



Government of Chhattisgarh
Mantralaya, Mahanadi Bhavan,
Nava Raipur Atal Nagar, Raipur (CG)

No. /1724/1030/2020/32

Nava Raipur Atal Nagar, Dated 10/06/2020

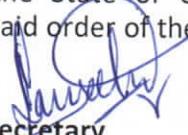
To,

1. **The Registrar**
The National Green Tribunal,
Principal Bench, Faridkot House,
Copernicus Marg, Near India Gate,
New Delhi, Delhi-110001

2. **Member Secretary**
Central Pollution Control Board,
'PariveshBhawan', East Arjun Nagar,
Shahdara, Delhi – 110032

Sub: Submission of Ground Status report in compliance of the order dated 23.04.2020, passed by the National Green Tribunal, Principal Bench, New Delhi, in the matter of 'In Re: Scientific Disposal of Bio-Medical Waste arising out of COVID-19 treatment-Compliance of BMW Rules 2016' (O.A. 72/2020)

In reference to the captioned matter, the required ground status report regarding implementation of 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients- Revision 2' in the State of Chhattisgarh (as on 31.05.2020) is the attached herewith in compliance of the aforesaid order of the Hon'ble Tribunal.


Secretary

Housing and Environment Department
Mantralaya, Mahanadi Bhavan,
Nava Raipur Atal Nagar, District-Raipur (C.G.)

No. / / / 2020

Nava Raipur, Atal Nagar, Dated .06.2020

1. Deputy Secretary, Office of the Chief Secretary, Mantralaya, Mahanadi Bhavan, Nava Raipur Atal Nagar, District-Raipur, Chhattisgarh.
2. The Member Secretary, Chhattisgarh Environment Conservation Board, Paryavas Bhavan, Nava Raipur Atal Nagar, District-Raipur, Chhattisgarh.


Secretary

Housing and Environment Department
Mantralaya, Mahanadi Bhavan,
Nava Raipur Atal Nagar, District-Raipur (C.G.)

COVID-19: GROUND STATUS REPORT

In the matter of "In re: Scientific Disposal of Bio-Medical Waste arising out of COVID-19 treatment- Compliance of BMW Rules, 2016" passed by the National Green Tribunal, Principal Bench, New Delhi, in OA 72/2020 dated 23.04.2020.

The Hon'ble National Green Tribunal, Principal Bench, New Delhi in the aforesaid order has directed that the 'Guidelines for Handling, Treatment and Disposal of Waste Generated during Treatment/ Diagnosis/ Quarantine of COVID-19 Patients- Revision 2' (revised on 18.04.2020) issued by CPCB for the disposal of bio-medical waste arising out of handling of COVID-19 disease be followed in addition to further revision as per the consultation between NGT and CPCB.

The Ho'ble Tribunal has further required the Chief Secretary of the State to monitor the scientific storage, transport, handling, management and disposal of COVID-19 and Department of Environment and CEGB to submit action taken report and ground status as on 31.05.2020 to Central Pollution Control Board and National Green Tribunal by **15.06.2020**. Accordingly, a meeting was held on 22.05.2020, which was chaired by the Chief Secretary of the State to review the implementation of the aforesaid guidelines for the disposal of COVID-19 Waste. The meeting was attended by the Secretary, Department of Health and Family Welfare, the Secretary, Urban Administration and Development Department, the Secretary, Housing and Environment Department, the Member Secretary, Chhattisgarh Environment Conservation Board and the Director, Health Services. All the concerned departments were directed to ensure proper implementation of the aforesaid guidelines.

In compliance thereof, the required ground status report as per the duties/responsibilities allotted to respective departments in the aforesaid order is as follows:

Sr. No.	Compliance required	Compliance
Department of Health and Family Welfare		
1.	Total Number of COVID-19 cases as on 31.05.2020	502 (District wise list is attached as Annexure I)
2.	No. of cases recovered as on 31.05.2020	114 (District wise list is attached as Annexure I)
3.	No. of active cases as on 31.05.2020	387 (District wise list is attached as Annexure I)
4.	No. of red zones in the state	9 Districts are red zones (Balod, Korba, Mungeli, Raigarh, Rajnandgaon, Ambikapur, Bilaspur, Kawardha, Balodabazar) (Zone wise list of cases is attached as Annexure I)
5.	No. of HCFs/ Isolation wards where COVID-19 patients are being tested/ treated	9 HCFs (COVID-19 Hospital) 1. AIIMS (Raipur) 2. COVID-19 Hospital (Mana, Raipur) 3. COVID-19 Hospital (Bilaspur)

		<ol style="list-style-type: none"> 4. GMC Hospital (Rajnandgaon) 5. GMC Hospital (Pendri, Rajnandgaon) 6. Medical College Hospital (Raigarh) 7. BR Kashyap MC (Jagdalpur) 8. Medical College Hospital (Ambikapur) 9. Sri Shankaracharya Medical College Hospital (Durg) 10. ESIC (Korba) <p><u>6 Laboratories (5 Govt. & 1 Private)</u></p> <ol style="list-style-type: none"> 1. AIIMS (Raipur) 2. Govt. Medical College (Raipur) 3. Govt. Medical College (Raigarh) 4. Govt. Medical College (Jagdalpur) 5. Regional Leprosy Training Center (Raipur) 6. SRL Diagnostic(Private) (Lalpur, Raipur) <p>(Details of cases and waste generation is attached as Annexure II)</p>
6.	No. of HCFs/ Isolation wards where arrangement of colour-coded bins and proper segregation of waste as per BMW Rules is done:	All 10 HCFs (COVID-19 Hospital) & 6 Laboratories are having arrangement of colour-coded bins and proper segregation of waste as per BMW Rules.
7.	No. of HCFs/ Isolation wards where double layered bags (2 bags) is used for waste collection of waste from HCFs/ Isolation wards where COVID-19 patients are being tested/ treated.	All 10 HCFs (COVID-19 Hospital) & 6 Laboratories are using double layered bags.
8.	No. of HCFs/ Isolation wards where dedicated collection bin labelled as "COVID-19" is kept to store COVID-19 waste.	All 10 HCFs (COVID-19 Hospital) & 6 Laboratories are using COVID-19 labeled bins.
9.	No. of HCFs/ Isolation wards maintaining record of waste generated.	All 10 HCFs (COVID-19 Hospital) & 6 Laboratories are maintaining record of waste generated.
10.	No. of HCFs/ Isolation wards where inner and outer surface of bins used for storage of COVID-19 waste is disinfected with 1% sodium hypochlorite solution daily.	All 10 HCFs (COVID-19 Hospital) & 6 Laboratories are disinfecting inner and outer surface of bins used for storage of COVID-19 with 1% sodium hypochlorite solution daily.
11.	Reporting of operation of COVID-19 wards to CECB and CBWTFs	<p>Operation of 10 COVID-19 HCFs & 6 Laboratories has been reported to CECB out of which 6 COVID-19 HCFs & 6 Laboratories are disposing waste through incinerator based CBWTFs.</p> <p>CBWTF is not available in Jagdalpur, Raigarh and Korba therefore disposal of COVID-19 waste of 3 COVID HCFs, i.e.- BR Kashyap MC</p>

		Jagdalpur, Medical College (Raigarh) and ESIC (Korba), is done through deep-burial method in compliance of the BMW Rules 2016. The Medical College Hospital of Ambikapur has its own captive incinerator for disposal of COVID-19 waste.
12.	Deputation of separate sanitation workers for BMW waste collection:	Yes, all 10 HCFs (COVID-19 Hospital) have dedicated sanitation workers for BMW waste collection.
13.	No. of HCFs/ Isolation wards where treatment of Feces from COVID-19 is as per the CPCB guidelines.	All 10 HCFs (COVID-19 Hospital)
14.	No. of HCFs/ Isolation wards where collection of PPEs is done in red-bags.	All 10 HCFs (COVID19 Hospital)
15.	No. of HCFs/ Isolation wards where collection of used mask/linen/coveralls is done in yellow-bags:	All 10 HCFs (COVID-19 Hospital)
16.	No. of sample collection centers for COVID-19 suspected patients:	All the Medical College Hospitals & District Hospitals and mobile sample collection teams in all 28 districts are doing sample collection.
17.	Whether pre-treatment of viral transport media, plastic vials, vacuainers, tubes, cryovials is done and collected in red-bags	Yes, it is being done in all 6 Laboratories (5 Govt. & 1 Private).
18.	No. of HCFs/ isolation centres permitted to adopt deep-burial of yellow category waste.	3 HCFs (COVID-19 Hospital)-BR Kashyap MC Jagdalpur, Medical College (Raigarh) and ESIC (Korba) are disposing the waste through deep-burial method as incinerator based CBWTF is not available in this area.

Urban Administration and Development Department

19.	No. of Home Quarantines camps/ homecare/ home isolation:	There are 661 active quarantine homes and 11840 home isolations as on 31.05.2020.
20.	Distribution of yellow colored bags by ULBs to Home Quarantines camps for collection of BMW waste:	As on 31.05.2020, 9662 no. of yellow colored bags have been distributed for the collection of Biomedical waste generated from these Quarantine Camps and home cares. These yellow bags are placed in separate and dedicated dust-bins of appropriate size at the quarantine camps.
21.	Manner of disposal of COVID-19 BMW waste from Home Quarantines camps: (Through ULBs or CBWTFs / deep-burial?)	158 ULBs are disposing the COVID-19 waste through deep-burial method. 08 ULBs of Raipur, Durg, kawardha, Bilaspur, Ambikapur, Jagdalpur, Bijapur and Korba are disposing the COVID-19 waste through CBWTFs. The biomedical waste from the quarantine camps is being collected on call basis as and when the biomedical waste gets generated. The contact details of the CBWTF operators/ULB operators are available at Quarantine camps and also with the Nodal Officers of Quarantine Camps.

22.	<p>Training of staff involved in collection of BMW waste from quarantine homes and distribution of PPEs to them :</p>	<p>Regular trainings have been imparted to the designated staffs of the ULBs through CBWTF operators in coordination with Health Department.</p> <p>These training are mostly on :</p> <ul style="list-style-type: none"> • Sanitization of the vehicles, equipments, quarantine centres with different methods of sanitization • Procedure of collecting Biomedical waste from the quarantine camps or home cares • Basic hygiene practices and precautionary measures during handling the biomedical waste • Use of Personal Protective Equipments <p>As on 31.05.2020, 902 no. of staffs have been trained in all 166 ULBs.</p> <p>All the 166 ULBs have created a separate dedicated team of workers who are well equipped with PPEs, sanitizing disinfectant spray and dedicated vehicles for door step waste collection at quarantine camps/ home cares in all the ULBs.</p> <p>These dedicated staffs are only collecting the biomedical waste from quarantine homes or home cares in each ULBs adopting basic hygiene practices and wearing PPEs. 1373 PPEs kits has been distributed as on 31.05.2020. All type of PPE kits such as three-layer masks, splash proof aprons/gowns, heavy-duty gloves, gum boots and safety goggles have been provided by each ULBs in association with Health Department to their dedicated staffs involved in handling and collection of waste from quarantine centres or home cares.</p>
23.	<p>No. of dedicated carts/ trolleys/ vehicles employed for transport of BMW waste of COVID-19 patients and its sanitization:</p>	<p>ULBs have allotted a dedicated team to collect biomedical waste from these quarantine centres through dedicated no. of 262 vehicles. These 262 vehicles transfer the COVID-19 waste to the CECB authorized CBWTFs for their proper disposal. Where these CBWTFs are not available, biomedical waste is disposed off through deep burial process at suitable places of the ULBs in consultation with Health Department.</p>

24.	Ensure that, waste collectors arriving at quarantine center or at home care shall spray the disinfectant (1% hypochlorite solution) on the bin used for yellow bag.	Each team of waste collectors are provided with the disinfectant spray (1% hypochlorite solution). After transfer of yellow coloured bags (containing biomedical waste) from the quarantine centres, the bins used for yellow bags are cleaned and disinfected thoroughly by the waste collectors.
25.	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.	Biomedical wastes from quarantine homes or home cares of the ULBs are disposed off directly through CBWTFs or Deep burial methods. So there is no such common waste deposition Centres in the ULBs for receiving or collecting biomedical waste.
26.	The general solid waste collected from quarantine homes or home care shall be disposed off as per SWM Rules, 2016.	All the 166 ULBs are collecting general solid waste from the quarantine homes or home cares separately in wet and dry fractions through two bin systems (Green and Blue) and transporting the same on daily basis in compartmentalized tricycles and mini tipper to the SLRM centres where after proper disinfection, disposal of the segregated waste is being carried out as per the SWM Rules, 2016.

Chhattisgarh Environment Conservation Board

27.	No. CBWTFs reporting COVID-19 waste to CECB	There are total 4 CBWTFs in the state where COVID-19 waste is being treated. 2 CBWTFs at Raipur and Bilaspur are incinerator based and the other 2 CBWTFs at Korba and Raigarh are based on deep-burial method. All 4 CBWTFs submit daily report to CECB. The details of COVID-19 waste collected, treated and disposed off by CBWTFs is attached as Annexure-III .
28.	No. of HCFs/ isolation centres permitted to adopt deep-burial of yellow category waste:	3 HCFs (COVID-19 Hospital)-BR Kashyap MC Jagdalpur, Medical College (Raigarh) and ESIC (Korba) are disposing the waste through deep-burial method as incinerator based CBWTF is not available in this area.
29.	No. of CBWTFs ensuring sanitization of workers:	All 4 CBWTFs are ensuring sanitization of their workers. The details are as follows: Total No. of CBWTF workers handling COVID-19 waste : 40 Total No. of CBWTF workers sanitized: 40 CBWTF wise details are attached as Annexure-III .
30.	No. of CBWTFs workers having adequate PPEs:	Total No. of workers: 40 Total No. of workers having PPEs: 40 CBWTF wise details are attached as Annexure-III .
31.	No. of CBWTFs sanitizing dedicated vehicles with sodium hypochlorite after every trip:	Total No. of dedicated vehicles: 09 Total No. of vehicles sanitized: 09 CBWTF wise details are attached as Annexure-III .
32.	No. of CBWTFs operating in the state: 04 No. of hours operated by CBWTFs:	COVID-19 waste generation in the state is manageable. Therefore, CBWTF are not required to operate for extra hours.
33.	Maintenance of record of COVID-19	Records as on 31.05.2020 is attached as Annexure-II

	treatment wards/ quarantine centers/ quarantine homes by CECB	andAnnexure-III		
34.	Standard for liquid waste generated / treated from CBWTF before discharge into sewer:	PARAMETERES	SMS WATERGRACE	ENVIROCARE
		pH	7.72	7.23
		Suspended Solids	54.0	146.0
		oil and grease	2.0	N.D.
		BOD	4.8	27.0
		COD	68.0	216.0
		Bio-Assay test	90% Survival	90% Survival

ANNEXURE-I

Sr. No.	Zone	Zone Category (Red/ Green/ Orange)	Total No. of cases	Recovered Cases	Active cases	No. of Death
1.	Raipur	-	15	8	6	1
2.	Dhamtari	-	3	0	3	0
3.	Balodabazar	Red	20	7	13	0
4.	Mahasamund	-	20	0	20	0
5.	Gariaband	-	5	4	1	0
6.	Durg	-	13	10	3	0
7.	Rajnandgaon	Red	37	1	36	0
8.	Balod	Red	27	11	16	0
9.	Bemetara	-	15	2	13	0
10.	Kabirdhaam	Red	19	12	7	0
11.	Bilaspur	Red	50	3	47	0
12.	Raigarh	Red	15	0	15	0
13.	Korba	Red	47	32	15	0
14.	Janjgir-Champa	-	15	12	3	0
15.	Mungeli	Red	82	1	81	0
16.	GaurellaPendraMarvahi	-	3	0	3	0
17.	Sarguja (Ambikapur)	Red	9	0	9	0
18.	Korea (Ambikapur)	Red	29	1	28	0
19.	Surajpur (Ambikapur)	Red	8	7	1	0
20.	Balrampur (Ambikapur)	Red	16	0	16	0
21.	Jashpur (Ambikapur)	Red	32	0	32	0
22.	Bastar	-	2	0	2	0
23.	Kondagaon	-	0	0	0	0
24.	Dantewada	-	0	0	0	0
25.	Sukma	-	0	0	0	0
26.	Kanker	-	20	3	17	0
27.	Narayanpur	-	0	0	0	0
28.	Bijapur	-	0	0	0	0
29.	Total		502*	114*	387*	1

ANNEXURE-II
(HCFS/ ISOLATION WARDS)

Sr. No.	Name of facility	Total cases	Active	recovered cases	Quantity of waste generated (Kg)	Quantity of waste collected (Kg)	Manner of waste disposal (deep-burial/ ULB/ CBWTF)
HCFS							
1.	AIIMS (Raipur)	191	101	90	9151.8	9151.8	CBWTF
2.	BR Kashyap MC(Jagdarpur)	10	10	0	1099	1099	Deep-Burial
3.	Civil Hospital (Mana, Raipur)	96	82	14	14.2	14.2	CBWTF
4.	GMC Hospital (Rajnandgaon) (Closed after 1 May 2020)	39	39	0	527	527	CBWTF
5.	GMC Hospital (Pendri, Rajnandgaon)				375	375	CBWTF
6.	COVID-19 Hospital (Bilaspur)	60	52	8	1098.5	1098.5	CBWTF
7.	Medical College Hospital (Raigarh)	27	27	0	146	146	Deep-Burial
8.	Medical College Hospital (Ambikapur)	67	65	2	498.456	498.456	Captive Incinerator
9.	ESIC (Korba)	4	4	0	125	125	Deep-Burial
10.	Shri Shankaracharya Medical College Hospital (Durg)	1	1	0	0	0	CBWTF
Total		495*	381*	114*	13034.96	13034.96	-
Laboratories							
11.	AIIMS Raipur (Lab)	N/A	N/A	N/A	Included in Serial No. 1 above	Included in Serial No. 1 above	CBWTF
12.	Govt. Medical College Raipur (Lab)	N/A	N/A	N/A	Nil	Nil	CBWTF
13.	Govt. Medical College Raigarh (Lab)	N/A	N/A	N/A	296.5	296.5	CBWTF
14.	Govt. Medical College Jagdarpur (Lab)	N/A	N/A	N/A	333	333	CBWTF
15.	Regional Leprosy Training Center Raipur (Lalpur Lab)	N/A	N/A	N/A	0	0	CBWTF
16.	SRL Diagnostic (Lalpur) Raipur	N/A	N/A	N/A	718	718	CBWTF
Total		N/A	N/A	N/A	1347.5	1347.5	-
Active Quarantine Centers / Home Isolation							
17.	661 Quarantine Centres 11,840 Home Isolation	N/A	N/A	N/A	Bilaspur - 951.5.....(CBWTF) Korba-80.....(Envirocare Deep-Burial) Durg-100.....(CBWTF) Raipur- 6,332.7.....(CBWTF) Raigarh- 39.....(Aroma Deep-Burial) Jashpur- 20.....(Deep-Burial) Surajpur- 5.45.....(Deep-Burial) Balrampur- 51.70.....(Deep-Burial) Korea- 172.....(Deep-Burial) Bijapur- 29.56.....(Deep-Burial) Naranpur- 24.....(Deep-Burial) Dantewada- 68.25.....(Deep-Burial) Kondagaon- 342.....(Deep-Burial) Balod-75.....(Deep-Burial) Sukma- 59.70.....(Deep-Burial) Jagdarpur- 62.3.-.....(Deep Burial)		CBWTF / Deep-Burial
Total		N/A	N/A	N/A	8413.16		-

- Note:-**
- * As per annexure I, total no. of positive cases are 502, recovered cases 114 and active cases 387.
 - * As per annexure II, total no. of admitted cases are 495, recovered cases 114 and active cases 381.
 - * 6 COVID-19 positive cases are in transition phase and they are under process of being admitted in different Hospitals.
 - * 1 death of positive COVID-19 case is reported.

ANNEXURE-III
(CBWTFs)

Sr. No.	Name of CBWTF / Deep burial pits	No. of HCFs/ isolation wards/ quarantine homes associated	COVID-19 waste collected (Kg)	COVID-19 waste treated (Kg)	No. of workers employed for COVID-19 collection	No. of vehicles deployed for COVID-19 collection	Compliance of BMW Rules
1.	SMS Watergrace Enviroprotect Private Limited (Raipur) (Incinerator based)	30	17118.7	17118.7	12	05	<p>Date of inspection by CECB: 27.05.2020</p> <p>Compliance:</p> <ol style="list-style-type: none"> 1. OCMS-was found functioning during the inspection. 2. The temperature of primary and secondary chamber was observed respectively as 800^oC and 1050^oC, which is as per BMW Rule, 2016. 3. Energy Meter has been installed for Air pollution control device. 4. Autoclaving is done as per BMW Rules, 2016. 5. 02 No. of shredders(200 kg/hour each and the size of the shredded waste is from 8 mm to 12 mm each) has been provided as per as per BMW Rules, 2016. 6. Logbook is being maintained as per BMW Rules, 2016. 7. Segregation and Storage of BMW wastes are being done as per BMW Rules, 2016. 8. Stack height is 30 meter which is as per CPCB Norms. 9. Emission of various pollutant have been found as per BMW Rules, 2016. 10. Ventury scrubber has been installed as air pollution control device, which was found working during inspection. 11. Segregated and treated plastic waste is being handed over to Authorized recycler as per BMW Rules, 2016. 12. Quality of treated effluent has been found as per norms prescribed in BMW Rules, 2016.
2.	Envirocare International (Bilaspur) Incinerator based)	07	2050	2050	22	02	<p>Date of inspection by CECB: 04-05-2020 and 27-05-2020</p> <p>Status of Compliance:</p> <ol style="list-style-type: none"> 1. The temperature of primary and secondary chamber was observed respectively as 854^oC and 1040^oC, which is as per BMW Rule, 2016. 2. Energy Meter has not been installed for Air pollution control device. 3. Autoclaving: Temperature of not less than 121^oC and pressure of 17 psi is maintained which is as per BMW Rules, 2016. 4. 01 No. of shredders(100 kg/hour and the size of the shredded waste is from 5 mm to 10 mm each) has been provided as per as per BMW Rules, 2016. 5. Logbook has not been properly maintained. 6. Segregation and Storage of BMW wastes are being done as per BMW Rules, 2016.

							<p>7. Stack height is 30 meter which is as per CPCB Norms.</p> <p>8. Emission of various pollutant have been found as per BMW Rules, 2016.</p> <p>9. Emission of various pollutant have been found as per BMW Rules, 2016.</p> <p>10. Ventury scrubber has been installed as air pollution control device, which was found working during inspection.</p> <p>11. Segregated and treated plastic waste is being handed over to Authorized recycler as per BMW Rules, 2016.</p> <p>12. Quality of treated effluent has been found as per norms prescribed in BMW Rules, 2016.</p> <p>13. OCEMS was not functional during inspection.</p> <p>The operator of the facility has been served notice to rectify short comings observed during inspection.</p>
3.	M/s EnvirocareInternational (Chhattisgarh) Korba C.G. (Deep Burial pit)	08	2031.4	2031.4	05	01	<p>Date of inspection by CECB: 27.05.2020</p> <p>Compliance:</p> <ol style="list-style-type: none"> 1. It is working in 1 acre and this facility is disposing COVID-19 waste by deep burial methods. 2. Separate deep burial pits have been provided for COVID-19 waste. 3. It has been observed that COVID-19 waste is being collected from quarantine centers by workers wearing PPE Kit and transported in vehicles disinfected by 5% hypochlorite solution before and after waste collection and disposal. 4. Proper segregation of COVID-19 waste has been observed during inspection. 5. COVID-19 waste is treated by 5% hypochlorite solution before disposal in deep burial pits.
4.	Aroma Social Service Raigarh C.G. (Deep Burial pit)	03	481.5	481.5	01	01	<p>Date of inspection by CECB: 28.05.2020</p> <p>Compliance:</p> <ol style="list-style-type: none"> 1. The facility has been established in 10,000 square feet. COVID-19 bio medical waste is disposed through deep burial pits. 2. Separate deep burial pits have been provided for COVID-19 waste. 3. It has been observed that COVID-19 waste is being collected from quarantine centers by workers wearing PPE Kit and transported in vehicles disinfected by 5% hypochlorite solution before and after waste collection and disposal. 4. Proper segregation of COVID-19 waste has been observed during inspection. 5. COVID-19 waste is treated by 5% hypochlorite solution before disposal in deep burial pits.