

Item No. 10

(Court No. 1)

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH**

(By Video Conferencing)

Original Application No. 180/2021

(With reports dated 03.12.2021 and 08.12.2021)

Mukul Kumar

Applicant

Versus

State of Uttar Pradesh & Ors.

Respondent(s)

Date of hearing: 07.01.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE MR. JUSTICE BRIJESH SETHI, JUDICIAL MEMBER
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

Applicant: Mr. Vivek Singh, Advocate

Respondent(s): Mr. Pradeep Misra and Mr. Daleep Dhyani, Advocates for UPPCB

ORDER

The ISSUE

1. The issue for consideration is remedial action against non compliance of Bio-Medical Waste (BMW) Rules, 2016, read with Guidelines for handling and treatment and disposal of waste generated during treatment/diagnosis/quarantine of Covid-19 patients, issued by CPCB, revised from time to time.

General violations of BMW Rules

2. Though the present application has been filed in respect of violations by the waste management facilities in District Shahjahanpur, UP, such

violations need to be remedied wherever found throughout India. Some of the violations alleged are:

- Dumping of Covid-19 waste in open areas inside the hospitals.
- Stray animals scattering such waste all around.
- Burning of waste leading to breathing problem in the patients.
- Unscientific collection and transportation of waste.
- Failure to sanitize and disinfect the vehicles parked in the hospitals.
- Long range of area for handling by individual Facility.
- Similar facility catering to several hospitals simultaneously.
- Only one vehicle collecting the entire waste beyond its capacity.
- Not collecting the waste on daily and regular basis.
- Untrained staff handling Bio-medical waste unscientifically.
- Non-compliance of barcode and GPS requirement.
- Use of contracted vehicles by the Facilities.
- Not washing disinfecting empty waste containers.
- Absence of adequate monitoring.
- Not maintaining proper record.
- Disposal in general bins meant for municipal waste.
- Failure to create awareness about the precautions to be taken by the handlers, workers and the citizens.

Consideration by the Tribunal and earlier directions applicable to all States/UTs

3. On 27.07.2021, this Tribunal considered the grievance of the applicant in the light of earlier orders and the statutory Rules on the subject and found it necessary to ascertain the status of compliance in the

context of the present grievance and also generally throughout the country to determine what further directions are necessary under Section 15 of the NGT Act, 2010. The operative part of the order is reproduced below:

“11. Accordingly, we direct as follows:

- i) District Magistrate, Bareilly may update District Environment Plan by including the subject of compliance of BMW Rules in the light of para 9 above.
- ii) **A four-member joint Committee comprising CPCB, State PCB, District Magistrate, Bareilly and the Nodal Officer, Biomedical Waste Department of Medical and Health, Kaiserbagh, Lucknow, UP. may ascertain the status of compliance of BMW Rules, 2016, orders of this Tribunal dated 23.04.2021 in O.A. No. 72/2020 and order dated 19.03.2021 in O.A. No. 110/2020 and the CPCB Guidelines on the subject. The Committee may also look into the GPS data of the vehicles used by the Facility. The joint Committee may furnish its report within two months by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF. The State PCB will be the nodal agency for coordination and compliance.**
- iii) **The Oversight Committee constituted by this Tribunal to monitor compliance of directions of this Tribunal on environmental issues in the State of UP, headed by Justice SVS Rathore, former Judge of the Allahabad High Court, may furnish a report about the compliance status in the State of UP within two months by e-mail in same manner as in above direction.**
- iv) **CPCB may compile information about compliance status of Rules, orders of this Tribunal referred to earlier and CPCB guidelines by organizing VC interaction with the PCBs/PCCs and Health Departments of all the States/UTs. Such Video conference may be held within one month and report furnished to the Tribunal within three months by e-mail in same manner as in above direction.”**

Discussion in earlier order, gaps in compliance as noted and directions for improvement and monitoring at National level and at level of States

4. Before considering the reports filed by the joint Committee, the Oversight Committee and the CPCB, we may reproduce discussion in the said order to appreciate the background of the matter:

*“2. The applicant has referred to media reports to the effect that the Facility in question is non-compliant with the BMW Rules read with the Guidelines for handling and treatment and disposal of waste generated during treatment/diagnosis/quarantine of Covid-19 patients, issued by CPCB, revised from time to time. It is further stated that as per media reports, **huge dumps of Covid-19 waste including PPE kits /gloves/other biomedical waste were dumped in an open area inside the premises of a 300 beds government Covid hospital in Bareilly. These heaps also include swab collection kits, IV tubes and other such biomedical waste in huge numbers. Kits found disposed of inside and outside the hospital were not from the hospital facilities but collected from other places and dumped outside and inside the hospital premises. Stray animals were found foraging the waste and also scattering it around. PPE kits were being burnt within the hospital premises, without following guidelines for proper disposal. The smoke emanating from the same caused serious breathing problems to the patients inside the 300 bed Covid hospital. The biomedical waste generated from Districts Bareilly, Rampur, Pilibhit and Badauan is being collected and disposed of by Respondent No. 7 unscientifically without being transported to proper destination for scientific handling. Small vehicles are being used by Respondent No. 7 to collect biomedical waste from various private and Government hospitals, clinics, Covid-treatment Centres in Districts Bareilly, Rampur, Pilibhit, Moradabad and Badauan. Big Truck is then sent to Shahjahanpur. The smaller vehicles, in which the waste is collected from the surrounding Districts, never go to the Facility to be sanitized and disinfected and are parked in the Government hospital premises. The GPS data from the data tracker in the smaller vehicles will confirm that these vehicles never go to the Facility and are thus not disinfected and sanitized. They do not even complete their cycle of collecting waste from HCF and directly taking them to the plant in Shahjahanpur. The State Authorities are permitting biomedical waste to be collected over a radius of 150 kms from other Districts like Moradabad, Badauan, Rampur and Pilibhit and to be transferred etc. in the premises of a Government Hospital in Bareilly and then taken to the CBTWF which is located in Shahjahanpur. The CBTWF Shahjahanpur is located 85 kms away from Bareilly. This is very hazardous to residents in Bareilly. Bareilly has three medical colleges, one 300 bed Super Specialty Government Hospital (which was declared as Covid Hospital), one District Hospital and one mental hospital and several health clinics and nursing homes, all of which generate biomedical waste.***

3. *The applicant has further stated that as per the license granted to Respondent No. 7, they are entitled to collect waste from a radius of 75 kms. However, the license conditions are being violated and waste collected over a radius of 150 kms is being collected and transported. Rampur is 125 kms away from the CBTWF facility in Shahjahanpur. Rampur District has more than 300 Health Care Facilities, including two Government Hospitals, seven community health centres, five primary health centres. The community health centres and the primary health centres are each 30-40 kms away from the District hospitals. Only one vehicle is being used to collect all the biomedical waste generated in Rampur. There is only one vehicle being used in Badauan, Pilibhit and Moradabad respectively. Each of these Districts have over 300 registered Health Care Facilities. These districts are 125-150 kms away from the Shahjahanpur facility. It is not possible to collect waste from all premises every day but the vehicles are not sent for sanitization and do not complete their route which can be verified from the GPS data required to be maintained by the respondents. The vehicles are parked and waste is off-loaded to the Truck in Bareilly.*

4. *The applicant has further stated that under Rule 4, it is the duty of the occupier of the facility to ensure that biomedical waste is handled without any adverse effect on human health and environment. Rule 4 further mandates that every occupier should ensure that there is no secondary handling or inadvertent scattering of spillage by animals. Rule 4(b) further provides that biomedical waste is to be directly transported from the premises of hospital etc. to the facility. Rule 4(g) enjoins the occupier to ensure that training is provided to all health care workers. Rule 4(1) mandates that occupiers are to ensure the occupational safety of the health care workers and other involved in handling of biomedical waste by providing appropriate and adequate personal protective equipments. Rule 5 states that the duties of the operator of the CBWT Facility. Rule 7 mandates that the biomedical waste is not to be disposed of in the premises of the occupier i.e. hospitals etc. Rule 8 mandates that no untreated biomedical waste is mixed with other waste. The operator is to ensure compliance with Bar Code and GPS requirements. Under Clause 12(b) of the Revised Guidelines for CBWTF, the vehicles are required to be owned by the Facility. The CBWTF cannot use contracted vehicles. Every time a vehicle is unloaded, the empty waste containers are required to be washed properly and disinfected under the guidelines. Under Rule 12, the State Government is to ensure compliance with the Rules by the CBWTF. Under Rule 14, records relating to collection, storage, transportation, handling etc. are required to be maintained by the operator.*

5. *It is further stated that CPCB has also developed Covid-19 waste tracking software named "Covid19BMW" to monitor Covid-19 related biomedical waste and to compile the data through electronic system. The software tracks Covid-19 related bio-waste at the time of generation, collection and*

disposal. Guidelines for handling, treatment and disposal of waste generated during treatment/ diagnosis/ quarantine of Covid-19 patients, have been issued by CPCB. The said guidelines were revised in July 2020 pursuant to the directions issued by this Tribunal in O.A. No. 72/2020. As per the guidelines, separate record is to be maintained for waste generated from Covid-19 wards. Further, Covid-19 waste generated from quarantine centres etc. is to be handed to the waste collector engaged by the CBTWF operator at the doorstep. Under clause (d) of the guidelines, the duties of the CBWTF are prescribed. Guidelines for monitoring compliance of CBWTF by State PCBs/PCCs, have been issued by the CPCB. The said guidelines were issued pursuant to directions to this Tribunal in O.A. No. 110/2020, In re: News item published on 01.07.2020 in the local daily named "The Hindu" titled "Ramky Group accused of dumping biomedical waste in the open in Hosur."

6. The applicant has also referred to order of this Tribunal dated 23.04.2020 in O.A. No. 72/2020, In Re: Scientific Disposal of the biomedical waste arising out of Covid – 19 treatment-compliance of BMW Management Rules, 2016. Operative part of order is as follows:-

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

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

Let the Chief Secretary of States/UTs by coordinating the activities of State's concerned departments like of Urban Development, Health, Irrigation & Public Health also closely monitor the

scientific storage, transport, handling, management and disposal of COVID-19 waste as its unscientific handling poses a grave threat environment and health of people. At the national level, let a high level task team of Ministry of MoEF&CC, Health UD, Jal Shakti, Defence and CPCB supervise the handling and scientific disposal of COVID-19 waste in accordance with the guidelines.

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

7. The matter was further considered in the light of CPCB and oversight committee report and further follow up action was directed vide order dated 18.01.2021 as follows:

“8.In view of above, further follow up action may be taken by all the States and UTs, which may be further monitored by the CPCB. The Chief Secretaries of all the States/UTs may, while reviewing the COVID situation, also review the status of compliance of the COVID related Bio-medical Waste Management at least once in every month, till the situation so requires.

XXX.....XXX.....XXX

11. The report is accepted and further action may be taken in terms of the recommendations by the concerned authorities in the State of UP, which may be monitored by the Chief Secretary, UP. **Apart from the action to be taken in the State of UP, all the States/UTs may take further follow up action in terms of para 8 above which may be reviewed by the Chief Secretaries of all the States/UTs and also monitored by the CPCB at the national level.”**

8. It may also be mentioned that the issue of compliance of BMW Rules was considered by this Tribunal in OA 710/2017, Shailesh Singh v. Sheela Hospital & Trauma Centre, Shahjahanpur & Ors. The Tribunal directed preparation of District Environment Plans and bridging the gaps found in compliance of the Rules, after reviewing the progress in terms of earlier orders. Order dated 18.01.2021 in the said matter held as follows:

“5.As already noted, vide order dated 15.7.2019, direction was issued for preparation of District Environment Plans as per Articles 243G, 243W and 243ZD read with Schedules 11 and 12 of the Constitution. The District Magistrate as head of the District Planning Committee was to monitor compliance of environmental norms, including Bio

Medical Waste Management Rules once every month and send a report to the Chief Secretary. Relevant part of the order is extracted below:

“We find it necessary to add that in view of Constitutional provisions under Articles 243 G, 243 W, 243 ZD read with Schedules 11 and 12 and Rule 15 of the Solid Waste Management Rules, 2016, it is necessary to have a District Environment Plan to be operated by a District Committee (as a part of District Planning Committee under Article 243 ZD) with representatives from Panchayats, Local Bodies, Regional Officers, State PCB and a suitable officer representing the administration, which may in turn be chaired and monitored by the District Magistrate. Such District Environment Plans and Constitution of District Committee may be placed on the website of Districts concerned. The monthly report of monitoring by the District Magistrate may be furnished to the Chief Secretary and may be placed on the website of the District and kept on such websites for a period of one year. This may be made operative from 1.08.2019.”

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11. From the above it is seen that **there are huge gaps in the compliance of authorization regime. In some of the States, compliance is ranging from 17% to 38% only. We also note underutilization of the common bio-medical facilities at many places. Adequacy of facilities and their siting may need review. Such facilities must obtain requisite Environmental Clearance (EC). Recycling of waste will only be through authorized recyclers. As observed earlier, it is utmost necessary to ensure that hazardous bio-medical waste is not mixed with the general waste. CPCB needs to review the compliance status from time to time, at least once in every quarter and issue directions based on the observations from the reports received.**

12. CPCB may ensure that for strict compliance of the rules, the compensation regime is duly applied against the defaulters, following due process. Standards of handling of BMW need to be duly complied. **The authorities must ensure that waste is disposed of only through authorized agencies, common facilities are located as per siting guidelines and they must have EC. There should be no pilferage by unauthorized recyclers. Adequate number of common bio-medical facilities should be set up. The Chief Secretaries of all the States/UTs may oversee compliance at least every quarter in terms of direction of this Tribunal vide order dated 16.01.2019 in O.A. No. 606/2018 followed by further orders. The Chief Secretaries may inter-alia ensure that authorization is secured by every health care facility in their respective jurisdiction and also**

there is adherence to the norms. Similarly, the District Magistrates may, at their level, take necessary steps in their Districts, in accordance with the District Environmental Plans. As found by the Oversight Committee for UP, ETPs are either not provided or are not functional in various health care facilities as required under the Rules. Compliance in this regard may be ensured in all States/UTs. While permitting deep burials, it may be ensured that ground water contamination does not take place.

13. Apart from the above general directions applicable to all the States/UTs, the UP State PCB may look into the compliance status of the Hospitals, who are parties in O.A. Nos. 710/2017, 711/2017, 712/2017 and 713/2017, and give a report to the Oversight Committee for UP, headed by Justice S.V.S. Rathore, a former Judge High Court of Allahabad within two months.”

9. The District Environment Plan prepared for Bareilly, filed by Oversight Committee in OA 360/2018, Shree Nath Sharma v. Union of India & Ors., does not make any mention on details of Bio-medical waste on quantification, regulation enforcement, Common treatment facilities, and others. District Magistrate, Bareilly needs to get proper management plan on the subject.”

Present Consideration

5. We now consider the compliance status as now reported in UP as well as other States/UTs to determine whether any further directions are called for.

Status of compliance in respect of respondent No.7 Facility at Shahjahanpur for five districts Bareilly, Shahjahanpur, Badaun, Pilibhit and Rampur as found by the joint Committee

6. We first refer to the report dated 03.12.2021 by the four-member joint Committee after inspection of a Facility in District Shahjahanpur which caters to five districts Bareilly, Shahjahanpur, Badaun, Pilibhit and Rampur. The Committee has made following observations and recommendations:

“4.0 Observations:

- 1. During visit Facility was found operational.*
- 2. Board indicating address and symbol for bio hazard was found on main entry gate.*

3. *The Facility has infrastructure to collect BMW from HCFs, hospital, Pathology labs located at t Bareilly, Shahjahanpur, Rampur, Badaun and Pilibhit.*
4. ***As reported, Facility has Ten (10) vehicles for collection of BMW. The CBWTF has installed GPS and partially adopted the bar coding for handling of Bio medical waste.***
5. ***Additionally, one dedicated vehicle deployed for collection of COVID waste since the epidemic started and being disposed as per the CPCB guideline.***
6. *All vehicles engaged in BMW collection and transportation equipped with GPS. Summary (April —August, 2021) of tracker app used to manage the vehicles movement is annexed as annexure VIII.*
7. ***The waste collected from different HCFs was not appropriately segregated as per the category of waste which indicates the poor coordination between the collector and generator of the BMW.***
8. ***No record could be produced by the CBWTF for prophylactic immunization to the staff against the Hepatitis B and Tetnus.***
9. ***The CBWTF has not provided record for providing training to all of his worker involved in handling of BMW. at the time of inspection.***
10. ***The worker engaged in the handling of BMW not fully equipped with occupational safety gears as well as adequate personal protective equipment.***
11. ***The fire extinguisher installed in the Facility was found in order.***
12. ***The website of the CBWTF is not fully develop as per the BMWM, Rule 2016.***
13. ***The Facility has incinerators capacity of 150 Kg/hr and autoclave capacity of 50 Kg/batch (1 batch = 60-75 minute). Capacity of shredder is 50 kg/ hour. Operating hour for shredder is 1-1.5 hours.***
14. ***The Facility has PLC based operating incineration system, which is equipped with, venturi scrubber, packed bed scrubber, mist eliminator, droplet separator, activated carbon filter and ID fan flue gas cooling system as Air Pollution Control System (APCS) and emission from incinerator is emitted through stack of height approx. 30 m.***
15. ***As per the source emission monitoring report, carried out during inspection, the Particulate Matter (PM) concentration i.e. 48.8 mg/Nm³ which conform to notified standard (Standard of PM is 50 mg/Nm³).***
16. ***The CBWTF has made provision for measurement of pressure in primary chamber in terms of water column pressure (by means of U- tube manometer or digital display provision connected to PLC) to ensure the negative draft of water column to avoid leakage of gaseous emissions and safety as well but it was out of order.***
17. ***The Facility is using diesel as fuel in incineration. Log book for the same was made available.***

18. *During visit it was found that the temperature in the primary and secondary chamber was conforming to notified standards.*
19. *As per the document provided by CBWTF and certificate of M/s S.K. India Therm, Sonapat, Haryana, secondary chambers of incinerator is achieving 2 second residence time. (Annexure IX)*
20. *The incinerator was having the automatic emergency vent.*
21. *The Facility has Effluent Treatment Plant (ETP) for treatment of wastewater generated from Facility. ETP comprises Equalization tank- Dosing tank- Settling tank- Tube Settler-Activate Carbon Filter. During inspection, ETP was operational. As informed, treated effluent is being recycled in the horticulture. As per analysis report of ETP prepared by CPCB all the parameters monitored were found complying with the notified standard.*
22. *Ash from incinerator and sludge from ETP is being sent to TSDF i.e. Mts Bharat Oil & Waste Management Ltd, Kanpur Dehat site for which log book was found in order.*
23. *The Facility has 01 no DG set with capacity 62.5 KVA. DG set attached with appropriate height of stack and is equipped with acoustic enclosure*
24. *The CBWTF has 02 no of bore well and equipped with Electromagnetic flow meter and having valid NOCs from CGWA up to 24.10.2021.*
25. *Team has also visited the 300 bedded Government COVID 19 Hospital operating at Bareilly on Sept 8th, 2021 along with other members. The matter related to the Hon'ble NOT order dated 27.07.2021 in which poor management of Biomedical Waste Management mentioned, has been discussed with the In charge Officer of the Hospital . He appraised the fact in light of said order and facilitated us to visit the hospital and explained the existing infrastructure for management of COVID 19 BMW. The statement given by him is annexed as annexure — X.*
26. *The hospital is well equipped with the desired infrastructure as per the BMWM 2016 Rule. During visit no COVID 19 patient seen in the hospital (Photo 17-19). It was informed by them the entire the BMW received is being regularly managed by the Facility.*
27. *Compliance status of BMWM Rules, 2016 in HCFs under the jurisdiction of Regional Office, SPCB Bareilly is annexed as annexure XI.*
28. *For preparation of revised District Environment Management Plan for District Bareilly, District Magistrate Bareilly issued directions to concerned department for providing necessary information to District Forest Officer, Bareilly vide letter No 440/29-5(District Environment Plan) dated 30.07.2021 is annexed as annexure-XII. Presently all information collected & preparation of revised District Environment Management Plan under progress.*

5.0 Recommendations:

1. ***The Facility requires to ensure periodic monitoring of Dioxin and Furans from approved laboratory to ensure the efficiency of APCD w.r.t to these parameters.***
2. ***Establish Bar coding system for handling of the BMW.***
3. ***The Facility requires to assist the BMW generators in training conducted by them for efficient and proper management of Biomedical Waste.***
4. ***The Facility should maintain medical examination record including immunization of their workers involve in handling of BMW for protection against the disease.***
5. ***The Facility requires to maintain website indicating authorization, treatment and annual repo in public domain.***
6. ***The CBWTF should make proper provision for measurement of pressure in primary chamber in terms of water column pressure (by means of U- tube manometer or digital display provision co***
7. ***nected to PLC) to ensure the negative draft in primary chamber to avoid leakage of gaseous emissions and safety.***
8. ***UPPCB shall issue direction to the member units of the Facility to ensure proper segregation of waste in strict compliance of the BMW Rules, 2016.***
9. ***Facility should develop separate space for incinerator control Panel as well as Online continuous emission monitoring System display.”***

Report of the Monitoring Committee in respect of UP State

7. The Monitoring Committee constituted by this Tribunal has also filed its report on 03.12.2021 after physical inspection of some of the CBWTFs in UP (21 in no.) in different districts. The Committee noticed several violations and has made following recommendations:

“In view of observations made above, we recommend as under:

- 1) ***Health Department and State PCB are the key Departments for ensuring compliance of these Rules by various stakeholders, but they don't seem to have geared up their field units for this. They should be directed to strengthen their monitoring mechanism in coordination with and co-operation from each other to ensure that the field officers enforce the provisions of these Rules effectively in letter and spirit.***
- 2) ***Rules provide for maintenance of Registers/Log-books on the sites of various activities in the campus, either in physical or digital form by the Facility, but quite few of them do not comply with it. ROs, UPPCB should be directed to make frequent random checks of the facilities to ensure that their functioning is as per norms.***

- 3) ***A direction be issued to all the authorities to ensure that guidelines for collection of Biomedical waste within radius of 75 kilometers must be strictly followed in letter and spirit. Any relaxation in this regard can be considered only in cases when there is no facility available within the distance of 75 kilometers and even in that case, the nearest facility should be permitted to collect Biomedical waste. Such relaxation should be only for the period till establishment of a new facility. All efforts should be made by the authorities concerned to take immediate steps to get established a facility where no such facility is available within the radius of 75 kilometers.***
- 4) ***Practice of barcoding was adopted in some of the facilities during the period of Covid-19, but generally it is not being followed by them at present. Medical and Health Department has appointed vendors for this purpose. They should be directed to issue necessary directions to all the field officers to ensure that all the HCFs and operators use only barcoded bags for waste collection.***
- 5) ***Safety of the workers involved in the collection and treatment of Biomedical waste is of great concern, therefore, directions should be issued to all the facilities to ensure sufficient stock of safety gadgets within the premises of the facility and also maintain proper stock and distribution register. Such stock must be sufficient to cater the need for at least 15 days. The Regional Officers, UPPCB should be directed to make frequent random checks of stock and distribution register and to ensure that the same are being used by the workers.***
- 6) ***Medical and Health Department of the State Government should be directed to prescribe objective criteria, in terms of various medical tests, for declaring a worker, working in the CBWTFs, medically fit by any doctor during the initial and annual checkups.***
- 7) ***A direction must be issued to the concerned health authorities of the State of Uttar Pradesh to direct all Health Care Facilities to handover only segregated waste to the Biomedical waste collectors.***
- 8) ***Directions should also be issued to all such facilities to ensure adequate plantation in the facility premises and if it is possible then on the adjacent plots also to minimize the carbon emission.***
- 9) ***A direction should also be issued to all operators of all the facilities to make arrangement of, at least, separate compartments, if not separate rooms, for storage of different colour bags containing BMW.***
- 10) ***Direction needs also to be issued to all the operators for use of prescribed fuel only as provided in Schedule – II of the BMW Rules, 2016***
- 11) ***All the district Magistrates should be directed to take up the issue of collection and treatment of BMW in the monthly meeting regarding environment.***
- 12) ***All the operators should be directed to bring to the notice of RO UPPCB any difficulty, if any, being faced by them regarding proper functioning of the facility as per Rules and guidelines so that the said issue may be raised and***

resolved in the monthly meeting of the District Magistrates.”

CPCB report giving bird’s eye view of compliance status and data Pan India

8. Report dated 08.12.2021 has been filed by the CPCB compiling information about the compliance status in all the States/UTs. The report mentions following Key Performance Indicators:

- “1. Inventory of all Healthcare Facilities and biomedical waste generation.*
- 2. Authorization to all Healthcare Facilities including non-bedded HCFs.*
- 3. Facilitate setting-up adequate number of Common Biomedical Waste Treatment Facilities (CBWTFs) to cover entire State or all HCFs.*
- 4. Constitution of State Advisory Monitoring Committee and District Level Monitoring Committee*
- 5. Implementation status of Barcode system.*
- 6. Monitoring of Healthcare Facilities other than hospitals/clinics such as Veterinary Hospitals, Animal Houses, AYUSH Hospitals etc.*
- 7. Monitoring infrastructure of SPCBs/PCCs.*
- 8. Training and Capacity Building of officials of SPCBs/PCCs and Healthcare Facilities.*
- 9. Installation of OCEMS by CBMWTs as a self-monitoring tool and transmission of data with servers of SPCBs/ CPCB.*
- 10. Preparation of Annual Compliance Status Reports.*
- 11. Compliance by Common Facilities (emission/discharge standards, barcoding, proper operation, etc.).*
- 12. Compliance by Healthcare Facilities (Segregation, pre-treatment, on-site storage, barcoding and other provisions etc.)”*

Gaps noticed

9. The gaps observed have been mentioned as follows:

- “
- *Healthcare Facilities are operational without authorization*

- Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) for all Healthcare Facilities (bedded & non-bedded)
- Adequate no. of CBWTFs
- Deep Burial Pits for disposal of biomedical waste
- Assessment of available treatment capacity (common as well as captive) and additional requirement
- District wise data on biomedical waste management
- Implementation of Barcode System
- OCEMS installation and transmission of data to CPCB by CBWTFs and captive incinerators.
- COVID-19 Biomedical Waste Management.”

Data of waste management scenario in the country

10. Data of waste management scenario in the country is reported to be as follows:

“> No. of HCFs	:3, 51,622
> No. of bedded HCFs	:1,13,186
> No. of non-bedded HCFs	:2,37,938
> No. of beds	:25,44,116
> No. of CBWTFs	:205* +
> No. of HCFs granted authorization	:1,60,736
> No. of HCFs having Captive Treatment Facilities	:17,202
> No. of Captive Incinerators Operated by HCFs	:125
> Quantity of bio-medical waste generated in Tonnes/day	:656
> Quantity of bio-medical waste treated in Tonnes/day	:586
> No. of HCFs violated BMW Rules	:22,261
> No. of Show-cause notices/Directions issued to defaulter HCFs	:13,389.”

11. **State-wise waste generation** is as follows:

S. No.	Name of States/UTs	COVID 19 BMW (Tons)
1	Andaman & Nicobar	2,984
2	Andhra Pradesh	16,92,555
3	Arunachal Pradesh*	79,090
4	Assam	2,72,979
5	Bihar	2,37,853
6	Chandigarh	4,60,358
7	Chhattisgarh	1,10,222

8	DD & DNH	5,840
9	Delhi	29,47,842
10	Goa	49,551
11	Gujarat	35,13,379
12	Haryana	23,36,542
13	Himachal Pradesh	1,95,722
14	Jharkhand	53,967
15	Jammu & Kashmir	3,18,583
16	Karnataka	22,21,956
17	Kerala	40,16,695
18	Ladakh	0
19	Lakshadweep	2,140
20	Madhya Pradesh	17,28,799
21	Maharashtra	63,36,872
22	Manipur	45,092
23	Meghalaya	58,270
24	Mizoram	21,512
25	Nagaland*	24,997
26	Odisha	13,19,125
27	Puducherry	3,00,559
28	Punjab	8,84,647
29	Rajasthan	8,78,627
30	Sikkim	26,423
31	Tamil Nadu	33,63,187
32	Telangana	7,01,384
33	Tripura	3,226
34	Uttarakhand	3,68,175
35	Uttar Pradesh	27,85,683
36	West Bengal	23,30,993

12. **Data of authorizations in different States** is as follows:

S. No.	Name of States/UTs	Total no. Health Care Facilities (HCFs)	Total no. of HCFs applied for authorization	Total no. of HCFs granted authorization	Total no. of HCFs in operation without Authorization
1	Andaman & Nicobar	238	238	106	Nil
2	Andhra Pradesh	10502	4613	4600	428
3	Arunachal Pradesh	235	15	308	Nil
4	Assam	1444	440	271	946
5	Bihar	24996	3001	9969	15027
6	Chandigarh	876	65	65	Nil
7	Chhattisgarh	5764	3331	3075	Nil
8	DD & DNH	171	171	171	Nil
9	Delhi	10423	1247	1179	Nil
10	Goa	779	401	139	419
11	Gujarat	32990	3167	3139	3552
12	Haryana	6320	6320	5703	157
13	Himachal Pradesh	8832	7689	6805	1143
14	Jharkhand	1990	757	235	39
15	Jammu and Kashmir	6904	1091	916	5813
16	Karnataka	41709	18956	18312	6021
17	Kerala	17122	13736	13348	2471
18	Ladakh	INP	2	Nil	333
19	Lakshadweep	48	48	47	Nil

20	Madhya Pradesh	8901	7233	7037	1668
21	Maharashtra	64266	8184	8143	75
22	Manipur	737	737	737	Nil
23	Meghalaya	973	831	831	142
24	Mizoram	144	59	41	18
25	Nagaland	726	480	480	Nil
26	Odisha	3676	493	512	56
27	Puducherry	267	267	247	Nil
28	Punjab	12554	5632	4763	2314
29	Rajasthan	8364	2166	1980	811
30	Sikkim	273	273	273	Nil
31	Tamil Nadu	25026	24508	24364	518
32	Telangana	7273	4717	4594	238
33	Tripura	1890	345	345	Nil
34	Uttarakhand	4442	3921	3438	521
35	Uttar Pradesh	31474	INP	26030	5444
36	West Bengal	8525	8525	8525	Nil

13. Data of gaps in waste generation and treatment is as follows:

S. No.	Name of the State/ UT	Total Quantity of BMW generated (kg/day)	Total Quantity of BMW Treated and Disposed (kg/day)	Gap in treatment of bio-medical waste Kg/day
1	Andaman Nicobar	536.36	465	71.36
2	Andhra Pradesh	25029.3	25029.3	0
3	Arunachal Pradesh	353.63	353.63	0
4	Assam	8235.97	5314.22	2921.75
5	Bihar	27846.15	10201.3	17644.85
6	Chandigarh	5729	5729	0
7	Chhattisgarh	7234.31	7234.31	0
8	Daman & Diu and Dadra	450	450	0
9	Delhi	23200.09	23200.09	0
10	Goa	1272.68	1272.68	0
11	Gujarat	49492	49492	0
12	Haryana	19217	19217	0
13	Himachal Pradesh	3545.78	3545.78	0
14	Jharkhand	8406.7317	8406.7317	0
15	J & K	5941.81	5941.81	0
16	Karnataka	82604	38951	43653
17	Kerala	40408	40207	201
18	Ladakh	43.35	43.35	0
19	Lakshadweep	1137	1137	0
20	Madhya Pradesh	20008.91	19003.55	1005.36
21	Maharashtra	82146.35	82111.82	34.53
22	Manipur	921.9	888.5	33.4
23	Meghalaya	1556.95	1556.95	0
24	Mizoram	863.13	863.13	0
25	Nagaland	891.8	652.5	239.3
26	Odisha	15303.76	11570.56	3733.2
27	Puducherry	4360	4360	0
28	Punjab	16998.16	16998.16	0
29	Rajasthan	18911.56	18911.56	0
30	Sikkim	477.56	477.56	0
31	Tamil Nadu	35269.74	35269.74	0
32	Telangana	23810	23810	0
33	Tripura	3852.58	3852.58	0
34	Uttarakhand	7383.94	7383.94	0

35	Uttar Pradesh	64038	64038	0
36	West Bengal	43513.39	43513.39	0

14. Details of healthcare facilities and captive treatment facilities are as follows:

“State -wise details of number of healthcare facilities is given below:

S. No.	Name of the State/UT and	Total no. of Bedded Health Care Facilities (HCFs)	Total no. of Non-bedded Health Care Facilities (HCFs)	Total no. Health Care Facilities (HCFs)	No. of captive treatment facilities
1	Andaman Nicobar	52	186	238	7
2	Andhra Pradesh	5930	4572	10502	Nil
3	Arunachal Pradesh	136	98	235	308
4	Assam	777	667	1444	422
5	Bihar	4821	20175	24996	3
6	Chandigarh	50	826	876	Nil
7	Chhattisgarh	2529	3235	5764	1483
8	Daman & Diu and Dadra & Nagar Haveli	45	126	171	Nil
9	Delhi	1184	9239	10423	1
10	Goa	148	631	779	165
11	Gujarat	11654	21336	32990	Nil
12	Haryana	3168	3152	6320	Nil
13	Himachal Pradesh	585	8247	8832	5006
14	Jharkhand	1175	815	1990	202
15	J & K	1548	5373	6904	Nil
16	Karnataka	8404	32402	41709	1713
17	Kerala	2027	15095	17122	51
18	Ladakh	333	56		2
19	Lakshadweep	10	38	48	Nil
20	Madhya Pradesh	4064	4837	8901	2
21	Maharashtra	19932	44334	64266	240
22	Manipur	96	641	737	545
23	Meghalaya	182	791	973	81
24	Mizoram	64	77	144	144
25	Nagaland	205	521	726	5
26	Odisha	1445	2232	3676	2884
27	Puducherry	96	171	267	1
28	Punjab	4009	8545	12554	Nil
29	Rajasthan	5703	2661	8364	1219
30	Sikkim	34	241	273	185
31	Tamil Nadu	7300	17726	25026	Nil
32	Telangana	3792	3481	7273	Nil
33	Tripura	137	1753	1890	
34	Uttarakhand	1368	3074	4442	2377
35	Uttar Pradesh	17188	14286	31474	10
36	West Bengal	2769	5756	8525	Nil

37	DGAFMS	226	542	768	146
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15. **Online Continuous Emission Monitoring System (OCEMS) said to be functional in 153 CBWTFs** as follows:

S. No.	Name of the State/UT and	No. of CBWTFs that have installed
1	Andaman Nicobar	Nil
2	Andhra Pradesh	12
3	Arunachal Pradesh	Nil
4	Assam	1
5	Bihar	4
6	Chandigarh	1
7	Chhattisgarh	2
8	Daman &Diu and Dadra & Nagar	INP
9	Delhi	2
10	Goa	0
11	Gujarat	20
12	Haryana	11
13	Himachal Pradesh	2
14	Jharkhand	2
15	J & K	3
16	Karnataka	25
17	Kerala	1
18	Ladakh	Nil
19	Lakshadweep	Nil
20	Madhya Pradesh	13
21	Maharashtra	29
22	Manipur	Nil
23	Meghalaya	0
24	Mizoram	Nil
25	Nagaland	Nil
26	Odisha	1
27	Puducherry	1
28	Punjab	5
29	Rajasthan	8
30	Sikkim	Nil
31	Tamil Nadu	10
32	Telangana	11
33	Tripura	Nil
34	Uttarakhand	2
35	Uttar Pradesh	21
36	West Bengal	6

16. **Suggested Way forward** is as follows:

- “i. SPCBs/PCCs ensure to compile the information at District level as required under prescribed format.*
- ii. SPCBs/PCCs shall coordinate with Urban Local Bodies and Municipalities for management of domestic biomedical waste as per Solid Waste Management Rules, 2016 for further channelization of domestic biomedical waste to Common Biomedical Waste Treatment Facilities.*
- iii. SPCBs/PCCs should assess the adequacy of the deep burial pits used by the healthcare facilities and ensure their restrictions up-to rural or remote areas and their compliance to deep burial standards as prescribed under BMWM Rules, 2016.*
- iv. SPCBs/PCCs should compile the treatment capacity of CBWTFs as well as for captive treatment facilities so that actual capacity available for the Country for treatment of biomedical waste could be assessed.*
- v. SPCBs shall ensure that Recyclable waste collected by CBMWTFs should be treated properly and provided to registered recyclers only in order to conserve the resources.*
- vi. Adequacy of treatment capacity of existing CBWTFs and their compliance status be assessed by the SPCBs/PCCs to review the requirement of additional treatment facility for the State / Union Territory.”*

Our Analysis

17. We have heard learned Counsel for the parties and considered the issue. learned Counsel for the applicant inter-alia submitted that though the report does not give complete picture of violations, even if the report is taken at face value, there are patent and serious violations for which the statutory regulators do not appear to be taking any remedial action to the serious detriment of public health and environment. Though this Tribunal has directed monitoring at the level of the Chief Secretaries in the States in coordination with Health and Irrigation and Public Health and Environment Departments at State level and at National level by the MoEF&CC in coordination with , Health, UD, Jal Shakti, CPCB, there is nothing to show such monitoring as rampant and serious violations are

continuing as found in reports of the joint Committee, Monitoring Committee for UP and pan India status shown by the CPCB report.

18. As per report of the joint Committee **there is only one vehicle for Covid-19 waste collection from 876 HCFs mentioned in the report in five Districts**, catered to by the CBWTF in question. It is impossible for one vehicle to collect waste from Covid-19 from all the said Facilities spread over in five districts. **Even for other medical waste, there are only 10 vehicles**. Thus, it is impossible for the number of vehicles engaged to collect waste from five districts and treated on the same day. He has thus submitted that the media reports on burning of such waste in open or throwing of such waste in open and unscientific handling of waste is creating hazard to the public health stand established for which remedial action is required.

19. We find substance in the submission. Apart from the said submissions on behalf of the applicant, **the joint Committee itself has found inadequacy of the Facility to handle the job expected from it. There is thus patent violation of environmental norms and failure of the statutory regulators to remedy the situation**. Similarly, **the report of the Oversight Committee has found the State PCB as well as Health Department are not properly geared up on the subject. Their monitoring mechanism is inadequate. The maintenance of record is not as per norms. The collection and treatment of Bio-medical waste is deficient. There are no adequate safeguards for the workers involved in collection and treatment of the waste**

20. **The report of the CPCB shows that though complete information is not compiled, there is need for improvement of coordination processes of the State PCBs/PCCs with Urban Local**

Bodies/Municipalities and generators of bio-medical waste. The deep burial pits used by the Facilities are also not adequate. Segregation of bio-medical waste from general waste and scientific treatment thereof needs to be improved.

Rereferring to the number of Districts provided in order dated 05.07.2021 in OA No. 360/2018, *Shree Nath Sharma vs. Union of India & Ors.*, and statistics provided on Bio-medical waste management in order dated 18.01.2021 in OA No. 710/2017, *Shailesh Singh vs. Sheela Hospital & Trauma Centre, Shahjahanpur & Ors.*, it is observed that no. of captive and common biomedical waste facilities when compared to no. of healthcare facilities, the resultant gap shows need for careful review at the level of CPCB and MoEF&CC and issue necessary directions for rectifying the situation. Table indicating the statistics is given below:

S. No	Name of State	No. of District	Total No. of HCFs	No. of HCFs having Captive Treatment Facilities	Total no. of CBWTFs (As per AR 2019)	Gap in treatment of bio-medical Waste (Kg/day)
1.	Andaman & Nicobar	3	183	7	0	71.36
2.	Assam	34	1043	422	1	2921.75
3.	Andhra Pradesh	13	10225	0	12	0
4.	Arunachal Pradesh	25	-	308	0	0
5.	Bihar	38	24996	3	4	17644.85
6.	Chandigarh	1	890	0	1	0
7.	Chhattisgarh	28	5374	1483	4	0
8.	DD & DNH	3	-	0	Waste handover to Gujarat Facility	0
9.	Delhi	11	10277	1	2	0
10.	Goa	2	-	165	0	0

11.	<i>Gujarat</i>	33	31360	0	20	0
12.	<i>Haryana</i>	22	6193	0	11	0
13.	<i>Himachal Pradesh</i>	12	8800	5006	2	0
14.	<i>Jammu & Kashmir</i>	20	6606	0	3	0
15.	<i>Jharkhand</i>	24	-	202	4	0
16.	<i>Karnataka</i>	31	-	1713	27	43653
17.	<i>Kerala</i>	14	13869	51	1	201
18.	<i>Ladakh</i>	2	-	2	-	0
19.	<i>Lakshadweep</i>	1	46	0	0	0
20.	<i>Madhya Pradesh</i>	52	8527	2	14	1005.36
21.	<i>Maharashtra</i>	36	63642	240	31	34.53
22.	<i>Manipur</i>	16	712	545	1	33.4
23.	<i>Meghalaya</i>	11	903	81	0	0
24.	<i>Mizoram</i>	11	654	144	0	0
25.	<i>Nagaland</i>	12	-	5	Nil	239.3
26.	<i>Odisha</i>	30	3624	2885	5	3733.2
27.	<i>Puducherry</i>	4	387	1	1	0
28.	<i>Punjab</i>	22	9871	0	5	0
29.	<i>Rajasthan</i>	33	8583	1219	8	0
30.	<i>Sikkim</i>	1	287	185	0	0
31.	<i>Tamil Nadu</i>	38	23935	0	8	0
32.	<i>Telangana</i>	33	6542	0	11	0
33.	<i>Tripura</i>	8	1743	-	0	0
34.	<i>Uttarakhand</i>	13	3582	2377	2	0
35.	<i>Uttar Pradesh</i>	75	25411	10	18	0
36.	<i>West Bengal</i>	23	8509	0	6	0
37.	<i>DGAFMS</i>	-	-	146	-	-
	Total	738	286774	17203	202	69537.75

”

Need for Emergent Remedial Action

21. Since there are huge gaps in compliance of environmental norms in handling and disposal of bio-medical waste, including Covid-19 waste, causing health hazard to the citizens, emergent and effective measures are inevitable to remedy the situation. While broad gaps have already been indicated in collection, handling, transportation, and remediation, micro management is a matter of continuous monitoring at several levels in the Government. In the light of data now furnished and continuing gaps, it will be appropriate to direct rigorous monitoring at District, State and National levels by joint Committee representing the concerned authorities in coordination with all stake holders.

22. We find that the MoEF&CC has constituted Central Monitoring Committee (CMC) to review the implementation of the BMW Rules vide order dated 22.11.2021, headed by Joint Secretary, Ministry of Health and Family Welfare with representatives of other Departments, States and other experts. The Committee meets only once in a year. Unsatisfactory state of affairs on the subject of implementation noticed above calls for more frequent meetings atleast for some time till the situation improves. Adequacy of Facilities, working of Committees, their infrastructure are issues to be closely monitored not only at National level but also at State and District level.

Directions

23. Accordingly, we direct the above CMC to meet urgently within two weeks to consider the above state of affairs and prepare an effective monitoring strategy to ensure that there are adequate number of Facilities,

with appropriate infrastructure and their functioning is reviewed on regular basis at District and State level. If any Committee is functioning at State/District level, they may also monitor compliance. For proper monitoring we constitute following Committees at State and District levels who may work in tandem with Committee already constituted, if any:

State Level:

1. Secretary, Health – Chairman
2. Nominee of Secretary Urban Development/Local Bodies – Member
3. Nominee of State Disaster Management Authority – Member
4. Member Secretary, State PCB – Member
5. Director, Environment – Member

The Member Secretary, State PCB will act as nodal agency for coordination and compliance.

A. District Level:

1. District Magistrate – Chairman
2. CMO – Member
3. Regional Officer, State PCB – Member
4. Nominee of SSP/DCP – Member
5. Principal, Government Medical College or other reputed Medical College in the area

The Regional Officer, State PCB will act as nodal agency for coordination and compliance.

24. The State and District Level Monitoring Committees will be free to co-opt any other experts/agency for its assistance. The said Committees

may also meet within two weeks in the first instance and thereafter the State Committee may once in a month and the District Committee once in a fortnight initially till the situation improves and at longer interval thereafter as may be found necessary. The CMC may hold a meeting through video conferencing with the State level Monitoring Committees within one month to consider the action plans to bridge the gaps in monitoring and compliance. For effective monitoring, the Committees may consider availing services of retired Principals/Heads of the Departments/other experts from Government Medical Colleges or other institutions so as to ensure that a panel is available to assist in effective monitoring including undertaking periodical visit to the CBWTFs, coordinating awareness/training programmes and holding joint meetings at State/District Levels to review the compliance status. The Committees may ensure remedial and coercive measures if there are violations such as number of vehicles employed being inadequate or waste found scattered or thrown in open or deficiencies in collection, transportation, handling and disposal. The Committee may place their respective proceedings on their respective websites.

25. The CMC may compile a national report as on 30.04.2022, based on reports received from the State Level Committees who may give their reports after compiling reports from the Districts which may be uploaded on its website.

The application is disposed of but if any grievance survives, the aggrieved party will be free to take remedies in accordance with law.

A copy of this order be forwarded to Secretaries, Health, MoEF&CC, GoI, CPCB, Chief Secretaries of all the States/UTs, State PCBs/PCCs and District Magistrates by e-mail for compliance. The Authorities to whom

copy of this order is being forwarded may circulate a copy of this order to all other concerned authorities for proper coordination/compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Brijesh Sethi, JM

Dr. Nagin Nanda, EM

January 07, 2022
Original Application No. 180/2021
DV