

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

O.A. No. 180 of 2021

IN THE MATTER OF:

MUKUL KUMAR

...APPELLANT(S)

VERSUS

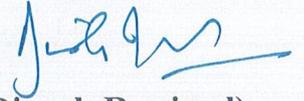
STATE OF UTTAR PRADESH & ORS

....RESPONDENT(S)

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(Dinesh Runiwal)

Scientist 'E'

MoEF&CC

Dated: 13.09.2022

Place- New Delhi

Status Report in the matter of O.A. no. 180 of 2021 titled as Mukul Kumar Vs State of Uttar Pradesh & Ors, before the Hon'ble National Green Tribunal, (PB) New Delhi.

1.0 Background-

In the matter of Original Application No. 180 of 2021 that relates to violation of BMW Rules, 2016 & CPCB guidelines by Respondent No. 7 i.e., SP Green Light Environment Waste Management LLP (SPGLEWML) Bareilly, U.P. in operating a CBWTF facility situated at Shahjahanpur, U.P., The Hon'ble NGT vide order dated 07.01.2022 passed relevant directions, which are reproduced as below;

The Hon'ble Tribunal while disposing of the matter issued the following directions for CMC, at Para 23 of the order;

“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.”

“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 copy of aforesaid NGT order dated 07.01.2022 is annexed as **Annexure-1**.

2.0 Convening CMC meeting-

- In compliance to Hon'ble NGT order dated 07.01.2022, the first meeting of re-constituted Central Monitoring Committee (CMC) to review the implementation of Bio Medical Waste Management Rules, 2016 (BMWM Rules, 2016) was conducted on 02.02.2022 under the Chairmanship of the Shri Naresh Pal Gangwar, Additional secretary, MoEF&CC. A copy of minutes of meeting of is marked and annexed as **Annexure-2**.

- The summary of the actions identified by the CMC for proper BMW management are as below:
 - *CPCB shall coordinate with CBWTF Association and ensure installation of OECMs and its linkage with CPCB/ SPCB/ PCC server, at all CBWTFs in a targeted manner, which would be physically verified through field inspections.*
 - *SPCBs shall periodically monitor the BMW management system established in HCFs and CBWTFs and impose environmental compensation on defaulters.*
 - *CPCB may arrange a stakeholder consultation to address common issues arising in BMW management and prepare a guidance framework on fee structure of CBWTFs to support stakeholders.*
 - *To address the ambiguities arising among HCFs/ CBWTFs on liquid effluent management, CPCB may like to issue fresh consolidated instructions clearly mentioning the mandated/ prescribed standards for each category of HCF/ CBWTFs.*

- *CPCB may expedite the formal rollout of a web-portal for bar-coding of waste for tracking purpose as well as annual reporting purpose, in line with the EoDB initiative*
- *The state Governments, CBCB/SPCBS and State Advisory Committees must ensure that BMWM Rules, 2016 and CPCB guidelines are strictly followed in letter and spirit and seek clarification on issues of conflict, if any, from CPCB and MoEFCC. The rules also need to be followed while giving clearance/permission to new facilities.*
- *The State Environment Impact Assessment Authorities should also ensure that BMW rules are complied with while giving clearance to new facilities.*
- *The State Health Deptts. and SPCB/ PCC may ensure training of staff and workers BMW management at all levels.*
- The copy of minutes of meeting of Central Monitoring Committee (CMC) was already shared with the stakeholders through mail dated 21.02.2022. A copy of mail is marked and annexed as **Annexure-3**.

3.0 Communication to States/ UTs for submission of information -

- Thereafter, a DO letter dated 03.02.2022 has been sent to CPCB requesting therein to initiate action on issues identified during CMC meeting held on 02.02.2022 as well as submit information as requested. A copy of D.O letter is marked and annexed as **Annexure-4**.
- Ministry vide DO letter dated 03.02.2022 has also sought information (constitution state/district level committees under BMW rules, 2016, details of meeting convened, BMW generation, gap analysis etc.) from Principal Secretaries of Health of all States/ UTs & Chairman,

SPCBs/ PCCs. A copy of Ministry's letter is marked and annexed as **Annexure-5**.

- In response of Ministry's DO letter dated 03.02.2022, a CPCB submitted an interim reply vide letter dated 14.03.2022 regarding the issue of BMW waste. CPCB in its communication submitted the following:
 - *Gap analysis and compliance monitoring of Health Care Facilities (HCFs)/Common biomedical Waste Treatment Facilities (CBWTFs) are already covered under BMW Rules, 2016 and CPCB has also issued guidelines which is being followed by SPCBs/PCCs.*
 - *CPCB has conducted random inspections of 21 HCFs, 48 CBWTFs, 15 Armed Force Health Care Establishment (AFHCEs) and 92 Veterinary Hospitals and accordingly, directions under section 5 of Environment Act, 1986 have been issued and environment compensation levied against grossly violating facilities.*
 - *CPCB has finalized the request got Proposal(RFP) document for floating tender for development of Centralized Barcode System for tracking of biomedical waste.*
 - *Further, CPCB is in process of developing Standard Monitoring Framework for HCFs and CBWTFs for which relevant information is being collected from SPCBs and other stakeholders.*
- The CPCB submitted the Standard Monitoring framework vide its reply dated 18.08.2022, which is dealt separately in ensuing sections.

The copy of CPCBs letter dated 14.03.2022 is marked and annexed as **Annexure-6**.

4.0 CMC Meeting with State Level Monitoring Committee-

- The Second meeting of Central Monitoring Committee (CMC) with the State authorities and stakeholders was conducted on 09.05.2022 under the chairmanship of Shri Naresh Pal Gangwar, Additional Secretary. The minutes of meeting is marked and annexed as **Annexure- 7**.
- The summary of the actions identified by the CMC for proper BMW management are as below:
 - *CPCB shall submit Standard Monitoring Framework and updated State-level information considering that a National Level Report was filed by it in same matter.*
 - *CPCB shall develop standard guidelines for Gap Analysis for all states.*
 - *State Health Departments/ State Pollution Control Boards/ UT Pollution Control Committees that have not submitted information so far, may do so on PRIORITY*
 - *CPCB may also coordinate with State Pollution Control Boards/ Pollution control Committees, CBWTFs Association of India, if needed, for fine tuning the standard monitoring framework.*
 - *CPCB requested all States to submit copy of the minutes of the meetings of the State and District Level Monitoring Committees for further examination, referring ideas and adherence to the timelines fixed for improving BMW management.*
 - *All stakeholders were requested to submit suggestions for updating CPCB guidelines on biomedical waste management.*

5.0 Compilation of State-level information –

In response of Ministry's DO letter dated 03.02.2022, 23 States/ UTs have submitted available information, which is not uniform. However, the Ministry attempted to compile it in the form of a table and the same is annexed as **Annexure-8**.

6.0 Preparation of Monitoring Strategy-

CPCB was requested to prepare a 'Standard Monitoring Framework'. The framework shall address issues related to BMW generation and treatment gap-analysis at State level and its third-party audit, compliance of existing CBWTFs through SPCBs/ CPCB Regional Offices, Frequency of Monitoring of HCFs and CBWTFs, Development of a web-portal to for BMW tracking and integration of online monitoring of waste collection and its receipt at various levels. The Standard Monitoring Framework for Implementation of Biomedical Waste Management Rules, 2016, has been received from CPCB on 18.08.2022 and same is annexed as **Annexure-9**.

7.0 Submission on follow-up action

It is respectfully submitted that this Hon'ble Tribunal may be pleased to accept this Status Report and pass such further and other order as this Hon'ble Tribunal may deems fit and proper and thus render Justice. The Ministry shall further coordinate with remaining States and CPCB and file additional information made available to it. The information shall be updated and uploaded on the website of MoEFCC also.

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 CBWTF 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.”

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

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, atleast 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 atleast 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 BMW, 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. ***nnected 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	58,277
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	185	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	531	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 CBWTFs 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.	Gujarat	33	31360	0	20	0
12.	Haryana	22	6193	0	11	0
13.	Himachal Pradesh	12	8800	5006	2	0
14.	Jammu & Kashmir	20	6606	0	3	0
15.	Jharkhand	24	-	202	4	0
16.	Karnataka	31	-	1713	27	43653
17.	Kerala	14	13869	51	1	201
18.	Ladakh	2	-	2	-	0
19.	Lakshadweep	1	46	0	0	0
20.	Madhya Pradesh	52	8527	2	14	1005.36
21.	Maharashtra	36	63642	240	31	34.53
22.	Manipur	16	712	545	1	33.4
23.	Meghalaya	11	903	81	0	0
24.	Mizoram	11	654	144	0	0
25.	Nagaland	12	-	5	Nil	239.3
26.	Odisha	30	3624	2885	5	3733.2
27.	Puducherry	4	387	1	1	0
28.	Punjab	22	9871	0	5	0
29.	Rajasthan	33	8583	1219	8	0
30.	Sikkim	1	287	185	0	0
31.	Tamil Nadu	38	23935	0	8	0
32.	Telangana	33	6542	0	11	0
33.	Tripura	8	1743	-	0	0
34.	Uttarakhand	13	3582	2377	2	0
35.	Uttar Pradesh	75	25411	10	18	0
36.	West Bengal	23	8509	0	6	0
37.	DGAFMS	-	-	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

'Records of Discussion' of the meeting of the Central Monitoring Committee re-constituted to review the implementation of the Biomedical Waste Management Rules, 2016 on 02.02.2022 at 11:00 am.

A meeting of the re-constituted Central Monitoring Committee (CMC) to review the implementation of Bio Medical Waste Management Rules, 2016 (BMWM Rules, 2016) was held on 02.02.2022 at 11AM through video-conferencing. The meeting was chaired by Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC. The meeting was attended by officials of Central Ministries (M/o HFW and M/o AYUSH), Regulatory Agencies (CPCB and SPCBs), State Health Depts, Local Authorities, Subject experts, Stakeholders like IMA, ICMR, CBWTF Association, invited members and officials of HSM Division, MoEFCC. The list of participants is annexed.

2. At the outset, the Director(HSMD) made introductory remarks and welcomed the Chair & all participants. The participants were apprised that the CMC meets annually and was due to meet this year, however, convening of this meeting is also in compliance with the order of Hon'ble NGT in the matter of Original Application No. 180/2021 (Mukul Kumar Versus State of Uttar Pradesh & Ors.). The Hon'ble tribunal has asked the CMC to review the implementation of BMWM Rules, 2016 in the country and convene a meeting with all State Advisory Bodies also. Thereafter, CPCB was requested to make a presentation on the status of biomedical waste management in the country.

3. The CPCB representative presented the brief background of the Rules and mechanism of implementation along with the roles and responsibilities of relevant stakeholders in biomedical waste management framework. It was apprised that CPCB regularly coordinates with SPCBs/ PCCs in resolution of issues related to BMW management and gathering annual information. However, several states, despite regular communication, do not submit their report in time. As per the information submitted by SPCBs/ PCCs, it was observed that total 656 tonnes/day of biomedical waste was generated in the country, out of which 590 tonnes/day was treated. The CPCB also presented information on bedded and non-bedded health care facilities (HCFs), CBWTF operators (operational as well as under installation), non-compliance/ violations observed during inspections, show cause notices issued, environmental compensation levied on operators and HCFs etc.

026195/2027/15.?

3a. CPCB also highlighted gaps in implementation of BMWM Rules, 2016 viz. operation of unauthorized HCFs in the country, non-implementation of Bar code system by States, non-installation of OCEMS and absence of data sharing by CBWTFs and captive incinerators, compliance of environmental standards by HCFs and waste incinerators, non-compliance of CPCB guidelines etc. The CMC was apprised that CPCB has issued guidelines for implementation of BMWM Rules, 2016, including addressing the BMW generated during COVID-19 pandemic. The following actions have also been taken for management of BMW:

- Development of a mobile application - COVID19BMW, to capture the data of related to COVID-19 BMW generation and its treatment by CBWTFs
- Hosting COVID-19 waste management related awareness material on its website including posters, do's & don't s, video clippings, guidelines, data on waste management etc.
- Interaction with stakeholders for implementing centralized barcode system for reporting and tracking of BMW as per the orders from Hon'ble Supreme Court and preparation of RFP document
- Examination of new technology for BMW management based on non-burn approach and allowing one pilot installation for trail run and assessing technical adequacy
- Imposing Environmental Compensation Charges against defaulting facilities for violations observed during random compliance verification.

4. The CPCB representative submitted that State Authorities, including SPCBs/ PCCs, may undertake the following towards improving the implementation of BMWM Rules, 2016:

- Preparation of State inventory of HCFs in targeted manner and according them authorization, with a view to bring them under the ambit of Rules and regulate.
- Regular collection of domestic hazardous waste, including identified domestic BMW, by ULBs and Municipalities as per Solid Waste Management Rules, 2016 and its channelization to CBWTFs.
- Assessment of the adequacy of deep burial pits (*used by the HCFs*) by concerned SPCB/ PCC, restrict them in rural or remote areas and verifying their compliance to standards prescribed under BMWM Rules, 2016.
- Adequacy assessment of CBWTFs treatment capacities vis-a-vis BMW

generation through gap-analysis studies and regulate utilization of captive treatment facilities in HCFs.

- Proper treatment of recyclable waste (*collected by CBWTFs*) and its handover to registered recyclers.
- Regular inspection of CBWTFs and HCFs to ensure compliance to prescribed standards.
- Analyze OCEMS data for self-regulation and policy making

5. The Chair sought data on installation of OCEMS in CBWTFs and inquired whether any action has been taken against non-compliant units. The CPCB informed that there were 208 operational CBWTFs in the country, out of which 196 have installed OCEMS in their facility. The remaining units have been issued notices by CPCB. The Chair further inquired about the status of compliance of captive facilities and also whether all HCFs are mapped to CBWTFs. The CPCB informed that all HCFs are required to be connected to CBWTFs, if operational in 75kms. However, due to lack of an inventory, the States Authorities do not provide. It was also highlighted that even after installation of OCEMS, CBWTFs face technical issues in high-end transmission of data to CPCB and SPCB portals. **The Chair noted that CBWTFs are key stakeholders and can play a role in not only sensitization of OCEMS non-compliant CBWTFs but they can also support SPCBs/ State Health authorities in mapping HCFs to CBWTFs, as serves their business interest.**

6. Thereafter, States were invited to presented their status and highlight issues. The representative of Haryana State Pollution Control Board (HSPCB) informed there are total 6320 HCFs in the State, out of which 6163 are authorized and 157 are unauthorized. The BMW generation in the states is 19.2TPD (approx.), which is disposed through 11 CBWTFs. The CBWTFs are monitored and inspected on quarterly basis. HSPCB representative further informed that in compliance to the Rule 11 of BMW Rules, 2016, State Advisory Monitoring Committee (SAMC) and District Level Monitoring Committee (DLMC) were constituted in 2018 and so far, 6 meetings of SAMC have been convened. It was informed that PGIMER, Chandigarh has been engaged to conduct study on gap analysis of existing CBWTFs in Haryana. The HSPCB representative further informed that several steps have been taken to manage BMW such as use of CPCB app, circulation of awareness materials, conducting training programme etc.

7. The MS, HSPCB mentioned that there are certain issues that need to be addressed like setting-up of new CBWTFs, fees charged by CBWTFs & its differential structure, grant of consent/ authorization to HCFs operating in non-confirming areas and implementation of BMW bar-coding tracking & reporting of waste. It was mentioned that Haryana has banned issuing licenses for CBWTFs since 2017. It was emphasized that differential fee structure be introduced keeping in mind the fact that the purpose of Govt. Dispensaries *vis-a-vis* private clinics is different. The Govt. Dispensaries/ Institutes/ Animal Husbandry centers are not profit-oriented; however, their purpose is to impart healthcare services to the masses, remote places, rural areas etc. Hence, they bear additional costs of BMW authorization and payment of fee to CBWTF operators, which act as a deterrent for citizen-centric services. To resolve these issues, it was suggested that a set of guidelines or framework be prepared on 'Fee structure' and circulated to all stakeholders wherein apart from size of facility, no. of beds etc. enough emphasis be given to purpose of establishment and viability of non-profit oriented entities. It was also suggested that a National level and uniform system of barcoding be framed and adopted.

8. Thereafter, the representative of Karnataka Pollution Control Board (KPCB) presented the status of biomedical waste management. It was informed that there are 41,709 HCFs (bedded and non-bedded) in the State from which a total of 82,604 kg/d of BMW is generated. It was informed that a total of 18,956 HCFs had applied for authorization, of which 18302 were granted authorization while 81 were rejected. The remaining 287 applications are still under consideration for a decision. There are 25 CBWTFs operational in the state. The COVID-19 waste treated and disposed of in the state was 37805 kg/d. A total of 26 Show Cause Notices were issued to CBWTFs on violations of BMW Rules, 2016. About 198 workshops/ training programs were in one year. The KPCB representative also sought clarification on procedure to conduct gap-analysis and requested that a guidelines or SOP for the same would be handy for all SPCBs/ PCCs.

9. Thereafter, representative of UPPCB presented the status of BMW management in the state and informed that there are 31474 HCFs functional in the state, which generate 64,038kg/day of BMW. A total of 22 CBWTFs with cumulative incinerable capacity of 94.4MT/day is operational in the state that

were engaged in the treatment COVID-19 BMW also. In compliance of Rule 11 of BMW rules, five meetings of SAMC have been convened since 2019. The implementation of barcode and GPS system in CBWTFs was also mentioned. It was also mentioned that UPPCB imposed Environmental compensation and issued notices to unauthorized and non-compliant CBWTFs as well as HCFs. UPPCB made following suggestions:

- Criteria of 75 km radius requires review as it hampers commercial interest of the CBWTFs and lead to litigation's
- Deep Burial for disposal of waste should be allowed for places where very less waste is generated like Ayush and Veterinary centers
- The need of CBWTF agreement from Medical Consultants/ Physicians need to be reviewed

10. The Gujarat PCB representative apprised the CMC that are 32990 HCFs operational in the State. It was informed that 20 CBWTFs are operational with total incineration and autoclave capacity are 87,600Kg/Day and 37,800 Kg/day respectively. It was informed that GPCB coordinates with CBWTFs and ULBs for compliance of CPCB Guidelines and undertakes inspection for safe, effective management, treatment, and disposal of COVID 19 waste. It was further mentioned that there about 248 transportation vehicles used for collection of BMW, which are owned by CBWTFs operators and equipped with GPS. The GPCB is reportedly undertaking awareness and training programmes on BMW management for HCFs and CBWTF operators.

11. The ICMR representative supported the initiatives of GPCB and mentioned that awareness creation and training programmes are key to BMW management at all levels. It was also mentioned that systematic training should be provided at all levels i.e. from the BMW generation source to waste handlers, transporters and point of end disposal.

12. The nominated subject expert representing IMA, Prof. JA Jayalal emphasized on adoption of bar-coding of BMW as an enabling activity towards achieving digital health mission. It was requested that MoEFCC or MoHFW in coordination CPCB, may like to develop a National portal for uniform implementation of waste tracking that can also serve the purpose of reporting. It was also suggested that rather than HCFs reporting data on portal, the SPCBs be entrusted the task. The Dir(HSMD), however, highlighted that being the point of primary data generation, the HCFs are crucial for data gathering

and reporting. Further, to ease the reporting process, CPCB is in the process of developing a portal for waste tracking and reporting. The IMA representative also highlighted the aspect of liquid effluent criteria in respect of small HCFs and clinics.

13. Another Expert member, Dr. Ritu Gupta, AIIMS mentioned that waste generation in hospital laboratories generally remains low; however, they are required to tie-up and handover the waste to CBWTFs for remaining operationally compliant. It was mentioned that the fee charged by the CBWTFs appears to be on higher side as compared to the waste treated. Hence, there is a need to prepare Guidelines to regulate the issue. It was also suggested that every SPCB/ PCC should organize a training programme for healthcare workers and nursing staff. Further, BMW may be introduced as a part of academics specifically for health workers and nursing staff.

14. The representative of CBWTF Association of India added that member CBWTFs have started self-monitoring and data sharing with CPCB and SPCBs on regular basis. Further, in case of non-compliant CBWTFs, the work is already going on to install OCEMs along with putting in place a system for transmission of data. The representative submitted that, if considered appropriate, CPCB may form a technical committee to review the OCEMS implementation every three months.

15. After detailed deliberations, the Chair, in consultation with CMC members identified the following issues for proper BMW management:

- CPCB shall coordinate with CBWTF Association and ensure installation of OCEMs and its linkage with CPCB/ SPCB/ PCC server, at all CBWTFs in a targeted manner, which would be physically verified through field inspections.
- SPCBs shall periodically monitor the BMW management system established in HCFs and CBWTFs and impose environmental compensation on defaulters.
- CPCB may arrange a stakeholder consultation to address common issues arising in BMW management and prepare a guidance framework on fee structure of CBWTFs to support stakeholders.
- To address the ambiguities arising among HCFs/ CBWTFs on liquid effluent management, CPCB may like to issue fresh consolidated instructions clearly mentioning the mandated/ prescribed standards for

each category of HCF/ CBWTFs.

- CPCB may expedite the formal rollout of a web-portal for bar-coding of waste for tracking purpose as well as annual reporting purpose, in line with the EoDB initiative
- The state Governments, CBCB/SPCBS and State Advisory Committees must ensure that BMWM Rules, 2016 and CPCB guidelines are strictly followed in letter and spirit and seek clarification on issues of conflict, if any, from CPCB and MoEFCC. The rules also need to be followed while giving clearance/permission to new facilities.
- The State Environment Impact Assessment Authorities should also ensure that BMW rules are complied with while giving clearance to new facilities.
- The State Health Deptts. and SPCB/ PCC may ensure training of staff and workers BMW management at all levels.

Annexure I**List of Participants****MoEF&CC**

1. Shri Naresh Pal Gangwar, Additional Secretary
2. Shri Ved Prakash Mishra, Director
3. Shri Dinesh Runiwal, Scientist E
4. Ms. Shivani Mudgal, Consultant
5. Ms. Apoorva Guar, Consultant
6. Ms. Aiyshwarya Laxmi, Intern

CPCB

7. Dr. Prashant Gargava, Member Secretary
8. Shri V P Yadav, Additional Director
9. Ms. Youthika Puri

Representative of Ministries/Departments

10. Dr Bhima Devi, Ministry of Ayush
11. Dr Nabendu Chatterjee, ICMR

Representative of State Pollution Control Boards

12. Shri V D Radhakolia, GPCB
13. Shri Satinder Pal, SEE, HSPCB
14. Member Secretary, UPPCB
15. Representative of KPCB

Expert members

16. Shri Sujeet Kumar Singh, Director, NCDC
17. Dr J.A. Jayalal, IMA

18. Dr. Ritu Gupta, Head, Laboratory, DR BRAIRCH, AIIMS, New Delhi
19. Dr R. K. Srivastava, Additional Medical Superintendent, Safdarjung Hospital, New Delhi
20. Dr Kishore Malviya, CII
21. Shri Santosh Yadav, CII
22. Shri Asad Warsi, CBWTF Association of India

Others

23. Prof. Anup Thakar
24. Dr. Birender Singh, Gujarat
25. Dr. Nishant R T
26. Dr. Shipra Pandey
27. Shri Rajkumar
28. Shri Ramesh C
29. Shri Tika Ram

626361/2022/MSM



shivani mudgal <shivanimoefcc@gmail.com>

Fwd: MoM of the meeting of the Reconstituted Central Monitoring Committee under the Biomedical Waste Management Rules, 2016 held on 02-Feb-2022 - reg.

Dinesh Runiwal <d.runiwal@gov.in>

21 February 2022 at 16:18

To: SHANTANU SWAROOP <shantanu.swaroop@gov.in>, shivani mudgal <shivanimoefcc@gmail.com>

with regards,

Dinesh Runiwal
Scientist-E/ Addl. Director
Hazardous Substances Management Division
Ministry of Environment, Forest and Climate Change

From: "Dinesh Runiwal" <d.runiwal@gov.in>
To: acshealth2019@gmail.com, sechfwd@gujarat.gov.in, "Member Secretary CPCB" <mccb.cpcb@nic.in>, "DGHS Haryana" <dhs.dghs@hry.nic.in>, membersecretarygpcb@gmail.com, prs-hfw@karnataka.gov.in, ms-gpcb@gujarat.gov.in, cohealth@gujarat.gov.in, "psecup health" <psecup.health@gmail.com>, dgmhtraining@gmail.com, "hspcbms" <hspcbms@gmail.com>, lapsurgeon2001@yahoo.co.in, mcpanchkula@gmail.com, "comm mcc" <comm_mcc@yahoo.co.in>, drritugupta@gmail.com, "NPO IDSP" <idsp-npo@nic.in>, dmercetll@gmail.com, "marut sengupta" <marut.sengupta@cil.in>, jdmedicaldmer@gmail.com, "chairman" <chairman@uppcb.com>, "Mr Rajesh Bhushan" <secyhfw@nic.in>, "Secretary DHR" <secy-dg@icmr.gov.in>, "RAJESH KOTTECHA" <secy-ayush@nic.in>, "DGRHS RailwayBoard" <dgrhs@rb.railnet.gov.in>, "U S Latwal" <dirafmsp-mod@nic.in>, com-hfws@karnataka.gov.in, comhfw@gmail.com, "monitoringcell dgmh" <monitoringcell.dgmh@gmail.com>, rksrivastava03@gmail.com, "drritu laboncology" <drritu.laboncology@aiims.edu>, "Srinivas ulu" <ms@kspcb.gov.in>, "ms" <ms@uppcb.com>, dmc@suratmunicipal.gov.in, cbwtfasso2004@ymail.com, jddmermedical@gmail.com, mccrevenuehelpdesk@gmail.com
Cc: "Ved Prakash Mishra" <mishra.vp@gov.in>, "Naresh Pal Gangwar" <jsnpg.mefcc@gov.in>
Sent: Monday, February 21, 2022 4:14:49 PM
Subject: MoM of the meeting of the Reconstituted Central Monitoring Committee under the Biomedical Waste Management Rules, 2016 held on 02-Feb-2022 - reg.

Madam/ Sir,

Please find attached the approved 'Records of Discussion' of the meeting of the Reconstituted Central Monitoring Committee under BMW Management Rules, 2016. The meeting was held on 02-Feb-2022 and chaired by Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC. It is requested that follow-up action may be initiated by concerned stakeholders on the actionable points identified during the meeting.

with regards,

Dinesh Runiwal
Scientist-E
Hazardous Substances Management Division
Ministry of Environment, Forest and Climate Change

From: "Dinesh Runiwal" <d.runiwal@gov.in>
To: acshealth2019@gmail.com, sechfwd@gujarat.gov.in, "Member Secretary CPCB" <mccb.cpcb@nic.in>, "DGHS Haryana" <dhs.dghs@hry.nic.in>, membersecretarygpcb@gmail.com, prs-hfw@karnataka.gov.in, ms-gpcb@gujarat.gov.in, cohealth@gujarat.gov.in, "psecup health" <psecup.health@gmail.com>, dgmhtraining@gmail.com,

Naresh Pal Gangwar, IAS
Additional Secretary



Annexure- A
भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAVAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website : moef.nic.in

D.O.No.11/3/2022-HSMD

Dated: 3rd February, 2022

Respected Sir,

You are aware that the Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the Bio-medical Waste Management (BMWM) Rules, 2016 under the provisions of Environment (Protection) Act, 1986 to create a statutory framework for scientific disposal of BMW. The rules aim for uniform implementation of its provisions across the country and have also outlined the implementation mechanism and responsibilities of stakeholders.

2. In this regard, I would like to highlight here that your organization plays a pivotal role in the implementation of the BMWM Rules, 2016 at ground level in the country through coordination with States Pollution Control Boards/ Committees in States/ UTs, Occupiers (waste generators), Common Bio-Medical Waste Treatment Facility Operators (CBWTFs) and other stakeholders.

3. I would like to draw your kind attention to a matter heard by the Hon'ble National Green Tribunal Principal Bench i.e. O.A. No. 180/2021, in the matter of Mukul Kumar Versus State of Uttar Pradesh & Ors. During the course of proceedings, the Hon'ble Tribunal had expressed its displeasure over the status of BMW management in certain States, especially in light of COVID-19 pandemic, and accordingly, directed the Ministry as well as States to review the monitoring and implementation of BMWM Rules, 2016. In its order dated 07.01.2022, the Hon'ble Tribunal also constituted Committees at State and District level for monitoring the implementation of Rules. Apart from the above, the Hon'ble Tribunal has further asked the Ministry to submit a compilation of information on the review and monitoring mechanism existing in various States/ UTs, as on 30.04.2022.

4. I would like to highlight here that the Rule 12 and Schedule-III of BMWM Rules, 2016 prescribe roles and responsibilities of CPCB to coordinate with SPCBs/ PCCs, random inspection & monitoring of HCFs and CBWTFs, review and analysis of data submitted by SPCBs/ PCCs, inspection and monitoring of armed forces medical facilities etc. Hence, in light of the order passed by Hon'ble NGT, it would be appropriate that CPCB may also assist and support MoEFCC in gathering the information from States/ UTs. Apart from the above, CPCB is also requested to prepare



a 'Standard Monitoring Framework'. The proposed framework may address following issues related to BMW management:

- BMW generation and treatment gap-analysis at State level and its third-party audit
- Compliance monitoring of existing CBWTFs through SPCBs/ CPCB Regional Offices
- Frequency of Monitoring of HCFs and CBWTFs
- Development of a web-portal for BMW tracking, and
- Integration of online monitoring of waste collection and its receipt at various levels for reporting purpose

5. Considering the above, I would like to request your good-self to kindly intervene in the matter and arrange to submit the 'Standard Monitoring Framework' and following information related to compliance monitoring of Health Care facilities and CBWTFs:

- a. Status of Compliance of Health Care facilities and CBWTFs monitored by CPCB, directions issued to non-compliant units/ facilities and environmental compensation levied
- b. Review of the Gap-Analysis of the BMW Generated and CBWTF capacity available of any State

6. The above information may kindly be submitted, ON PRIORITY, for being a time-bound matter. The timely submission of information would enable the Ministry to file a consolidated report before the Hon'ble NGT indicating the status up to 30.04.2022.

With regards,

Yours sincerely,

(Naresh Pal Gangwar)

Shri Tanmay Kumar
Chairman, Central Pollution Control Board
PARIVESH Bhawan, East Arjun nagar
Shahdara, Delhi-110032

Naresh Pal Gangwar, IAS
Additional Secretary

Ph: 011-20819394



भारत सरकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
इंदिरा पर्यावरण भवन, जोर बाग रोड,
नई दिल्ली-110 003
INDIRA PARYAVARAN BHAWAN, JOR BAGH ROAD,
NEW DELHI-110 003
Website : moef.nic.in

D.O.No.11/3/2022-HSMD

Dated: 3rd February, 2022

Dear Sir / Madam,

You are aware that the Ministry of Environment, Forest and Climate Change (MoEFCC) has notified the Bio-medical Waste Management (BMWM) Rules, 2016 under the provisions of Environment (Protection) Act, 1986 to create a statutory framework for scientific disposal of BMW. The rules aim for uniform implementation of its provisions across the country and have also outlined the implementation mechanism and responsibilities of stakeholders.

2. In this regard, I would like to highlight here that your organization plays a pivotal role in the implementation of the BMWM Rules, 2016 at ground level in States/ UTs through coordination with Occupiers (waste generators), and Common Bio-Medical Waste Treatment Facility Operators (CBWTFs).

3. I would like to draw your kind attention to a matter heard by the Hon'ble National Green Tribunal Principal Bench i.e. O.A. No. 180/2021, in the matter of Mukul Kumar Versus State of Uttar Pradesh & Ors. During the course of proceedings, the Hon'ble Tribunal had expressed its displeasure over the status of BMW management in certain States, especially in light of COVID-19 pandemic, and accordingly, directed the Ministry as well as States to review the monitoring and implementation of BMWM Rules, 2016. In its order dated 07.01.2022, the Hon'ble Tribunal also constituted Committees at State and District level for monitoring the implementation of Rules. Apart from the above, the Hon'ble Tribunal has further asked the Ministry to submit a compilation of information on the review and monitoring mechanism existing in various States/ UTs on 30.04.2022.

4. I would like to highlight here that the Rule 11 and Schedule-III of BMWM Rules, 2016 also prescribe for constitution of State Advisory Committees and District Level Monitoring Committees at the level of State Health Secretary and District Collector/ Addl. District Magistrate respectively. The Committees are responsible to oversee the monitoring and implementation of the rules in the State and Districts, and to advise any improvements. Hence, in light of the order passed by Hon'ble NGT, there are two levels for dealing issues related to BMW management in a State/ UT i.e. (i) Committee(s) directed for creation at State and District level by Hon'ble Tribunal, (ii) State Level Advisory Committee and District Level Monitoring Committee, as per BMWM Rules, 2016.



5. Considering the above, I would like to request your good-self to kindly intervene in the matter and submit the following information related to :- constitution of committees (at State and District level) and compliance monitoring of Health Care facilities and CBWTFs:

- a. Status of constitution and details of nodal officer in respect of State Advisory Committee and District Level Monitoring Committee - *in compliance to BMWM Rules, 2016*
- b. Status of constitution and details of nodal officer in respect of State Level Committee and District Level Committee - *in compliance to Hon'ble Tribunal's order dated 07.01.2022 in the matter of O.A. No. 180/2021 (Mukul Kumar Versus State of Uttar Pradesh &Ors.)*
- c. Details of the meetings convened in respect of committees mentioned at S.No.'a' and 'b', so far, and their MoM
- d. Status of Compliance of Health Care facilities and CBWTFs in the State, directions issued to non-compliant units/ facilities and environmental compensation levied
- e. Gap-Analysis of the BMW Generated and CBWTF capacity available

6. It may kindly be noted that above information may kindly be submitted, ON PRIORITY, for being a time-bound matter. The submission of information from States would enable the Ministry to convene a meeting with 'State level Committees' and thereafter, file a status report before the Hon'ble NGT indicating the status up to 30.04.2022.

With regards,

Yours sincerely,

Naresh Pa Gangwar

To

1. The Principal Secretary, State Health Department, States/ UTs
(As per list enclosed)
2. The Chairman, State Pollution Control Board, and
Pollution Control Committee, States/ UTs
(As per list enclosed)

Speed Post

F.No. B-31011/BMW (2096/42.77)/2022/WMD-I

March 14, 2022

To

Shri Naresh Pal Gangwar (IAS),
 Additional Secretary,
 Ministry of Environment, Forest and Climate Change,
 Indira Paryavaran Bhawan, Jor Bagh Road,
 New Delhi 110003.

Sub.: Compliance to Hon'ble National Green Tribunal order dated 07-01-2022 in the matter of 180 of 2021 filed by Mukul Kumar Vs State of Uttar Pradesh & Ors.-reg.

Ref.: MoEF & CC letter D.O. No. 11/3/2022-HSMD dated 03.02.2022

Sir,

This has reference to D.O Letter No. 11/3/2022-HSMD dated 03-02-2022 regarding the order passed by Hon'ble National Green Tribunal in the matter of O.A. No. 180 of 2021 filed by Mukul Kumar Vs State of Uttar Pradesh & Ors. In this regard, it is to state that the issues related to conducting gap analysis and compliance monitoring of Health Care Facilities (HCFs) / Common Bio-Medical Waste Treatment Facilities (CBWTFs) are already covered under Bio-Medical Waste Management Rules, 2016 and Central Pollution Control Board (CPCB) has also issued guidelines for the same which is being followed by State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs).

With regard to information on status of monitoring conducted by CPCB and directions issued by CPCB against non-complying HCFs / CBWTFs, it is to inform that CPCB has conducted random inspections of 21 HCFs, 48 CBWTFs, 15 Armed Force Health Care Establishments (AFHCEs) and 92 Veterinary Hospitals (VHs). Based on the non-compliances observed, directions under section 5 of Environment (Protection) Act, 1986 have been issued and Environment Compensation levied against grossly violating facilities.

It is also to inform that CPCB has finalized the Request For Proposal (RFP) document for floating tender for development of Centralized Barcode system for tracking of biomedical waste. Further, CPCB is in the process of developing Standard Monitoring Framework for HCFs & CBWTFs for which relevant information is being collected from SPCBs and other stakeholders.

As(NPG) - on Tour

Yours faithfully,

Dir (VPM)

P. Gargava
 (Prashant Gargava)
 Member Secretary

Record of discussion of meeting held between the CMC and State Advisory Bodies constituted under BMW Rules, 2016 and State-level Committees constituted in compliance of Hon'ble NGT's direction in matter of O.A. No. 180/2021 - Mukul Kumar Versus State of Uttar Pradesh & Ors.

A virtual meeting of Central Monitoring Committee (CMC) and State Advisory Bodies constituted under BMW Rules, 2016 and State-level Committees constituted in compliance with Hon'ble NGT's direction in matter of O.A. No. 180/2021 (Mukul Kumar Versus State of Uttar Pradesh & Ors.) was held under the chairmanship of Shri Naresh Pal Gangwar, Additional Secretary, MoEFCC on 09.05.2022 at 11:00 am. The meeting was attended by Members of CMC, Representatives of State Advisory Bodies (*constituted under BMW Rules, 2016*), State Level Committees (*constituted as per NGT judgment dated 07.01.2022 in the matter of OA 180/ 2021*), State Health Departments, State Pollution control Boards/ Pollution Control Committees, CBWTF Association of India etc.

2. At the outset, the MoEFCC representatives gave a brief introduction on the purpose of meeting followed by a presentation highlighting the background of the Hon'ble NGT case, and directions issued by Hon'ble NGT. The participants were apprised that in compliance of NGT order, Ministry has issued advisory to all States/ UTs, convened meeting of CMC on 02.02.22, asked all state health department and SPCBS/ PCCs to submit information and requested CPCB to submit Standard Monitoring Framework. It was informed that so far, Ministry has received information from 20 states/ UTs viz. Andaman & Nicobar, Arunachal Pradesh, Andhra Pradesh, Daman Diu & Dadra Nagar Haveli, Delhi, Goa, Haryana, Himachal Pradesh, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Mizoram, Odisha, Pondicherry, Rajasthan, Sikkim, Telangana, Tripura and West Bengal. However, in absence of information from about half of the States/ UTs, the Ministry has now sought additional time of 3 months from Hon'ble NGT for preparation of National Report on implementation of Biomedical Waste Management Rules, 2016

3. Following MoEFCC's presentation, states viz. Bihar, Himachal Pradesh, Puducherry, Telangana, Andhra Pradesh, and Goa made a presentation on status of Bio-Medical waste management in compliance with the BMW rules 2016. Their presentation highlighted the status and details of the State Level Committee constituted under BMW Rules, 2016, details of the meetings held by State Level Committees, status of compliance of HCFs and CBWTFs, present method of disposal of BMW, Gap Analysis of BMW generated and CBWTF capacity. The remaining states

present in the meeting were requested to submit their presentations to the MoEFCC.

4. Thereafter, CPCB made a presentation on follow-up action on OA 180 of 2022. It was informed that CPCB had also forwarded the NGT order to SPCBs/ PCCs. CPCB has also reportedly sought information from the States to prepare a Standard Monitoring Framework. CPCB informed that it had also convened a meeting with the CBWTF Association of India to discuss the implementation of OCEMS where in few action points were emerged such as financial assistance for upgradation of small facilities, arrange meetings with CBWTF operators and OCEMS vendors to discuss technical issues, request for waiving off from installation of OCEMs for parameters such as NOx, Dioxins and Furans, Hg. A meeting was also held with Maharashtra, Punjab, and Telangana SPCBs to discuss gap analysis on BMW generation and treatment facilities. As a part of the deliberations, it was suggested that CPCB may constitute a committee to develop a standard/ uniform method for carrying out Gap Analysis for BMW management.

5. On the aspect of operation of CBWTFs, the representative of Odisha PCB and Punjab PCB suggested that the limit of 75 km radius for CBWTF should be further reduced to 40 or 50 km radius, as a prescription of radius in small states allow a player to create monopoly in the area for BMW management. Further, it was also suggested that the mandatory requirement of 1000 beds for CBWTF facility should be decreased to approx. 500 beds to achieve the aim of 'One district, one Facility'. However, the CMC and other stakeholders noted that the proposal needs further discussion among various entities engaged in BMW management.

6. The representative of CBWTF Association of India extended its support to form committee to resolve issues related to gap analysis for biomedical waste management, installation of OECMS etc.

7. After detailed deliberations, the Chair, in consultation with participants identified the following actions for proper BMW management:

- CPCB shall submit Standard Monitoring Framework and updated State-level information considering that a National Level Report was filed by it in same matter.
- CPCB shall develop standard guidelines for Gap Analysis for all states.
- State Health Departments/ State Pollution Control Boards/ UT Pollution Control Committees that have not submitted information so far, may do so on PRIORITY

- CPCB may also coordinate with State Pollution Control Boards/ Pollution control Committees, CBWTFs Association of India, if needed, for fine tuning the standard monitoring framework.
- CPCB requested all States to submit copy of the minutes of the meetings of the State and District Level Monitoring Committees for further examination, referring ideas and adherence to the timelines fixed for improving BMW management.
- All stakeholders were requested to submit suggestions for updating CPCB guidelines on biomedical waste management.

Annexure

List of Participants

List of Participants

MoEF&CC

1. Shri Naresh Pal Gangwar, Additional Secretary
2. Shri Ved Prakash Mishra, Director
3. Shri Dinesh Runiwal, Scientist E
4. Ms. Shivani Mudgal, Consultant
5. Ms. Aiyshwarya Laxmi, Intern

CPCB

6. Shri M K Choudhury, RD, CPCB, Shillong
7. Shri V P Yadav, Additional Director
8. Ms. Youthika Puri

Representative of State Pollution Control Boards

9. Prof. (Dr.) Adarsh Pal Vig, Chairman, Punjab Pollution Control Board

10. Shri AV Shah, MS, Gujarat Pollution Control Board
11. Member Secretary, Puducherry Pollution Control Committee
12. Member Secretary, Bihar State Pollution Control Board
13. Member Secretary, Rajasthan State Pollution Control Board
14. Member Secretary, Himachal Pradesh Pollution Control Board
15. Member Secretary, Maharashtra Pollution Control Board
16. Member Secretary, Nagaland Pollution Control Board
17. SEE, CFO, Andhra Pradesh Pollution Control Board
18. Shri Rakesh Kumar, SEE, Punjab Pollution Control Board
19. Shri Satinder Pal SEE, Haryana State Pollution Control Board
20. Shri R. K. Tyagi, CEO-6, Uttar Pradesh Pollution Control Board
21. Shri P S Pankaj, Delhi Pollution Control Committee
22. Shri Brijesh Sheth, Gujarat Pollution Control Board
23. Representative of Tamil Nadu Pollution Control Board
24. Representative of Meghalaya State Pollution Control Board
25. Representative of Mizoram Pollution Control Board
26. Representative of Telangana State Pollution Control Board
27. Representative of Odisha State Pollution Control Board
28. Representative of Daman & Diu and Dadra Nagar Haveli Pollution Control Committee
29. Representative of Goa State Pollution Control Board
30. Representative of Arunachal Pradesh Pollution Control Board
31. Representative of Karnataka Pradesh Pollution Control Board

Representative of State Health Departments

32. Joint Secretary, Health, Kerala
33. DHME, Health & Family Welfare, Mizoram
34. Representative of Health & Family Welfare Department, West Bengal
35. Dr. P. Senthil Kumar, Nodal Officer, DM&RHS, Telangana
36. Dr. Birender Singh, sqamo, Gujarat
37. Representative of National Health Mission, Jharkhand
38. Representative of Indira Gandhi Institute of Medical Sciences Institute Patna, Bihar
39. OSD, Agartala Government Medical College
40. Representative of Punjab Health Systems Corporation

Representative of Environment Departments/Urban Development departments etc.

41. Representative of Urban Development and Housing Department, Bihar

- 42.Principal Chief Conservator of Forests (Climate Change) Bihar
- 43.Representative of Animal and Fisheries Resources Department, Bihar
- 44.Shri Jayant Raushan, Bihar State Disaster Management Authority
- 45.Office Of Commissioner Industries, Rajasthan
- 46.Municipal Commissioner, Patna

Others

- 47.Common Bio-medical Waste Treatment and Disposal Facilities Association of India
- 48.Dr Lalnuntluangi SNO HWC Mizoram
- 49.Dr. Santosh Yadav, CII
- 50.Dr Ashok Kumar, ADMS
- 51.ER Meghnad Nath
- 52.Dr Baroon Subba
- 53.Ms. Princey Verma
- 54.Shri Kedar Nath
- 55.Ms.Poonam Panwar
- 56.DR Shipra Pandey
- 57.Shri Shakeel Ahmed, Telangana
- 58.Dr. Pempa T. Bhutia
- 59.Dr Baroon Subba
- 60.Dr. R R Tiwari
- 61.Ms. Priyanka
- 62.Shri Rajeev Kumar
- 63.Shri Bhargab Jyoti Das
- 64.Shri Bishu Karmakar
- 65.Dr.Anirban
- 66.Dr. Kallol
- 67.Dr. Jaskirandeep Kaur
- 68.Dr.Shalini
- 69.Dr Vidyapati Chaudhary
- 70.Shri Piyush
- 71.Ms. Ruksana
- 72.Ms. Sadhya Rai
- 73.Shri Sudhir Kumar
- 74.Shri Apurva
- 75.Dr. Amar Supate

76. Shri Dipak Rudra Pal
77. Shri Sanjay
78. Shri Rajeev Kumar
79. Dr. RS Dhaliwal
80. Shri Pawan Kumar Paswan
81. Shri Akum
82. Ms. Bina
83. Shri Birender Singh
84. Shri Rajesh
85. Dr. Shruti Vaghela
86. Ms. Anjali Arora

State	Action Taken in compliance of BMW Rules, 2016			Action Taken in compliance of Hon'ble NGT Directions				
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM	District Level Committee	Meetings convened and MOM
Andaman & Nicobar (Inputs reported on 28-Feb-2022)	Vide order no. 414 dated 12.02.2019, a State Level Advisory Committee (SLAC) was constituted under the chairmanship of the Chief Secretary in pursuance of Order dated 16.01.2019 passed in O.A.No. 606 of 2018 by the Hon'ble National Green Tribunal.	So far, 11 monthly SLAC meetings have been convened.	Vide order no. 414 dated 12.02.2019, a State Level Advisory Committee was constituted under the chairmanship of the Chief Secretary in pursuance of Order dated 16.01.2019 passed in O.A.No. 606 of 2018 by the Hon'ble National Green Tribunal.	Copy of MOM is enclosed at Annex-1	ANPCC is under process to constitute the State Level Committee and District Level Committee in compliance to Hon'ble Tribunal's order dated 07.01.2022 in the matter of O.A. No. 180/2021			
Andhra Pradesh (Inputs reported on 25-April-2022)	Constituted on 27.08.2018 under Chairmanship of Spl. Chief Secretary (HM&FW), Govt. of Andhra Pradesh	Copy of MOM is enclosed at Annex-2	District Level Monitoring Committee Constituted	Copy of MOM is enclosed at Annex-2	Constituted on 17.02.2022 under Chairmanship of Secretary (HM&FW), Govt. of Andhra Pradesh	Copy of MOM is enclosed at Annex-2	Constituted on 17.02.2022 under Chairmanship of concerned District Magistrate	Copy of MOM is enclosed at Annex-2
Arunachal Pradesh (Inputs reported on 07-March-2022)	As per BMW Rules 2016, State Level Advisory Committee has been constituted on 23-May-2017.	Two meetings convened on 25-July-2017 and 13-July-2018.	District Level Monitoring Committee (DLMC) has been constituted by all districts.	Copies of MOM attached at Annex-3	No information provided			

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
Andaman & Nicobar (Inputs reported on 28-Feb-2022)	Regular advices for proper disposal of BMW generated by HCFs were issued for strict compliance of BMW Rules, 2016 and to ensure the same inspections are also carried out. Director, Health services of ANI informed that 1 hectare of land is allotted at Aitam Pahad, Garacharma village for CBWTF construction. The estimate is finalized for construction of compound wall, jungle clearance and construction of approach road for the land set apart for construction.			In South Andaman, 490.44 Kg/day of BMW is generated and two incinerators have been installed for treatment at GB Pant Hospital (Portblair) and CHC Bambooflat of 100 Kg per hour and 50 Kg per hour capacity, respectively. In Nicobar, 3.06 Kg/day of BMW generated and CHC, Nancowry has installed incinerator of 50 Kg per hour capacity for treatment. In North and Middle Andaman, 42.86 Kg/day of BMW generated and three incinerators have been installed for treatment at Dr. R.P.Hospital (Mayabunder), CHC Diglipur and CHC Rangat of 50 Kg per hour capacity each. Further, the directorate of Health Services has initiated proposal for procurement of 5 BMW incinerators at different HCFs i.e. at PHC Garacharma (100 Kg per hour), PHC Hubbay (50 Kg per hour) and PHC Swaraj dweep-Havelock (50 Kg per hour), in South Andaman. And, at BJR Hospital Car Nicobar and PHC Campbell Bay of 50 kg per hour, in Nicobar district.	
Andhra Pradesh (Inputs reported on 25-April-2022)	The compliance status of CBWTFs and HCFs in the state is being monitored by APPCB. Direction was issued to M/s. Sriven Environ Technologies, a CBWTF in Anantapuram district on 18.11.2021 to stop operation till rectification of the non-compliances. The Bio-Medical waste collected by this CBWTF is being sent to neighboring CBWTFs for treatment and disposal. Data on BMW management in Andhra Pradesh (as on 31.03.2022): No. of HCFs >> 12,266 No. of bedded HCFs >> 7,694 No. of non-bedded HCFs >> 4,572 No. of beds >> 1,59,575 No. of CBWTFs >> 12 No. of HCFs granted authorization >> 11,041 No. of HCFs with captive treatment facilities >> NIL No. of captive incinerators operated by HCFs >> NIL Quantity of Bio-medical waste generated in TPD >> 16,322 Quantity of Bio-medical waste treated >> 16,322			At present, there are 12 CBWTFs in the state catering to HCFs in erstwhile 13 districts of the state. These CBWTFs are having adequate capacity to handle additional quantities of BMW. They could handle the increased quantities of BMW generated during the COVID -19 Pandemic. The total authorized capacity of CBWTFs is 44.4 TPD and the present capacity utilization is 37%. However, APPCB issued work order to M/s.Andhra Pradesh Environment Management Corporation Limited (APEMCL) on 06.07.2021 for conducting the Gap Analysis study of Bio-Medical Waste Management in the state of Andhra Pradesh. APEMCL is in the process of getting the study conducted.	
Arunachal Pradesh (Inputs reported on 07-March-2022)	All HCFs comply with BMW Rules 2016 and disposal of biomedical waste and covid-19 related waste as per guideline & designated treatment facility. In Arunachal Pradesh, no CBWTF is established till date.			In Arunachal Pradesh, there is no CBWTF established till date and one nos of CBWTF proposed at Toru Circle under Papum pare district within the radius of 75 km. Accordingly, DPR has been submitted to Ministry of Health & Family Welfare, Govt. of India through National Health Mission for allocation of fund during 2018-19 & resubmitted in 2019-20.	

State	Action Taken in compliance of BMW Rules, 2016			Action Taken in compliance of Hon'ble NGT Directions				
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM	District Level Committee	Meetings convened and MOM
Bihar (Inputs reported on 09-May-2022)	Constituted by Department of Environment & Forest, Govt. of Bihar vide their notification no. Praya/Van-42/2002(part-1)-630(E)/Pa. V.-Paina-15 dated 15/09/2016 and Praya/Van-42/2002/21(E)/Pa/Va dated 13/01/2017 respectively.			(i) Member Secretary of Bihar State Pollution Control Board is nominated as Nodal Officer of the State Level Advisory Committee. (ii) Civil Surgeon-cum-Chief Medical Officer nominated as Member Secretary of the District Level Monitoring Committee. Meeting of the SLAC has been convened so far on 06.07.2017, 11.05.2018, 10.06.2019 & 23.07.2021. The next meeting is proposed on 13.05.2022. Further, 31 Meetings of DLMIC has been convened at 20 districts of the State, so far.	State & District level Committee Constituted by the Hon'ble National Green Tribunal vide dated 07.01.2022 in the matter of O.A. No. 180/2021 -Mukul Kumar Vrs. State of Uttar Pradesh & ors. for monitoring & implementation of CBTWFs and disposal of COVID-19 waste as per the BMWWM Rules, 2016. (i) Member Secretary of Bihar State Pollution Control Board is appointed as Nodal Officer of the State Level Committee. (ii) Regional Officer, SPCB of the concerning Districts appointed as Nodal Officer of the District Level Monitoring Committee.			
Daman-Diu and Dadra & Nagar Haveli (Inputs received on 21-April-2022)	Reportedly Constituted in compliance to BMWWM Rules, 2016							Under Progress
Delhi (Inputs reported on 25-Feb-2022)	State Advisory Committee in NCT of Delhi was constituted by Director General of Health Services vide letter dated 23.11.2016	Minutes of meeting of State Advisory Committee in respect of meetings held in 2019 - 2021 is not attached.	In District level Monitoring Committee, the Nodal Officers are concerned Chief District Medical Officers (CDMO).	MoM not shared	The State Level Committee was Constituted on 25.02.2022. The need of other parallel District Level Committees in NCT of Delhi may be assessed by the State Level Committee in view of no gap in NCT of Delhi for generation and treatment & disposal of Bio-medical Waste.			

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
Bihar (Inputs reported on 09-May-2022)	Partially complied Proposed closure Direction issued due to non-compliance of HCFs - 3667 Closure Direction issued - 710 Legal Notice issued - 1003 Show-cause Notice issued-764		Environmental Compensation Levied - Rs.22,11,250/-	BMW generation-42158kg/day	Capacity of CBWTFs—87136kg/day
Daman-Diu and Dadra & Nagar Haveli (Inputs received on 21-April-2022)	The HCFs at DD&DNH comply with the conditions of BMW Rules, 2016. There is no CBWTF in DD&DNH. The BMW generated in the UT is sent to M/s En-cier Bio-medical Waste Pvt. Ltd. located in the State of Gujarat.			Total quantity of BMW Generated in UT of DD&DNH is 450 Kg/day and the treatment and disposal capacity of CBWTF is 9500 Kg/day	
Delhi (Inputs reported on 25-Feb-2022)	Before applying for authorization, every health care facility is required to enter into an agreement with the concerned CBWTF for collection, transportation, treatment and disposal of the waste generated by it. Till date, 12,031 no. of authorizations have been issued to bedded and non-bedded HCFs in NCT of Delhi. The HCFs are required to ensure proper segregation of biomedical waste before handed over to Common Biomedical Waste Treatment Facilities (CBWTFs) for transportation, treatment and disposal. Whenever any instance of violation w.r.t. provisions of BMW Rules, 2016 including segregation of waste etc. are observed or come to the notice of DPCC, action against the violators including levying of Environmental Compensation (EC) is taken.	Till date Environmental Compensation Charges of Rs. 2,00,08,700/- (Rupees Two Crores Eight Thousand Seven Hundred Only) have been received from the violators.	DPCC has completed the gap analysis in 2020 with the projection of biomedical waste generation in 2031. The tendering process for setting up of 2 new additional CBWTFs is going on, taking into consideration that one of the existing operational CBWTF namely M/s SMS BMW Water Grace Pvt. Ltd. is running on extended lease on DGHS land. Both the existing CBWTFs have total capacity of 62.8 tons/day against the total biomedical waste generation in 2020 i.e., 23.2 tons/day which is sufficient for treatment and disposal of all the biomedical waste generated in NCT of Delhi even in Covid-19 pandemic.	Total Installed capacity of CBWTFs is 62.8 MT/day and quantity of BMW generation in Delhi is varied between 23.2 MT/day and 28.8 MT/day in year 2019-2020 with peak value of additional COVID-19 waste reaching up to 25 MT/day during second wave of pandemic. The CBWTFs are M/s SMS Water Grace BMW Pvt. Ltd. with installed capacity of 28.8 tons per day {12 T incinerator + 16.8 T autoclave} and M/s Biotic Waste Solutions Pvt. Ltd. with installed capacity of 34 tons per day {25T incinerator + 9 T autoclave}	

State	Action Taken in compliance of BMV Rules, 2016			Action Taken in compliance of Hon'ble NCT Directions		
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM
Goa (Inputs reported on 04-April-2022)	The State Advisory and District Level Monitoring Committee(s) in the state of Goa were constituted on 09.05.2019. The MoM are shared at Annex-4			Under Progress		
Gujarat (Inputs reported on 7-May-2022)	The State Advisory Committee is already constituted and District Level Monitoring Committee constituted in 14 of 33 Districts. The MoM provided by GPCB are attached at Annex-5.			State Level Monitoring Committee has been constituted under Chairmanship of Principal Secretary Health and MS. GPCB is the nodal officer. All District collector/ District Magistrate were requested to constitute District Level Monitoring Committee and out of 33 districts, the District Level Committee is constituted in 14 Districts. The MoM provided by GPCB are attached at Annex-5.		

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
Goa (Inputs reported on 04-April-2022)	<p>The data on BMW management in Goa (year 2020): No. of HCFs >> 12,266 No. of bedded HCFs >> 148 No. of non-bedded HCFs >> 621 No. of beds >> 5051 No. of CBWTFs >> (1) Under commissioning No. of HCFs granted authorization >> 139 No. of HCFs with captive treatment facilities >> 165 No. of captive incinerators operated by IICFs >> 1 Quantity of Bio-medical waste generated in Kg/ day >> 1272.68 Quantity of Bio-medical waste treated in Kg/ day >> 1272.68</p>	<p>Show cause notice were issued by Board to 419 HCFs for operating without valid authorization of the board under BMW rules in 2020 based on the BMW details collected by the GSPCB from local bodies. The Goa state Pollution Control Board has proposed to issue showcause notice to HCFs for not submitting annual reports within the stipulated time frame in the rules</p>		<p>As per year 2020 report, the State of Goa presently doesn't have CBMWTF. The setting up of a CBMWTF is in the final stages of completion and expected operation from August 2021. As a temporary measure till the CBMWTF is made operational, the incinerator facility (capacity: 100 kgs/hr) installed at the M/s Goa Medical College and Hospital, Bambolim is utilised for the disposal of yellow category (incinerable waste) generated in the State. Also the autoclave facility at M/s Manipal Hospital, Donapaula is utilised for the pretreatment of the applicable biomedical waste categories before the waste is sent for disposal/ recycling. The Goa Waste Management Corporation (GWMCO) has been granted Environmental Clearance for the setting up of the CBMWTF at Kundaim Industrial Estate. Mis Biotic Waste Solutions Pvt Ltd. has been selected for "Design Built Operate and Transfer" a CBMWTF for a period of 20 years.</p>	
Gujarat (Inputs reported on 7-May-2022)	<p>In the state of Gujarat, there is extensive network of collection and disposal of the waste through Common Biomedical Waste Treatment Facilities. Environment Damage Compensation of 27.56 lakh has been levied from HCFs.</p>			<p>Gujarat has total 20 operational CBWTFs having incineration capacity of 87,600 kg/day and autoclave capacity of 37,800 Kg/day against generation of average incinerable bio medical waste about 39,800 kg/day and autoclaveable waste about 9,600 Kg/day respectively. However, looking to the distance criteria as per CFCB guidelines based on numbers of beds/ distance still there is a gap needs to be addressed.</p>	

State	Action Taken in compliance of BMW Rules, 2016			Action Taken in compliance of Hon'ble NGT Directions				
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM	District Level Committee	Meetings convened and MOM
Haryana (Inputs reported on 26-April-2022)	The State Advisory and District Level Monitoring Committee(s) in the state of Haryana was constituted vide letter dated 20.06.2018 & 24.05.2018 respectively. C Till date 7 no. SLAC meetings has been conducted and MoMs are attached at Annex-6				Approval of Government has been accorded and orders regarding constitution of both committees will be issued shortly. As per approval. Member Secretary, HSPCB will be nodal officer for coordination and compliance at State level. Regional Officer, HSPCB will be nodal officer for coordination and compliance at District Level. The matter related to issues raised and directions of NGT were taken up in the 7th SLAC meeting held on 18.02.2022. MoM is attached at Annex-6			
Himachal Pradesh (Inputs reported on 09-May-2022)			No information provided				No information provided	
Karnataka (Inputs reported on 09-May-2022)			No information provided				No information provided	

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
Haryana (inputs reported on 26-April-2022)	Total No. of HCFs - 6476 No. of Compliant HCF's - 6328 No. of HCFs not complied - 148 Total No. of CBWTFs - 11 No. of Compliant CBWTFs - 11 No. of HCFs not complied - Nil Show Cause Notice issued to non-compliant HCFs and CBWTFs. All CBWTFs have installed OCEMS and connectivity ensured with Board.		Total EC Levied from 3 players is Rs. 7,87,000	PIGMER, Chandigarh has been assigned the Gap Analysis study in July, 2019 with reference to Coverage Area of CBWTF's. Future projection of generation of BMW & requirement of new CBWTF in Haryana. Final report is likely to be submitted by PIGMER, Chandigarh by June, 2022.	Information Not provided
Himachal Pradesh (inputs reported on 09-May-2022)	Number of HCFs >> 9038 No. of bedded HCFs >> 596 No. of Non-bedded HCFs >> 8442 No. of Beds (Annual Report 2020) >> 16082 No. of CBWTFs >> 3 (1 under construction) Online emission monitoring system in CBWTFs - 3 HCFs granted Authorization >> 8023 (88.77%) HCFs without authorization >> 1015 HCFs tied-up with CBWTFs >> 5589 HCFs having captive disposal facility >> 3449 Quantity of BMW generated/treated >> 3545.7 (in Kg/ per day - Annual Report 2020) COVID-19 BMW as on 31.03.2022 >> 628.1 MT			About 3.5 MT of BMW (including COVID waste @0.17MT) is being generated and disposed off per day and the state has incineration capacity of 6.4 MT/Day, which is adequate at present. Further, 5589 health care institutions have tied up with the common BMW treatment facilities for collection, transportation and disposal of BMW, whereas, 3449 institution operating in far flung areas have developed their captive treatment and disposal facilities.	Three CBWTFs are under operation with incineration capacity of 6.4MT/ day. One CBWTF of capacity 200 Kg/Hr is being established at district Bilaspur. Further, to check the pilferage of BMW during collection and transportation Bar code system has been implemented in all HCFs tied up with the CBWTFs for disposal of biomedical waste.
Karnataka (inputs reported on 09-May-2022)				Waste generated in the state: 82604 kg/d Total biomedical waste treated in captive facility : 1146 kg/d Total biomedical waste treated in CBMWTF: 37805 Currently the total capacity of 25 CBMWTF which are functional is 90,480 kg.	

State	Action Taken in compliance of BMW Rules, 2016			Action Taken in compliance of Hon'ble NGT Directions			
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM	District Level Committee
Kerala (Inputs reported on 28-Feb-2022)	<p>A state level monitoring/advisory committee was constituted on 05.06.2019 as per GO(Rt) No.1354/2019 (Annexure I) with Principal Secretary, Health & Family Welfare Department as Chairman. Deputy Secretary I, Health & Family Welfare Department has been designated as the nodal officer representing Health & Family Welfare in the SLMC for the effective coordination between the Committee and the Department as per GO(Rt) No. 2905 / 2019/H&FWD (Annexure 11). Also a District Level Monitoring Committee was constituted on 05.06.2019 as per GO(Rt) No.1353/2019 (Annexure III) with District Collector as Chairman. The first meeting of SLAC in compliance to BMW rules 2016, was on 03.09.2019 and the second meeting was on 01.02.2021. From 2nd meeting onwards, DHS, DME & KEIL were inducted into the meeting as per GO(Rt)No.1709/2021/H&FWD. Details are attached as Annexure-7.</p>			<p>State Level Monitoring Committee and District Level Monitoring Committee was constituted as per GO (Rt) No.322/2022 (Annexure IV) on Committee and District 10.02.2022 in compliance to Hon'ble Tribunal's Level Committee in order dated 07.01.2022 in the matter of O.A No.180/2021.Member Secretary,KSPCB is the nodal agency for state level committee and the district officer,KSPCB is the nodal agency for District level committee.</p>			
M.P. (Inputs reported on 04-Feb-2022)	<p>MP has constituted the State Advisory Committee and District Level Monitoring committee as per order dated 27/06/2017. State Level Advisory Committee is constituted under the chairmanship of Additional Chief Secretary/ Principal Secretary, Department of Health and Family Welfare, M.P. District level Monitoring Committee is constituted under the chairmanship of respective District Collector. State Advisory Committee meeting has been conducted on 09/04/2019, 30/06/2020, 4/12/2020, 09/07/2021, 19/01/2022 and 04/02/2022. Details enclosed at Annex-8.</p>			<p>No information provided</p>			
Maharashtra (Inputs reported on 22-Apr-2022)	<p>Vide GR dated 13.04.2017, Public Health Department, GoM has constituted state level Advisory committee. Similarly, 36 Districts in the state has constituted District Level Advisory Committee. A total of 75 meetings have been convened in 36 Districts. Details are enclosed at Annexure-9.</p>			<p>Vide GR dated 07.03.2022, Public Health Department, GoM has constituted state level and District Level Monitoring Committee. The details 1st State Level Monitoring Committee are enclosed at Annexure-9.</p>			
Mizoram (Inputs reported on 25-Apr-2022)	<p>State Advisory Committee Constituted by State vide Notification No. G/17011/5/2018-HFW/109 dated 03.04.2019. District Monitoring Committee Constituted by State vide Notification No. G/17011/5/2018-HFW/110 dated 03.04.2019. Three (3) meetings convened since the constitution of SLAC. The last meeting of State Advisory Committee held on 16.03.2022. The details are attached at Annexure-10.</p>			<p>No separate Committees formed.</p>			

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
Kerala (Inputs reported on 28-Feb-2022)	<p>The total number of Ayurveda dispensaries are 818 out of which 653 have got authorisation from PCB. Similarly, total number of Ayurveda hospitals are 130 out of which 41 have got authorisation from PCB. Further, 21 out of 130 hospitals are registered in IMAGE/ KEIL i.e. authorised CBWTFs. The remaining hospitals have applied for registration. Out of 703 Homeo Institution (699 Homeo Dispensaries +34 Homeo Hospitals), 410 got authorisation from PCB and steps are taken to obtain authorisation for the remaining. Also out of 34 Homeo Hospital, 10 are registered with IMAGE.</p> <p>The Total no. of Health Care Facilities/ Occupiers, apart from the above, are 18719 which include Clinics, Dispensaries, Animal houses, Pathological Laboratories, Blood Banks, Clinical establishment and Research Institutions. Out of 18719, 18360 have obtained authorisation. There are 738 Veterinary Institutions and issuance of authorization to all veterinary units is progressing. The 1228 AYUSH clinics with consultation alone are exempted from BMW authorisation. The total no. of beds in the state are 125873.</p>			<p>There are Two CBWTFs in State viz. IMAGE, Palakkad -55.8 TPD and KEIL, Ambalamedu, Ernakulam - 16 TPD. Thus the total BMW treatment capacity is 71.8 TPD. Total quantity of BMW including Covid waste contributes to an approximate amount of more than 60 TPD. Thus there seems no gap in the BMW generated and CBWTF capacity available. However, more number of CBWTFs are required in the State especially in the southern districts and one in the northern most district. As per CPCB guideline region wise CBWTFs are required for the effective implantation of BMW. KINFRA allotted land to IMAGE for setting up of a CBWTF at Adoor IDA, SEIAA issued environment clearance to Malabar Enviro Vision for a CBWTF at Kimaloor, Kozhikkode.</p>	
M.P. (Inputs reported on 04-Feb-2022)	No information provided			No information provided	
Maharashtra (Inputs reported on 22-Apr-2022)	Out of 30 CBWTFs, 23 were complying, 1 partially complying and 6 were non-complying to the stipulated provisions.	Total no. of 504 Show cause Notices issued to HCFs and CBWTFs in State.	Total EC imposed on CBWTFs is Rs 86,49,100 out of which BGs of Rs. 8,86,800 have been forfeited.	MPCB reported existing capacity of 91200Kg/day and 120740Kg/day for incineration and autoclaving respectively. The proposed incineration and autoclave capacity addition is 42940Kg/day and 19260Kg/day respectively. After addition of proposed capacity, the State would collectively have a gap of 4522Kg/day and 1524Kg/day of incineration and autoclaving capacity.	
Mizoram (Inputs reported on 25-Apr-2022)	CBMWTF is yet to be established in the state. EC is already approved by SEIAA. formal issuance is awaited. CBMWTF to cater 5 districts of Mizoram. The State Government has tasked the Aizawl Smart City Limited, SIPMIU to undertake the project. Directions issued to non-compliant HCF and Consent and authorization withheld until the HCF complies and furnish compliance report.			No information provided	

State	Action Taken in compliance of BMW Rules, 2016			Action Taken in compliance of Hon'ble NGT Directions		
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM
Puducherry (Inputs reported on 25-Feb-2022)	State Level Advisory Committee, District and Regional Level Committees have been constituted vide order dated 15.05.2019, by the Chief Secretariat (Health). The State Level Meeting was held on 22.10.2019 and 04.11.2019. Four (4) meetings of Puducherry and Three (3) meetings of Karaikal were convened. Details are attached at Annex-11			Meetings convened and MOM	Since U.T. of Puducherry is small place, already constituted State Level Advisory Committee, District Level Monitoring Committee and Regional Level Monitoring Committee are sufficient to monitor to implement provisions of BMW Rules, 2016.	
Punjab (Inputs reported on 28-Apr-2022)	The State Level Advisory Committee and the District Level Monitoring Committees have been constituted by the Punjab Health System Corporation vide order no. PHSC/BMW (Volume-III)/17/60-192 dated 09.05.2017. The Member Secretary of the State Level Advisory Committee is State Bio-medical Waste Management Nodal Officer (PHSC) and the Member Secretary of the District Level Monitoring Committee is District Health Officer (DHO). Four State level meetings have been convened on 16.09.2018, 16.10.2019, 25.11.2020 and 07.04.2022. Details are attached at Annex-12				The constitution of State Level Committee is under progress. Further, District Environment Committees have already been constituted at the District Level and their meetings are being held regularly. As such, the Environmental Engineers of the Regional Offices of the Punjab Pollution Control Board have been directed to invite Principal, Government Medical College or other reputed Medical College in the area in the said Committees to monitor the compliance of environmental norms in handling and disposal of bio-medical waste including COVID-19 waste.	
Rajasthan (Inputs reported on 09-Mar-2022)	State Level Advisory committee has been constituted vide Directorate, Medical & Health department office order dated 21.07.2017. Meetings of committee are convened by Medical & Health Department. As per Directorate, Medical & Health department letter dated 20.12.2017 to Environment department, District Level Monitoring committees as per BMW Rules have been constituted in all districts of the State. Copy of minutes of meeting of advisory committee dated 13.08.2020 and 16.08.2021 is enclosed as annexure. Details are attached at Annex-13				It is evident from directions of the Hon'ble NGT vide order dated 07.01.2022 that the constitution of State Level and District Level committee are conditional in nature. There is already a committee in place at the State level i.e. State Level Advisory Committee under chairmanship of Secretary Medical and Health department. Besides, district level monitoring committees are also functional at all districts in the State. Therefore, there seems no reason to constitute another committees comprising of almost the same designated officers.	
Sikkim (Inputs reported on 23-Feb-2022)	Constituted on 26.09.2016			Constituted on 25.09.2018	Under Progress	
Telangana (Inputs reported on 25-Apr-2022)	State Advisory Committee was constituted vide GO Rt.No.329, dt:15.04.2017 in compliance to BMW Rules, 2016. District level Advisory Committees were also constituted vide GO Rt. No. 28, dt:06.01.2018 in compliance to BMW Rules, 2016. Meetings are being conducted as and when needed. Details are attached at Annex-14				As per the directions of Hon'ble NGT, TSPCB intimated the Stake holders departments about the Committees. District Collectors were also requested to conduct the meetings as per the directions of Hon'ble NGT and for compliance of the directions issued. Regional Officers of the TSPCB were also instructed to assist the District Collectors in conducting the meetings.	

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Cap-Analysis of the BMW Generated	CBWTF capacity available
Puducherry (Inputs reported on 25-Feb-2022)	298 HCFs in the UT of Puducherry have obtained authorization under BMW Rules 2016 from PCC after entering agreement with CBMWTF for collection and disposal of BMW. Direction were issued to 172 HCFs and 48 showcause notices for violation of environmental norms. Environmental compensation of Rs.82,69,800 was imposed on 5 medical colleges-cum hospital for improper disposal of BMW. Similarly, EC of Rs.25 lakhs was imposed on CBMWTFs for non-compliance of direction issued.			Total biomedical waste generation: 4230 kgs/day. Capacity of CBWTFs operating in State/Ut: 5000 kg/day	
Punjab (Inputs reported on 28-Apr-2022)	No specific details provided.		However, time to time instructions/ guidelines were issued for safe handling of BMW to all concerned. Guidelines for COVID 19-Rev 1 to 4, flow chart, do's and don'ts and local bodies, department-agreement for collection disposal of PPE kit.Reporting status of	The Punjab Pollution Control Board has constituted a committee for carrying out GAP analysis of the BMW generated and CBWTF capacity available and an officer of MoEF&CC has also been included as member in the said committee. The report of the said committee is yet to be received.	
Rajasthan (Inputs reported on 09-Mar-2022)	Total HCFs identified & Operational - 9241, HCFs having valid Authorization - 8125, application pending - 353, HCFs not applied/auth expired/refused - 763	Information not provided		11 CBMWTFs are operative in various parts of the State namely Hanumangarh, Bikaner, Jodhpur, Ajmer, Udaipur, Jhalawar, Alwar, Jaipur(two), Nagaur and Dungarpur. 04 CBMWTFs are proposed/ under development in Jalore, Jhunjhunu, Chittorgarh and Sawaimadhopur.	
Sikkim (Inputs reported on 23-Feb-2022)	The directions and showcause notice have been issued to Hospitals and District hospitals for non-compliance.			No CBWTFs exist in the state of Sikkim	
Telangana (Inputs reported on 25-Apr-2022)	The TSPCB is submitting the compliance status report of HCFs/CBMWTFs once in every Quarter to the CPCB in the matter Of CA No.606 of 2017. The total No. of Health Care Facilities (HCFs) operating in the state are 7,273 and 7,055 HCFs are having Bio Medical Waste (BMW) Authorization. Out of which 5,792 are bedded hospitals and remaining 3,481 are non-bedded. The hospitals with in-patient facilities are having 1, 19,135 beds. Notices were issued to the remaining HCFs for obtaining authorisation.			At present 11 CBMWTFs are operating in the State and the capacities of the same are adequate at present and for next five years. Total available operating Incinerator capacities are 46,800Kgs/day (including standby) against the average Incinerator utilization capacity for the last 05 yrs is 11,327Kgs/day. Autoclave capacities are 43,224 Kg/day (including standby) against the average utilization capacity for the last 05 yrs is 4421Kgs/day. Shredder capacities are 25726 Kg/day (including standby) against the average utilization capacity for the last 05 yrs is 1943 Kgs/day. As per BM waste collection & disposal for the last five years and from the data of HCFs after inventory, the Capacities of the existing CBMWTFs are sufficient to handle the BM Waste for another five years. However, work order was also issued to EPTRI for conducting 3 rd party auditing of CBMWTFs and report is awaited.	

State	Action Taken in compliance of BMW Rules, 2016		Action Taken in compliance of Hon'ble NGT Directions					
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM	Constitution of State Level Committee	Meetings convened and MOM	District Level Committee	Meetings convened and MOM
Tripura (Inputs reported on 18-Feb-2022)	State Level Advisory Committee (SLAC) has been Constituted and 6 meetings of SLAC have been convened.		Incompliance with directions of the NGT in the matter OA no 606/2018, a district level task force for monitoring several environmental issues has been constituted		The existing state level committee for dealing the NGT issues/directions under the chairmanship of the Chief Secretary, Tripura is reviewing the status of BMW Rules along with other environmental issues. 16 meetings of state level committee have been convened in other NGT matter. The district level task force under the chairmanship of the DM & collector is also monitoring the compliance of the Honble NGT as well as other environmental issues			
Uttar Pradesh (Inputs reported on 09-May-2022)	State Level Advisory Committee Constituted and 5 meetings have been held till now.		District Level Committees constituted in each District and 19 meetings have been convened.					No information provided

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
<p>Tripura (Inputs reported on 18-Feb-2022)</p>	<p>1. The number of total authorization from TSPCB till date is 1150. Regular monitoring of the HCFs are being done by the TSPCB. 3. 19 nos bedded HCFs have already installed STPs in their premises. TSPCB is collecting and analyzing the treated water samples on monthly basis. Director's/Show cause notices/closure orders are being issued to the defaulting HCFs. Tender was floated by the Health department to set up Sewage Treatment Plant selected Public Health Facilities for pre-treatment of the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilization issues. 4. Training imparted to all the officials/workers regarding handling/treatment and disposal of waste generated during treatment/diagnosis/quarantine of COVID-19 patients as well as common biomedical wastes. 5. There is no CBWTF presently operating in the state however, one CBWTF is currently in construction phase at Debendra Chandra Nagar, West Tripura.</p>	<p>2. The incinerable wastes generated from the dedicated COVID hospital are being disposed off through through incinerator. The rest of the waste are being disposed in to the deep burial pit with lid. The wastes generated from microbiological laboratory while testing the samples from suspected and confirmed COVID patients is being sanitized prior to disposal. it is mentioned here that there is no CBWTF presently operating in the State. however, one CBWTF is currently in construction phase at Debendra Chandra Nagar, West Tripura.</p>	<p>As per the last annual report of year 2020, total BMW generation was 64038 kg/day.</p>	<p>At present, 22 CBWTF are operational and engaged in BMW management in UP. The cumulative incinerable capacity of them is 94.4 MT/day.</p>	
<p>Uttar Pradesh (Inputs reported on 09-May-2022)</p>	<p>Total No. of HCFs: 31474 Bedded HCFs : 17288 Non bedded HCFs : 14286 Total Authorization: 26030 Till now, Prosecution under section 15 of E(P)A, 1986 has been filled against the 04 HCFs. Till now, Prosecution under section 15 of E(P)A, 1986 & under Air/Water Act has been filled against these 03 CBWTFs. Notices were sent to all unauthorised HCFs for compliance of BMW rules, 2016. Notices were sent to all 5444 unauthorised HCFs.</p>	<p>Till now, total EC of Rs 1,5062 Cr. has been imposed against 09 CBWTFs in which 47 Lacs has been recovered. Till now, total EC has been imposed against 141 HCF of total Rs. 7.60 Cr.</p>	<p>6. The officials of TSPCB have visited dedicated COVID hospital for close monitoring of collection, segregation, transportation and disposal of all kinds of BMW and solid waste</p>		

State	Action Taken in compliance of BMW Rules, 2016		Action Taken in compliance of Hon'ble NGT Directions	
	Constitution of State Advisory Committee	No. of Meetings held	District Level Monitoring Committee	Meetings convened and MOM
West Bengal (inputs reported on 21-03-2022)	State Level Advisory Committee constituted vide Order no- 453/ 1(09)-MS/ HF/ O/ MS/ BMW-02/2017 dated 20.12.2017.		District Level Monitoring Committee on implementation of Bio Medical Waste Management Rules 2016 had been constituted vide Order no- 455-MS/HF/O/MS/BMW-02/2017 dated 21/12/2017.	Meetings convened and MOM
			Constituted on 22.02.2022 and first meeting convened on 22.02.2022 with nodal officer: Chief Engineer, WPCB	Meetings convened and MOM
				Necessary directions from the Department of Health & Family Welfare, Department of Environment and West Bengal Pollution Control Board have been issued to the District Magistrates of all Districts regarding constitution of the District Level Committee and meeting. Notified designated Officer of DM Office of each District entrusted for liaisoning with WBPCB works will act as a nodal officer of the District Level Monitoring Committee for the respective district.

State	Status of Compliance of HCFs and CBWTFs	Directions issued to non-compliant units/ facilities	Environmental Compensation Levied	Gap-Analysis of the BMW Generated	CBWTF capacity available
West Bengal (inputs reported on 21-03-2022)	No specific details provided.	time instructions/ guidelines were issued for safe handling of BMW to all concerned. Guidelines for COVID 19-Rev 1 to 4, flow chart, do's and don'ts and local bodies, department, agreement for collection disposal of PPE kit. Reporting status of covid 19 waste through app as developed by PCB and advisory on implementation of BMW Rules, 2016 and guidelines framed by CPCB	However, time to	Total biomedical waste generation: 43513.39 kg/day ; Six CBWTFs are operating in State catering to 1,40,000 beds i.e. 35000 kg/day (approx.). A new CBWTF with treatment capacity of 20,000 beds i.e. 5000 kg/day (approx.) will be operational soon. Rest of the BMW is treated in Common HW incinerator at TSDF	



Sadhana Mishra <mishra.sadh@gmail.com>

Fwd: Standard Monitoring Framework for Implementation of Biomedical Waste Management Rules, 2016 - reg.

1 message

Dinesh Runiwal <d.runiwal@gov.in>
To: mishra sadh <mishra.sadh@gmail.com>
Cc: Ved Prakash Mishra <mishra.vp@gov.in>

Thu, Aug 18, 2022 at 5:23 AM

URGENT

Put up this on Mukul Kumar Case related file with a self-contained note about the compliance of various identified points.

with regards,

Dinesh Runiwal
Scientist-E
Hazardous Substances Management Division
Ministry of Environment, Forest and Climate Change

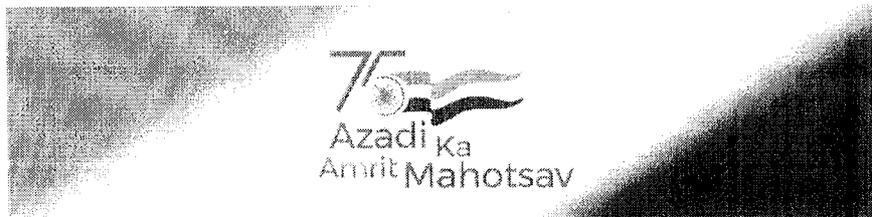
From: "Youthika Puri" <youthika.cpcb@nic.in>
To: "Ved Prakash Mishra" <mishra.vp@gov.in>
Cc: "Dinesh Runiwal" <d.runiwal@gov.in>, "Vijay yadav" <vpyadav.cpcb@nic.in>, "Member Secretary CPCB" <mshcb.cpcb@nic.in>, "Chairman CPCB" <ccb.cpcb@nic.in>
Sent: Thursday, August 18, 2022 9:39:46 AM
Subject: Standard Monitoring Framework for Implementation of Biomedical Waste Management Rules, 2016 - reg.

Sir,

I am directed to forward the CPCB letter dated 17.08.2022 enclosing the Monitoring Framework for Implementation of BMWM Rules, 2016. Please find attached the same for ready reference.

with regards

Youthika
Senior Environmental Engineer
Waste Management Division
Central Pollution Control Board



(41)



2 attachments

-  **Monitoring Framework for Implementation of BMWM Rules, 2016.pdf**
172K
-  **scan_0001.pdf**
271K

72



Speed Post

F. No. – B-31011/BMW (2096/42.77)/2022/WMD –I

August 17, 2022

To,

The Director,
HSM Division,
Ministry of Environment Forest and Climate Change,
Indira Paryavaran Bhawan, Jorbagh Road,
New Delhi -110003.

Sub: Standard Monitoring Framework for implementation of Bio-Medical Waste Management Rules, 2016 –reg.

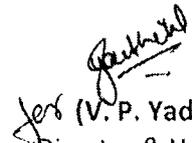
Sir,

This has reference to MoEF&CC D.O. letter dated 03.02.2022 wherein CPCB was directed to prepare a Standard Monitoring Framework which address the compliance to Biomedical Waste Management Rules, 2016 and its monitoring framework. It is to inform that CPCB has prepared said document indicating stakeholders of BMW Rules, 2016 and their duties; monitoring agencies; existing monitoring mechanism and monitoring framework.

Afore-said document on 'Monitoring Framework for Implementation of Biomedical Waste Management Rules, 2016' is attached herewith for ready reference.

This issues with approval from Competent Authority, CPCB.

Yours faithfully


J. P. Yadav
Director & Head

Waste Management Division -I

Encl: As above

Monitoring Framework for Implementation of Biomedical Waste Management Rules, 2016

August, 2022



Central Pollution Control Board
Parivesh Bhawan, East Arjun Nagar

1. Introduction

Government of India has provided legal framework for management and handling of biomedical waste since the year 1998. The Biomedical Waste (Management & Handling) Rules were first notified under Environment (Protection) Act, 1986 by Ministry of Environment Forest & Climate Change (MoEF&CC) in the year 1998. These Rules were issued with an aim to have scientific and environment friendly procedures for management and handling of biomedical waste. Further, MoEF&CC has re-notified under Environment (Protection) Act, 1986 said Rules in the year 2016 and the same is called as Biomedical Waste Management Rules, 2016 (BMW Rules). BMW Rules, 2016 were notified to improve the collection, segregation, processing, treatment and disposal practices for bio-medical wastes in an environmentally sound management to prevent from its adverse effect on the environment and human health.

The BMW Rules, 2016 stipulates about provisions for segregation of biomedical waste as per the colour coded system prescribed under said Rules. These Rules are applicable to all persons who generate, collect, receive, store, transport, treat, dispose, or handle bio medical waste in any form.

BMW Rules, 2016 stipulates duties of Occupiers (such as hospitals, nursing homes, clinics, dispensaries, veterinary institutions, animal houses, pathological laboratories, blood banks, ayush hospitals, clinical establishments, research or educational institutions, health camps, medical or surgical camps, vaccination camps, blood donation camps, first aid rooms of schools, forensic laboratories and research labs), duties of the operator of a Common Bio-medical Waste Treatment Facility and duties of monitoring authorities.

For ensuring effective implementation of BMW Rules, 2016, Central Pollution Control Board has prepared following guidelines:

- Guidelines for Management of Healthcare Waste in Health Care Facilities as per Bio Medical Waste Management Rules, 2016
- Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities
- Guidelines for Verification of Two Seconds Residence Time in Secondary Combustion Chamber of the Biomedical Waste Incinerator
- Guidelines for "Imposition of Environmental Compensation against HCFs and CBWTFs"
- Guidelines for Handling of Biomedical Waste for Utilization
- Guidelines for Bar Code System for Effective Management of Bio-Medical Waste
- Guidelines on Management of BMW Generated during UIP
- Environmentally Sound Management of Mercury Waste Generated from Health Care Facilities.
- Revision 5: Guidelines for Handling, treatment and disposal of waste generated during treatment, diagnostics and quarantine of COVID-19 patients
- Guidelines for Monitoring Performance of CBWTFs by SPCBs/PCCs

2. Stakeholders under Biomedical Waste Management Rules, 2016

Biomedical Waste Management Rules, 2016 stipulates duties to facilities involved in biomedical waste generation, storage, collection, handling, transportation, treatment & disposal. These Rules also stipulates duties for monitoring authorities and prescribed authority. As per said Rules, State Pollution Control Boards / Pollution Control Committees are the Prescribed Authorities for ensuring implementation of said Rules. Following are the duties prescribed for Healthcare Facilities and Operator of Common Biomedical Waste Treatment Facilities and other authorities for ensuring effective implementation of BMWM Rules.

2.1 Duties of the Occupier: BMWM Rules, 2016 stipulates the duties of Occupier for ensuring proper segregation, storage, collection, handling, transportation, treatment and disposal of biomedical waste. Further, following specific duties have been assigned to Occupiers:

- a) take all necessary steps to ensure that bio-medical waste is handled without any adverse effect to human health and the environment and in accordance with these rules;
- b) make a provision within the premises for a safe, ventilated and secured location for storage of segregated biomedical waste in colored bags or containers in the manner as specified in Schedule I of BMWM Rules, 2016,
- c) pre-treat the laboratory waste, microbiological waste, blood samples and blood bags through disinfection or sterilisation on-site then sent to the Common biomedical waste treatment and disposal facility for final disposal;
- d) Phase out use of chlorinated plastic bags (excluding blood bags, Urine bags, effluent bags, abdominal bags, and chest drainage bags.) and gloves by the 27th March, 2019.
- e) provide training to all its health care workers and others, involved in handling of bio medical waste at the time of induction and thereafter at least once every year and the details of training programmes conducted, number of personnel trained and number of personnel not undergone any training shall be provided in the Annual Report;
- f) establish a Bar- Code System for bags or containers containing bio-medical waste to be sent out of the premises or for the further treatment and disposal in accordance with the guidelines issued by the Central Pollution Control Board by 27th March, 2019;
- g) ensure segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities;
- h) ensure treatment and disposal of liquid waste in accordance with the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974);

- i) ensure occupational safety of all its health care workers and others involved in handling of biomedical waste by providing appropriate and adequate personal protective equipment;
- j) establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority and the healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report;
- k) maintain all record for operation of incineration, hydro or autoclaving etc., for a period of five years;
- l) existing incinerators to achieve the standards for treatment and disposal of bio-medical waste as specified in Schedule II of BMWM Rules, 2016.

2.2 Duties of the operator of a Common Biomedical Waste Treatment Facility

- (a) take all necessary steps to ensure that the bio-medical waste collected from the occupier is transported, handled, stored, treated and disposed of, without any adverse effect to the human health and the environment, in accordance with these rules and guidelines issued by the Central Government or, as the case may be, the central pollution control board from time to time;
- (b) ensure timely collection of bio-medical waste from the occupier as prescribed under these rules;
- (c) establish bar coding and global positioning system for handling of bio- medical waste in accordance with the guidelines issued by the Central Pollution Control Board 27th March, 2019"
- (d) inform the prescribed authority immediately regarding the occupiers which are not handing over the segregated bio-medical waste in accordance with these rules;
- (e) provide training for all its workers involved in handling of bio-medical waste at the time of induction and at least once a year thereafter;
- (f) assist the occupier in training conducted by them for bio-medical waste management;
- (g) undertake appropriate medical examination at the time of induction and at least once in a year and immunise all its workers involved in handling of bio-medical waste for protection against diseases, including Hepatitis B and Tetanus, that are likely to be transmitted while handling bio-medical waste and maintain the records for the same;
- (h) ensure occupational safety of all its workers involved in handling of bio-medical waste by providing appropriate and adequate personal protective equipment;
- (i) report major accidents including accidents caused by fire hazards, blasts during handling of biomedical waste and the remedial action taken and the records

relevant thereto, (including nil report) in Form I to the prescribed authority **and also** along with the annual report;

- (i) maintain a log book for each of its treatment equipment according to weight of batch; categories of waste treated; time, date and duration of treatment cycle and total hours of operation;
- (k) allow occupier, who are giving waste for treatment to the operator, to see whether the treatment is carried out as per the rules;
- (l) shall display details of authorisation, treatment, annual report etc. on its web-site;
- (m) after ensuring treatment by autoclaving or microwaving followed by mutilation or shredding, whichever is applicable, the recyclables from the treated bio-medical wastes such as plastics and glass, shall be given to recyclers having valid consent or authorisation or registration from the respective State Pollution Control Board or Pollution Control Committee;
- (n) supply non-chlorinated plastic coloured bags to the occupier on chargeable basis, if required;
- (o) common bio-medical waste treatment facility shall ensure collection of biomedical waste on holidays also;
- (p) maintain all record for operation of incineration, hydro or autoclaving for a period of five years; and
- (q) upgrade existing incinerators to achieve the standards for retention time in secondary chamber and Dioxin and Furans within two years from the date of this notification.

2.3 Duties of Central Pollution Control Board

- Prepare Guidelines on bio-medical waste Management and submit to the Ministry of Environment, Forest and Climate Change.
- Co-ordination of activities of State Pollution Control Boards or Pollution Control Committees on biomedical waste.
- Conduct training courses for authorities dealing with management of bio-medical waste.
- Lay down standards for new technologies for treatment and disposal of bio-medical waste (Rule 7) and prescribe specifications for treatment and disposal of bio-medical wastes (Rule 7).
- Lay down Criteria for establishing common biomedical waste treatment facilities in the Country.
- Random inspection or monitoring of health care facilities and common bio-medical waste treatment facilities.
- Review and analysis of data submitted by the State Pollution Control Boards on bio-medical waste and submission of compiled information in the form of annual report along with its observations to Ministry of Environment, Forest and Climate Change.
- Inspection and monitoring of health care facilities other than Medical Inspection (MI) rooms, sick bays on board ships or submarines, stations medical centres and field hospitals in forward locations operated by Director General, Armed Forces Medical Services.
- Undertake or support research or operational research regarding bio-medical waste.

2.4 Duties of State Pollution Control Board/Pollution Control Committees

- Inventorisation of Occupiers and data on bio-medical waste generation, treatment & disposal.
- Compilation of data and submission of the same in annual report to Central Pollution Control Board within the stipulated time period.
- Grant and renewal, suspension or refusal cancellation or of authorisation under these rules (Rule 7, 8 and 10).

- Monitoring of compliance of various provisions and conditions of authorisation.
- Action against health care facilities or common biomedical waste treatment facilities for violation of these rules.
- Organizing training programmes to staff of health care facilities and common bio-medical waste treatment facilities and State Pollution Control Boards or Pollution Control Committees Staff on segregation, collection, storage, transportation, treatment and disposal of bio-medical wastes.
- Undertake or support research or operational research regarding bio-medical waste management.
- Any other function under these rules assigned by Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- Implementation of recommendations of the Advisory Committee.
- Publish the list of Registered or Authorised (or give consent) Recyclers.
- Undertake and support third party audits of the common bio-medical waste treatment facilities in their State.

2.5 Duties of Ministry of Health & Family Welfare

- Grant of license to health care facilities or nursing homes or veterinary establishments with a condition to obtain authorisation from the prescribed authority for bio-medical waste management.
- Monitoring, Refusal or Cancellation of license for health care facilities or nursing homes or veterinary establishments for violations of conditions of authorization or provisions under these Rules.
- Publication of list of registered health care facilities with regard to bio-medical waste generation, treatment and disposal.
- Undertake or support operational research and assessment with reference to risks to environment and health due to bio-medical waste and previously unknown disposables and wastes from new types of equipment.
- Coordinate with State Pollution Control Boards for organizing training programmes to staff of health care facilities and municipal workers on bio-medical waste.
- Constitution of Expert Committees at National or State level for overall review and promotion of clean or new technologies for bio-medical waste management.
- Organizing or Sponsoring of trainings for the regulatory authorities and health care facilities on bio-medical waste management related activities.
- Sponsoring of mass awareness campaigns in electronic media and print media.

3. Existing compliance monitoring Mechanism

BMWM Rules, 2016 stipulate following monitoring mechanism for verification of compliance to said Rules.

- (1) The Ministry of Environment, Forest and Climate Change shall review the implementation of the rules in the country once in a year through the State Health Secretaries and Chairmen or Member Secretary of State Pollution Control Boards and Central Pollution Control Board and the Ministry may also invite experts in the field of bio-medical waste management, if required.
- (2) The Central Pollution Control Board shall monitor the implementation of these rules in respect of all the Armed Forces health care establishments under the Ministry of Defence.

- (3) The Central Pollution Control Board along with one or more representatives of the Advisory Committee constituted, may inspect any Armed Forces health care establishments after prior intimation to the Director General Armed Forces Medical Services.
- (4) Every State Government or Union territory Administration shall constitute District Level Monitoring Committee in the districts under the chairmanship of District Collector or District Magistrate or Deputy Commissioner or Additional District Magistrate to monitor the compliance of the provisions of these rules in the health care facilities generating bio-medical waste and in the common bio-medical waste treatment and disposal facilities, where the bio-medical waste is treated and disposed of.
- (5) The District Level Monitoring Committee constituted shall submit its report once in six months to the State Advisory Committee and a copy thereof shall also be forwarded to State Pollution Control Board or Pollution Control Committee concerned for taking further necessary action.
- (6) The District Level Monitoring Committee shall comprise of District Medical Officer or District Health Officer, representatives from State Pollution Control Board or Pollution Control Committee, Public Health Engineering Department, local bodies or municipal corporation, Indian Medical Association, common bio-medical waste treatment facility and registered nongovernmental organizations working in the field of bio-medical waste management and the Committee may co-opt other members and experts, if necessary and the District Medical Officer shall be the Member Secretary of this Committee.

3.1 Monitoring mechanism of Central Pollution Control Board:

In respect to monitoring of BMW Rules, 2016 CPCB has following mandates:

- Monitor the implementation of said Rules in respect of Armed Forces Health Care Establishments under the Ministry of Defence; and
- Random inspection or monitoring of health care facilities and common bio-medical waste treatment facilities.

For effective management of Biomedical Waste in Armed Forces Healthcare Establishments (AFHCEs) under the Ministry of Defence (MoD), BMW Rules, 2016 stipulate that Director General, Armed Forces Medical Services (DGAFMS) as the Prescribed Authority. As per the mandate of carrying out monitoring, CPCB conducts inspections and monitoring of AFHCEs.

Based on the verification reports of CPCB, a status reports was also issued by CPCB highlighting the biomedical waste management practices including short comings and scope of improvements in AFHCEs. This report was prepared to serve guidance to concerned officials of AFHCEs, DGAFMS and MoD for augmenting the existing facilities and improving the current practices in Biomedical Waste Management and for developing model health care facilities by complying to the provisions of the BMW Rules, 2016.

CPCB has also prepared guidelines for Monitoring Performance of CBWTFs by SPCBs/PCCs which gives guidance document providing check-lists for monitoring CBWTFs specially to monitor illegal handling of biomedical waste.

3.2 Monitoring mechanism of State Pollution Control Boards:

State Pollution Control Boards are the Prescribed Authorities for ensuring implementation of BMWM Rules, 2016 in their respective State / Union Territory. Also, SPCBs/PCCs are responsible for granting authorisation under BMWM Rules, 2016 to healthcare facilities and operator of Common Biomedical Waste Treatment Facilities for the generation, collection, reception, storage, transportation, treatment, processing, disposal or any other form of handling of bio-medical waste in accordance with these rules and guidelines issued by the Central Government or Central Pollution Control Board. The validity of such authorizations are required to be synchronized with validity of Consent issued by State Boards under Water (Prevention & Control of Pollution), 1974 and Air (Prevention & Control of Pollution), 1981.

As informed by SPCBs/PCCs the compliance to BMWM Rules, 2016 in respect of HCFs and CBWTFs is verified during grant / renewal of authorization and Consent issued under Water Act, 1974 and Air Act, 1981.

3.3 Self-monitoring by CBWTFs/HCFs:

- BMWM Rules, 2016 stipulate that the occupier or operator of a common bio-medical waste treatment facility shall monitor the stack gaseous emissions (under optimum capacity of the incinerator) once in three months through a laboratory approved under the Environment (Protection) Act, 1986 and record of such analysis results shall be maintained and submitted to the prescribed authority. In case of dioxins and furans, monitoring should be done once in a year.
- The occupier or operator of the common bio-medical waste treatment facility shall install continuous emission monitoring system for the parameters as stipulated by State Pollution Control Board or Pollution Control Committees in authorisation and transmit the data real time to the servers at State Pollution Control Board or Pollution Control Committees and Central Pollution Control Board.
- Healthcare Facilities are also required to establish a system to review and monitor the activities related to bio-medical waste management, either through an existing committee or by forming a new committee and the Committee shall meet once in every six months and the record of the minutes of the meetings of this committee shall be submitted along with the annual report to the prescribed authority and the healthcare establishments having less than thirty beds shall designate a qualified person to review and monitor the activities relating to bio-medical waste management within that establishment and submit the annual report.

4. Orders from Hon'ble National Green Tribunal

Hon'ble National Green Tribunal in the matter Original Application No. 180 of 2021 filed by Mukul Kumar vs. Uttar Pradesh & Ors. in its order dated 07.01.2022, mentioned that there are broad gaps identified in collection, handling, transportation, and disposal of bio-medical waste, including Covid-19 waste. Therefore, it will be appropriate to do rigorous monitoring at District, State and National levels by joint Committee representing the concerned authority's in coordination with all stake holders.

In view of above, Hon'ble NGT directed that Ministry of Environment, Forest and Climate Change, States and Districts to review the monitoring and implementation of BMW Rules, 2016.

In this regard, MoEF & CC in its D. O. letter dated 03.02.2022 requested CPCB to prepare a Standard Monitoring Framework, which may address following issues related to Biomedical Waste Management:

- i. BMW generation and treatment gap-analysis at State level and its third-party audit
- ii. Compliance monitoring of existing CBWTFs through SPCBs/ CPCB Regional Offices
- iii. Frequency of Monitoring of HCFs and CBWTFs
- iv. Development of a web-portal of BMW tracking, and
- v. Integration of online monitoring of waste collection and its receipt at various levels for reporting purpose

5. Standard Monitoring Framework:

Common Biomedical Waste Treatment Facilities (CBWTFs) as well as Healthcare Facilities (HCFs) are required to function in compliance with standards notified under Biomedical Waste Management Rules, 2016 (BMW Rules, 2016) and the guidelines issued by Central Pollution Control Board (CPCB) time to time. Monitoring framework for facilities envisages compliance status by HCFs and CBWTFs.

5.1 Compliance by CBWTFs:

Apart from obtaining Consent to Operate and authorization under BMW Rules, 2016, the CBWTFs are responsible for environmentally safe handling of biomedical waste in its coverage area. Monitoring of compliance by CBWTFs envisaged in following areas;

(a) Operational Compliance : Operational compliance by CBWTFs is related to safe collection, handling, transportation, reception, treatment, and disposal, that include compliance to following activities/aspects; (a) Collection (b) Use of Personal Protective Equipment (PPEs) (c) Transportation of BMW (d) Tracking of BMW (e) Handling at CBWTFs (f) Compliance to norms.

(b) Adequacy of Infrastructure : Adequate infrastructure at CBWTFs is essential for achieving compliance to standards and guidelines. The following infrastructure is essential for auditing performance of CBWTFs.

(a) Vehicles (b) Area of operations (c) Upgradation of Combustion Chamber (d) Upgraded APCDs (e) Waste reception (f) Treated waste handling. SPCBs shall issue appropriate directions to CBWTFs for augmenting infrastructure in time bound manner and maintain records of progress made.

(c) Reporting of data : Data reporting is an essential requirement on part of CBWTFs to report compliance to Rules and service provided. Such data is essential for SPCBs and other departments such as Health Department to monitor compliance by CBWTFs. The data is also essential to assess the gaps in waste generation and disposal, trends in generation, compliance

monitoring, need for additional facilities or capacity enhancement, etc. SPCBs shall ensure that records are maintained by CBWTFs

5.2 Compliance by Healthcare Facilities :

Healthcare Facilities can be monitored on the basis of following parameters:

(a) Segregation and storage Practices : Segregation of biomedical waste is required to be carried out in line with the BMWM Rules, 2016. Healthcare Facilities are required to provide colour coded bins/containers for the segregation. First five steps (Segregation, Collection, pre-treatment, Intramural Transportation and Storage) is the exclusive responsibility of Health Care Facility. While Treatment and Disposal is primarily responsibility of CBWTF operator except for lab and highly infectious waste, which is required to be pre-treated by the HCF. The management of bio-medical waste can overall be summarized in the following steps;

- Waste Segregation in color coded and barcode labeled bags/ containers at source of generation
- Pre-treat Laboratory and Highly infectious waste
- Intra-mural transportation of segregated waste to central storage area
- Temporary storage of biomedical waste in central storage area
- Treatment and Disposal of biomedical waste through CBWTF or Captive facility.

(b) Storage of Biomedical waste :

- Interim storage of bio medical waste is discouraged in the wards / different departments of HCF.
- If waste is needed to be stored on interim basis in the departments it must be stored in the dirty utility/sections.
- No waste should be stored in patient care area and procedures areas such as Operation Theatre. All infectious waste should be immediately removed from such areas.
- In absence of dirty utilities/ sections such BMW must be stored in designated place away from patient and visitor traffic or low traffic area.

(c) Intramural Transportation of Biomedical Waste : In house transportation of Bio Medical Waste from site of waste generation/ interim storage to central waste collection centre, within the premises of the hospital must be done in closed trolleys / containers preferably fitted with wheels for easy maneuverability. Such trolleys or carts are designated for the purpose of Bio Medical Waste Collection only.

(d) Reporting of data :

- a. Every healthcare facility need to maintain the records w.r.to category wise bio-medical waste generation and its treatment disposal (either by captive facility or through CBWTF) on daily basis.

- b. Category wise quantity of waste generated from the facility must be recorded in Bio Medical Waste Register/logbook being maintained at central waste collection area under the supervision of one designated person.
- c. A weighing machine as per the specifications given in CPCB guidelines for bar code system needs to be kept in central waste collection centre of the HCF having 30 or more than 30 nos. of beds for weighing the quantity of Bio Medical Waste.
- d. HCFs having less than 30 beds shall maintain records of receipts printed by the CBWTF.
- e. Records on Annual Report on bio-medical waste management submitted to SPCB/PCC
- f. Records w.r.t. Accident Report submitted to SPCB/PCC including "NIL" report.
- g. Records shall be maintained on training on BMW Management including both Induction and in service training records.
- h. Maintain records for Annual Health check-up of all the employees.
- i. Maintain record on Immunisation of all the employees.
- j. Records shall be maintained indicating details of accident occurred including preventive and corrective actions taken by the HCFs in relation to such accidents.
- k. Records for the operation of the biomedical treatment equipment installed, if any for the treatment of biomedical waste.
- l. Records of testing of Effluent generated from health care facility
- m. Record of recyclable waste (plastic/glass) handed over to the authorized recycler in kg/annum.

The records related to the handling of BMW by healthcare facilities needs to be retained for a period of five years.

(e) Monitoring of Captive Treatment Facilities : The above clause mentioned for CBWTFs shall be applicable for the monitoring of captive treatment facilities installed by Healthcare Facilities.

6. CPCB formats for performance evaluation of CBWTFs and HCFs:

CPCB has prepared Formats for carrying out performance evaluation of healthcare facilities and Common Biomedical Waste Treatment Facilities. The monitoring of HCFs and CBWTFs by CPCB/SPCBs/PCCs be carried out as per the said Formats as given at **Annexure I & Annexure II**.

7. Inspections and Monitoring

Periodic inspection of CBWTFs and HCFs by SPCBs/PCCs is necessary to monitor compliance. SPCBs/PCCs may evolve their own schedule of monitoring and compliance verification, by ensuring the following minimal requirement for inspection and monitoring:

S. No.	Type of inspection and Monitoring	Frequency of inspection
1.	Physical Inspection (field visit)	Monthly (verification at site)
2.	Inspection cum Monitoring (field visit)	Quarterly (physical verification)
3	Inspection of dumpsites, illegal	At least 4 random visits per Annum as well as when

	dumps, outside CBWTF / HCF premises, etc (field visit)	complaints are received.
4	Inspection of BMW collection and transport (field work in transit)	On the random spot checks of vehicles and operations for 3 or 4 occasions in an year.
5	Monitoring of GPS Tracking	Daily (desktop monitoring)
6	Monitoring of COVID19 Tracking App	Daily monitoring and reporting to CPCB on App (desktop monitoring)
	Monitoring of Barcode Tracking	Daily (desktop monitoring)
7	OCEMS Data	Daily (desktop monitoring)
8	Inspection of specific complaints (field work)	As and when necessary (field investigation)

8. Mechanism to Monitor illegal activities of CBWTFs

There have been several complaints against CBWTFs and HCFs for improper handling of BMW. The type of complaints with respect to HCFs range from improper segregation, open dumping of biomedical waste, handing over the untreated biomedical waste to un-registered recyclers etc. whereas with respect of CBWTFs the type of complaints ranges from , illegal transfer to informal recyclers, dumping, high emissions from incinerators, discharge of untreated wastewater, improper transport etc. It is important redress such complaints on priority since improper treatment or disposal may result into spread of diseases.

In view of the numerous incidents of violations, SPCBs/PCCs are required to perform following activities so as to ensure proper monitoring of compliance to BMWM Rules, 2016:

- (i) Develop Complaint redressal mechanism through web portal as well as suitable mobile App like Sameer Platform
- (ii) Use Social Media Platform to report incidents
- (iii) Collect local intelligence from field staff
- (iv) Conduct Periodic random checks
- (v) Imposition of Environmental Compensation Charges

9. Development of a web-portal of BMW tracking including integration of online monitoring of waste collection

Rule 4 (i) of BMWM Rules, 2016, stipulate that it is the duty of every Health Care Facility (HCF) to establish a bar code system for bags or containers containing biomedical waste (BMW) to be sent out of the premises or place for any purpose, by 27.03.2019. Also, Rule 5 (c) of the BMWM Rules, 2016 stipulates that it is the duty of the every Operator of Common Bio-medical Waste Treatment Facility (CBWTF) to establish bar code system for handling of bio-medical waste. To facilitate implementation of barcode system by Operators CBWTFs and Hospitals at State levels, CPCB has prepared guidelines for "Barcode System for Effective Management of Biomedical Waste"

It is proposed that Occupier as well as Operator of CBWTF shall have uniformity in adoption of the bar code system throughout the country, for ensuring effective enforcement of the BMWM Rules, 2016, so that a centralized monitoring system can be developed to monitor day to day activity of BMW management in real-time by regulators and concerned departments such as CPCB / SPCBs / State Health Departments / MoH&FW / etc. Further, Hon'ble Supreme Court of India in the matter of IA No. 181745 of 2019 and I.A. No. 46339 of 2020, in W.P.C. 13029 of 1985 also passed orders directed MoEF & CC / CPCB to work out a national bar-coding system/portal for tracking of biomedical waste.

Tracking of biomedical waste may be carried out with the help of Barcode System adopted by HCFs and CBWTFs. With the help of said system, the biomedical waste once generated by the Healthcare Facility can be tracked till its disposal through CBWTFs.

During COVID-19 pandemic, CPCB developed a mobile application as well as web portal namely 'COVID19BWM' for tracking of COVID-19 biomedical waste generation and treatment.

Every COVID-19 biomedical waste generator, CBWTF operator and other stakeholders are required to report the data related to biomedical waste generated during treatment/diagnosis/quarantine of COVID-19 positive or suspected patients and during treatment and disposal of said waste by CBWTF operator.

SPCBs/PCCs may use above online portals for monitoring of compliance of Biomedical Waste Management Rules, 2016.

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**Inspection Report Format for Performance Evaluation of the
Common Bio-medical Waste Treatment Facility (CBWTF)**

Part A - General Information

S.No.	Details		Particulars
01.	Name of CBWTF with contact details	:	
02.	Date of visit	:	
03.	Location details of the CBWTF	:	a) In /near to Residential area: :Yes <input type="checkbox"/> No <input type="checkbox"/> b) In/near Sensitive area: Yes <input type="checkbox"/> No <input type="checkbox"/> c) In Industrial area : Yes <input type="checkbox"/> No <input type="checkbox"/> d) Is it as a part of TSDF: Yes <input type="checkbox"/> No <input type="checkbox"/> e) In Metropolitan city: Yes <input type="checkbox"/> No <input type="checkbox"/> (i)Name of the City: g) Is the facility proposed in Hilly Region : Yes <input type="checkbox"/> No <input type="checkbox"/> (i)Name of the City:
04	Month / year of establishment and the Consents status	:	Establishment Month/Year :
05.	CBWTF set up by	:	
06.	CBWTF operated by	:	
	Contact Details		Contact Person: E-Mail: Telephone: Mobile phone:
07.	Total Bio-medical Waste Treatment Capacity of CBWTF (in kg / day)	:	Incineration : Autoclave : Any other treatment and disposal: Total:
08.	Consents and Authorization details :		
8.1	Consent under Water (Prevention and Control of Pollution) Act, 1974	:	<input type="checkbox"/> Applied for <input type="checkbox"/> Possess Valid Consent <input type="checkbox"/> Not renewed <input type="checkbox"/> No consent If obtained: Consent is valid upto and issued bySPCB/PCC vide letter dated
8.2	Consent under Air (Prevention and Control of Pollution) Act, 1981	:	<input type="checkbox"/> Applied for <input type="checkbox"/> Possess Valid Consent <input type="checkbox"/> Not renewed <input type="checkbox"/> No consent If obtained: Consent is valid upto and issued bySPCB/PCC vide letter dated
8.3	Environmental Clearance (EC)		<input type="checkbox"/> Applied for <input type="checkbox"/> Not applied <input type="checkbox"/> <input type="checkbox"/> Obtained <input type="checkbox"/> Not obtained <input type="checkbox"/> Not Applicable

			If obtained: EC issued by MoEF vide letter dated
8.4	Authorization Status	:	<input type="checkbox"/> Applied for <input type="checkbox"/> Possess Valid Consent <input type="checkbox"/> Not renewed <input type="checkbox"/> No consent If obtained: Authorisation is valid upto and issued bySPCB/PCC vide letter dated
9.	Area or plot size of CBWTF (in Sq. ft.)	:	
10	Annual Report submission for the year	:	Submitted before due date : :Yes No <input type="checkbox"/> If yes, provide details of waste collected, received and treated & disposed of.....&
11.	Name of Districts/Cities / places being covered	:	
12.	Daily operation schedule (timings)	:	Collection : am to Pm. Incineration :AM toPM
13.	Cost charged to the healthcare facilities	:	
14.	Status of infrastructure (Yes / No)		
14.1	Separate space for treatment equipment room	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.2	Main waste storage room	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.3	Separate space for treated waste	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.4	Administrative room	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.5	Generator set	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(i) Capacity	:	
	(ii) Stack attached as per DG Set norms	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(iii) Acoustic enclosure provided as per DG Set norms	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(iv) Is DG Set complying to the emissions norms	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
	(v) Is DG Set complying to the noise level as per Norms	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.6	Site security (high walls, fencing, guarded gates etc.)	:	High walls on all four sides : <input type="checkbox"/> Yes <input type="checkbox"/> No Fencing on all the sides : <input type="checkbox"/> Yes <input type="checkbox"/> No Guarded Gates : <input type="checkbox"/> Yes <input type="checkbox"/> No
14.7	Parking facility	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.8	Sign board	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.9	Green belt	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.10	Washing room	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.11	First aid box	:	<input type="checkbox"/> Yes <input type="checkbox"/> No

14.12	Lighting arrangements in the facility	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.13	Odour problem remedial	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.14	Fire fighting and emergency facilities	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.15	Measures for control of pests / insects etc.	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
14.16	Protective gear for waste handlers	:	
14.17	Telephone facility	:	

Part-B: Operational Information

Part B

S.No.	Details		Particulars
1.	Total number of healthcare facilities and beds covered (as on date of visit)	:	Total no. of HCFs : Bedded HCFs : Non-bedded HCFs : No. of Beds : No. of beds upto 75 KM radius : No. of beds more than 75 KM radius, if any:
2	Average quantity of bio-medical waste Collected As per records (if required last 6 months data may be checked)		
	Yellow	: Kg /hr.
	Red	: Kg/day
	white	: Kg/day
	Blue	: Kg/day
	Waste/spent Chemicals	:	
3.0	Collection and Transportation of bio-medical waste from member HCFs :	:	
3.1	No. of Vehicles used for collection of waste from member HCFs	:	
3.2	Condition of vehicles	:	<input type="checkbox"/> labelled; <input type="checkbox"/> Not labelled; <input type="checkbox"/> unbearable odor <input type="checkbox"/> shutters damaged, <input type="checkbox"/> no locking arrangement for shutter; <input type="checkbox"/> leakage observed from vehicle <input type="checkbox"/> GPS is provided or not [tick only the applicable]
3.3	Conditions at waste reception area	:	<input type="checkbox"/> Ventilated; <input type="checkbox"/> No ventilation; <input type="checkbox"/> bags ruptured/spillage on floor; <input type="checkbox"/> Space not adequate;

			<input type="checkbox"/> unbearable smell [multiple ticks as applicable]
4	Red Category Waste Treatment	:	
4.1	Disinfection facilities		<input type="checkbox"/> Autoclave; No of units..... Capacity..... <input type="checkbox"/> Microwave; No of units..... Capacity..... <input type="checkbox"/> Chemical Disinfection..... (if so pl. specify name of chemicals used No of cycles of operation (autoclave/microwave) per day:
4.2	Operating conditions of autoclave/microwave as observed during the visit	:	Temperature : in °C Pressure : in psi Residence time : in minutes
4.3	Validation tests on disinfection	:	Daily strip test: <input type="checkbox"/> Yes <input type="checkbox"/> No Spore test: <input type="checkbox"/> Yes <input type="checkbox"/> No Validation test: <input type="checkbox"/> Yes <input type="checkbox"/> No Records maintained: <input type="checkbox"/> Yes <input type="checkbox"/> No
4.4	Operation of Autoclave / Microwave	:	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/> No facility for automatic Recording logging of microwave / autoclave
4.5	Log book	:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not up to date <input type="checkbox"/> Up to date [multiple ticks as applicable]
4.6	Segregation of disinfected red waste		<input type="checkbox"/> manual <input type="checkbox"/> Mechanical <input type="checkbox"/> Semi-mechanical
4.7	Capacity of shredder and make	: kg/hr. Self designed & got fabricated locally.
5.	Yellow Category Waste Disposal	:	
5.1	Type of disposal facility		2 stage Incinerator <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes type of incinerator: <input type="checkbox"/> Fixed hearth primary chamber <input type="checkbox"/> Rotary kiln primary chamber Capacity: _____ Kg/Hour <input type="checkbox"/> Plasma pyrolysis: <input type="checkbox"/> Yes <input type="checkbox"/> No Capacity _____
5.2	Feeding Mechanism		Manual feeding : <input type="checkbox"/> Yes <input type="checkbox"/> No Automatic feeding : <input type="checkbox"/> Yes <input type="checkbox"/> No
5.3	Is residence time in secondary combustion chamber > 2 seconds		<input type="checkbox"/> Yes <input type="checkbox"/> No
5.4	Type of APCDs attached with incinerator		Unit operations [pl. tick all applicable boxes] <input type="checkbox"/> High rate Ventury scrubber; <input type="checkbox"/> spray scrubber; <input type="checkbox"/> packed bed tower; <input type="checkbox"/> flue gas cooling system; <input type="checkbox"/> dry

			<p>chemical injection (for activated carbon / lime / other chemicals) prior to bag filters; <input type="checkbox"/> carbon slurry scrubber; <input type="checkbox"/> bag filters; <input type="checkbox"/> waste heat recovery system; <input type="checkbox"/> ceramic scrubbers; <input type="checkbox"/> cooling tower; <input type="checkbox"/> dry-adsorption reactor prior to bag filter;</p> <p>If any other units please specify:</p>
5.5	Type of fuel used		<input type="checkbox"/> HSD; <input type="checkbox"/> FO; <input type="checkbox"/> LDO; <input type="checkbox"/> LPG; <input type="checkbox"/> CNG;
5.6	OCEMS & Flue Gas Analyser		<p>(i) Online CEMS Installation <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(ii) Connectivity to SPCB</p> <p>(iii) Connectivity to SPCB</p> <p>(iv) Parameters monitored:</p> <p>(v) Flue gas analyser available <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(iii) Observed values of flue gas parameters: CO₂:%; O₂: % ; and CO:</p>
6.	Disposal of white Waste	:	<p>After sterilization & shredding:</p> <p>Sharp Pit provided : <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Is it as per CPCB guideline : <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Records maintained : <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Total quantity of waste sharps stored:</p> <p>Total quantity of waste sharps treated and disposed:</p>
7.	Disposal of Blue waste		<p>After Sterilization, facility for rinsing and washing of glass containers</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Detergent waste: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Residual chemicals collected : <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA</p>
8.	Facility for handling and storage of mercury waste		
9.	Facility for storage and handling of hazardous chemicals		
10.	Linkage with Common TSDF		
11.	Wastewater management		<p>GenerationKLD</p> <p>Quantity discharged: _____KLD</p> <p>No Discharge: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>ETP Capacity..... KL/Cycle</p> <p>(i) Treated water is reused in the scrubber: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(ii) Treated water is reused for gardening: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(iii) Treated water is discharged in drain: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(iv) Treated water is discharged in open area: <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>(v) ETP Installed: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

			If yes, ETP unit operations: Final mode of disposal of treated water:
12.	Record keeping details		
12.1	Waste Movement Manifest	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.2	Log book	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.3	Incineration ash testing	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.4	Records of Treated waste sent to recyclers	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.5	Collection and transportation status (Yes / No)*		
12.6	Whether waste collected in a container of similar colour with label as per the Rules?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.7	Whether the person who collects BMW maintain a register with him / her?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.8	Whether Bar code system is adopted or not?		<input type="checkbox"/> Yes <input type="checkbox"/> No If yes, pls. provide details:
12.9	Has due attention have been given in vehicles to prevent spillage / pilferage/ loading / unloading etc.?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.10	Is the vehicle labeled with the symbol and display the name, address, telephone number etc.?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.11	Does the CBWTF operator use satellite station to store the waste? If yes, give details	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
12.12	The CBWTF operator collects waste daily or alternate day? Whether criterion of 48 hours is complied?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
13.	Disposal of treated waste:		
13.1	Plastic waste after	:	

	treatment																							
13.2	Treated sharps	:																						
13.3	Incineration ash	:																						
13.4	Other treated solid wastes	:																						
13.5	Oil & grease	:																						
13.6	Treated wastewater	:																						
14.	Frequency of incinerator / autoclave / microwave / hydroclave / ETP discharge effluent testing and name of the laboratory (specify approved or not). Give details of compliance / non-compliance)	:	The reported frequency of monitoring was: - Stack monitoring : Monthly/Quarterly/Yearly Waste water : Monthly/Quarterly/Yearly Incineration ash : Monthly/Quarterly/Yearly Copies of the analysis reports of treated effluent, incinerated ash, stack monitoring																					
14.1	Frequency of site inspection by SPCBs/PCCs/CPCB/any other agencies	:no. of times in a year bySPCB/PCC/CPCB																					
15.	Monitoring Results :																							
15.1	Incinerator stacks emission (parameters stipulated in the Rules, temperature attainment in the chambers, residence time in the secondary chamber etc.)	:	<table border="1"> <thead> <tr> <th>Parameter</th> <th>PM</th> <th>Total Dioxin & furans</th> <th>HC I</th> <th>NOx</th> <th>Hg and its compounds</th> <th>C.E.</th> </tr> </thead> <tbody> <tr> <td>Date</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>LIMIT</td> <td>50</td> <td>---</td> <td>50</td> <td>400</td> <td></td> <td>99.99 %</td> </tr> </tbody> </table> <p>Date of monitoring: All values are in mg/Nm³, except CE</p>	Parameter	PM	Total Dioxin & furans	HC I	NOx	Hg and its compounds	C.E.	Date							LIMIT	50	---	50	400		99.99 %
Parameter	PM	Total Dioxin & furans	HC I	NOx	Hg and its compounds	C.E.																		
Date																								
LIMIT	50	---	50	400		99.99 %																		
15.2	Incineration ash characteristics	:	Characteristics as per Schedule -II of HWM Rules: Is it hazardous waste as per HWM Rules: <input type="checkbox"/> Yes <input type="checkbox"/> No																					
15.3	ETP inlet/outlet characteristics	1.:	<table border="1"> <thead> <tr> <th>Parameter</th> <th>pH</th> <th>TSS</th> <th>COD</th> <th>BOD</th> <th>O&G</th> </tr> </thead> <tbody> <tr> <td>ETP Inlet Result</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>ETP Outlet Result</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>All values are in mg/l except pH</p>	Parameter	pH	TSS	COD	BOD	O&G	ETP Inlet Result						ETP Outlet Result								
Parameter	pH	TSS	COD	BOD	O&G																			
ETP Inlet Result																								
ETP Outlet Result																								

Annexure II**Central Pollution Control Board****Checklist for Verification of Compliance of Provisions of BMW Rules in Health Care Facility (HCF)**

I.	General Information:		
(a)	Name & Address of the HCF	:	
(b)	Contact person & Telephone No.	:	
(c)	Month & Year of Establishment	:	
(d)	Government/Trust/Private Hospital	:	
(e)	Total no. of beds & average occupancy	:	
(f)	Consent under Water (Prevention and Control of Pollution) Act, 1974	:	
	• Date of issue	:	
	• Validity up to	:	
(g)	Consent under Air (Prevention and Control of Pollution) Act, 1981	:	
	• Date of issue	:	
	• Validity up to	:	
(h)	Authorization under Bio-medical Waste (M & H) Rules, 1998	:	
	• Date of issue	:	
	• Issued by	:	

	• Validity up to	:	
(i)	Daily Operation schedule (timings)	:	
(j)	Status of Annual Report submission	:	
(k)	House Keeping and Sanitation status	:	
(l)	Staff involvement in BMW management (no. of persons)	:	
	• Managerial/Administration	:	
	• Equipment operations	:	
	• Transportation of BMW	:	
	• Sanitation & others	:	
(m)	Whether annual report submitted by HCF to the SPCB/PCC/Any other prescribed authority (Date of submission and enclose a copy)	:	
II.	Bio-medical Waste (Sources, Storage and segregation):		
(a)	Sources of Biomedical Waste Generation	:	
(b)	Total quantity of Bio-medical waste generated in Kg/day and in Kg/annum	:	
(c)	Typical Categories of wastes generated (pl. indicate category wise quantity in Kg/day):		
	Category No.	Category of Waste	Treatment & Disposal
	1	Human Anatomical Waste	> --
	2	Animal Waste	> --
	3	Microbiology & Biotechnology Waste	> --
	4	Waste Sharps	

5	Discarded Medicines and Cytotoxic Drugs		➤	--
6	Soiled Waste		➤	
7	Solid Waste (wastes generated from disposable items other than the waste sharps)		➤	
8	Liquid Waste			
9	Incineration Ash		➤	--
10	Chemical Waste		➤	--
	Total solid waste			
	Total liquid waste			
(d)	Record keeping for generation and disposal of BMW	:		
(e)	Status of segregation and storage (colored bins, plastic bags and any other mode)	:		
(f)	Status of temporary storage details (pl. indicate specific provision made by the HCF)	:		
(g)	Whether temporary storage is satisfactory	:		

	(Yes /No)		
(h)	Status of treatment at wards and chemicals used	:	
(i)	Status of House Keeping in Wards and at source of BMW generation	:	
(j)	Mode of transportation of wastes from source to the temporary storage/on-site treatment facility (pl. indicate type of provision made by the HCF)	:	
(k)	Provision made for on-site transportation within HCF is satisfactory (Yes/No). Details thereof	:	

(l)	Category wise disposal options followed :		
	Colour Coding	Waste Categories	Treatment & Disposal
	Red		
	Blue		
	Yellow		
	Green	General waste such as paper, cardboard boxes, packaging, kitchen waste etc.	

III.	On-site Treatment of BWM by HCF:								
(a)	Total quantity of bio-medical waste treated (Kg per day) <ul style="list-style-type: none"> • Deep Burial in Kg/day • Incinerable in Kg/day • Autoclaving/ Microwaving/ Hydroclaving in kg/day • Others (please specify) in Kg/day 	:							
(b)	On-site Treatment Provision by Incineration:								
	• Supplier of the Incinerator	:							
	• Capacity of the Incineration in tonnes per hour and tonnes per annum	:	--						
	• Operation conditions of the Incineration based on the designs/supplier	:	--						
	• Provision made for Temperature measurements	:	--						
	• Daily Operation schedule (timings)	:	--						
	• Operating conditions as per records and as observed	:	--						
	• Stack attached with the incinerator	:	--						
	• Air pollution control systems attached with the incinerator	:	--						
	• Auxiliary fuels used for incineration	:	--						
	• Consumption of auxiliary fuels	:	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Name of fuel</th> <th style="width: 50%;">Quantity per day/month</th> </tr> </thead> <tbody> <tr> <td>a) --</td> <td>--</td> </tr> <tr> <td>b) --</td> <td>--</td> </tr> </tbody> </table>	Name of fuel	Quantity per day/month	a) --	--	b) --	--
Name of fuel	Quantity per day/month								
a) --	--								
b) --	--								
	• Monitoring provision attached with the stack	:	--						
	• Storage provision at the incinerator	:	--						
	• Fire safety measures adopted	:	--						
	• Log book for operation of incinerator	:	--						
	• Type of wastes incinerated and its characteristics	:	--						
	• Average quantity of wastes incinerated per day or per month or per annum	:	--						

	• Duration of operating hours of incineration:	:	--
	• Details of heat recovery system installed with incinerator if any:	:	--

	• Stack gaseous emissions monitored:		
	Emission Parameters	Permissible Limits	Monitored Values** by CPCB
	Particulate matter (with 12% CO ₂ correction)	150 mg/Nm ³	--
	Nitrogen Oxides	450 mg/Nm ³	--
	HCl	50 mg/Nm ³	--
	SO ₂	Low Sulphur fuel to be used	--
	Stack Height	30 meter	--
	Volatile Organic compound in ash (%)	Less than 0.01%	--
	Temp. in Primary Chamber	800°C (+/-) 50°C	--
	Temp. in secondary Chamber	1050°C (+/-) 50°C	--
	Residence time in sec. chamber	1 second	--
	** Not applicable.		
	• Quantity of ash generation per day or per month or per annum	:	--
	• Final disposal mode of incineration ash (also indicate characteristics)	:	--
	• Specific observations, if any, w.r.t. incineration (any chlorinated disinfectants, chlorinated plastics, sulphur content in auxiliary fuels used for incineration)	:	--
(c)	Autoclaving /Microwaving /Hydroclaving :		
	• Capacity	:	
	• Make	:	--
	• Air pollution control devices attached	:	--
	• Capacity of shredder and make:	:	

	<ul style="list-style-type: none"> Operating conditions as per designs 	:	--																					
	<ul style="list-style-type: none"> Graphic or computer recording devices attached with the system 	:	--																					
	<ul style="list-style-type: none"> Operating conditions as observed in recording system 	:	--																					
	<ul style="list-style-type: none"> Performance evaluation by spore testing or routine test. Details thereof 	:	--																					
	<ul style="list-style-type: none"> Biological indicators 	:	--																					
(d)	Onsite Wastewater Treatment:																							
	<ul style="list-style-type: none"> Consumption of water per day (in kl/day) 	:																						
	<ul style="list-style-type: none"> Sources of water supply 	:																						
	<ul style="list-style-type: none"> Sources of waste water generation and the quantity (in kl/day) 	:																						
	<ul style="list-style-type: none"> Total Waste water generation quantity (in kl/day) 	:																						
	<ul style="list-style-type: none"> Steps involved in Effluent Treatment Plant (Also enclose flow chart of ETP) 	:																						
	<ul style="list-style-type: none"> Type of chemicals used in ETP and the consumption (in kg/day) 	:																						
	<ul style="list-style-type: none"> Intake characteristics of ETP 	:																						
	<ul style="list-style-type: none"> Final mode of disposal of treated wastewater (Reused/ Discharged through drain) 	:																						
	<ul style="list-style-type: none"> compliance to the regulatory requirements for final disposal of treated liquid effluent: 	:	<table border="1"> <thead> <tr> <th>Parameter</th> <th>Permissible limits in mg/l except pH</th> <th>Monitored values** in mg/l except pH</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td></td> <td></td> </tr> <tr> <td>SS</td> <td></td> <td></td> </tr> <tr> <td>O & G</td> <td></td> <td></td> </tr> <tr> <td>BOD</td> <td></td> <td></td> </tr> <tr> <td>COD</td> <td></td> <td></td> </tr> <tr> <td>Bio-assay Test</td> <td></td> <td></td> </tr> </tbody> </table> <p>** Not applicable.</p>	Parameter	Permissible limits in mg/l except pH	Monitored values** in mg/l except pH	pH			SS			O & G			BOD			COD			Bio-assay Test		
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	<ul style="list-style-type: none"> Analysis procedures followed for characterization of waste waster 	:	--																					
	<ul style="list-style-type: none"> Any other mode of wastewater disposal, Details thereof 	:	--																					
(e)	On-site BMW Disposal																							
	<ul style="list-style-type: none"> Disposal by Deep Burial/ Municipal Solid Waste Landfills/ Disposal in 	:																						

	Open Yards or low lying areas		
	• Give details of sharp pit/ encapsulation facility (pl. provide details such as size of pit, depth in m)	:	
	• Precautionary measures taken around the sharp pit or encapsulation facility	:	
	• Whether sharp pit/ encapsulation is authorized by SPCB/ PCC/ any prescribed authority	:	
	• Give measures taken for disposal of BMW by sharp pit/encapsulation:	:	
	• Ground Water Level and the Characteristics around the encapsulation pit:	:	
	• Records with regard to the Deep Burial	:	
IV	Status of infrastructure (specify shortcomings observed if any):		
	• Treatment equipment room:	:	
	• Main waste storage room:	:	
	• Treated waste storage room:	:	
	• Generator set (size and regulatory compliance details)	:	
	• Waste treatment site security (High walls, fencing, guarded gates etc.)	:	
	• Washing room for waste containers	:	
	• Protective gear for waste handlers	:	
		:	
		:	
V.	Record keeping details:		
	• Does the operator have record keeping system in order to comply with the Rules? Specify shortcomings observed if any.	:	
VI	Monitoring Frequency Details:		
	• Frequency of monitoring of incinerator/ autoclave/ microwave/ hydroclave/ ETP effluent discharge	:	--
	• name of the laboratory (specify approved or not)	:	
	• Give details of compliance/ non-compliance of liquid and air	:	

	emissions.	:	--
		:	--
VII	Monitoring results carried out by SPCB/ PCC:		
	<ul style="list-style-type: none"> • Incinerator gaseous stack emissions (attach monitoring results) • Validation/ efficacy test of autoclave/ microwave/ hydroclave: • ETP inlet and outlet characteristics 	:	--
		:	--
		:	--
VII I	Whether wastes are disposed-off through common facility. If so provide details:		
	Type of wastes disposed after treatment	:	
	<ul style="list-style-type: none"> • Plastic wastes after treatment • Treated sharps • Incineration ash • Other treated solid wastes • Treated waste water 	:	
		:	
		:	
		:	
		:	
IX	Check for the following (indicate YES/NO):		
	<ul style="list-style-type: none"> • Bio-medical waste not to be mixed with other waste. • Needle/syringe destroyer at required places • Segregation of waste in the coloured containers at the source of waste generation as per BMW Rules. • Placement of required coloured containers at the source of waste generation labeled with bio-hazard symbol • Whether awareness among hospital staff/ doctors generated? • Whether labeling of bag has been 	:	

	<p>done with respective ward no. in order to identify its source to enable improvement of segregation?</p> <ul style="list-style-type: none">• Whether special care is taken with regard to mercury spillage/breakage• Deployment of posters/placards within the hospitals• Whether requisite treatment to segregated waste/ hand over to CBWTF operator within 48 hours of waste generation is imparted?• Whether waste collected in a container of similar colour with label as per the Rules?• Whether the person who collects BMW maintains a register?• Type of vehicle used (closed type or open type) for transportation for final disposal?• Has due attention been given in vehicles to prevent spillage/pilferage/ loading/ unloading etc.?• The facility operator collects waste daily or alternate day? Whether criterion of 48 hours is complied?	:	
--	---	---	--

--	--	--	--

X.	Other observations:

XI	Recommendations:		
XII	Name (s) of the visiting official (s) with address	:	
XII I	Date of visit to HCF	:	
XI V	Signature of the Officials with Date	:	