
- As per the inspection report, it was reported that ULBs are following all the prescribed guidelines while collecting, handling and transporting the COVID-19 waste. The inspection report highlights that **the management of COVID-19 waste is being done properly in the district. However, no photographic proof of inspection was submitted along with inspection reports for most of the claims of the best management practices in process in the State.**

4. **CBWTFs:** Two CBWTFs functional in Lucknow were inspected. The details are as follows:

CBWTFs	Location	Facilitating	Number of HDFs served	Vehicles in use
M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. (Details Annexed in Annexure 11)	Bindowa, Mohanlalganj , Lucknow	Lucknow, Lakhimpur Khiri and Barabanki	1087 HCFs with a capacity of 9753 beds	14 closed vehicles installed with GPS tracking system are in use to collect BMW and a dedicated vehicle (UP 32-MN-7538) is collecting COVID-19 waste from hospitals and sample collection centers of Lucknow
M/s Spectrum waste solution Pvt. Ltd, Mastemau, Gosaiganj, Mohanlalganj Lucknow	Mastemau, Gosaiganj, Mohanlalganj , Lucknow	Lucknow, Amethi, Sultanpur, Gonda, Baharaich, Balrampur, Shravasti, Ayodhya and Gorakhpur	837 HCFs Out which 423 HCFs are from Lucknow	A dedicated vehicle (UP 32-MN-6209) is collecting COVID-19 waste from hospitals and sample collection centers of Lucknow

A. eadley

[Signature]

(Details Annexed in Annexure 12)				
----------------------------------	--	--	--	--

A. **M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. (CBWTF):** It is equipped with the following treatment facilities:

- I. A double chamber incinerator with a capacity of 250 kg/hr.
- II. A 30m Stack having venture scrubber, packed bed, mist eliminator and activated carbon for the treatment of Flue gas. The incinerator has a system for recording the temperature of the primary and secondary chamber.
- III. An autoclave having capacity of 175kg/batch for sterilization. The autoclave was attached with an automatic system for recording batch number, temperature and pressure.
- IV. Two shredders with a capacity of 100kg/hr each.
- V. The CBWTF was installed with an online stack monitoring system connected with the UPPCB/CPCB server.
- VI. The facility has a DG set with a capacity of 125 KVA. DG set is attached with a stack of height approximately 30 ft. from the ground.
- VII. The CBWTF was attached with an ETP (Capacity-20KLD) for the treatment of wastewater generated from the facility.

B. **M/s Spectrum waste solution Pvt. Ltd, Mastemau, Gosaiganj, Mohanlalganj, Lucknow:** It is equipped with the following treatment facilities:

- I. A double chamber incinerator with a capacity of 250 kg/hr.
- II. A 30m Stack having venture scrubber, packed bed, mist eliminator and activated carbon for the treatment of Flue gas. The incinerator has a system for recording the temperature of the primary and secondary chamber,

A. eandey

S. Singh

- III. An autoclave having capacity of 200kg/batch for sterilization. The autoclave was attached with an automatic system for recording batch number, temperature and pressure.
- IV. A shredder of 50kg/hr capacity for shredding of disinfected waste.
- V. The CBWTF has an online stack monitoring system installed and connected with the UPPCB/CPCB server.
- VI. The facility has a DG set with a capacity of 82 KVA. DG set is attached with a stack of height approx. 25 ft. from the ground.
- VII. CBWTF was attached with an ETP (Capacity-04 KLD) for the treatment of wastewater generated from the facility.

Inspection of these CBWTFs highlights the following details:

- I. Both the CBWTFs were found non-operational during the inspection due to shortage of the BMW.
- II. From both the CBWTFs the ashes generated from incinerators are being stored in an ash storage room. Further, the stored ashes are being transferred to TSDF at Kanpur Dehat operated by M/s Ramky Envirocare.
- III. Sanitization of the vehicle is being done with sodium hypochlorite solution.
- IV. 650 kg of non-COVID-19 biomedical waste at M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. and 850 kg of non-COVID-19 biomedical waste at M/s Spectrum waste solution Pvt. Ltd, Mastemau, Gosaiganj, Mohanlalganj, Lucknow was stored in closed storage shed. **However, as per the records, it was found that the COVID-19 waste received at the facility has been incinerated.**
- V. Barcoding of COVID-19 waste is being done by CBWTFs. at M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. is maintaining the QR code entry of barcoded COVID-19 waste. At M/s Spectrum waste solution Pvt. Ltd, Mastemau, Gosaiganj, Mohanlalganj, Lucknow inventory of quantity of COVID-

A. Cooley

[Signature]

19 waste received and incinerated are being maintained in a logbook. As per the compliance report received from DHFW, it was mentioned that a pilot project has been launched in Lucknow to implement the Bar/QR code and color-coded polybags. However, the COVID-19 waste management is not the same at all the districts of the State of UP as the news of mismanagement of COVID-19 waste has come to light through media from Agra, Ghaziabad and Gonda.

- All the CBWTFs and HCFs have already been directed by the Hon'ble NGT to implement the Barcoding and QR code system for tracking the generation and treatment of the waste. Even in this pandemic, the work of implementation of barcoding and QR coding has not been done at all the facilities due to which proper monitoring of the COVID-19 waste is not being done.
- This committee is of the view that this constant delay in meeting the desirable compliance in BMW waste tracking and monitoring system is posing a barrier in the proper management of the BMW and COVID-19 waste. Thus, a penalty should be imposed on the defaulting operators.
- The health care workers were equipped with PPEs i.e three-layered masks, splash-proof aprons/gowns, nitrile gloves, gumboots and safety goggles.
- On the 29.5.2020, 253.5 kg of COVID-19 waste was received and incinerated at M/s Watergrace Mediwaste Management Pvt. 313 Kha, Ltd. and 1004.2 kg of COVID-19 waste was received and incinerated at M/s Spectrum waste solution Pvt. Ltd, Mastemau, Gosaiganj, Mohanlalganj, Lucknow.

In the light of the inspection reports and the current increasing COVID-19 cases this committee has figured the following issues in the management of COVID-19 and BMW waste:

A Conley

[Signature]

1. The level of IEC is very low in the State. People are not very well aware of the safe disposal methods of the COVID-19 waste and harms of unsafe disposal of the COVID-19 waste. There is an urgent need to spread awareness among the people as unlock is in process. All the people involved in providing the essential services and front line warriors are more susceptible to the infection and can spread it to the community in the case of lack of awareness.
2. There is an urgent need for capacity building in all the sectors dealing with the COVID-19 pandemic. The medical staff, sanitary workers, etc in Medical institutions, AYUSH Department, CHCs, PHCs should be well-informed and trained as per the ICMR, WHO and CPCB guidelines.
3. TOT course training should be conducted frequently. As per the current information available, there is no course module. A detailed course module should be developed and would be made available to all the medical staff for further strengthening of the medical facilities and awareness.
4. The SOPs should be made for each department to conduct their duties with care and manage all the aspects of COVID-19 pandemic with precision such as for Isolation wards, home quarantine facilities, etc. The SOP should be strictly followed and any negligence should be punishable.
5. There is an apparent infrastructure gap in the treatment facilities for treating the liquid waste generated from the health care facilities. The available STPs and ETPs are far less than what is required to meet the current requirements. Thus it has to be taken into consideration that time-bound work should be planed and any delay in completing the work should be liable to penalty.
6. Even after so much emphasis, the work of installation of barcoding on the waste generated and GPS in the vehicles have not been done in the State. This

A. Arora

[Signature]

committee is of the view that this negligence and delay in completing this work of such importance is liable to Penalty.

7. As per the compliance report submitted by the DHFW, there were 4 districts where the CBWTF facility has become functional only during this COVID-19 pandemic. The UPPCB and DHFW are directed to make sure that these districts should have a permanent treatment facility in future. In the State, more treatment capacity should be created to prevent any such gap in future.
8. In the compliance report, the AYUSH department is not being covered. The details of amount of waste generated from AYUSH and type of waste generated from this department are not provided to this committee. It is directed that the waste generated by the AYUSH department should also be taken care of and treated as per BMW Rules and COVID-19 guidelines. UPPCB may conduct inspections to ensure compliance.
9. There are many medical units which are still unauthorized. This committee is of the view that all these unauthorized HCFs should be directed to get themselves authorized as soon as possible failing which legal action be taken against them.

Issues of non-compliances of COVID-19 waste management:

A perusal of inspection reports reveals that the dedicated COVID-19 HCFs are following CPCB guidelines for the management of COVID-19 waste. However, we have come across some media reports mentioning some incidents of mismanagement:

- A news item published in The Times of India dated 22.05.2020 stated that “UP: Two children carry firewood in used PPE kit in COVID epicenter Agra”. According to the news, the children told the news reporter that they found the

A. K. Singh

[Signature]

PPE kit inside a bag lying in the garbage dump near a graveyard. These children were unaware of the hazardous nature of the PPE kit and used it to carry the firewood. The graveyard is located approximately a kilometer away from Railway hospital which is a dedicated COVID-19 isolation center in Agra. **(Annexure 13).**

- A news article published in Dainik Jagaran on 27.4.2020 stated that “Corona infected waste found on dumping ground; used masks may also aggravate transmission”. The news article highlighted that COVID waste is many time more lethal than the usually discharged hospital waste. Even a small omission from its collection to disposal can cause fatal effects. The reporter of that article mentions that Aniket Joshi of M/s Spectrum waste solution Pvt Ltd, Mohanlalganj, Lucknow, told him that as per rules, COVID-19 waste is to be collected at one point in the hospitals but some hospitals are not following this protocol. He further mentioned that irrespective of the clear guidelines from CPCB to pack the COVID-19 waste in double polythene and sanitize it from above, at some places, the waste is not being packed properly or proper sanitization of the packed bags is not being done. He also informed that there are four large hotels in Lucknow acquired by the administration for quarantine of doctors. He added, *“The special thing is that despite the letter issued by the Chief Medical Superintendent, these hotels have not yet availed the facility of Bio-Medical Waste facility”*. Only one hotel located in Gomti Nagar has approached the CBWTF to avail of the treatment facility and get their COVID-19 waste treated properly. Another issue is improper disposal of used masks by the common people in the garbage due to lack of awareness on how to dispose of the used masks. It can be dangerous and infectious if an asymptomatic patient unknowingly disposes of the used mask in the garbage **(Annexure 14).**

A. eadley

[Signature]

- Another news item published in The Times of India dated 26.05.2020 stated that “Domestic COVID waste starts piling, Ghaziabad asks residents to switch to reusable masks” (**Annexure 15**).
- Again on 04.06.2020, a news article was published in Lokmat (Hindi) newspaper reported that a used PPE kit was found disposed of in an open area in Ghaziabad. (**Annexure 16**)
- A news item published in the Hindustan newspaper dated 17.06.2020 titled “Masks and gloves are reaching in the garbage: threat of infection” (**Annexure17**). The news article reported that in Lucknow used masks and gloves are not been collected from the households by the Nagar Nigam, Lucknow. Thus, people are disposing their used masks and gloves as general domestic waste. This waste is reaching the waste treatment plant situated in Shivari along with domestic waste. Segregation of BMW waste is not being done at the treatment plant thus this BMW waste is getting treated along with the general waste.

Several other incidents have come to our notice. First in district Gonda where used masks and other Biomedical Waste was found lying in the hospital premises. Likewise in the district, Shamli leftover food of COVID-19 patients and Biomedical Waste was found lying in the hospital premises (Source: TV news). As per the photographs provided in the inspection report of District Combined Hospital Ghaziabad, it is apparent that loose waste was lying in the collection shed of Hospital. It shows that either the sealing of collection bags or the collection of waste is not being done properly (**Annexure 7**). Further on 13.05.2020, a news article was published in Times of India titled “UP: Two children carry firewood in used PPE kit in COVID-19 epicenter Agra” (**Annexure 13**). Again on 04.06.2020, a news article was published in Lokmat (Hindi) newspaper reported that a used PPE

A. K. S. S.

[Signature]

kit was found disposed of in an open area in Ghaziabad (**Annexure 16**). The Committee has asked for a report from UPPCB in all these cases.

Recommendations:

In the view of above, we recommend as follows:

1. Compliance with Biomedical Waste Rules 2016 appears to be lax. There are still 2483 HCFs that have not taken authorization under BMW Rules. Out of these, 441 HCFs are Government HCFs against which no prosecution has been launched so far. All these facilities be immediately inspected and authorizations be issued if they were found fully compliant. Gaps in infrastructure be addressed within one month and responsibility for non-compliance be fixed. Let the State PCB apprise Hon'ble NGT and this Committee about the enforcement action taken by them on the above points within one month.
2. CPCB has developed 'COVID19BMW' mobile app to ensure proper collection, transportation, treatment and disposal of BMW/Covid-19 waste, wherein entry at every stage shall be made. However, till date, all the hospitals, wards, quarantine centers and pathological labs have not yet been registered on this app. Unless and until every unit is duly registered and proper training has been given to concerned persons, there cannot be a proper check on the collection, transportation, treatment and disposal of BMW/COVID-19 waste. Therefore a direction be issued to ensure the registration of all the facility on the above portal, also to impart training to the concerned person to properly feed all the data.
3. The most important action is training and capacity building among stakeholders. While WHO and CPCB have issued guidelines regarding BMW management, in many HCFs these guidelines are not being followed because the health care providers have no knowledge about them. While some training program has been conducted for some doctors in Health Departments, most of the health care

A. K. Singh

[Signature]

workers and sanitary staff has not been properly trained. It has to be broad-based. Standard modules regarding handling and disposal of COVID-19 waste should be developed based on WHO/CPCB guidelines. They should be given to the Health Department, Medical Education, AYUSH Department and ULBs through the Urban Development Department. ToT workshops should be organized not only for doctors but for nurses, paramedical staff, mortuary staff, ambulance drivers, sanitation staff and such other staff who come in direct contact with the patients. Similarly, for handling dead bodies, information dissemination should be done of ICMR guidelines to doctors, paramedics, mortuary staff, municipality staff located at crematoria and ambulance drivers.

4. Another important area is building awareness in public about these procedures. IEC campaign be launched through visual media, print media, spot hoardings billboards, pamphlets and newspapers about these protocols at hospitals, nursing homes, collection centers, laboratories, quarantine camps and CBWTFs. Also, public at large be educated about these SOPs for home quarantine.
5. Another very important area is the medical and paramedical staff and sanitation staff working for management of BMW waste in HCFs/quarantine centers/labs/isolation centers and CBWTFs. We need to develop SOPs for them, train them and provide them with proper PPEs so that they do not get infected. Let a direction be issued for regular health checkups of the persons who are directly involved in collection and transportation of the COVID-19 waste.
6. There is an elaborate track and trace system of BMW in which all the colored bags are bar-coded and the movement of trucks is tracked through GPS. However, barring a small pilot in Lucknow, none of the operators is using a bar-coding system which puts a big question mark of the reliability of the data. State PCB may

be directed to ensure that the bar-coding system be strictly followed within 30 days failing which action under law be initiated against the concerned operators.

7. While we are getting information about the Health Department, there appear to be some communication gaps with the Medical Education and AYUSH Departments. The Committee could not get information on BMW Rules, 2016 compliance in any of the AYUSH Hospitals. Chief Secretary, U.P. may be directed to monitor the progress with Principal Secretaries of Medical Education and AYUSH Department and communicate the information to Hon'ble NGT and this Committee. Since Health Department is the nodal department, both Medical Education and AYUSH Department should send their information to Health Department where it can be compiled for further communication. In the meantime, State PCB and CPCB shall inspect these hospitals and ensure compliance of BMW Rules, 2016.
8. There needs to be effective enforcement of BMW Rules. Till date, 607 private HCFs have been given notice for non-compliance. Further progress of enforcement may be communicated. Rs 7.17 crores EC has been imposed against 130 HCFs. Rs. 85 lakhs EC has been imposed against 6 CBWTFs. The realization of the imposed penalty has not been done by the UPPCB. Therefore direction be issue to UPPCB to ensure the realization of EC as per Rule.
9. As far as liquid waste is concerned, steps should be taken to disinfect the treated liquid waste before its reuse for irrigation or similar other purposes.
10. Many HCFs, quarantine centers, testing labs are not using Covid-19 BMW Software. Hence, the entire information flow for COVID-19 BMW is not being collected. There is a need to register all these centers on the portal. While data from L1/L2/L3 facilities are being collated by Health Department data from all



sample collection centers, quarantine homes, quarantine camps may also be collated alongside to monitor the entire COVID-19 waste for the State.

11. All hospital housekeepers, sanitation workers and other staff dealing with handling and management of BMW/COVID-19 waste shall be provided with regular free health checkups from the respective HCFs where they are working.
12. The DHFW and ULBs should issue a service helpline number for the public for COVID-19 waste-related issues. This could be merged with the COVID 19 helpline.
13. The instances of improper disposal of PPE kits highlight the loophole in the management of the BMW waste. It must be ensured that such incidents should not happen. All stakeholders dealing with the collection, transportation and treatment of BMW waste must be made accountable for the slightest negligence in the management of COVID-19 waste.
14. The inspection conducted at KGMU, Lucknow highlighted that the packaging of waste is not being done as per the CPCB guidelines. A similar issue was raised in the news an article, (**Annexure 8**). UPPCB should take action against errant Hospitals as per the legal provisions.
15. There are large infrastructural gaps in HCFs due to which they are not complying with BMW Rules. 452 HCFs out of 530 HCFs with an operating capacity of more than 100 beds do not have STPs/ETPs. Even in Government facilities, out of 1027 HCFs comprising of District Hospitals and CHCs 564 HCFs do not have collection sheds where biomedical waste can be collected. As far as PHCs are concerned, only 628 PHCs out of 3620 PHCs have deep burial pits. There is no permanent agreement for BMW disposal in 2992 PHCs. The progress of the construction of ETPs in District Hospitals is also very slow. This year, only 40 District Hospitals have been taken up for ETP construction, leaving the balance for Phase-II and all the 853 CHCs for Phase-III. These infrastructure gaps may be addressed



immediately, failing which action under EPA, 1986 be initiated against the defaulters. The UP Jal Nigam must ensure the construction work of ETPs assigned in 40 districts will get completed in the prescribed time.

16. All the HCFs where the collection sheds are under construction shall ensure that no waste should be stored at their premises. They should regularly hand over their waste to the service provider for proper treatment and disposal.

17. The meetings of the State Advisory Committee and District Advisory Committee should take place regularly to monitor and ensure compliance of the BMW Rules, 2016 in general and COVID-19 guidelines in particular.

The Member Secretary, UPPCB is directed to send this report to the Registrar General, National Green Tribunal, Principal Bench, New Delhi for placing the same before the Hon'ble Tribunal with a copy to the Chief Secretary, Government of UP for necessary action. The report with regard to Biomedical and COVID-19 waste management be uploaded on the website of the committee.



(Dr. Anup Chandra Pandey)
Member, Oversight Committee, U.P.



(Justice S.V.S. Rathore)
Chairman, Oversight Committee, U.P.

July 13, 2020

Annexures: As above

Please visit our website: oscngt.upsdc.gov.in for more information.

Revision 3:

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

10th June, 2020

**[In suppression of earlier guidelines uploaded at CPCB website on 18/04/2020. Text pertaining to
additional information is underlined]**



Central Pollution Control Board

(Ministry of Environment, Forest & Climate Change)

Parivesh Bhawan, East Arjun Nagar

Delhi – 110032

2-

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

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-3 of guidelines issued to incorporate guidance on segregation of general solid waste and biomedical waste. Further, this revision also addresses safety of waste handlers / sanitation workers associated with healthcare facilities, local bodies (ULBs) and CBWTFs in handling of biomedical waste and solid waste generated from quarantine centers/home-care/healthcare facilities treating COVID-19 patients.

Guidelines brought out by WHO, MoH&FW, ICMR, CDC and other concerned agencies from time to time may also be referred for understanding other aspects related to COVID-19.

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 (with foot operated lids)¹/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.

¹ Inserted in Rev. 3 of guidelines dated 10/06/2020

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

- General solid waste like wrappers of medicine/syringes etc., fruit peel offs, empty juice bottles or tetra packs, empty water bottles, discarded papers, carton boxes of medicines, empty bottles for of disinfectants and any other items which were not contaminated by the patients secretions, body fluids should be collected separately as per SWM Rules, 2016. In order to minimize waste generation, as far as possible, non-disposable items must be used, which are to be handle with appropriate precautions and cleaned and disinfected as per hospital guidelines. The wet and dry solid waste bags to be securely tied and handed over to authorized waste collector of ULB's on daily basis.¹
- Maintain separate records 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-19 ICU ward to SPCBs/PCCs and respective CBWTF located in the area.
- Register in CPCB mobile application namely 'COVID19BWM' to update the details of COVID-19 biomedical waste generation.
- 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.²
- Collect used PPEs such as goggles, face-shield, splash proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag;³
- Collect used mask (including Triple layer mask, N95 mask etc.), head cover/cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall in Yellow bags.⁴
- Items like left over food, disposable plates, glass, used masks, used tissues, used toiletries, etc. used by COVID-19 patient shall become biomedical waste and shall be segregated in yellow bag. Used gloves and plastic bottle from patients will be disposed off in red bag.⁵
- Provide training to Waste handlers about infection prevention measures such as Hand hygiene, Respiratory etiquettes, social distancing, use of appropriate PPE, etc. via videos and demonstration in local language. Designated nodal officer for biomedical waste management

¹ Para revised in Rev. 3 dated 10/06/2020

² Para Inserted in Rev. 2 dated 18/04/2020

³ Para inserted in Rev. 2 dated 18/04/2020

⁴ Para inserted in Rev. 2 dated 18/04/2020

⁵ Inserted in Rev. 3 dated 10/06/2020

4-

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

in hospital shall provide training. Nodal officers, in turn, need to be trained by Health Departments / professional agencies in association with SPCB/ PCC of the States/ UTs.¹

(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/PCC. 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.²

(c) Responsibilities of persons operating Quarantine Camps/Homes or Home-Care facilities³

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 municipal solid waste collector identified by Urban Local Bodies or as per the prevailing local method of disposing general solid waste.
- General waste may comprise of the waste generated from kitchen, packaging material for groceries, food material, waste papers, waste plastics, floor cleaning dust, etc. generated and handled by patient care-takers or the suspected quarantined persons.⁴
- Waste contaminated with blood / body fluids of COVID-19 patients to be collected in yellow bag.⁵
- Biomedical waste if any generated from quarantine centers/camps should be collected separately in yellow-bags (suitable for biomedical waste collection) provided by ULBs. These bags can be placed in separate and dedicated dust-bins of appropriate size. General waste should not be stored in yellow bags.⁶
- Agency responsible for operation of Quarantine Centre/camp shall designate a nodal person who will be responsible for waste management and for maintenance of its record.⁷
- Designated nodal person of the Quarantine Centre/Camp shall register the Centre/Camp on CPCB's biomedical waste Tracking App 'COVID19BWM' (available on Google play store) and update the details of waste generated on daily basis.⁸
- 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.

¹ Inserted in Rev. 3, dated 10/06/2020

² Para amended in Rev. 2 dated 18/04/2020

³ Section inserted in Rev. 1 dated 25/03/2020

⁴ Para inserted in Rev. 3, dated 10/06/2020

⁵ Para inserted in Rev. 3 dated 10/06/2020

⁶ Para amended in Rev. 3 dated 10/06/2020

⁷ Para inserted in Rev. 3 dated 10/06/2020

⁸ Para inserted in Rev. 3 dated 10/06/2020

Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3

- 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.¹
- 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 segregated separately and disposed as solid waste as per provisions under SWM Rules, 2016.
- General waste such as like fruit/vegetable peel offs, left-over food, empty juice bottles or tetra packs, empty water bottles, packaging material, discarded papers, carton boxes, and any other items which were not contaminated by secretions or body fluids of COVID-19 positive person should be disposed-off as general solid waste. This waste shall not be collected in yellow bag.²
- General waste contaminated with blood or body fluids from persons infected with COVID-19 shall be segregated in yellow bag along with masks and gloves used by them.³

¹ Para inserted in Rev. 2 dated 18/04/2020

² Para inserted in Rev. 2 dated 18/04/2020 and amended in Rev. 3 dated 10/06/2020

³ Para inserted in Rev. 3 of guidelines dated 10/06/2020

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

- Masks and gloves used by persons not infected by COVID-19 at quarantine homes 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.¹

(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.
- CBWTF operator shall register on 'COVID19BWM' Tracking App developed by CPCB and also ensure registration of Waste Handler (with vehicle) for entering the data of COVID-19 biomedical waste received and disposed.²
- Provide training to Waste handlers on infection prevention measures, hand hygiene, respiratory etiquettes, social distancing, use of PPE, etc. via videos and demonstrations etc. translated in local language. Sanitation workers more than 50-yr of age should be posted for management of non-COVID waste.³

(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 this guidance document;
- Allow CBWTFs to operate for extra hours as per requirement;

¹ Amended in Rev. 2 of guidelines dated 18/04/2020; Criteria for 72 hours is as per CDC guidelines for Decontamination and Reuse of Filtering Facepiece Respirators

² Para inserted in Rev. 3 dated 10/06/2020

³ Para inserted in Rev. 3 dated 10/06/2020

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

- 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, 2016.¹
- 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 beyond the capacity of existing CBWTFs and the captive BMW incinerators; permit HW incinerators at existing TSDFs or captive industrial incinerators if any exist in the State/UT. In such case, ensure separate arrangement for handling and waste feeding.²
- During COVID 19 pandemic, SPCBs/PCCs may direct the ULBs to collect dry general solid waste in bags from quarantine Centers / Quarantine homes / Homecare units, and sprayed with disinfectant solution, for disposal in waste to energy plants/ industrial incinerators/ landfills, as per existing practice or availability in the state.³
- Every SPCB/PCC shall use 'COVID19BWM' web-portal developed by CPCB to track and verify COVID-19 biomedical waste and to submit daily data to CPCB through said portal.⁴

(f) Duties of Urban Local Bodies⁵

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/PCCs from time to time;
- Ensure that general solid waste and biomedical waste generated from quarantine camps/ quarantine homes / Homecare is not mixed. The biomedical waste and general solid waste should be collected separately;⁶
- In quarantine camps, ensure that biomedical waste is collected directly by CBWTFs identified by ULB. Biomedical 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;

¹ Para inserted in Rev. 2 dated 18/04/2020

² Para amended in Rev. 3 dated 10/06/2020

³ Para inserted in Rev. 3 dated 10/06/2020

⁴ Para inserted in Rev. 3 dated 10/06/2020

⁵ Section inserted in Rev. 1 dated 25/03/2020

⁶ Para inserted in Rev. 3 dated 10/06/2020

Guidelines for Handling, Treatment, and Disposal of Waste Generated during Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3

- 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 practices 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 general solid waste and biomedical 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.
- ULBs may adopt following practices in handling of solid waste and biomedical waste from quarantine camps / Isolation Wards / Home Care / Home Quarantine;¹
 - o Use dedicated carts / trolleys / vehicles for transport of biomedical waste. Ensure sanitization of vehicles with 1% sodium hypochlorite after each trip;
 - o As a matter of caution, the bags containing general waste may be sprayed with disinfectant solution (1% sodium hypochlorite solution) prior to disposal;²
 - o Waste collectors arriving at quarantine center or at home care may spray the disinfectant (1% sodium hypochlorite solution) on the bin used for yellow bags.

¹ Para inserted in Rev. 3 dated dated 10/06/2020

² Para inserted in Rev. 3 dated dated 10/06/2020

9

**Guidelines for Handling, Treatment, and Disposal of Waste Generated during
Treatment/Diagnosis/ Quarantine of COVID-19 Patients – Rev. 3**

- 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.
- Create awareness among citizens regarding segregation of municipal solid waste and biomedical waste (as part of Domestic Hazardous Waste) generated from homes/ quarantine homes/ home care facilities.¹
- 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.²
- ULB shall designate a Nodal person who will be responsible for waste management for specific quarantine center or an area and for maintenance of its record.³
- Designated nodal person shall download and use biomedical waste Tracking App 'COVID19BWM' developed by CPCB to feed daily data on quantity of biomedical waste collected from home-cares or home quarantines.⁴
- Waste handlers must be given basic/elementary training by ULBs/SPCBs/PCCs with help from NGOs on SWM, Hand hygiene, Respiratory etiquettes, social distancing, Use of PPEs and its disposal, and screening clinics via videos and practical demonstrations in local language.⁵
- ULBs required to collect segregated general solid waste from quarantine centers, home-care and hospitals in bags (without opening them to ensure waste collector safety and to avoid pilferage). As a precautionary measure, liquid disinfectant (1% sodium hypochlorite solution) may be sprayed over bags containing general wastes prior to collection or disposal. General solid waste may be disposed as per SWM Rules, 2016, which may include disposal in landfills, waste to energy plants, depending on available infrastructure. Access to landfills sites should be strictly restricted;⁶
- In case ULBs are unable to manage solid waste with their existing staff, professional solid waste management agencies may be engaged/authorized during COVID-19 situation for timely collection of solid waste and biomedical wastes separately from quarantine centers, home-care, COVID-19 isolation wards and quarantine homes.⁷

¹ Para inserted in Rev. 3 dated June, 2020

² Para Inserted in Revision 2 dated 18/04/2020

³ Para Inserted in Rev. 3 dated 10/06/2020

⁴ Para Inserted in Rev. 3 dated 10/06/2020

⁵ Para Inserted in Rev. 3 dated 10/06/2020

⁶ Para Inserted in Rev. 3 dated 10/06/2020

⁷ Para Inserted in Rev. 3 dated 10/06/2020

(g) Management of wastewater from HCFs / Isolation Wards¹

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 corona viruses.
- Operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards should adopt standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for operation of STPs. PPEs should include Goggles, face mask , liquid repellent coveralls, waterproof gloves and Rubber boots.
- During the period of COVID-19 pandemic, utilization of treated wastewater in utilities within HCFs may be avoided.

¹ Section inserted in Revision 2 dated 18/04/2020



उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड
UTTAR PRADESH POLLUTION CONTROL BOARD

Ref. No. G.3.2.9.79/सी-6/शां-35-1/कोविड-19/2020

Dated: 23.06.2020

Sri AN Bajpai,
PPS to Hon'ble Member,
Oversight Committee, NGT, UP,
Directorate of Environment,
Vineet Khand, Gomti Nagar,
Lucknow.

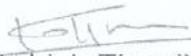
Sub: Compliance of Order of Hon'ble NGT passed in O.A. No. 72/2020 in re: Scientific Disposal of Bio-Medical Waste arising out of Covid-19 treatment compliance of BMW Rules, 2016.

Sir,

Please refer to Hon'ble Committee's letter no.-26/OC-NGT/2020, dated 22.06.2020 by which it was directed to submit the report of Hon'ble Oversight Committee before Hon'ble NGT. In this report under the para regarding Short Term Recommendations at page no.-34, following modifications are requested to be made which are based upon the data submitted before the Hon'ble Committee by U.P. Pollution Control Board:-

- Before the COVID-19 epidemic, the total Bio Medical Waste Generation from the all the private and Government hospital was 52.5 MT/day.
- Approximately 39.5 MT/day was incinerable waste and remaining 13 MT/day was none incinerable (Recycabling Plastic & Others Waste).
- Presently due to limited operation of the hospitals, the Bio Medical Waste generation is approximately 23 MT/day in which approximately 18 MT/day is the incinerable waste and 5 MT/day non incinerable waste (recyclable waste).
- Presently approximately 9-10 MT/day, COVID-19 waste is being generated.
- Presently 28 MT/day total incinerable waste is being generated. The cumulative incinerable waste capacity of 18 CBWTFs is 51.2 MT/day.
- The marginal incineration capacity available of all 18 CBWTFs is 23.2 MT/day which is sufficient even if COVID-19 waste is doubled in future.
- Beside this the capacity of 3 no incinerator in TSDFs for hazardous waste incineration is 68 MT/Day.
- Presently 18 MT/day Hazardous Waste is being generated.
- The marginal capacity of hazardous waste incinerator is 50 MT/day.
- The total marginal capacity of all 18 CBWTFs and incinerator in 3 TSDF is 73.2 MT/day which is sufficient even if the COVID-19 waste generation increases exponentially.
- In addition of above, a CBWTF situated in District Sultanpur having 2.4 MT/day incineration capacity is under upgradation process and Consent to Establishment for 3 no. CBWTF have been issued by the Board in District Banda, Amroha & Chanduli to install the CBWTF. This additional capacity is also expected to be available by December, 2020.

Kindly put above factual position before Hon'ble Committee so that necessary modifications in the report are considered to be made.


(Ashish Tiwari)
Member Secretary

MINUTES OF MEETING OF NGT OVERSIGHT COMMITTEE, UP LUCKNOW NGT
HELD ON 13.05.2020 AT 11-00 A.M (ORGANISED WITH THE HELP OF NIC)
THROUGH VIDEO-CONFERENCING

Present: Hon'ble Mr Justice SVS Rathore, Chairman, and
Dr Anup Chandra Pandey, Member

Other dignitaries present:

1. Shri Surendra Vikram, Special Secretary, Irrigation
2. Mrs V. Hekali Zhimomi, Secretary, Health
3. Shri Ashish Tiwari, Member Secretary, UPPCB
4. Dr Shipra Pandey, Nodal Officer, Health
5. Shri RK Singh, Regional Director, CPCB, Lucknow
6. Shri Vikas Godalwal, MD, Jal Nigam
7. Shri SR Sachan, Representative of UPSIDA
8. Shri G.C. Agarwal, Chief Engineer, Ram Ganga
9. Shri Sandeep Chadra, Chief Engineer, UPSIDA
10. Shri DP Mathuria, Executive Director (Technical), NMCG
11. Shri Kumar Vineet, Addl Director, Mandi Parishad

Meeting was held as scheduled.

Various issues as pointed out in the orders of Hon'ble National Green Tribunal in different OAs discussed and status of the action taken by the concerned authorities in compliance of the orders reviewed. Decisions taken thereon by the Committee in the matter are detailed hereinunder:

O.A. No. -710/2017, 711/2017, 712/2017, 713/2017 (Bio-medical Waste Rules, 2016)	
Management and handling of the COVID-19 waste generated from hospitals, quarantine centre in the State.	It was informed by Secretary, Health that the waste from the infectious disease (COVID-19) wards is being managed as per the protocol prescribed by CPCB. Health Department have also conducted trainings jointly with UPPCB and Urban development Department. The Health Department will submit to the Committee a copy of protocol and guidelines formed and being followed to segregate,

	<p>manage and handle COVID-19 waste.</p> <p>The Health Department also mentioned that they have a separate team of people looking after COVID-19 waste; they are maintaining separate bins, separate collection vans and trained staff to handle the waste with complete care.</p> <p>Regional Director, CPCB mentioned that they have issued guidelines for management of COVID waste and the same have been circulated to all the SPCBs in the country. They have also updated this guideline and the updated version of the guidelines was used by the Health Department of the State for conducting the trainings. They further informed that a software has been developed for waste tracking and it was made compulsory for all the stakeholders to register and update the information regarding COVID-19 waste regularly on it.</p> <p>Secretary, Health informed that they are already uploading all the information regarding the BMW waste and COVID-19 waste on the State portal. They were asked to incorporate the information available on the State portal in the CPCB's website.</p> <p>Regional Director, CPCB also mentioned that they are regularly receiving feedbacks from the UPPCB and other departments regarding COVID-19 waste.</p> <p>Member Secretary, UPPCB mentioned that UPPCB has directed all the concerned departments to manage COVID-19 waste as per the guidelines. He further mentioned that waste generated from the COVID-19 is mostly incinerable waste for which the capacity in State is adequate. Also, in future if COVID-19 cases increase, the State will use the hazardous waste incinerators for incineration of COVID-19 waste.</p> <p>COVID waste is managed and handled</p>
--	--

	<p>Status of Health survey report which has not been submitted yet.</p>	<p>separately from other wastes. The waste from the isolation wards, quarantine centres is kept separate from the general waste from the quarantine homes which is first disinfected and then processed.</p> <p>It was also mentioned that they are conducting trainings on the waste tracking software.</p> <p>It is likely that in near future the COVID-19 cases may increase. The Committee directed that to copewith the situation, trainings and guidelines be provided to the other stakeholders such as private players (Hospitals, Pathologies etc.) so that they may also be able to manage COVID-19 waste in light of the guidelines issued.</p> <p>The Committee also called for the status of COVID-19 waste in the State in past 15 Days. The Committee has been informed about the quantity of covid-19 waste (Bio-medical waste) generated from the Hospitals, Isolation ward quarantine comps/Homes, sample collection centre between 25.04.2020 to 11.05.2020 as given blow :-</p> <p>(a) Covid-19 Waste (Bio medical waste) generated - 94.7 ton</p> <p>(b) Covid-19 Waste (Bio medical waste) incinerated by Common bio medical waste treatment facilities (18 no.) - 94.7 ton</p> <p>The Committee directed the Health Department to submit the updated compliance report within one week.</p> <p>The Committee also directed that COVID-19 waste be permitted to be disposed of by authorised units only.</p> <p>Health survey has been done. The health department had submitted the report on 13th March 2020 and soft copy of the report will be submitted. Also the updated compliance</p>
		<p>status of orders passed in OA No.710/2017 will be submitted to the committee within one week.</p>

The Committee directs that all these matters be expedited and EC be realised from defaulting Units.

Sd/-
(Dr Anup Chandra Pandey)
Member, Oversight Committee

Sd/-
(Justice SVS Rathore)
Chairman, Oversight Committee

May 13, 2020



Scanned with
CamScanner

**MINUTES OF MEETING OF NGT OVERSIGHT COMMITTEE, UP LUCKNOW NGT
HELD ON 22.05.2020 AT 11-00 A.M (ORGANISED WITH THE HELP OF NIC)
THROUGH VIDEO-CONFERENCING**

Present: Hon'ble Mr Justice SVS Rathore, Chairman, and
Dr Anup Chandra Pandey, Member

Other dignitaries present:

1. Shri Anurag Yadav, Secretary, Urban Development
2. Shri Ashish Tiwari, Member Secretary, UPPCB
3. Dr. Shipra Pandey, Nodal Officer, Health Department,
4. Shri R.K. Singh, Director, CPCB, Lucknow
5. Ms Youthika, CPCB official from Delhi

Meeting was held as scheduled.

Various issues arising out of order dated 23.03.2020 passed by Hon'ble NGT in **OA No. 72 of 2020** in re: *Scientific Disposal of Bio-Medical Waste arising out of COVID-19 treatment – Compliance of BMW Rules, 2016 and Standard Operating Procedure (SOP) issued by CPCB regarding MBW COVID-19 waste* considered. Decisions taken by the Committee in the matter are detailed hereinunder:

SI No	Issues/points of discussion	Decision taken by the Committee
1	Status of Special Health Care Facilities. Number of Isolation Wards, Laboratories Sample Collection Centres, Quarantine Wards, Quarantine Homes etc.	Nodal Officer, Health informed that so far there are 78 L1 HCFs, 69 L2 HCFs and 19 L3 HCFs, Data of L1, L2 and L3 facilities are available with the Health Department, but there is no Data available about quarantine homes. The Data of quarantine homes and isolation wards, etc are available with the UPPCB. Member Secretary, UPPCB informed that they are getting information about quarantine homes and isolation wards from their ROs of different districts regularly and they are sending it to CPCB daily. He was directed to compile the Data of quarantine homes, which is available with him alongwith the hospital data available with Health Department and

		<p>send it regularly.</p> <p>Nodal Officer, Health was directed to send the hospital data to CPCB regularly.</p>
2	<p>Inventorization of generated Covid-19 biomedical waste by HCFs/ Isolation Wards/ Laboratories/ Sample collection centre/Quarantine camp/Quarantine homes/ULBs/CBWTF.</p>	<p>The Nodal Officer, Health Department informed that they have inventory of L1, L2, L3 facilities, Isolation wards but they do not have any information about the inventory of generated bio-medical waste from Sample collection centers, quarantine homes, and quarantine camps.</p> <p>The Member Secretary, UPPCB informed that they are gathering information from the Regional Centers and after compiling the information, they submit the report to CPCB regularly.</p> <p>Nodal Officer, Health was directed to regularly send the Data of L1, L2 and L3 facilities bio-medical waste generation to CPCB so that it may be included in the compiled report. A copy of the compiled report be sent to this Committee also regularly.</p> <p>Member Secretary, UPPCB reported that the State has enough capacity to handle Covid-19 waste. The total Covid waste generation from isolation wards in the State is 5.5 MT/day to 6 MT/day. The State has the processing facility of about 52.5MT/day and they are incinerating/disposing of all Covid-19 waste generated on day-to-day basis.</p> <p>It is also informed by Member Secretary that they have constituted an Emergency Response System. If the waste generated from isolation wards exceeds the normal limit, they will use the Hazardous Waste Incinerator situated at Kanpur having capacity of 62 MT/day.</p>
3	<p>Methodology for treatment of Covid-19 patents.</p>	<p>It was informed that steps have been taken to isolate the Covid-19 patents. It is also ensured that the health workers are insulated from contacting Covid-19 infection. A Three layer system, i.e. L-1, L-2 and L-3 is provided for treatment of Covid-19 patents according to the severity of the infection, age and other medical</p>

		factors. Directions have been issued for preparation of one lac beds within the State for treatment of Covid-19 patients also keeping in view the influx of migrant labourers.
4	Authorization of Healthcare facilities under the BMW Rules for disposal of bio medical waste.	Nodal Officer, Health informed that there are 23,892 HCFs in the State, out of which only 20,927 HCFs have been granted authorization by the UPPCB. Member Secretary, UPPCB informed that at present, no case of authorization is pending and all facilities, which have applied for authorization online, have been given such authorization. The HCFs not having authorization have been issued notices and environment compensation has been imposed against 103 HCFs and 6 CBWTFs by UPPCB. Prosecution against defaulter 5 HCFs and 3 CBWTFs has been launched. Further, it was also submitted that the authorization procedure has now been connected with Nivesh Mitra portal.
5	Status of STPs/ETPs in Medical Colleges and hospitals etc.	Member Secretary, UPPCB informed that in some Medical Colleges/Hospitals, STP/ETP have not been installed as yet. He further informed that the Health Department of the State is, however, very proactive in this regard and has prepared action plan to establish STPs/ETPs in every hospital in time bound manner. Inspection of STPs/ETPs in Government hospitals is being made regularly. The MS, UPPCB had mentioned that they will submit the compliance status of all the STP/ETP.
6	Inspection of duties of CBWTFs	UPPCB was directed to conduct inspection of all the CBWTFs by ROs as per CPCB guidelines for COVID waste management and submit report within a week. The Member Secretary mentioned that they are inspecting all the CBWTFs regularly and will submit the details.
7	Disposal of dead bodies of Covid-19	Secretary, Urban Development informed the Committee about the system adopted for disposal of

	patients.	dead bodies of Covid-19 patients. He informed that the process is in consonance with ICMR guidelines.
8	Compliance status of ULBs with regard to PPEs	<p>Secretary, Urban Department informed that they are conducting regular meetings through video-conferencing with Nagar Ayukts, Nagar Palikas and large ULBs regarding availability of PPE kits for sanitary workers, Health check of sanitary workers and availability of sanitizer.</p> <p>Secretary, Urban Development informed that Nodal Officers in all districts have been directed to ensure availability of PPEs to all police, health workers and Safai Karmacharis. It is also informed that the standard of the PPEs in use is as per the guidelines issued by ICMR. Health check-up of all the sanitary workers is being carried out regularly. They are provided with hands-washing facilities. Vehicles are being sanitized by using hypochlorite solution. Till date, no case of any sanitary worker getting affected by COVID-19 is reported.</p>
9	Training and capacity building of officials of health Department and SPCBs, healthcare works in HCFs associated in management of Covid-19 Biomedical waste.	The Committee was informed that proper training as per guidelines of CPCB has been given to all Chief Medical Officers and other stakeholders through video conferencing. The Committee wanted to know the procedure adopted for imparting training to CMS of Hospitals and Principals of Medical Colleges and other health workers. The Nodal Officer, Health Department informed that they have conducted the training for ACMOs and other official associated with covid-19 waste management. It was also informed that the Health Department had not conducted training for CMs and Medical college staff as yet. The Health Department is directed to submit report to the Committee with regard to training and capacity building programmes for CMOs, ACMOs, Principals of Medical Colleges and Private Doctors.
10	Methodology of sanitization	Secretary, Urban Development informed that they are regularly conducting sanitization work in urban areas. Urban Local bodies are not dealing with the BMW. So

		<p>the waste from the hospital is segregated by the hospitals itself under the headship of the Health Department. The segregated waste is then transferred to the treatment units.</p> <p>The segregation and treatment of the solid waste is under the authority of the ULBs. It was informed that yellow bags have been distributed in all the containment zones. Collection of the waste is done. If any BMW is received, it is handed over to the BMW facilities to dispose it, otherwise the waste is collected and disposed as domestic waste.</p>
11	Status of the trainings of the quarantine home official, isolation camps and at the laboratories	To manage the waste inside the Lab, Quarantine homes and isolation wards, training is being provided by the Health Department. Outside these areas, the process of environmental sanitization is done by the urban local bodies
12	Status of the meeting of CS with the Urban development department, Health department, irrigation department and public health department.	A meeting has been conducted at Principal Secretary level. Meetings at the Commissioner level and DM level have also been held. It was directed that this may be included as an agenda item for review during weekly meetings of Chief Secretary as well.
13	As per a news item recently it was mentioned that in Gonda, used masks were found freely lying in hospital treating Covid-19 cases, which would be hazardous for public safety.	It was directed that RO concerned may conduct an inspection at Gonda and ensure that no recurrence of such cases takes place in future.
14	CPCB regarding the registration of the waste generating	As per the NGT order, a mobile app and software has been developed. The mobile app has three components for registration of:

	units	<ol style="list-style-type: none"> 1. Generators, 2. Transporters, 3. Treatment facilities <p>It was mentioned that the data of the treatment facilities is available with the CPCB but the information of the waste generation i.e the sources from where waste is being generated is not available. It was directed that the SPCBs may coordinate with district level monitoring committees and get all the utilities regarding COVID-19 registered on this app.</p>
--	-------	---

Sd/-
(Dr Anup Chandra Pandey)
Member, Oversight Committee

Sd/-
(Justice SVS Rathore)
Chairman, Oversight Committee

May 22, 2020



क्षेत्रीय कार्यालय, उ०प्र० प्रदूषण नियंत्रण बोर्ड,
भवन सं० 14, सेक्टर 3बी, आवास विकास सिकन्दरा योजना, आगरा।

पत्रांक - 2445 / 06-172 / 2020

दिनांक - 30 / 05 / 2020

सेवा में,

मा० सदस्य,
ओवरसाईट कमेटी (एन०जी०टी०),
उत्तर प्रदेश।

विषय:-Inspection by ROs regarding OA No.-72/2020: Scientific disposal of Bio-Medical Waste arising out of COVID-19 treatment-compliance of BMW Rules,2016

महोदय,

कृपया उपरोक्त विषयक ओवरसाईट कमेटी, यू०पी० के ई-मेल दिनांक 20.05.2020 का संदर्भ ग्रहण करने का कष्ट करें, जिसके द्वारा मा० राष्ट्रीय हरित अधिकरण में योजित ओ०ए० संख्या-72/2020 Scientific disposal of Bio-Medical Waste arising out of COVID-19 treatment-compliance of BMW Rules,2016 के अर्न्तगत एस०एन० मेडिकल कॉलेज एण्ड हास्पिटल, आगरा का निरीक्षण कर आख्या चाही गयी है। उपरोक्त निर्देशों के क्रम में मै० एस०एन० मेडिकल कॉलेज एवं हास्पिटल, आगरा का निरीक्षण इस कार्यालय द्वारा दिनांक 29.05.2020 को किया गया है।

मै० एस०एन० मेडिकल कॉलेज, आगरा की निरीक्षण आख्या प्राप्त प्रारूप पर संकलित कर आपके समक्ष सादर प्रेषित है।

संलग्नक-उपरोक्तानुसार।

भवदीय

Sh. Adar

(बी०पी० यादव)
क्षेत्रीय अधिकारी

प्रतिलिपि:-निम्नलिखित को सादर सूचनार्थ प्रेषित।

1. सदस्य सचिव महोदय को उनके ई-मेल दिनांक 20.05.2020 के क्रम में सादर प्रेषित।
2. मुख्य पर्यावरण अधिकारी, (वृत्त-6), उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ।

क्षेत्रीय अधिकारी

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

Questionnaire for Inspection

General Information:

- A. Name of the officer: Dr. Prashant Gupta
- B. Designation & Department: Professor, Department of Surgery
- C. Name of the health care facility/CBWTF: S.N. Medical College and Hospital
- D. Location of work: Agra
- E. Contact number: 9927000353
- F. Email ID: deansnmc@yahoo.in
- G. Date of Survey (DD/MM/YY): 29/05/2020

SP
A

Please provide the details under following headings:

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

S. No.	Guidelines	Yes	No	Remark
1	Are there separate color-coded bins/bags/containers in wards at all the HCFs /hospitals/Labs/quarantine centers etc.?	YES	-	Color coded bins are available in the Isolation center and all other departments of S.N Medical College but most of the COVID19 generated waste is being deposited in Yellow Bags in spite of Red and regularly handed over to CBMWTF namely M/s JRR Waste Management Pvt. Ltd., Agra.
2.	Are the isolation wards using double-layered bags (using 2 bags) for collection of waste from COVID-19 isolation wards to ensure adequate strength and no-leaks?	YES	-	Double layered bags are being used for collection of waste generated from COVID-19 Isolation wards. Sealing of bags is being done properly.
3.	Are isolation wards, using a dedicated collection bin labelled as "COVID-19" to store COVID-19 waste and keep them separately in temporary storage room prior to handing over to the authorized staff of CBWTF?	YES	-	Dedicated collection Bins labelled as COVID-19 is being used in Isolation wards. Collected COVID-19 waste is being temporarily stored separately and regularly handed over to CBMWTF.
4.	Are they disposing of general waste not having contamination of COVID-19 as solid waste as per SWM Rules, 2016?	YES	-	The general waste is being collected in Black Bags. The S.N Medical College and Hospital is in the area of Nagar Nigam. The general solid waste is being collected by Nagar Nigam, Agra regularly. Nagar Nigam has appointed dedicated staff for the hospital.
5.	Are they maintaining separate record of waste generated from COVID-19 in isolation wards?	Partially		Separate record of only no. of bags is being maintained instead of quantity of waste. The Isolation ward of SNMC has also registered on CPCB's COVID-19 BWM Mobile Application.
6.	Are the isolation wards using dedicated trolleys and collection bins in COVID-19 wards for the	YES		Dedicated labeled collection bins as COVID-19 waste are being used in the Isolation wards of

	collection of waste? Have they labeled them as "COVID-19 Waste"?			SNMC.
7.	Are isolation wards disinfecting the surface of containers/bins/trolleys used for storage of COVID-19 waste with 1% sodium hypochlorite solution daily?	YES	-	Regular disinfection is being done by 1% sodium hypochlorite solution.
8.	Are the isolation wards reporting the opening or operation of COVID-19 ward and COVID ICU ward to SPCBs and respective CBWTF located in the area?	-	No	Information regarding isolation wards is being collected by UPPCB through CMO Office and CBWTF whenever required.
9.	Have the isolation wards deputed dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to the temporary waste storage area?	YES	-	Yes, dedicated sanitation workers have been deputed in the Isolation wards for collection of COVID-19 waste and general solid waste to transfer at temporary waste storage area. Directions have been given to maintain proper records of sanitation workers deployed for handling COVID-19 waste.
10	Are the isolation wards treating the Feces from COVID-19 confirmed patient (who is unable to use toilets) as biomedical waste and placed in yellow bag/container.	YES	-	Yes, the feces of COVID-19 confirmed patients (who is unable to use toilets) are being collected in Bedpan and disposed in toilets. The Bedpan are further disinfected. The patients feces collected in diapers are placed in yellow bags.
11	Are the isolation wards collecting used PPEs such as goggles, face-shield, splash-proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag?	-	No	Collection and storage of used goggles, face-shield, splash-proof apron, Plastic Coverall, Hazmet suit, nitrile gloves is being done in Yellow Bags only
12.	Are the isolation wards collecting 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?	YES	-	Collection and storage of used masks (including triple-layer mask, N95 mask, etc.), head cover /cap, shoe-cover, disposable linen Gown, non-plastic or semi-plastic coverall is being done in Yellow Bags only

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

S. No.	Guidelines	Yes	No	Remark
1.	Are the Sample Collection Centers and Laboratories for COVID-19 suspected patients reporting their opening or operation to concerned SPCB?	-	NO	Information regarding Sample Collection Centers and Laboratories is being collected by UPPCB through CMO Office whenever required.
2.	Are they following the guidelines given for isolation wards?	Yes	-	Guidelines for isolation wards is being followed.
3.	Are they collecting pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 in Red bags?	Yes	-	

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

S. No.	Guidelines	Yes	No	Remark
1.	Are the quarantine centers or camps handed their generated waste to waste collectors identified by Urban Local Bodies or disposing as per the prevailing local method of general solid waste?			Quarantine Facility is not available in S.N Medical College and hospital, Agra
2.	Are the quarantine centers or camps collecting generated waste separately in yellow-colored bags (suitable for biomedical waste collection) provided by ULBs and placing them in separate and dedicated dust-bins of appropriate size			
3.	Do the persons operating Quarantine camps/centers call the CBWTF operator to collect biomedical waste as and when it gets generated? Does the Local Authorities have Contact details of CBWTFs in their vicinity?			
4.	Do the persons taking care of quarantine home / Home-care depositing 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;			
	I. Hand over the yellow bags containing biomedical waste to authorized waste			

	collectors at door steps engaged by local bodies			
	II. Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container;			
	III. Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.			
5	Have the persons operating Quarantine camps/centers or Quarantine-homes/Home-care reported to ULBs any difficulty in getting the services for disposal of solid waste or biomedical waste?			
6	Are the Biomedical waste generated from Quarantine Camps / Quarantine-Home / Homes treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and disposing as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines?			
7	Are the General waste generated from Quarantine Camps / Quarantine-Home / Home-care disposed as solid waste as per provisions under SWM Rules, 2016?			
8	Does the used masks and gloves (catted to avoid reuse) generated form home quarantine or other households kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste?			

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

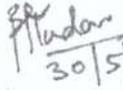
S. No.	Guidelines	Yes	No	Remark
1.	Are the CBWTFs reporting to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers?	Yes	-	CBWTF namely M/s JRR Waste Management Pvt. Ltd. is daily reporting about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers.
2.	Is the operator of CBWTF ensuring regular sanitization of workers involved in handling and collection of biomedical waste?	Yes	-	Operator of CBWTF ensuring regular sanitization of workers involved in handling and collection of biomedical waste.

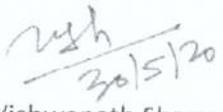
3	Are the workers provided with adequate PPEs including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles?	Yes	-	Adequate PPEs are being provided to the workers involve in disposal of COVID-19 waste.
4.	Are the CBWTFs using dedicated vehicles to collect COVID-19 ward waste?	Yes	-	CBWTF is using dedicated vehicles to collect COVID-19 waste.
5.	Is the sanitization of vehicle being done with sodium hypochlorite or any appropriate chemical disinfectant after every trip?	Yes	-	Sanitization of vehicle is being done with sodium hypochlorite solution.
6.	Is the CBWTFs dispose-off COVID-19 wastes immediately upon receipt at the facility?	Yes	-	COVID-19 waste is being disposed of immediately after receiving in facility.
7.	Is the Operator of CBWTF maintaining separate records for collection, treatment and disposal of COVID-19 waste?	Yes	-	Separate records for collection, treatment and disposal of COVID-19 waste are being maintained by CBWTF.
8.	Are there any workers showing symptoms of illness work at the facility?	-	No	Till date no worker showing symptoms of illness at the facility is being reported.

20
H

(g) Management of waste water from HCFs / Isolation Wards

S. No.	Guidelines	Yes	No	Remark
1.	Are the HCFs and the agencies operating Sewage Treatment Plants ensuring disinfection of treated waste water as per prevailing practices to inactivate corona viruses continuously?	-	-	HCF is connected with a terminal STP being operated by Third Party under One City One Operator Scheme. However it is noteworthy that the drain in which domestic effluent is discharged by the hospital is partially tapped.
2.	Are the operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards adopting standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for the operation of STPs? PPEs should include Goggles, face mask, liquid repellent coveralls, waterproof gloves and rubber boots?	-	-	Off-site treatment at terminal facility. Operators of terminal STP's are adopting precautionary measures. Letter issued to concerned wing of UP Jal Nigam for compliance. (Copy Annexed)
3.	Are the HCFs utilizes the treated wastewater during period of COVID-19?	-	No	


 30/5/2020
 (B.P. Yadav)
 Regional Officer


 30/5/20
 (Dr. Vishwanath Sharma)
 A.S.O



क्षेत्रीय कार्यालय-उ०प्र० प्रदूषण नियंत्रण बोर्ड, गाजियाबाद
Regional Office, U.P. Pollution Control Board, Ghaziabad

संदर्भ संख्या : 6288/वि.प.बी.-264/2020

दिनांक 28/05/2020

सेवा में,

मुख्य पर्यावरण अधिकारी, वृत्त-1,
उ०प्र० प्रदूषण नियंत्रण बोर्ड,
लखनऊ।

(Mail)

विषय: ओवरसाईट कमेटी, एन०जी०टी०, यू०पी० की ई-मेल दिनांक 20.05.2020 के अनुपालन के सम्बन्ध में।

महोदय,

कृपया उपरोक्त विषयक ओवरसाईट कमेटी, एन०जी०टी०, यू०पी० की ई-मेल दिनांक 20.05.2020 का संदर्भ ग्रहण करने का कष्ट करें। उक्त ई-मेल ओवरसाईट कमेटी, एन०जी०टी०, यू०पी० एवं बोर्ड मुख्यालय के स्तर से दिनांक 20.05.2020 को निरीक्षण कर संलग्न प्रारूप पर सूचनाएँ प्रेषित किये जाने निर्देश प्राप्त हुई है। निर्देशानुसार संयुक्त जिला अस्पताल, गाजियाबाद का संयुक्त निरीक्षण इस कार्यालय के प्राधिकृत अधिकारियों एवं चिकित्सा विभाग के अधिकारियों द्वारा दिनांक 21.05.2020 को किया गया है।

संयुक्त जिला अस्पताल, गाजियाबाद वर्तमान में 100 बेडेड आइशोलेशन बार्ड के रूप में संचालित किया जा रहा है, जिला अस्पताल में Quarantine अथवा Sampling हेतु व्यवस्था स्थापित नहीं की गयी है। संयुक्त समिति द्वारा जिला अस्पताल के अतिरिक्त दिनांक 21.05.2020 को मैसर्स यशोदा सुपर स्पेशलिटी हास्पिटल, कौशाम्बी, गाजियाबाद जिसमें कोविड-19 की Sampling की व्यवस्था स्थापित है, का भी निरीक्षण किया गया है।

संयुक्त जिला अस्पताल, गाजियाबाद एवं मैसर्स यशोदा सुपर स्पेशलिटी हास्पिटल की निरीक्षण आख्याएँ प्राप्त प्रारूप पर संलग्नकर सूचनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषित है।

प्राप्त निर्देशानुसार आख्या की एक प्रति अध्यक्ष ओवरसाईट कमेटी, एन०जी०टी०, यू०पी० के निजी सचिव को भी प्रेषित की जा रही है।

संलग्नक: उपरोक्तानुसार।

भवदीय

(उत्सव शर्मा)
क्षेत्रीय अधिकारी

प्रतिलिपि: निम्नलिखित को सादर सूचनार्थ प्रेषित।

1. अध्यक्ष महोदय के निजी सचिव, ओवरसाईट कमेटी, एन०जी०टी०, यू०पी०।
2. मुख्य पर्यावरण अधिकारी, वृत्त-6, उ०प्र० प्रदूषण नियंत्रण बोर्ड, लखनऊ।

क्षेत्रीय अधिकारी

क्षेत्रीय कार्यालय : आई०एन०एस०-2, सेक्टर-16, वसुन्धरा, गाजियाबाद-201012 फोन-0120-4160108

मुख्यालय : TC-12V, विभूति खण्ड, गोमती नगर, लखनऊ 226010
Website- www.uppcb.com, e-mail : roghaziabad@uppcb.com

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

ASO/AEE
Ct. part.
+ Compliance
27/5/2020 sent by
21/5/2020

Questionnaire for Inspection

General Information:

- A. Name of the officer: Smt. Sapna Srivastava B.K. SINGH
- B. Designation & Department: AEO AES
- C. Name of the health care facility/CBWTF: YASHODA Super speciality Hospitals
- D. Location of work: Kaushambi cheeria road.
- E. Contact number: Sr. Dr. Sumil Dagar - 9711311569
- F. Email ID: dr.sumil@yashodahospital.org
- G. Date of Survey (DD/MM/YY): 21.05.2020

(Dr. Sumil Dagar)
YASHODA Super Speciality Hospitals.

(B.K. SINGH)
AES

(Sapna Srivastava)
ASO

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

Questionnaire for Inspection

General Information:

- A. Name of the officer: Sapna Srivastava, B.K. Singh
- B. Designation & Department: A.S.O., A.E.E., U.P. Pollution Control Board
- C. Name of the health care facility/CBWTF: M/s. Yashoda Super Specialty Hospital
- D. Location of work: Kaushambi, Ghaziabad.
- E. Contact number: Dr. Sunil Dagar, 9711311569
- F. Email ID: -dr.sunil@yashodahospital.org
- G. Date of Survey (DD/MM/YY): 21-05-2020

-sd-
(Dr. Sunil Dagar)
Yashoda Hospital
Ghaziabad

-sd-
(B.K. Singh)
A.E.E. UPPCB
Ghaziabad

-sd-
(Sapna Srivastava)
A.S.O. UPPCB
Ghaziabad

Please provide the details under following headings:

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

S. No.	Guidelines	Yes	No	Remark
1	Are there separate color-coded bins/bags/containers inwards at all the HCFs/hospitals/Labs/quarantine centers etc.?	Yes	-	Color coded bins are available and Waste generated is being handled as per color coded scheme
2.	Are the isolation wards using double-layered bags (using 2 bags) for collection of waste from COVID-19 isolation wards to ensure adequate strength and no-leaks?	Yes	-	Double layered bags being used for disposal of COVID19 BMW.
3.	Are isolation wards, using a dedicated collection bin labeled as "COVID-19" to store COVID-19 waste and keep them separately in temporary storage room prior to handing over to the authorized staff of CBWTF?	Yes	-	'Covid-19' labelling being done.
4.	Are they disposing of general waste not having contamination of COVID-19 as solid waste as per SWM Rules, 2016?	Yes	-	The Hospital is under the area of Nagar Nigam, Ghaziabad and Solid Waste from site is being lifted by Nagar Nigam.
5.	Are they maintaining separate record of waste generated from COVID-19 in isolation wards?	Yes	-	Separate record is being maintained. The HCF has also registered on CPCB's COVID19BWM Mobile Application as on 26.05.2020.
6.	Are the isolation wards using dedicated trolleys and collection bins in COVID-19 wards for the collection of waste? Have they labeled them as "COVID-19 Waste"?	Yes	-	Yes. Dedicated trolleys being used for movement of COVID19 BMW within the facility.

7.	Are isolation wards disinfecting the surface of containers/bins/trolleys used for storage of COVID-19 waste with 1% sodium hypochlorite solution daily?	Yes	-	Regular disinfection is being done.
8.	Are the isolation wards reporting the opening or operation of COVID-19 ward and COVID ICU ward to SPCBs and respective CBWTF located in the area?	Yes	-	Information regarding operation of sampling facility has been intimated to Board
9.	Have the isolation wards deputed dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to the temporary waste storage area?	Yes	-	Yes. Dedicated has been deployed.
10	Are the isolation wards treating the Feces from COVID-19 confirmed patient (who is unable to use toilets) as biomedical waste and placed in yellow bag/container.	Yes	-	Not Applicable
11	Are the isolation wards collecting used PPEs such as goggles, face-shield, splash-proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag?	Yes	-	Yes. Being complied with.
12.	Are the isolation wards collecting 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?	Yes.	-	Collection and Storage being done in Yellow Bags.

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

S. No.	Guidelines	Yes	No	Remark
1.	Are the Sample Collection Centers and Laboratories for COVID-19 suspected patients reporting their opening or operation to concerned SPCB?	Yes	-	HCF has submitted the letter of intimation. Copy annexed as Annexure 1.
2.	Are they following the guidelines given for isolation wards?	Yes	-	-

3.	Are they collecting pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMW Rules, 2016 in Red bags?	Yes	-	-
----	---	-----	---	---

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

S. No.	Guidelines	
1.	Are the quarantine centers or camps handed their generated waste to waste collectors identified by Urban Local Bodies or disposing as per the prevailing local method of general solid waste?	Not Applicable. Quarantine Facility Not Available.
2.	Are the quarantine centers or camps collecting generated waste separately in yellow-colored bags (suitable for biomedical waste collection) provided by ULBs and placing them in separate and dedicated dust-bins of appropriate size	
3.	Do the persons operating Quarantine camps/centers call the CBWTF operator to collect biomedical waste as and when it gets generated? Does the Local Authorities have Contact details of CBWTFs in their vicinity?	
4.	Do the persons taking care of quarantine home / Home-care depositing 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;	
	I. Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies	
	II. Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container;	
	III. Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.	
5.	Have the persons operating Quarantine camps/centers or Quarantine-homes/Home-care reported to ULBs any difficulty in getting the services for disposal of solid waste or biomedical waste?	
6.	Are the Biomedical waste generated from Quarantine Camps / Quarantine-Home / Homes treated as 'domestic hazardous waste' as defined under Solid Waste	

	Management Rules, 2016, and disposing as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines?	
7	Are the General waste generated from Quarantine Camps / Quarantine-Home / Home-care disposed as solid waste as per provisions under SWM Rules, 2016?	
8	Does the used masks and gloves (catted to avoid reuse) generated form home quarantine or other households kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste?	

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

S. No.	Guidelines	
1.	Are the CBWTFs reporting to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers?	Not Applicable. HCF is registered with a CBWTF. Regular reporting of waste being generated and treated being reported
2.	Is the operator of CBWTF ensuring regular sanitization of workers involved in handling and collection of biomedical waste?	
3.	Are the workers provided with adequate PPEs including three-layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles?	
4.	Are the CBWTFs using dedicated vehicles to collect COVID-19 ward waste?	
5.	Is the sanitization of vehicle being done with sodium hypochlorite or any appropriate chemical disinfectant after every trip?	
6.	Is the CBWTFs dispose-off COVID-19 wastes immediately upon receipt at the facility?	
7.	Is the Operator of CBWTF maintaining separate records for collection, treatment and disposal of COVID-19 waste?	
8.	Are there any workers showing symptoms of illness work at the facility?	

(e) Management of wastewater from HCFs / Isolation Wards

S. No.	Guidelines	Yes	No	Remark
1.	Are the HCFs and the agencies operating Sewage Treatment Plants ensuring	Yes	-	Waste water from the lab is pre-treated

	disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses continuously?			within the laboratory as per SoP and then discharged to ETP inlet for further treatment.
2.	Are the operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards adopting standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for the operation of STPs? PPEs should include Goggles, face mask, liquid repellent coveralls, waterproof gloves and rubber boots?	Yes	-	ETP Operation staff was observed wearing adequate PPE at the time of inspection.
3.	Are the HCFs utilizes the treated wastewater during period of COVID-19?	-	No	-



Date: 21.05.2020

To,
Regional Officer
UPPCB Office, Vasundhara
Ghaziabad, Uttar Pradesh

Sub: COVID-19 RT-PCR Lab at Yashoda Super Speciality Hospital, H-1,24,26,27,
Ghaziabad, Uttar Pradesh

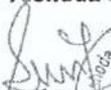
Dear Sir,

1. We hereby submit that we are a 300 Bedded NABH Accredited Hospital with NABL Accredited LAB in discipline of Molecular testing by RT-PCR method. Based on this ICMR has also approved our LAB to conduct COVID-19 testing by RT-PCR method in our LAB. We are enclosing the under mentioned documents for your perusal please:

- i. Approval Letter From CMO, Ghaziabad
- ii. Hospital Registration Certificate
- iii. NABL Accreditation Certificate
- iv. ICMR Approval

2. Kindly acknowledge the same and do the needful.

For Yashoda Super Speciality Hospital, Kaushambi


Dr. Sunil Dagar
Chief Operating Officer



Encl. As Above

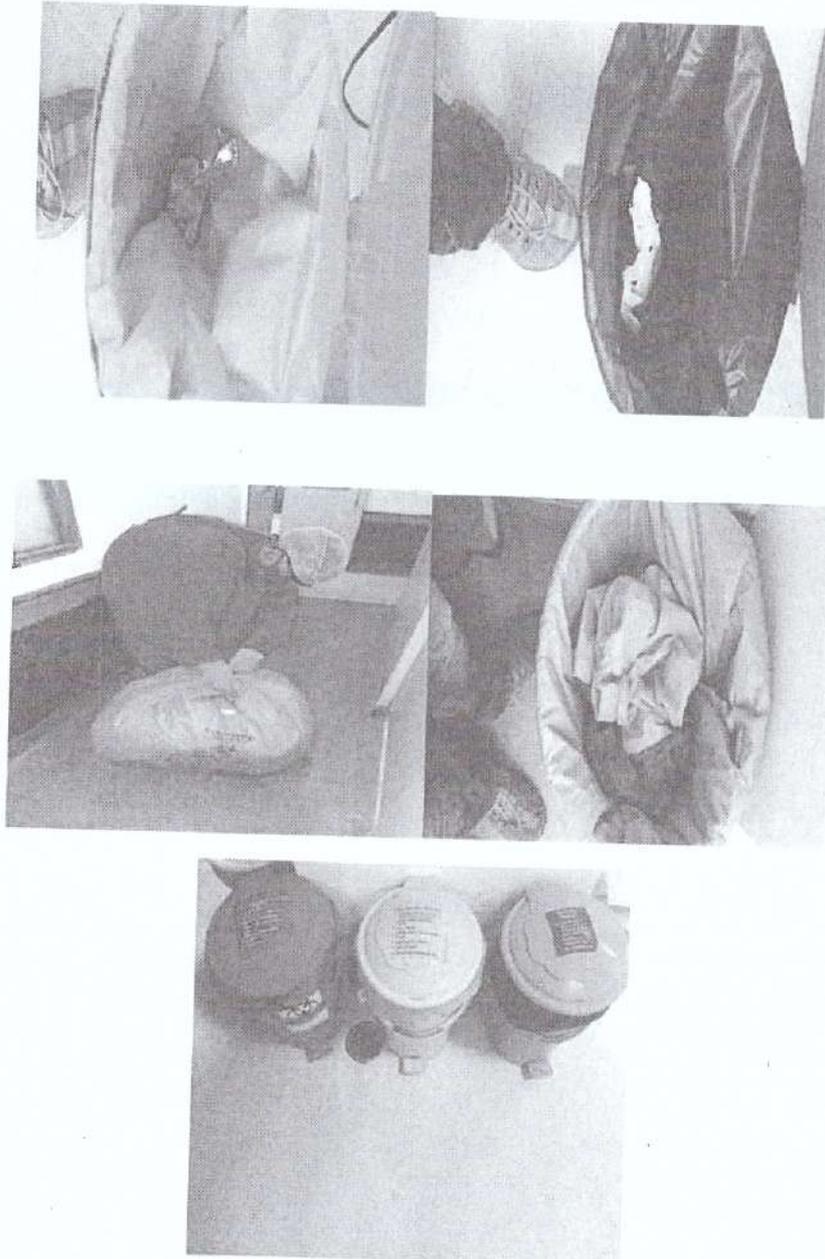


Figure 1: Color coding being adopted at M/s Yashoda Hospital, Ghaziabad.

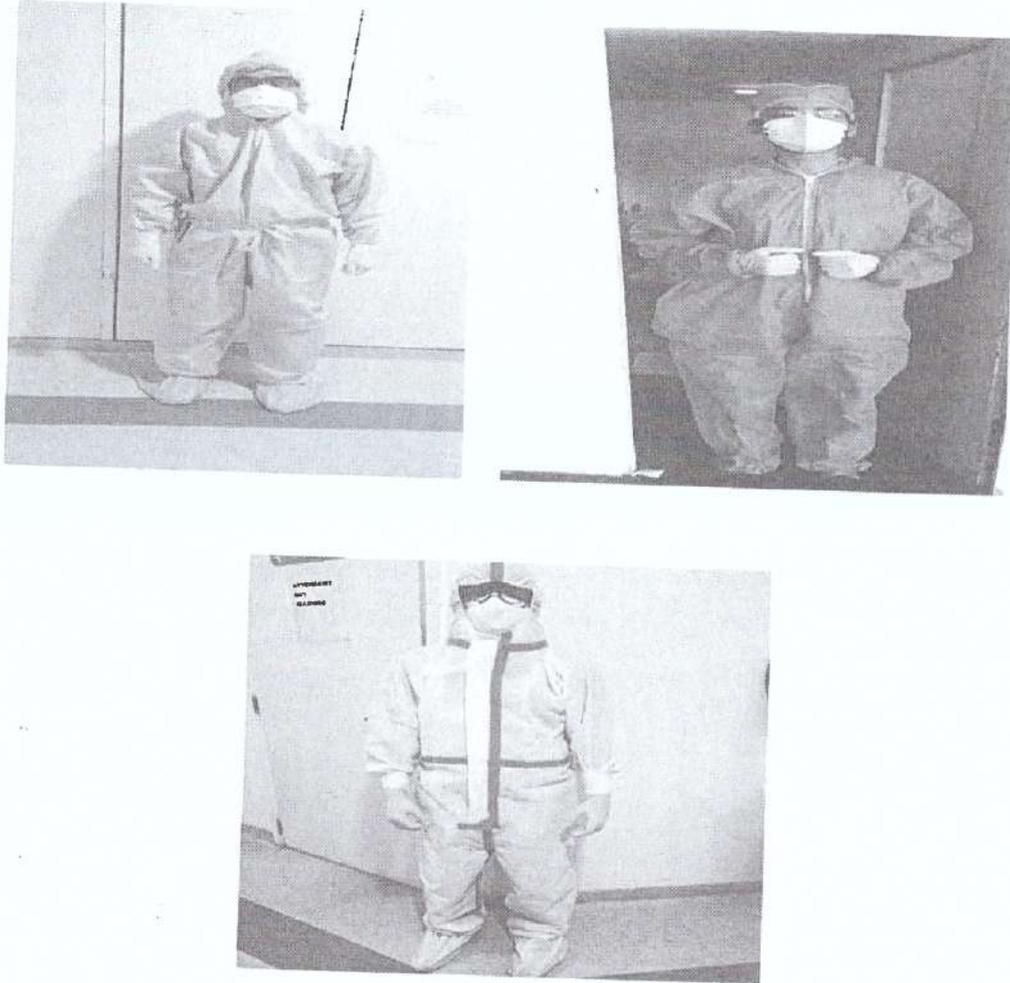


Figure 2: PPE Kits being used by staff engaged in sampling and ETP handling at M/s Yashoda Hospital, Ghaziabad.



Figure 3: On-site sanitization being done at M/s Yashoda Hospital, Ghaziabad.



Figure 4: Dedicated Trolleys being used for carrying COVID BMW at M/s Yashoda Hospital, Ghaziabad.



Figure 5: Central COVID 19 BMW Storage facility at District Combined Hospital, Ghaziabad.

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

This Tribunal is already dealing with the subject of addressing gaps in bio-medical waste management generally in O.A No.710/2017, Shallesh 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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

Questionnaire for inspection

General Information:

- A. Name of the officer: DR. MUNSHI LAL Smt. Sapna Singh B.K. SINGH
 B. Designation & Department: A.C.M.O. A.S.O. A.E.E.
 C. Name of the health care facility/CBWTF: DISTRICT COMBINED HOSPITAL,
 D. Location of work: SANTAY NAGAR SHAHJAHANPUR
 E. Contact number: DR. SURYANSHU OJHA, 701198720
 F. Email ID:
 G. Date of Survey (DD/MM/YY): 21.05.2020

(B.K. SINGH)
A.E.E.

(SAPNA SINGH)
A.S.O.

(Dr. Abush Lal)
A.C.M.O.



Scanned with
CamScanner

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

Questionnaire for Inspection

General Information:

- A. Name of the officer: Dr. Munsil Lal, Sapna Srivastava, B.K. Singh
- B. Designation & Department: A.C.M.O., A.S.O., A.E.E., U.P. Pollution Control Board
- C. Name of the health care facility/CBWTF: M/s. District Combind Hospital
- D. Location of work: Sanjay Nagar, Ghaziabad.
- E. Contact number: Dr. Suryash Ojha, 7011198720
- F. Email ID: -
- G. Date of Survey (DD/MM/YY): 21-05-2020

-sd-
(B.K. Singh)
A.E.E. UPPCB
Ghaziabad

-sd-
(Sapna Srivastava)
A.S.O. UPPCB
Ghaziabad

-sd-
Dr. Munsil Lal
ACMO

Please provide the details under following headings:

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

S. No.	Guidelines	Yes	No	Remark
1.	Are there separate color-coded bins/bags/containers inwards at all the HCFs/hospitals/Labs/quarantine centers etc.?			Color coded bins are available but most of the COVID19 Waste generated is being handled in Yellow Bags only.
2.	Are the isolation wards using double-layered bags (using 2 bags) for collection of waste from COVID-19 isolation wards to ensure adequate strength and no-leaks?	Yes	-	Although double layered bags are being used, sealing of bags has been observed to be improper.
3.	Are isolation wards, using a dedicated collection bin labeled as "COVID-19" to store COVID-19 waste and keep them separately in temporary storage room prior to handing over to the authorized staff of CBWTF?	Yes	-	'Covid-19' labelling being done. Since the entire facility is a COVID facility, the Central Storage facility of the HCF is being used as a temporary storage facility. It has been directed to ensure bunding of the Central facility to negate chances of contamination due to waste water.
4.	Are they disposing of general waste not having contamination of COVID-19 as solid waste as per SWM Rules, 2016?	Yes	-	The Hospital is under the area of Nagar Nigam, Ghaziabad and Solid Waste from site is being lifted by Nagar Nigam.
5.	Are they maintaining separate record of waste generated from COVID-19 in isolation wards?	Yes	-	Separate record is being maintained. The Isolation ward has also

				registered on CPCB's COVID19BWM Mobile Application as on 26.05.2020.
6.	Are the isolation wards using dedicated trolleys and collection bins in COVID-19 wards for the collection of waste? Have they labeled them as "COVID-19 Waste"?	-	No	No. As per Dr. Ojha same has to be procured and is under process.
7.	Are isolation wards disinfecting the surface of containers/bins/trolleys used for storage of COVID-19 waste with 1% sodium hypochlorite solution daily?	Yes	-	Regular disinfection is being done.
8.	Are the isolation wards reporting the opening or operation of COVID-19 ward and COVID ICU ward to SPCBs and respective CBWTF located in the area?	Yes	-	Information regarding existing isolation wards being received through CMO, Ghaziabad Office.
9.	Have the isolation wards deputed dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to the temporary waste storage area?	Yes	-	Yes. Directions to maintain proper record of staff deployed for COVID19 BMW handling has been given on site.
10.	Are the isolation wards treating the Feces from COVID-19 confirmed patient (who is unable to use toilets) as biomedical waste and placed in yellow bag/container.	Yes	-	Yes. As per Dr. Ojha, only 3-4 patients with mobility issue have been admitted till now and SoP for disinfection of pans has been followed while handling feces of such patients.
11.	Are the isolation wards collecting used PPEs such as goggles, face-shield, splash-proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag?	-	No	Collection and Storage being done in Yellow Bags only
12.	Are the isolation wards collecting 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?	Yes	-	Collection and Storage being done in Yellow Bags.

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

S. No.	Guidelines	
1.	Are the Sample Collection Centers and Laboratories for COVID-19 suspected patients reporting their opening or operation to concerned SPCB?	Not Applicable. Sample Collection Facility Not Available.
2.	Are they following the guidelines given for isolation wards?	
3.	Are they collecting pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMWM Rules, 2016 in Red bags?	

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

S. No.	Guidelines	
1.	Are the quarantine centers or camps handed their generated waste to waste collectors identified by Urban Local Bodies or disposing as per the prevailing local method of general solid waste?	Not Applicable. Quarantine Facility Not Available.
2.	Are the quarantine centers or camps collecting generated waste separately in yellow-colored bags (suitable for biomedical waste collection) provided by ULBs and placing them in separate and dedicated dust-bins of appropriate size	
3.	Do the persons operating Quarantine camps/centers call the CBWTF operator to collect biomedical waste as and when it gets generated? Does the Local Authorities have Contact details of CBWTFs in their vicinity?	
4.	Do the persons taking care of quarantine home / Home-care depositing 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; i. Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies	

	<p>II. Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container;</p> <p>III. Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.</p>	
5	Have the persons operating Quarantine camps/centers or Quarantine-homes/Home-care reported to ULBs any difficulty in getting the services for disposal of solid waste or biomedical waste?	
6	Are the Biomedical waste generated from Quarantine Camps / Quarantine-Home / Homes treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and disposing as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines?	
7	Are the General waste generated from Quarantine Camps / Quarantine-Home / Home-care disposed as solid waste as per provisions under SWM Rules, 2016?	
8	Does the used masks and gloves (catted to avoid reuse) generated form home quarantine or other households kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste?	

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

S. No.	Guidelines	
1.	Are the CBWTFs reporting to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers?	
2.	Is the operator of CBWTF ensuring regular sanitization of workers involved in handling and collection of biomedical waste?	Not Applicable. HCF is registered with a CBWTF. Regular reporting of waste being generated and treated being reported
3	Are the workers provided with adequate PPEs including three-layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles?	
4.	Are the CBWTFs using dedicated vehicles to collect COVID-19 ward waste?	
5.	Is the sanitization of vehicle being done with sodium hypochlorite or any appropriate chemical disinfectant after every trip?	

6.	Is the CBWTFs dispose-off COVID-19 wastes immediately upon receipt at the facility?	
7.	Is the Operator of CBWTF maintaining separate records for collection, treatment and disposal of COVID-19 waste?	
8.	Are there any workers showing symptoms of illness work at the facility?	

(e) Management of wastewater from HCFs / Isolation Wards

S. No.	Guidelines	Yes	No	Remark
1.	Are the HCFs and the agencies operating Sewage Treatment Plants ensuring disinfection of treated wastewater as per prevailing practices to inactivate coronaviruses continuously?	-	-	HCF is connected with a terminal STP being operated by Third Party under One City One Operator Scheme.
2.	Are the operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards adopting standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for the operation of STPs? PPEs should include Goggles, face mask, liquid repellent coveralls, waterproof gloves and rubber boots?	-	-	Off-site treatment at terminal facility. Letter issued to concerned wing of UP Jal Nigam for compliance. (Copy Annexed)
3.	Are the HCFs utilizes the treated wastewater during period of COVID-19?	-	No	-



Figure 5: Central COVID 19 BMW Storage facility at District Combined Hospital, Ghaziabad.

कार्यालय जिलाधिकारी गाजियाबाद।
संदर्भ संख्या : 6150/सा पत्र - 285/2020 दिनांक 25-04-2020

सेवा में,

1. नगर आयुक्त महोदय, नगर निगम, गाजियाबाद।
2. सचिव, गाजियाबाद विकास प्राधिकरण, गाजियाबाद।
3. परियोजना प्रबन्धक, यमुना प्रदूषण नियंत्रण इकाई, जल निगम, गाजियाबाद।

विषय: प्रदेश के अन्तर्गत कोविड-19 वैश्विक महामारी से संक्रमित व्यक्तियों की जाँच, उपचार एवं एकान्तवास (Quarantine) से जनित जैव चिकित्सा अपशिष्ट का सुरक्षित निस्तारण किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्गत गाईडलाइन दिनांक 18.04.2020 के अनुपालन के सम्बन्ध में।

उपरोक्त विषयक प्रदेश के अन्तर्गत कोविड-19 वैश्विक महामारी से संक्रमित व्यक्तियों की जाँच, उपचार एवं एकान्तवास (Quarantine) से जनित जैव चिकित्सा अपशिष्ट का सुरक्षित निस्तारण किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा निर्गत गाईडलाइन दिनांक 18.04.2020, मा0 राष्ट्रीय हरित अधिकरण नई दिल्ली द्वारा ओ0ए0 संख्या 72/2020 In Re: Scientific Disposal of Bio-Medical Waste arising out of COVID-19 treatment- Compliance of BMW Rules, 2016 में पारित आदेश दिनांक 23.04.2020 तथा मुख्य सचिव महोदय, उ0प्र0 शासन के पत्रांक एन0जी0टी0-3(2)/81-7-2020-01(रिट)/2019 दिनांक 24.04.2020 द्वारा निर्देश दिये गये हैं, छायाप्रति संलग्न। केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी गाईडलाइन में पृष्ठ संख्या-7 के बिन्दु संख्या-जी Management of waste water from HCF/Isolation ward के अन्तर्गत दिशा निर्देश जारी किये गये हैं, जिसके अनुसार सीवेज सिस्टम के माध्यम से कोविड-19 संक्रमण की सम्भावना होती है एवं एस0टी0पी0 के संचालन के दौरान एस0टी0पी0 संचालकों को कोविड-19 का संक्रमण हो सकता है, जिसके नियंत्रण हेतु एस0टी0पी0 संचालकों हेतु निम्न दिशा निर्देश जारी किये गये हैं:-

- 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.

अतः आपको निर्देशित किया जाता है कि HCF/Isolation ward से जनित उत्स्रवाह को शुद्धिकृत किये जाने हेतु केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा जारी गाईडलाइन/दिशा निर्देशों का पूर्णतः अनुपालन करने हेतु सम्बन्धित को निर्देशित करने का कष्ट करें, जिससे कि सीवेज सिस्टम से कोविड-19 के संक्रमण से बचा जा सके।

संलग्नक-उपरोक्तानुसार।

(अजय शंकर पाण्डेय)
जिलाधिकारी
गाजियाबाद।

प्रतिलिपि:

मुख्य चिकित्सा अधिकारी, गाजियाबाद को इस आशय से कि समस्त Quarantine/Isolation/Lab आदि में उक्त के अनुपालन सुनिश्चित कराये जाने हेतु सम्बन्धित को निर्देशित करें।

जिलाधिकारी
गाजियाबाद।

पर्यावरण

GRAM : PARYAVARAN

उत्तर प्रदेश प्रदूषण नियंत्रण बोर्ड लखनऊ

UTTAR PRADESH POLLUTION CONTROL BOARD LUCKNOW

क्षेत्रीय कार्यालय
Regional Office

सन्दर्भ सं०

Ref. No. 3087/OA No - 72/2020

दिनांक

Dated : 03/06/2020

सेवा में,

मुख्य पर्यावरण अधिकारी (वृत्त-5),
उ०प्र० प्रदूषण नियंत्रण बोर्ड,
लखनऊ।

**विषय:— INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF
BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE
OF BMW RULES, 2016 के सम्बन्ध में।**

महोदय,

कृपया उपरोक्त विषयक मा० सदस्य एन०जी०टी० ओवरसाइट कमेटी, लखनऊ द्वारा ई-मेल के माध्यम से दिनांक 20/05/2020 को इस कार्यालय को प्रेषित पत्र का संदर्भ ग्रहण करने का कष्ट करें (छायाप्रति संलग्न)। उक्त के सम्बन्ध में अवगत कराना है कि प्राप्त निर्देशों के अनुपालन में क्षेत्रीय कार्यालय, लखनऊ के क्षेत्रान्तर्गत स्थित जनपद-लखनऊ में स्थापित मैसर्स किंग जार्ज मेडिकल यूनिवर्सिटी, लखनऊ का निरीक्षण इस कार्यालय के प्राधिकृत अधिकारियों से दिनांक 01/06/2020 को कराया गया। निरीक्षण आख्या मूल रूप में इस पत्र के साथ संलग्न कर आपके अवलोकनार्थ एवं अग्रिम आवश्यक कार्यवाही हेतु सादर प्रेषित।

संलग्नक: यथोपरि।

भवदीय


(डॉ० रमेश कुमार)
क्षेत्रीय अधिकारी

प्रतिलिपि:—श्री ए०एन० वाजपेयी, पी०पी०एस० माननीय सदस्य ओवरसाइट कमेटी एन०जी०टी० पर्यावरण निदेशालय, विनीत खण्ड, लखनऊ को सूचनार्थ प्रेषित।

क्षेत्रीय अधिकारी

439

INSPECTION BY ROs REGARDING OA No 72/2020: SCIENTIFIC DISPOSAL OF BIO-MEDICAL WASTE ARISING OUT OF COVID-19 TREATMENT-COMPLIANCE OF BMW RULES, 2016

Background: The Hon'ble NGT consider 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. The Hon'ble NGT 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.

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. To deal with the situation, CPCB has issued guidelines which were last updated on 08.04.2020.

Questionnaire for Inspection

General Information:

- A. Name of the officer:- K.K.CHAUDHARY, CHANDRESH KUMAR
S.A. A.E.E.
- B. Designation & Department:- Regional Office, Uttar Pradesh Pollution Control Board,
Lucknow
- C. Name of the health care facility/CBWTF:- King George Medical University, Lucknow
- D. Location of work:- Department Of UED
- E. Contact number:- Dr. KIRTI SRIVASTAV, Head Environment Department,
Mo.No.- 9335920571
- F. Email ID: ueckgmu@gmail.com
- G. Date of Survey (DD/MM/YY): 01/06/2020

UKC

CH-1

Please provide the details under following headings:

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

S. No.	Guidelines	Yes	No	Remark
1	Are there separate color-coded bins/bags/containers inwards at all the HCFs/hospitals/Labs/quarantine centers etc.?	Yes		Color coded bins are available. and COVID-19 Waste generated is being handled in yellow Bags only.
2.	Are the isolation wards using double-layered bags (using 2 bags) for collection of waste from COVID-19 isolation wards to ensure adequate strength and no-leaks?	Yes	-	Although double layered bags are being used, sealing of has been observed to be improper.
3.	Are isolation wards, using a dedicated collection bin labeled as "COVID-19" to store COVID-19 waste and keep them separately in temporary storage room prior to handing over to the authorized staff of CBWTF?	Yes	-	'COVID-19 labeling being done. Since the entire facility is a COVID facility, the Central Storage facility of the HCF is being used as a temporary storage facility. It has been directed to ensure facility. It has been directed to ensure bounding of the Central facility to negate chances of contamination due to waste water.

KKGS

4.	Are they disposing of general waste not having contamination of COVID-19 as solid waste as per SWM Rules, 2016?	Yes	-	The Hospital is under the area of Nagar Nigam, Lucknow and Solid Waste from site is being lifted by Nagar Nigam, Lucknow.
5.	Are they maintaining separate record of waste generated from COVID-19 in isolation wards?	Yes	-	Separate record is being maintained. The isolation ward has not registered on CPCB's COVID-19 BWM Mobile Application as on 01.06.2020
6.	Are the isolation wards using dedicated trolleys and collection bins in COVID-19 wards for the collection of waste? Have they labeled them as "COVID-19 Waste"?	Yes	-	As per Dr. KIRTI SRIVASTAV told that KGMU be have arrangement separate trolley for COVID-19 waste handling.
7.	Are isolation wards disinfecting the surface of containers/bins/trolleys used for storage of COVID-19 waste with 1% sodium hypochlorite solution daily?	Yes	-	Regular disinfection is being done with sodium hypo chlorites solution.
8.	Are the isolation wards reporting the opening or operation of COVID-19 ward and COVID ICU ward to SPCBs and respective CBWTF located in the area?	Yes	-	Information regarding existing isolation wards being received through CMO, Lucknow, Office.
9.	Have the isolation wards deputed dedicated sanitation workers separately for biomedical waste and general solid waste so that waste can be collected and transferred timely to the temporary waste storage area?	Yes	-	Yes. Directions to maintain proper record of staff deployed for COVID-19 BMW handling has been given on site.
10	Are the isolation wards treating the Feces from	Yes	-	Yes. As per Dr. KIRTI

KKoj [Signature]

	COVID-19 confirmed patient (who is unable to use toilets) as biomedical waste and placed in yellow bag/container.			SRIVASTAV, only 3-4 the patients with mobility issue have been admitted till now and SOP for disinfection of pans has been followed while handling feces of such patients.
11	Are the isolation wards collecting used PPEs such as goggles, face-shield, splash-proof apron, Plastic Coverall, Hazmet suit, nitrile gloves into Red bag?	-	No	Collection and Storage being done in Yellow Bags only.
12.	Are the isolation wards collecting 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?	Yes	-	Collection and Storage being done in Yellow Bags only

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

S. No.	Guidelines	Yes	No	Remark
1.	Are the Sample Collection Centers and Laboratories for COVID-19 suspected patients reporting their opening or operation to concerned SPCB?	Yes	-	The KGMU has facility for sample collection and laboratories for COVID-19 suspected patient.
2.	Are they following the guidelines given for isolation wards?	Yes	-	The institution has following the CPCB's guidelines in isolation wards.
3.	Are they collecting pre-treat viral transport media,	Yes	-	The institution has

KKCP *[Signature]*

plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMWM Rules, 2016 in Red bags?		following the collecting pre-treat viral transport media, plastic vials, vacutainers, Eppendorf tubes, plastic cryovials, pipette tips as per BMWM Rules, 2016 in Red bags.
---	--	---

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

S. No	Guidelines	Yes	No	Remark
1.	Are the quarantine centers or camps handed their generated waste to waste collectors identified by Urban Local Bodies or disposing as per the prevailing local method of general solid waste?	Yes	-	The KGMU have the quarantine centers or camps handed their generated waste to Nagar Nigam, Lucknow disposing as per the prevailing local method of general solid waste.
2	Are the quarantine centers or camps collecting generated waste separately in yellow-colored bags (suitable for biomedical waste collection) provided by ULBs and placing them in separate and dedicated dust-bins of appropriate size?	Yes	-	The KGMU have the quarantine centers or camps handed their generated waste to Nagar Nigam, Lucknow disposing as per the SWM Rules, 2016.
3.	Do the persons operating Quarantine camps/centers	Not	-	-

Handwritten signatures and initials.

<p>call the CBWTF operator to collect biomedical waste as and when it gets generated? Does the Local Authorities have Contact details of CBWTFs in their vicinity?</p>	<p>App lica ble.</p>		
<p>4. Do the persons taking care of quarantine home / Home-care depositing 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;</p>	<p>Not App lica ble.</p>	<p>-</p>	<p>-</p>
<p>I. Hand over the yellow bags containing biomedical waste to authorized waste collectors at door steps engaged by local bodies</p>			
<p>II. Deposit biomedical waste in yellow bags at designated deposition Centers established by ULBs. The bag again be stored in yellow bag or container;</p>			
<p>III. Handover the biomedical waste to waste collector engaged by CBWTF operator at the doorstep.</p>			
<p>5 Have the persons operating Quarantine camps/centers or Quarantine-homes/Home-care reported to ULBs any difficulty in getting the services for disposal of solid waste or biomedical waste?</p>	<p>Not App lica ble.</p>	<p>-</p>	<p>Not Available.</p>
<p>6 Are the Biomedical waste generated from Quarantine Camps / Quarantine-Home / Homes treated as 'domestic hazardous waste' as defined under Solid Waste Management Rules, 2016, and disposing as per provisions under Biomedical Waste Management Rules, 2016 and these guidelines?</p>	<p>Yes</p>	<p>-</p>	<p>The KGMU have the quarantine centers or camps handed their generated waste to Nagar Nigam, Lucknow disposing as per the solid waste Management Rules, 2016 and disposing as per</p>

MKB *[Signature]*

				provisions under bio medical waste management Rules, 2016 and CPCB's guidelines prevailing local method of general solid waste.
7	Are the General waste generated from Quarantine Camps / Quarantine-Home / Home-care disposed as solid waste as per provisions under SWM Rules, 2016?	Yes	-	The General waste generated from Quarantine Camps/ Quarantine-Home/Home-care disposed as solid waste as per provisions under SWM Rules, 2016.
8	Does the used masks and gloves (catted to avoid reuse) generated form home quarantine or other households kept in paper bag for a minimum of 72 hours prior to disposal of the same as general waste?	-	No	No record produced during inspections.

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

S. No.	Guidelines	Yes	No	Remark
1.	Are the CBWTFs reporting to SPCBs/PCCs about receiving of waste from COVID-19 isolation wards / Quarantine Camps / Quarantined homes / COVID-19 Testing Centers?	Yes	-	The KGMU has registered with a CBWTF Name M/s Synergy waste Management Pvt. Ltd., Barabanki. Regular reporting of waste being
2.	Is the operator of CBWTF ensuring regular sanitization of workers involved in handling and collection of biomedical waste?	Yes	-	
3	Are the workers provided with adequate PPEs	Yes	-	

KKq

	including three layer masks, splash proof aprons/gowns, nitrile gloves, gum boots and safety goggles?			generated and treated being reported.
4.	Are the CBWTFs using dedicated vehicles to collect COVID-19 ward waste?	Yes	-	
5.	Is the sanitization of vehicle being done with sodium hypochlorite or any appropriate chemical disinfectant after every trip?	Yes	-	
6.	Is the CBWTFs dispose-off COVID-19 wastes immediately upon receipt at the facility?	Yes	-	
7.	Is the Operator of CBWTF maintaining separate records for collection, treatment and disposal of COVID-19 waste?	Yes	-	
8.	Are there any workers showing symptoms of illness work at the facility?	-	No	

W. K. G. W. F. *[Signature]*

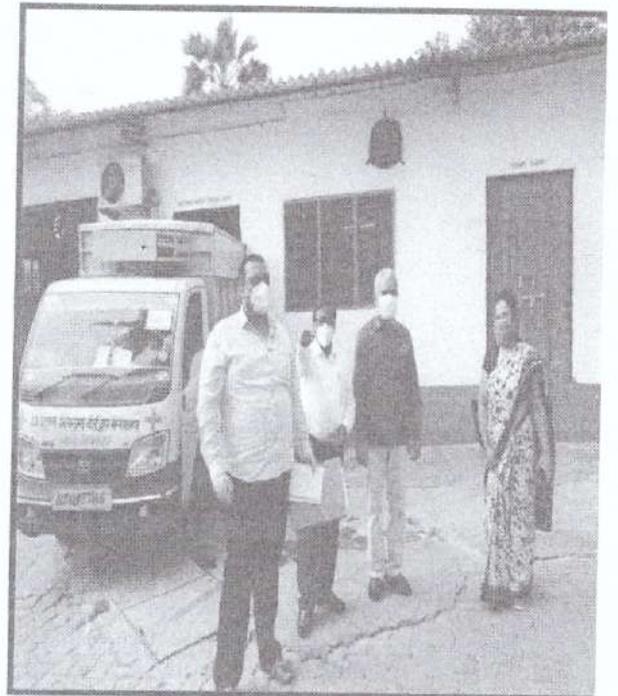
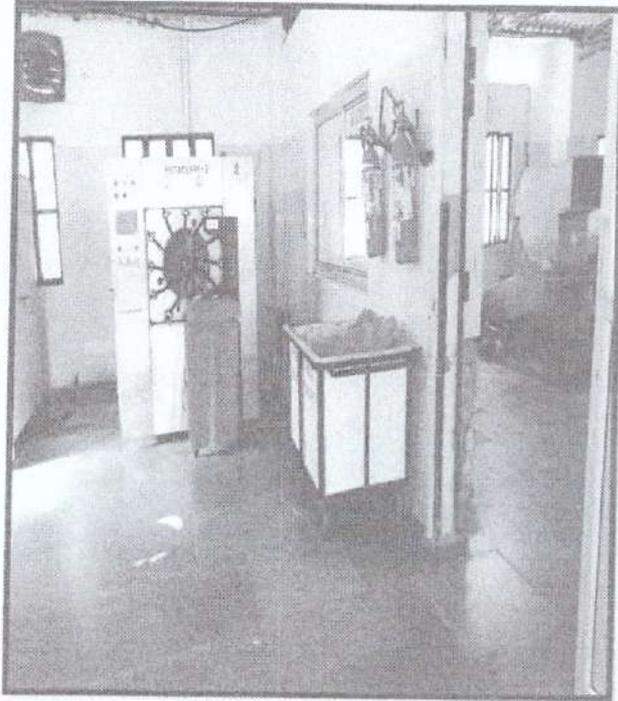
(e) Management of wastewater from HCFs / Isolation Wards

S. No.	Guidelines	Yes	No	Remark
1.	Are the HCFs and the agencies operating Sewage Treatment Plants ensuring disinfection of treated wastewater as per prevailing practices to inactivate corona viruses continuously?	-	-	The KGMU has made arrangement for disinfected with one percent hypo Chlorite solutions which ultimately goes to drain which is connected with STP, Bharwara, Lucknow being operated by Third Party under One City One Operator Scheme.
2.	Are the operators of ETPs/STPs attached with discharge from Healthcare Facilities and isolation wards adopting standard operational practices, practice basic hygiene precautions, and wear personal protective equipment (PPE) prescribed for the operation of STPs? PPEs should include Goggles, face mask, liquid repellent coveralls, waterproof gloves and rubber boots?	-	No	No treated effluent being use for irrigation which is ultimately discharge in to river Gomti Down Steam, Lucknow city.
3.	Are the HCFs utilizes the treated wastewater during period of COVID-19?	-	No	

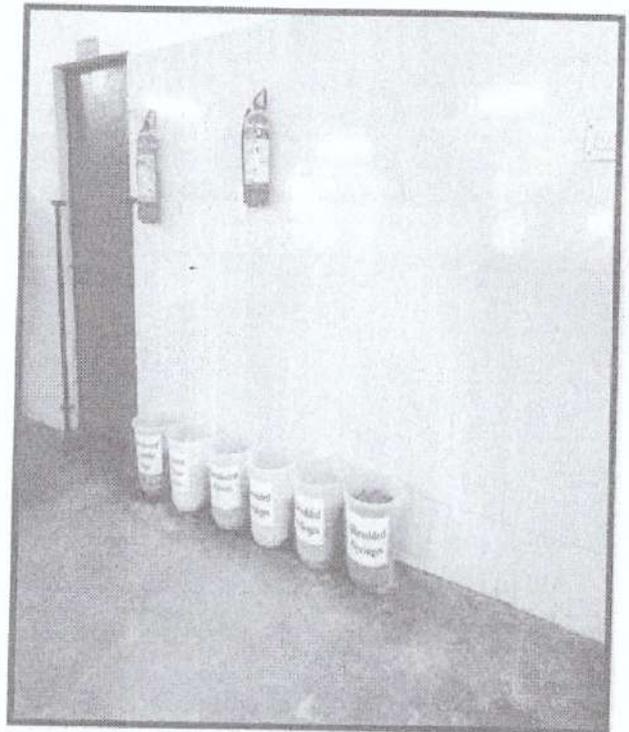
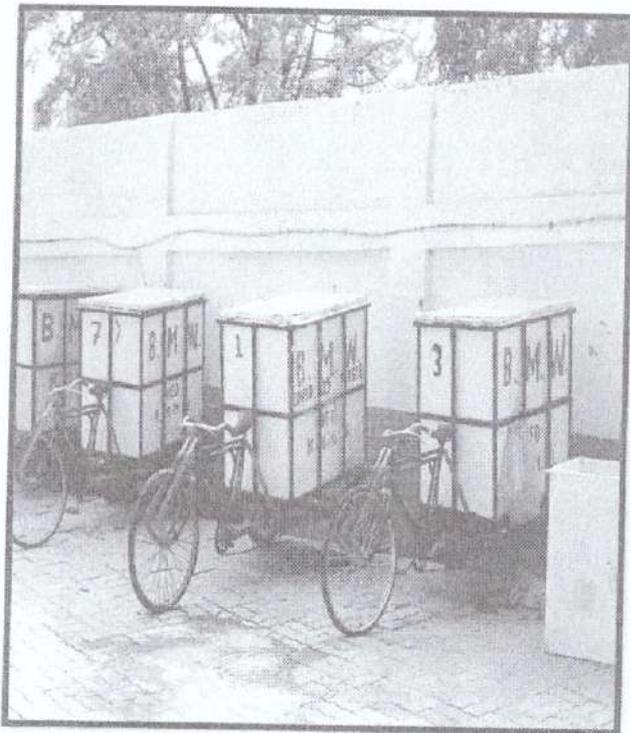
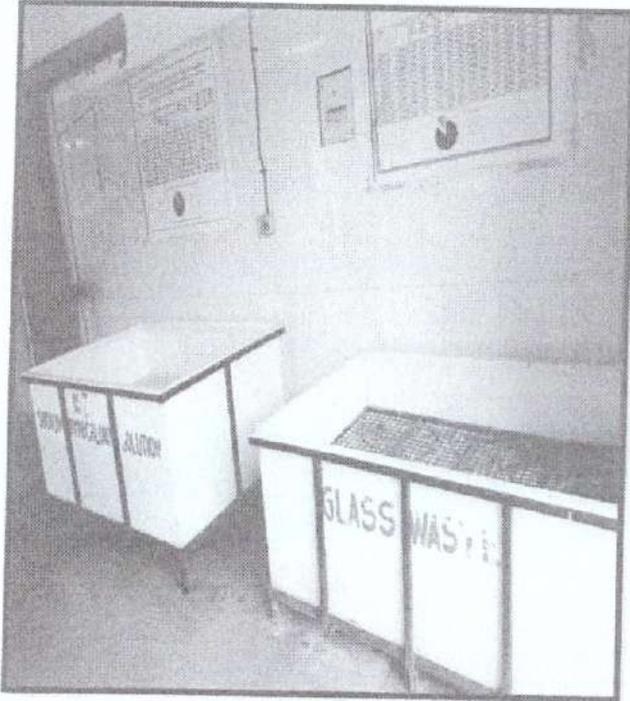
KKadon

Pradip

M/s King Georg's Medical University, Lucknow



M/s King Georg's Medical University, Lucknow



M/s King Georg's Medical University, Lucknow

