

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI**

**ORIGINAL APPLICATION NO. 710/2017
(I.A. NO. 105/2019)**

WITH

**ORIGINAL APPLICATION NO. 711/2017
(M.A. NO. 1497/2017 & M.A. NO. 280/2018)**

WITH

ORIGINAL APPLICATION NO. 712/2017

WITH

ORIGINAL APPLICATION NO. 713/2017

IN THE MATTER OF:

SHAILESH SINGH	VS.	APPLICANT(S)
SHEELA HOSPITAL & TRAUMA CENTRE, SHAHJAHANPUR & ORS.		RESPONDENT (S)
	WITH	
SHAILESH SINGH		APPLICANT(S)
	VS.	
KAILASH HOSPITAL AND HEART INSTITUTE & ORS.		RESPONDENT (S)
	WITH	
SHAILESH SINGH		APPLICANT(S)
	VS.	
GANGA CHARAN HOSPITAL PVT. LTD., BAREILLY & ORS.		RESPONDENT (S)
	WITH	
SHAILESH SINGH		APPLICANT(S)
	VS.	
KATIYAR NURSING HOME, HARDOI & ORS.		RESPONDENT (S)

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**B. VINOD BABU
ADDITIONAL DIRECTOR
CENTRAL POLLUTION CONTROL BOARD
PARIVESH BHAWAN
EAST ARJUN NAGAR DELHI - 110032**

**CPCB REPORT ON STATE LEVEL ACTION PLANS FOR
COMPLIANCE TO
BIOMEDICAL WASTE MANAGEMENT RULES, 2016**

[In compliance to order dated 12.03.2019 passed by Hon'ble National Green Tribunal in the matter of O.A. No. 710 – 713 of 2017, filed by Shailesh Singh Vs Sheela Hospitals & Trauma Centre, Shahjanpur & Ors; Kailash Hospital and Heart Institute & Ors.; Ganga Charan Hospital Pvt. Ltd., Bareilly & Ors. and Katiyar Nursing Home, Hardoi & Ors.]

May 2019

SUBMITTED BY

**CENTRAL POLLUTION CONTROL BOARD
PARIVESH BHAWAN, EAST ARJUN NAGAR, SHAHDARA, DELHI: 110032**

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CHAPTER 1

INTRODUCTION

The Original Application (O.A.) No. 710 of 2017 has been filed by Shailesh Singh versus Sheela Hospital & Trauma Centre, Shahjhanpur & Ors. with O.A. No. 711 of 2017, O.A. 712 of 2017 and O.A. 713 of 2017 regarding non-compliance of Biomedical Waste Management Rules, 2016 (hereafter will be called as BMW Rules, 2016). According to the application;

- Most of the hospitals are disposing off biomedical waste in haphazard and improper manner and has not taken authorisation under BMW Rules, 2016 from State Pollution Control Boards (SPCBs).
- Mandatory requirement of segregation, pre-treatment, safe storage, training and immunization of health workers, occupational safety of health workers, health check-up, maintaining records, furnishing reports by the occupiers, operators of Common Biomedical Waste Treatment Facilities (CBWTFs), is not taking place.
- State Pollution Control Boards (SPCBs)/Pollution Control Committees (PCCs) are not sending the requisite information to the Central Pollution Control Board (CPCB). No annual reports are placed on the websites as required.

The above matter was heard by Hon'ble NGT on 12.03.2019, and passed following directions;

- (i) *"We direct all the States and Union Territories to ensure that reports in terms of Rule 13 are furnished to the CPCB positively within one month or on or before 30th April, 2019 for the period the reports are due as per rules. The CPCB may furnish a status report of compliance of BMW Rules after proper analysis to this Tribunal within one month thereafter by e-mail at ngt.filing@gmail.com. It is made clear that any failure in this regard will result in the defaulting States being required to pay compensation to be deposited with the CPCB at the rate of Rupees one Crore per month after 01.05.2019. All the States may also prepare their respective action plans for compliance of Rules within one month and furnish the same to the CPCB. The CPCB may give its comments on the action plan to this Tribunal within one month thereafter by e-mail at ngt.filing@gmail.com.*
- (ii) *The Chief Secretaries have been directed to monitor such compliance personally atleast once in a month and furnish a quarterly report to this Tribunal and to appear again after six months.*
- (iii) *CPCB may now also undertake study and prepare a scale of compensation to be recovered from violators of BMW Rules within one month from today. This will not debar the State PCBs from performing their duty of recovering compensation from the polluters or laying down their own scale which should not less than the*

scale fixed by CPCB. The scale must be deterrent rendering violation of Rules to be non-profitable and which should be adequate to remedy the situation.

- (iv) *The State of UP may modify its action plan in the light of above observations and furnish its report to the CPCB within one month. CPCB may furnish its comments on the revised action plan within one month thereafter.*
- (v) *The State of UP has not yet furnished the performance guarantee, as required in terms of order dated 06.02.2019 and has filed an application being I.A. No. 105 of 2019 for clarification. We clarify that the performance guarantee is to be furnished to the satisfaction of CPCB which may now be furnished within one month from today undertaking to fully comply with the above order, failing which the amount will stand forfeited and utilised by CPCB for restoration of the environment.*

A copy of afore-said Hon'ble NGT order dated 12.03.2019 is enclosed at **Annexure I**.

1.1 Responsibilities of SPCBs/PCCs

Under BMWM Rules, 2016, responsibilities of State Pollution Control Board and Pollution Control Committees have been prescribed for ensuring effective implementation of said Rules. Following are the responsibilities given under BMWM Rules, 2016:

- The prescribed authority for implementation of the provisions of BMWM Rules, 2016;
- Inventory 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.
- Grant and renewal, suspension or refusal or cancellation of authorisation.
- Monitoring compliance of various provisions and conditions of authorisation.
- Action against health care facilities or common biomedical waste treatment facilities for violation of BMWM Rules, 2016.
- 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 biomedical 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 Authorized (or give consent) Recyclers.
- Undertake and support third party audits of the common bio-medical waste treatment facilities in their State.

1.2 Responsibilities of State Government / UT Administration

As per BMWM Rules, following are the responsibilities prescribed for State Government agencies namely Departments of Health, Urban Development, Animal Husbandry and Veterinary Sciences of that State Government or Union territory Administration of Health or Union Territory Government or Administration:

- To ensure implementation of the rule in all health care facilities or occupiers.
- Constitute an Advisory Committee to oversee the implementation of the rules in the respective State/UT and to advise any improvements for effective management of biomedical waste. This committee may examine requirement of CBWTFs as well as coverage of State / UT for collection of biomedical waste from HCFs in consultation with SPCBs/PCCs.
- 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 BMWM Rules, 2016;
- State / UT Departments in the business of allocation of land assignment (that is Municipalities or Corporations, Urban Local Bodies and Gram Panchayats) shall provide suitable site for setting up of common biomedical waste treatment and disposal facility in the State Government or Union territory Administration.
- Allocation of adequate funds to Government health care facilities for bio-medical waste management.
- Procurement and allocation of treatment equipment and make provision for consumables for bio-medical waste management in Government health care facilities.
- Constitute State or District Level Advisory Committees under the District Magistrate or Additional District Magistrate to oversee the bio-medical waste management in the Districts.
- Advise State Pollution Control Boards or Pollution Control Committees on implementation of these Rules.
- Implementation of recommendations of the Advisory Committee in all the health care facilities.

CHAPTER 2

STATUS OF COMPLIANCE TO HON'BLE NATIONAL GREEN TRIBUNAL ORDER DATED 12.03.2019

2.1 Scale of Environmental Compensation against HCFs and CBWTFs

Hon'ble NGT directed CPCB to undertake study and prepare a scale of compensation to be recovered from violators of Biomedical Waste Management Rules, 2016 (BMWM Rules, 2016) within one month. Hon'ble NGT also directed that State Pollution Control Boards (SPCBs) can also recover compensation from the polluters by laying down their own scale which should not be less than the scale fixed by CPCB. In the said order, Hon'ble NGT also states that the scale of compensation must be deterrent, rendering violation of Rules to be non-profitable and which should be adequate to remedy the situation.

In pursuance to the above order, Central Pollution Control Board has prepared Guidelines for "Imposition of Environmental Compensation from Healthcare Facilities and Common Biomedical Waste Treatment Facilities". The said guidelines provide cases for imposition of environmental compensation and also stipulate a methodology for calculation of environmental compensations. Environmental compensation has been envisaged based on possible non-compliances to the provisions under BMWM Rules, 2016 and the associated environmental and health risk factors. Different approaches were proposed for healthcare facilities and Common Biomedical Waste Treatment and Disposal Facilities.

As directed by Hon'ble Tribunal, the proposed guidelines for "Imposition of Environmental Compensation against Healthcare Facilities and Common Biomedical Waste Treatment Facilities" has been filed before Hon'ble NGT vide email dated 10.04.2019. A copy of the CPCB guidelines for is enclosed at **Annexure II**.

2.2 Compliance to Rule 13 by SPCBs / PCCs

Hon'ble NGT directed that all State Pollution Control Boards (SPCBs) and Pollution Control Committees (PCCs) shall ensure compliance to Rule 13 of the BMWM Rules, 2016, which stipulates submission of Annual Reports on biomedical Waste Management by the SPCBs and PCCs to CPCB by 30th April for the period the reports are due.

SPCBs are required to submit Annual Report on Biomedical Waste Management of the preceding years by 31st July of on-going year. Accordingly, Annual report information for the year 2017 is due with effect from 1st August, 2018 and Annual report information for the year 2018 will be due with effect from 1st August, 2019.

Annual Report Information for the year 2017 has been received from all SPCBs and PCCs. Some of the States have submitted Annual Reports after due date that is 31st July, 2018, however last report was received from Lakshadweep in April, 2019. Details of submission by SPCBs/PCCs is given at Table 1.

Table 1: State-wise details on Annual Reports

S.No.	Name of the State/UT	Submission of Annual Report on or before deadline.	
		Before 31/7/2018	After 31/7/2018
1	Andaman Nicobar	X	✓
2	Andhra Pradesh	X	✓
3	Arunachal Pradesh	✓	X
4	Assam	X	✓
5	Bihar	✓	X
6	Chandigarh	X	✓
7	Chhattisgarh	X	✓
8	Daman & Diu and Dadra & Nagar Haveli	X	✓
9	Delhi	✓	X
10	Goa	X	✓
11	Gujarat	✓	
12	Haryana	X	✓
13	Himachal Pradesh	✓	X
14	Jharkhand	X	✓
15	J & K	X	✓
16	Karnataka	X	✓
17	Kerala	X	✓
18	Lakshadweep	NA	NA
19	Madhya Pradesh	✓	X
20	Maharashtra	X	✓
21	Manipur	X	✓
22	Meghalaya	✓	X
23	Mizoram	✓	X
24	Nagaland	X	✓
25	Orissa	X	✓
26	Puducherry	X	✓
27	Punjab	X	✓
28	Rajasthan	X	✓
29	Sikkim	X	✓
30	Tamil Nadu	✓	X
31	Telangana	X	✓
32	Tripura	✓	X
33	Uttarakhand	x	✓
34	Uttar Pradesh	✓	X
35	West Bengal	✓	X

2.3 Annual Report on Compliance of Biomedical Waste Management Rules

As per the compiled annual report information for the year 2017, SPCBs/PCCs have reported about 2,38,254 no. of Health Care Facilities (HCFs) out of which 87,282 no. of HCFs are bedded and 1,51,296 no. of HCFs are reported as non-bedded healthcare facilities. Total generation of bio-medical waste is reported as about 558 Tonnes per day.

The compiled status of bio-medical waste management in the Country as per annual information received from SPCBs/PCCs is given below:

- No. of HCFs : 2,38,259
- No. of bedded HCFs : 87,281

➤ No. of non-bedded HCFs	: 1,51,302
➤ No. of beds	: 20,94,858
➤ No. of CBWTFs	: 198* + 24**
➤ No. of HCFs granted authorization	: 84805
➤ No. of HCFs having Captive Treatment Facilities	: 9,841
➤ No. of Captive Incinerators Operated by HCFs	: 225
➤ Quantity of bio-medical waste generated in Tonnes/day	: 559
➤ Quantity of bio-medical waste treated in Tonnes/day	: 518
➤ No. of HCFs violated BMW Rules	: 23,942
➤ No. of Show-cause notices/Directions issued to defaulter HCFs	: 18,210

Note: (i) * - CBWTFs in operation (ii) ** - CBWTFs under installation

2.3.1 Inventory of HCFs and Biomedical Waste Generation:

BMWM Rules, 2016 stipulates that it is the duty of SPCBs/PCCs to prepare an inventory on number of Healthcare Facilities generating biomedical waste, its collection, treatment & disposal.

Out of 2, 38,259 no. of Healthcare Facilities 87,281 no. of HCFs are bedded and 1,51,302 no. of HCFs are non-bedded. However, the HCFs is inconclusive due incomplete inventory in SPCBs/PCCs. Further, as per annual report, 559 tons/day of biomedical waste is generated by identified Healthcare Facilities, however the actual generation may be much more once the inventory of complete. This indicates requirement of updating inventory of healthcare Facilities by all States.

Incomplete inventory on biomedical waste generation is an evident from the fact that biomedical waste generation reported by SPCBs is not proportional to the population in States/UTs. Generation of biomedical waste across States is reported as Bihar (6 %), Delhi (4.4 %), Gujarat (5.21 %), Karnataka (12 %), Kerala (7.35 %), Maharashtra (11.10 %), Rajasthan (4.03 %), Tamil Nadu (8.39 %), Uttar Pradesh (7.81 %) & West Bengal (5.34 %) which is not proportional to population States. Therefore, SPCBs/PCCs should complete inventory of all HCFs (both bedded and non-bedded) to assess quantity of biomedical waste generation as well as to ensure effective treatment and disposal of biomedical waste generated by them.

As per annual information, out of 559 tonnes, about 518 tonnes of biomedical waste generated per day is treated and disposed through 198 no. of common facilities and 9,841 captive treatment facility installed by Healthcare facilities. However, quantity of biomedical waste reported is not reliable or accurate since inventory of healthcare facilities and biomedical waste generation in not yet completed by all States.

States initiated Inventory studies: Lakshadweep, Andaman Nicobar, Tripura, Daman & Diu, Delhi, Chandigarh, Telangana, Kerala, Gujarat, Haryana, Punjab, Mizoram, Maharashtra, Puducherry, Rajasthan, Tamil Nadu, Jharkhand, Uttar Pradesh, Himachal Pradesh, Andhra Pradesh, MP and Meghalaya

States not reported status of inventory study: Jammu & Kashmir, Sikkim, Arunachal Pradesh, West Bengal, Assam and Odisha

2.3.2 Operation of Healthcare Facilities without Authorization:

As per BMW Rules, 2016, Healthcare Facilities are required to obtain authorization under said Rules, irrespective of quantity of biomedical waste generation. Annual information indicates that out of 2,38,259 of HCFs, only 97,099 (40%) no. of HCFs have applied for authorized and 84,805 (35%) HCFs are granted authorized under BMW Rules, 2016. This indicates that about 25 % of the identified HCFs are not yet authorized by SPCBs and biomedical waste management by such facilities could not be monitored.

2.3.3 Use of Captive Disposal Facilities and Deep Burial Pits:

SPCBs/PCCs have authorized about 9,800 healthcare facilities with captive treatment and disposal facilities. These captive facilities may involve the practice of deep burial or operation of captive incinerators within hospital premises, which is not desirable and may pose adverse impact on hospital premises. As per BMW Rules, 2016 HCFs shall not operate captive facility in case a common facility is available within a distance of 75km. Moreover, deep burial pits have to operate with valid authorisation from SPCBs/PCCs

States namely Assam, Bihar, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh & West Bengal permitted use of deep burial pits for the disposal of biomedical waste despite having Common Disposal Facilities.

2.3.4 Compliance by Common Biomedical Waste Treatment and Disposal Facilities:

About 225 no. of captive incinerators are operated by HCFs, however, there is concern about their compliance to new emission standards prescribed under BMW Rules, 2016.

2.3.5 States without Common Treatment & Disposal Facilities:

States like Arunachal Pradesh, Andaman & Nicobar, Goa, Lakshadweep, Mizoram, and Nagaland & Sikkim are not having CBWTF for the treatment & disposal of biomedical waste.

2.3.6 Implementation of Barcoding System:

It is the duty of every HCF and CBWTF to establish a bar code system for bags or containers containing biomedical waste to be sent out of the premises or place for any purpose, by 27.03.2019.

Bar code system would help in accounting the quantity of biomedical waste being collected, treated and disposed. This system would also help the prescribed authorities in monitoring the implementation of BMW Rules, 2016.

Andhra Pradesh, Bihar, Daman & Diu and Dadra & Nagar Haveli, Gujarat, Haryana, Himachal Pradesh, Kerala, Punjab, Telangana and Tripura have informed that Bar Code system has been implemented in their respective States

States namely Andaman Nicobar, Arunachal Pradesh, Assam, J & K, Lakshadweep, Mizoram, Orissa, Puducherry, Sikkim, Uttar Pradesh and West Bengal have not submitted any information on implementation of Barcode system.

States namely Chandigarh, Delhi, Jharkhand, Madhya Pradesh, Maharashtra, Rajasthan and Tamil Nadu are under process of implementing Bar Code system.

2.3.7 Biomedical waste management by other occupiers:

SPCBs/PCCs should ensure authorisation occupiers other than Hospitals and Common Facilities such as Veterinary Hospitals, animal houses, Ayush hospitals, medical camps, etc. which are generating biomedical waste and ensure their inventory, authorization and disposal of biomedical waste through Common Facilities.

2.3.8 Installation of Online Continuous Emission Monitoring Systems by CBWTFs operator:

Out of 200 Common Facilities, only about 90 facilities have installed OCEMS and connected with servers of SPCBs and CPCB. In this regard, SPCBs/PCCs should ensure installation of Online Continuous Emission Monitoring Systems by CBWTFs for the parameters identified by them.

2.3.9 Delay in submission annual reports:

There has been delay in submission of Annual reports by SPCBs/PCCs to CPCB. In this regard, SPCBs/PCCs shall ensure timely submission of Annual Report by HCFS and CBWTFs, so as to ensure submission of information to CPCB by July every year.

2.3.10 Non-Compliance by HCFs:

HCFs are required to comply with following provisions;

- Obtain valid authorisation from SPCBs/PCCs (DGAFMS in case of Armed Forces Healthcare Establishments)
- Segregate biomedical waste in color coded bags or containers as specified in Schedule I
- Provision for safe temporary storage of biomedical waste prior to collection by CBWTF
- Pre-treat the laboratory waste, microbiological waste, blood samples and blood bags prior to sending to Common biomedical waste treatment and disposal facility for final disposal;
- Provide training to all its health care workers and others, involved in handling of bio medical waste
- Immunize all its health care workers and others, involved in handling of bio-medical waste
- Establish a Barcode System for bags or containers to be sent out of the premises or for disposal by 27th March, 2019;
- Segregation of liquid chemical waste at source and ensure pre-treatment or neutralisation prior to mixing with other effluent generated from health care facilities;
- Provide personal protection Equipment to workers and others involved in handling of biomedical waste;
- conduct health check up for all its health care workers and others involved in handling of bio- medical waste;
- Upload monthly records of biomedical waste management on its website;
- Report major accidents including accidents caused by fire hazards, blasts during handling of biomedical waste
- Submit Annual Reports to SPCBs;
- Report to SPCBs in case CBWTF fails to collect bio-medical waste within intended time;
- Constitute internal committee to review and monitor the activities relating to bio-medical waste management;
- Captive facilities to achieve the standards for treatment and disposal of bio-medical waste as specified in Schedule II

As per annual report 2017, SPCBs/PCCs have observed about 24000 number of violations and issued 18000 notices to HCFs, which indicates non-compliance by HCFs with respect to provisions of BMWM Rules, 2016.

2.3.11 Constitution of State Level Advisory Committees:

Rule 11 of the Biomedical waste Management Rules, 2016 stipulates that every State Government or Union Territory Administration shall constitute an Advisory Committee for their respective State or Union Territory to oversee the implementation of BMWM Rules, 2016 and to advise any improvements on the same. The Advisory Committee shall meet at least once in six months and review all matters related to implementation of the provisions of said Rules.

As per the action plan submitted by the State Health Departments and State Pollution Control Boards/Pollution Control Committees, States namely Andaman Nicobar, Andhra Pradesh, Assam, Bihar, Chandigarh, Daman &Diu and Dadra & Nagar Haveli, Delhi, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Mizoram, Orissa, Puducherry, Punjab, Rajasthan, Tamil Nadu, Telangana, Tripura, Uttar Pradesh and West Bengal have constituted the Advisory Monitoring Committees as well as District Monitoring Committees.

States namely Jammu & Kashmir, Lakshadweep and Sikkim have not yet constituted the said Committees as required under BMWM Rules, 2016.

2.3.12 Capacity Building Programmes on Biomedical Waste Management:

Biomedical Waste Management Rules, 2016 stipulates requirement of Trainings to be conducted by State Health Department as well as by State Pollution Control Boards/Pollution Control Committees, for regulatory authorities, staff of Healthcare Facilities and Common Biomedical Waste Treatment Facility Operators.

States namely Kerala, Gujarat Haryana, Punjab, Daman &Diu and Dadra & Nagar Haveli, Delhi, Jharkhand, Uttar Pradesh, Himachal Pradesh, Andhra Pradesh, Chandigarh, Madhya Pradesh, Assam, Orissa, Andaman Nicobar, Mizoram, Maharashtra Puducherry, Rajasthan and Tamil Nadu reported to have conducted Training Programs.

Information on Trainings conducted by States namely Manipur, Telangana, Karnataka, West Bengal, J & K, Sikkim, Lakshadweep and Meghalaya is not available.

CHAPTER 3

STATE-WISE ACTION PLANS FOR IMPLEMENTATION OF BIOMEDICAL WASTE MANAGEMENT RULES, 2016

3.0 Submission of Action Plans by State Governments

Hon'ble NGT has directed that all States shall prepare an Action Plan on compliance of BMWM Rules, 2016 for their respective States/Union Territories within one month from the date of its order dated 12.03.2019. In compliance to said orders, CPCB has received Action Plans from all the 35 States, which were forwarded by Health Departments and SPCBs/PCCs.

Action Plans were forwarded by SPCBs/PCCs instead of State Departments in case of following States/UTs;

- Andaman & Nicobar Islands
- Arunachal Pradesh
- Chandigarh
- Daman &Diu & Dadra & Nagar Haveli
- Gujarat
- Haryana
- Karnataka
- Kerala
- Madhya Pradesh
- Maharashtra
- Uttarakhand and
- Goa

States namely Assam, Bihar, Chhattisgarh, Daman &Diu and Dadra & Nagar Haveli, Goa, Jharkhand, Karnataka, Lakshadweep, Manipur, Meghalaya, Punjab, Tamilnadu, Telangana, Uttarakhand and West Bengal have not submitted Action plans within due date for submission, that is one month from order of Hon'ble Tribunal dated 12/03/2019.

Responses received from State Health Departments and SPCBs/PCCs is compiled and given below at **Table 2**. Further, the State-wise details of action plan submitted by 35 States/UTs is given in at Table at **Annexure III**.

Table 2: Status of Submission of Action Plan by State Governments

S.No.	Name of the State/UT	Action Plan received from SPCB/PCC	Action Plan Submitted by State Health Department	Action Plan submitted within a Month
1	Andaman Nicobar	✓	X	✓
2	Andhra Pradesh	✓	✓	✓
3	Arunachal Pradesh	✓	X	✓
4	Assam	X	✓	X
5	Bihar	X	✓	X
6	Chandigarh	✓	X	✓
7	Chhattisgarh	X	✓	X
8	Daman &Diu and Dadra & Nagar Haveli	✓	X	X
9	Delhi	✓	✓	✓
10	Goa	✓	X	X
11	Gujarat	✓	X	✓

S.No.	Name of the State/UT	Action Plan received from SPCB/PCC	Action Plan Submitted by State Health Department	Action Plan submitted within a Month
12	Haryana	✓	X	✓
13	Himachal Pradesh	✓	✓	✓
14	Jharkhand	✓	✓	X
15	J & K	X	✓	✓
16	Karnataka	✓	X	X
17	Kerala	✓	X	✓
18	Lakshadweep	X	✓	X
19	Madhya Pradesh	✓	X	✓
20	Maharashtra	✓	X	✓
21	Manipur	X	✓	X
22	Meghalaya	X	✓	X
23	Mizoram	X	✓	✓
24	Nagaland	X	✓	
25	Odisha	X	✓	✓
26	Puducherry	✓	✓	✓
27	Punjab	✓	✓	X
28	Rajasthan	X	✓	✓
29	Sikkim	X	✓	X
30	Tamil Nadu	✓	✓	✓
31	Telangana	✓	✓	X
32	Tripura	X	✓	✓
33	Uttarakhand	✓	X	X
34	Uttar Pradesh	X	✓	✓
35	West Bengal	X	✓	X

3.1 Performance Guarantee by Government of Uttar Pradesh State

Hon'ble NGT in its order dated 12.03.2019 had directed that, State Government of Uttar Pradesh is required to submit a revised action plan on implementation of Biomedical Waste Management Rules, 2016 and a Performance Guarantee for the same to the satisfaction of CPCB, within one month. In this regard, Uttar Pradesh State has not submitted Performance Guarantee to CPCB on compliance to Action Plan submitted by them.

3.2 Key Performance Indicators:

CPCB has identified the following Key Performance Indicators for assessing treatment and disposal of biomedical waste, and effectiveness in implementation of BMWM Rules, 2016;

- (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.)

Based on aforesaid key performance indicators as well as annual report information of the States, effectiveness of Action plans have been assessed in a Table given at **Annexure IV**.

3.3 Review of Action Plans:

CPCB has attributed a score for each Key Performance Indicator for effective management of Biomedical Waste. Nine key indicators were selected for evaluation of Action Plans and a score of 1 is given for covering each key performance indicator. Effectives of action plans in the form of scoring of States/UTs for their Action Plans is given in Table 3 below;

Table 3: Scoring of States / UTs for effectiveness of Action Plans

S.No	Name of State	Action plan received from SPCB/PCCs & Health Department.	Score
1	Sikkim	Health Department	1
2	Arunachal Pradesh	SPCB	1
3	Lakshadweep	Health Department	2.5
4	J & K	Health Department	3
5	Mizoram	Health Department	3
6	Manipur	Health department	3
7	Uttar Pradesh	Health Department	3.5
8	Nagaland	Health Department	3.5
9	Andaman Nicobar	SPCB	4
10	Orissa	Health Department	4.5
11	Meghalaya	SPCB	5
12	Goa	SPCB	5
13	Chhattisgarh	Health Department	5.5
14	Bihar	Health Department	6
15	Tamil Nadu	SPCB & Health Department	6.5
16	Puducherry	SPCB & Health Department	6.5
17	Karnataka	SPCB	6.5
18	Himachal Pradesh	SPCB & Health Department	6.5
19	Daman &Diu and Dadra & Nagar Haveli	PCC	6.5
20	West Bengal	Health Department	7
21	Tripura	SPCB & Health Department	7

S.No	Name of State	Action plan received from SPCB/PCCs & Health Department.	Score
22	Maharashtra	SPCB	7
23	Madhya Pradesh	SPCB	7
24	Jharkhand	SPCB & Health Department	7
25	Delhi	Health Department & DPCC	7
26	Assam	Health Department	7
27	Telangana	SPCB & Health Department	7.5
28	Rajasthan	Health Department	7.5
29	Haryana	SPCB	7.5
30	Gujarat	SPCB	7.5
31	Andhra Pradesh	SPCB & Health Department	7.5
32	Uttarakhand	SPCB	8
33	Chandigarh	PCC	8
34	Punjab	SPCB & Health Department	8.5
35	Kerala	SPCB	8.5

A score of 7 and above is indicated as an adequate action plan, score between 4–6.5 considered as satisfactory action plan whereas a score of less than 4 is considered not satisfactory.

Action plan submitted by Sikkim, Arunachal Pradesh, Lakshadweep, J & K, Mizoram, Manipur, Nagaland and Uttar Pradesh States and UTs are not satisfactory.

Action plans submitted by 07 States / UTs namely Andaman & Nicobar, Odisha, Meghalaya, Goa, Chattisgarh, Bihar, Tamil Nadu, Puducherry, Karnataka, Himachal Pradesh and Daman & Diu and Dadra Nagar Haveli are satisfactory and may need further improvements.

Action plan submitted by West Bengal, Tripura, Maharashtra, Madhya Pradesh, Jharkhand, Delhi, Assam, Telangana, Rajasthan, Haryana, Gujarat, Andhra Pradesh, Uttarakhand, Chandigarh, Punjab and Kerala are considered as adequate with respect to implementation of BMWM Rules, 2016, however, minor modifications may be incorporated.

Thus, action plans classified as adequate and satisfactory needs further improvement to address key performance indicators identified in this report however, action plans with a score of less than 4 may need complete revision.

CPCB has reviewed each of the State wise action plans and provided suggestions for further improvement or revision. States may finalize respective action points as per said suggestions and by addressing key performance indicators.

3.4 State-wise Review of Action Plans

3.4.1 Andaman & Nicobar Islands

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Andaman & Nicobar State, following are the major issues /shortcomings observed by CPCB:

1. Time bound action plan is not submitted by the State

2. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented
3. Barcode system is yet to be implemented in the State
4. All HCFs which are having captive treatment facility are required to be complied with BMW Rules, 2016.
5. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMW Rules, 2016.
6. There is no CBWTF operating for the treatment & disposal of biomedical waste.
7. Annual Report are not submitted within deadline.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMW Rules, 2016:

1. Andaman & Nicobar SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. within three months.
2. HCFs should demonstrate compliance to provisions under BMW Rules, 2016 such as segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment within one month.
3. Deep Burial practiced by Healthcare Facilities should be approved by A&N SPCB and design of deep burial pits should be as per standards given under BMW Rules, 2016.
4. In order to avoid operation of multiple captive incinerators and the practice of deep burial, A&N islands may consider setting up a common biomedical Waste Treatment and Disposal Facility to cater requirements of A&N islands. Such common Incinerator at CBWTF may be utilized for dual purpose such as disposal of incinerable hazardous wastes generated in Island.
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
6. Barcode system should be implemented in every HCF from in time bound manner.
7. A&N shall prepare an action plan indicating gaps in biomedical waste generation and treatment capacities and requirement of CBWTF in the State. The action plan may be submitted by A&N within two months.

3.4.2 Andhra Pradesh

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for Andhra Pradesh State, following are the major issues /shortcomings observed by CPCB:

1. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
2. Barcode system is yet to be implemented in the State

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMW Rules, 2016:

1. Andhra Pradesh SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
2. Barcode system should be implemented by CBWTF and HCF within 03 months.

3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. AP State shall carryout gaps analysis in biomedical waste generation and treatment capacities and requirement of additional CBWTF in the State. Such action plan be submitted within three months.
5. AP State may update action plan to include all key performance indicators.

3.4.3 Arunachal Pradesh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Arunachal Pradesh State, following are the major issues /shortcomings observed by CPCB:

1. Action Plan submitted by State Department of Health of Arunachal Pradesh does not address requirements of overall BMW Management in State.
2. Action Plan indicates only budget details and requirement. Not submitted details of actions taken for compliance to BMWM Rules, 2016.
3. No Common Facility exists
4. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

A revised action plan may be submitted by Arunachal Pradesh State by including following action points and key performance indicators;

1. Arunachal Pradesh SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Arunachal Pradesh SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Deep Burial practiced by Healthcare Facilities should be approved by Arunachal Pradesh SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
6. Arunachal Pradesh SPCB shall prepare an action plan indicating gaps in biomedical waste generation and treatment capacities and requirement of CBWTF in the State.

3.4.4 Assam

As per annual report on implementation of BMWM Rules, 2016 and Action Plan submitted for Assam State, following are the major issues /shortcomings observed by CPCB:

1. Inventory is not conducted by Assam SPCB
2. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.
3. Barcode system is not implemented in the State
4. Only 01 CBWTF in entire Assam State, thus most of the HCFs are not covered by CBWTF

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Assam SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Assam SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months**.
4. Deep Burial practiced by Healthcare Facilities should be approved by Assam SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
5. Assam SPCB shall carry out gaps analysis of biomedical waste generation and treatment capacities and requirement of additional CBWTF for the State so that all HCF in the State can send their waste to Common Facilities **within 3 months**.
6. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
7. The action plan may address other key action points identified as performance indicators.

3.4.5 Bihar

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Bihar State, following are the major issues /shortcomings observed by CPCB:

1. Authorization details to non-bedded HCFs is not given
2. Monitoring status of compliance by HCFs & CBWTFs is not submitted
3. Three CBWTFs in entire State may not be adequate to cover all HCFs in the State

Recommendations:

Action Plan may be updated with Following time bound action points for ensuring effective compliance to BMWM Rules, 2016:

1. Bihar SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
2. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months**.
3. Bihar SPCB should ensure compliance to new emission norms by CBWTFs as required under BMWM Rules, 2016 **within one month**.
4. Bihar shall carry out gaps analysis of biomedical waste generation and treatment capacities and requirement of additional CBWTF for the State so that all HCF in the State can send their waste to Common Facilities **within 3 months**.
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
6. Timely Submission of Annual Report on biomedical waste management.
7. Authorization of about 19000 non-bedded HCFs in a time bound manner

3.4.6 Chandigarh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Chandigarh UT, following are the major issues /shortcomings observed by CPCB:

1. All HCFs including non-bedded are not authorized under BMWM Rules
2. Bar Code is not implemented in all HCFs as required under BMWM Rules, 2016
3. Coverage of CBWTF is not adequate in Chandigarh as captive facilities are operated within the premises of HCFs despite having CBWTF

Recommendations:

Action Plan may be updated with following time bound action points for ensuring effective compliance to BMWM Rules, 2016:

1. Chandigarh PCC should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
2. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months.**
3. Chandigarh PCC should shall carry out gaps analysis of biomedical waste generation and treatment capacities and requirement of upgradation of existing or setting up additional CBWTFs for the UT so that HCFs can send their waste to Common Facilities **within 3 months.**
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

3.4.7 Chhattisgarh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Chhattisgarh State, following are the major issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs is not conducted by Chhattisgarh SPCB as required under BMWM Rules, 2016
2. Advisory Monitoring Committee is not constituted by State Department of Chhattisgarh for review of implementation of BMWM Rules
3. Non-bedded HCFs like clinics etc. are in operation without authorisation under BMWM Rules, 2016
4. Annual Report is not submitted before deadline
5. Barcode system is not implemented in HCFs
6. Compliance to BMWM Rules by CBWTFs needs to be monitored by SPCB
7. Permitted captive facilities and Deep burial for BMW Disposal despite having 4 CBWTFs
8. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

Following action points may be included for ensuring effective compliance to BMWM Rules, 2016:

1. Chhattisgarh SPCB should carry out inventory on number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Chhattisgarh SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. State of Chhattisgarh should constitute Advisory Monitoring Committee for review of BMW Rules, 2016 **within one month**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Timely submission of Annual Report on biomedical waste management.
6. Barcode system should be implemented **within 03 months**.
7. Chhattisgarh SPCB should monitor the compliance to emission norms by CBWTFs.
8. Address all Key Performance indicators
9. Conduct gap analysis on BMW generation and capacity for treatment of biomedical waste including need for additional CBWTFs to cover entire State and futuristic demand for BMW management.

3.4.8 Daman & Diu and Dadra & Nagar Haveli

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for Daman & Diu and Dadra & Nagar Haveli (DD & DNH) UT, following are the issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs (bedded & non-bedded) is not conducted by DD&DNH PCC as required under BMW Rules, 2016
2. Authorisation details for non-bedded HCFs is not given
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. Barcode system is not implemented in HCFs

Recommendations:

Following time bound action points may be added for ensuring effective compliance to BMW Rules, 2016:

1. DD & DNH PCC should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. DD & DNH PCC should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Timely submission of Annual Report on biomedical waste management.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Barcode system should be implemented in every HCF should be implemented in consultation with CBWTF located at Surat **within 03 months**.

6. DD & DNH PCC should ensure effective monitoring compliance to stipulated standards by standalone CBWTF.

3.4.9 Delhi

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Delhi PCC, following are the issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs is not conducted by Delhi PCC as required under BMWM Rules, 2016
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. Bar code system is not implemented as required under BMWM Rules, 2016

Recommendations:

Following action points may be included in Action Plan for ensuring effective compliance to BMWM Rules, 2016:

1. Delhi PCC should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Delhi PCC should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Delhi PCC should prepare an action plan for conducting gap analysis of biomedical waste generation and requirement of setting up of additional CBWTFs.
6. All key performance indicators should be included in Action Plan

3.4.10 Goa

As per annual report on implementation of BMW M Rules, 2016 and action plan submitted for Goa SPCB, following are the issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs is not conducted by Goa SPCB as required under BMWM Rules, 2016
2. Non-bedded HCFs like clinics etc are in operation without authorization under BMWM Rules, 2016
3. There is no CBWTF operating for the treatment & disposal of biomedical waste.
4. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

Following time bound action points may be added to Action Plan for ensuring effective compliance to BMWM Rules, 2016:

1. Goa SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Goa SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.

3. Timely submission of Annual Report on biomedical waste management.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Goa SPCB should adhere to a time bound action plan for setting up new CBWTF for the State and restrict use of numerous captive treatment and disposal facilities.
6. Key Performance indicators to be added to Action Plan on biomedical waste management for Goa State

3.4.11 Gujarat

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Gujarat State, following are the issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs is not conducted by Gujarat SPCB as required under BMWM Rules, 2016
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. Bar code system is not implemented as required under BMWM Rules, 2016

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Gujarat SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Gujarat SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF and CBWTF **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. To monitor compliance of Common Biomedical Waste Treatment Facilities

3.4.12 Haryana

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Haryana SPCB, following are the issues /shortcomings observed by CPCB:

1. Inventory on biomedical waste generating HCFs is not conducted by Haryana SPCB as required under BMWM Rules, 2016
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. Bar code system is not implemented as required under BMWM Rules, 2016
4. Non-compliance to provisions of BMWM Rules, 2016 such as segregation of biomedical waste as per colour coded system, pre-treatment of laboratory waste etc.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Haryana SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Haryana SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

3.4.13 Himachal Pradesh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Himachal Pradesh State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. District Level Monitoring Committees (DLMC) are not constituted for the Himachal Pradesh State
4. All CBWTFs are not upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
5. Bar code system is not implemented by Healthcare Facilities as required under BMWM Rules, 2016

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Himachal Pradesh SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Himachal Pradesh SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. DLMC should be constituted by State Government of Himachal Pradesh
6. Himachal Pradesh SPCB should ensure compliance to new emission norms by all CBWTFs **within three months**.

3.4.14 Jharkhand

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Jharkhand State, following are the issues /shortcomings observed by CPCB:

1. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
2. All CBWTFs are not upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
3. Bar code system is not implemented as required under BMWM Rules, 2016

4. Gap analysis of biomedical waste generation and requirement of setting up of additional CBWTFs not addressed
5. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMW Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMW Rules, 2016:

1. Jharkhand SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
2. Barcode system should be implemented in every HCF **within 03 months.**
3. Jharkhand SPCB should ensure compliance to new emission norms by all CBWTFs **within three months.**
4. Jharkhand SPCB should conduct a gap analysis on biomedical waste generation and requirement of treatment capacity for setting up of additional CBWTF for the State and restrict use of numerous captive treatment and disposal facilities.
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
6. Conduct Gap analysis of biomedical waste generation and requirement of setting up of additional CBWTFs in Jharkhand State
7. Timely submission of Annual Report on biomedical waste management.

3.4.15 Jammu & Kashmir

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for Jammu & Kashmir State, following are the issues /shortcomings observed by CPCB:

1. Action Plan submitted by State Department of Health of Jammu & Kashmir does not address requirements of overall BMW Management in State.
2. Action plan does not indicate the following information as per provision under BMW Rules:
 - Inventory of Healthcare Facilities generating biomedical waste
 - Authorisation to HCFs (bedded & non-bedded) under BMW Rules, 2016
 - Constitution of State Advisory Monitoring Committee and District Level Monitoring Committee
 - Authorization to all Healthcare Facilities including non-bedded HCFs
 - Implementation status of Barcode system
 - Monitoring of compliance to BMW Rules, 2016 by Healthcare Facilities including Veterinary Hospitals, Animal Houses, AYUSH Hospitals etc.
 - Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) in entire State/UT
 - Compliance of CBWTFs to new emission standards prescribed under BMW Rules, 2016
 - Capacity Building programmes / training programmes for SPCBs/PCCs officials and HCFs

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMW Rules, 2016:

1. State Department of Health of Jammu & Kashmir should re-submit the Action Plan covering above indicators.
2. Carry out gap analysis of BMW generation and requirement of additional CBWTFs so that all HCFs can avail common facilities in the State.
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

3.4.16 Karnataka

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Karnataka State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. All CBWTFs are not upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
4. Bar code system is not implemented as required under BMWM Rules, 2016
5. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Karnataka SPCB should ensure that Annual Report on biomedical waste management for the period from January to December of the preceding year be submitted by July 31st of every year.
2. Karnataka SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
3. Karnataka SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
4. Barcode system should be implemented in every HCF **within 03 months**.
5. Karnataka SPCB should ensure compliance to new emission norms by all CBWTFs **within three months**.
6. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
8. Timely submission of Annual Report on biomedical waste management.
9. Action plan to address all key performance indicators

3.4.17 Kerala

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Kerala State, following are the issues /shortcomings observed by CPCB:

1. All HCFs including non-bedded HCFs are not yet authorized under BMWM Rules, 2016
2. CBWTF is not completely upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
3. Only one CBWTF is available for the treatment & disposal of biomedical waste for entire State

4. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWWM Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Kerala SPCB should ensure authorization to all identified HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. as per inventory - **within three months**.
2. Kerala SPCB should ensure compliance to new emission norms by CBWTF **within three months**.
3. Kerala should prepare a proposal for setting up of additional CBWTFs in Kerala, as there is only one CBWTF to cater services of treatment & disposal of biomedical waste.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Timely submission of Annual Report on biomedical waste management.
6. Action plan may cover all Key Performance Indicators

3.4.18 Lakshadweep

As per annual report on implementation of BMWWM Rules, 2016 and action plan submitted for Lakshadweep UT, following are the issues /shortcomings observed by CPCB:

1. Inventory of few private HCFs generating biomedical waste is not completed
2. All HCFs including non-bedded HCFs are not authorized under BMWWM Rules, 2016
3. Common Incinerator is not completely upgraded to comply with new emission norms prescribed under BMWWM Rules, 2016
4. Annual Report on biomedical waste management for the year 2017 is not submitted in time
5. Training is not conducted frequently by State Government

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Lakshadweep PCC should ensure that Annual Report on biomedical waste management for the period from January to December of the preceding year be submitted by July 31st of every year.
2. Lakshadweep PCC should carry out inventory of remaining private Healthcare Facilities, within **three months**.
3. Lakshadweep PCC should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
4. Lakshadweep PCC should ensure upgradation of incinerators to comply with new emission norms
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

6. In order to avoid operation of multiple captive incinerators, Lakshadweep may consider setting up a common biomedical Waste Treatment and Disposal Facility to cater requirements of islands. Such common Incinerator may be utilized for dual purpose such as disposal of incinerable hazardous wastes generated in Island.
7. Lakshadweep State Department of Health should prepare an action plan for training and workshops for SPCB officials, HCFs and CBWTFs related to biomedical waste management **within one month**.
8. Treated Red category waste may be sent to mainland facilities for recycling

3.4.19 Madhya Pradesh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Madhya Pradesh State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
3. Existing CBWTFs are not completely upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
4. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Madhya Pradesh SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Madhya Pradesh SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Madhya Pradesh SPCB should ensure compliance to new emission norms by existing CBWTF **within three months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Update the Action Plan by covering all Key Performance Indicators

3.4.20 Maharashtra

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Maharashtra State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. Annual Report on biomedical waste management for the year 2017 is not submitted before deadline
3. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
4. Bar code system is not implemented by CBWTFs as required under BMWM Rules, 2016
5. CBWTF is not completely upgraded to comply with new emission norms prescribed under BMWM Rules, 2016

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Maharashtra SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Maharashtra SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Maharashtra SPCB should ensure compliance to new emission norms by CBWTF **within three months**.
6. Timely submission of Annual Reports
7. Update the Action Plan by covering all Key Performance Indicators

3.4.21 Manipur

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for Manipur State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. Annual Report on biomedical waste management for the year 2017 is not submitted before deadline
3. One of the Captive facility is being used as Common Facility
4. All HCFs including non-bedded HCFs are not authorized under BMWM Rules, 2016
5. Captive Incinerator is not upgraded to comply with new emission norms prescribed under BMWM Rules, 2016
6. Common facilities for covering HCFs across the State is not available.
7. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.

Recommendations:

Manipur State may revise the Action Plan addressing following aspects for ensuring effective compliance to BMWM Rules, 2016:

1. Manipur SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Manipur SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. To ensure compliance to new emission norms by BMW Incinerators **within three months**.
4. Timely submission of Annual Report
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

6. Manipur SPCB should conduct the gap analysis for biomedical waste generation and requirement of common facilities for the State.
7. Action points identified under Key Performance Indicators

3.4.22 Meghalaya

As per annual report on implementation of BMWWM Rules, 2016 and action plan submitted for Meghalaya State, following are the issues /shortcomings observed by CPCB:

1. Time lines given by Meghalaya SPCB is proposed for longer period
2. Training/workshop details is not provided in the action plan
3. Common Facilities for HCFs across the State not available. Use of Deep burial pits is practiced

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Meghalaya SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Meghalaya SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Barcode system should be implemented in every HCF **within 03 months**.
4. Timely submission of Annual Reports
5. Meghalaya SPCB should ensure compliance of captive incinerators to new emission norms by CBWTF **within three months**.
6. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
8. Meghalaya SPCB should conduct the gap analysis for biomedical waste generation and requirement of common facilities for the State.
7. Training /workshops should be conducted regularly by State Health Department
8. Include Action points identified under Key Performance Indicators

3.4.23 Mizoram

As per annual report on implementation of BMWWM Rules, 2016 and action plan submitted for Mizoram State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. All HCFs including non-bedded HCFs are not authorized under BMWWM Rules, 2016
3. There is no common facility for treatment and disposal of BMW generated from HCFs across the State. Use of Deep burial pits is practiced

Recommendations:

Mizoram State may revise the Action Plan and the following time bound activities may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Mizoram SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Mizoram SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Meghalaya SPCB should ensure setting up of new common facilities to cover HCFs across the State.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Include Action points identified under Key Performance Indicators

3.4.24 Nagaland

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for Nagaland State, following are the issues /shortcomings observed by CPCB:

1. Inventory on number of HCFs generating biomedical waste is not completed
2. Annual Report for the year 2017 is not submitted within deadline
3. All HCFs including non-bedded HCFs are not authorized under BMW Rules, 2016
4. Compliance status of HCFs is not provided
5. No CBWTF in Nagaland State, all HCFs depend on captive treatment and disposal facilities

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMW Rules, 2016:

1. Nagaland SPCB should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**.
2. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
3. Nagaland SPCB should ensure authorization to all HCFs including non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
4. Timely Submission of Annual Report.
5. Mechanism to monitor compliance of HCFs w.r.t BMW M Rules, 2016
6. Nagaland SPCB should ensure setting up of new common facilities to cover HCFs across the State.

3.4.25 Odisha

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for Odisha State, following are the issues /shortcomings observed by CPCB:

1. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
2. Compliance of HCFs having captive treatment facilities. CBWTFs are not upgraded to comply with new emission norms.
3. Status of compliance by CBWTFs
4. Bar code implementation status is not submitted.

5. Annual Report is not submitted be within deadline as required under BMWM Rules, 2016
6. Deep burial pits being used for disposal of biomedical waste

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Complete inventory of HCFs **within 3 Months**
2. Odisha SPCB should ensure authorization to all non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. identified in inventory of HCFs **within 3 months**.
3. Barcode system should be implemented in every HCF and CBWTFs **within 03 months**.
4. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
5. Tripura SPCB should ensure compliance to new emission norms by CBWTFs as required under BMWM Rules, 2016 **within one month**.
6. Timely Submission of Annual Report
7. Deep Burial practiced by Healthcare Facilities should be approved by Odisha SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
8. Carry out gap analysis to assess requirement of additional Common Facilities and to cover all HCFs in the State.
9. Include Action points identified under Key Performance Indicators

3.4.26 Pondicherry

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for UT of Pondicherry, following are the issues /shortcomings observed by CPCB:

1. Inventory on Biomedical waste generating HCF is not yet completed.
2. Delay in submission of Annual Report
3. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
4. Barcode system is yet to be implemented in the State
5. All HCFs which are having captive treatment facility are required to be complied with BMWM Rules, 2016.
6. Issues with regard to compliance of Common Facility

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Pondicherry PCC should carry out inventory of all Healthcare Facilities generating biomedical waste within **three months**.
2. Ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. identified in inventory **within three months**.
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months**.

5. Timely submission of Annual report
6. Ensure upgradation of existing Common Facility to meet new emission standards
7. Include Action points identified under Key Performance Indicators

3.4.27 Punjab

As per annual report on implementation of BMWWM Rules, 2016 and action plan submitted for State of Punjab , following are the issues /shortcomings observed by CPCB:

1. Annual Report is not submitted be within deadline as required under BMWWM Rules, 2016
2. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Annual Report on biomedical waste management for the period from January to December of the preceding year should be submitted by July 31st of every year.
2. Punjab SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. Include Action points identified under Key Performance Indicators

3.4.28 Rajasthan

As per annual report on implementation of BMWWM Rules, 2016 and action plan submitted for State of Rajasthan, following are the issues /shortcomings observed by CPCB:

1. Inventory on Biomedical waste generating HCF is not completed.
2. Annual Report is not submitted be within deadline as required under BMWWM Rules, 2016
3. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
4. Barcode system is yet to be implemented in the State
5. There are 4 deep burial pits being used for disposal of biomedical waste, which need to be complied with standard under BMWWM Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWWM Rules, 2016:

1. Rajasthan should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months.**
2. Annual Report on biomedical waste management for the period from January to December of the preceding year should be submitted by July 31st of every year.

3. Rajasthan SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
4. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months.**
5. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
6. Deep Burial practiced by Healthcare Facilities should be approved by Rajasthan SPCB and design of deep burial pits should be as per standards given under BMW Rules, 2016.
7. Carry out gap analysis on BMW generation and availability of Common facilities so as to ensure coverage of all HCFs and need for additional Common Facilities.
8. Include Action points identified under Key Performance Indicators

3.4.29 Sikkim

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for State of Sikkim, following are the issues /shortcomings observed by CPCB:

1. There are no common facilities
2. Deep Burial is practiced
3. Action plan does not indicates the following information as per provision under BMW Rules:
 - Inventory of Healthcare Facilities generating biomedical waste
 - Authroisation to HCFs (bedded & non-bedded) under BMW Rules, 2016
 - Monitoring of compliance to BMW Rules, 2016 by Healthcare Facilities including Veterinary Hospitals, Animal Houses, AYUSH Hospitals etc.
 - Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) in entire State/UT
 - Compliance of CBWTFs to new emission standards prescribed under BMW Rules, 2016

Recommendations:

Sikkim State may revise its Action Plan covering above indicators, so that status of compliance to BMW Rules, 2016 be assessed:

1. Submit revised action plan by addressing Action points identified under Key Performance Indicators
2. To Set up new CBWTFs to cover all HCFs in the State to the extent possible
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**

3.4.30 Tamil Nadu

As per annual report on implementation of BMW Rules, 2016 and action plan submitted for State of Tamil Nadu, following are the issues /shortcomings observed by CPCB:

1. Inventory on Biomedical waste generating HCF is not yet completed
2. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely

3. Barcode system is yet to be implemented in the State
4. Details on coverage of CBWTFs not submitted
5. Operation of captive treatment facilities and their compliance with BMWM Rules, 2016.
6. Use of deep burial pits for disposal of biomedical waste.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Tamil Nadu should carry out inventory of number of Healthcare Facilities, biomedical waste generation, its collection, treatment and disposal within **three months**
2. Tamil Nadu SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**
3. Barcode system should be implemented in every HCF from where biomedical waste is going out of the premises **within 03 months**.
4. Restrict the practice of Deep burials for BMW.
5. Carryout gap analysis to assess the need for additional CBWTFs to cover HCFs in entire TN State
6. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
7. Deep Burial practiced by Healthcare Facilities should be approved by Tamil Nadu SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
8. Include Action points identified under Key Performance Indicators

3.4.31 Telangana

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for State of Telangana, following are the issues /shortcomings observed by CPCB:

1. Inventory is reported as completed, however authorization to identified HCFs yet to be completed;

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Telangana SPCB should ensure authorization of all non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
2. Timely submission of Annual Reports
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. Include Action points identified under Key Performance Indicators

3.4.32 Tripura

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for the State of Tripura, following are the issues /shortcomings observed by CPCB:

1. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
2. Delay in submission of Annual Reports
3. CBWTF not upgraded to comply with new emission norms.
4. Deep burial pits being used for disposal of biomedical waste, which need to be complied with standard under BMWM Rules, 2016.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. SPCB should ensure compliance to new emission norms by CBWTFs as required under BMWM Rules, 2016 **within one month.**
2. Tripura SPCB should ensure compliance to new emission norms by CBWTFs as required under BMWM Rules, 2016 **within one month.**
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
4. Timely submission of Annual Reports
5. Deep Burial practiced by Healthcare Facilities should be approved by Tripura SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
6. Carryout gap analysis to assess the need for additional CBWTFs to cover HCFs in entire Tripura State.
7. Include Action points identified under Key Performance Indicators

3.4.33 Uttarakhand

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for State of Uttarakhand, following are the issues /shortcomings observed by CPCB:

1. Inventory on Biomedical waste generating HCF is not submitted by Uttarakhand.
2. Delay in submission of Annual Report
3. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not implemented completely
4. Barcode system is yet to be implemented in the State
5. Deep burial pits being used for disposal of biomedical waste, which need to be restricted and if operated, needs to comply with standard under BMWM Rules, 2016.
6. Only two CBWTF operated in the State

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. Uttarakhand should carry out inventory of number of Healthcare Facilities and biomedical waste generation within **three months.**
2. Timely submission of Annual Reports
3. Uttarakhand SPCB should ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months.**
4. Implementation of Barcode system by HCFs and CBWTFs **within 03 months.**
5. Carryout gap analysis to assess the need for additional CBWTFs to cover HCFs in Uttarakhand State.

6. Deep Burial practiced by Healthcare Facilities should be approved by Uttarakhand SPCB and design of deep burial pits should be as per standards given under BMWM Rules, 2016.
7. Monitoring of compliance to new emission norms by CBWTFs
8. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**
9. Include Action points identified under Key Performance Indicators

3.4.34 Uttar Pradesh

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for State of Uttar Pradesh, following are the issues /shortcomings observed by CPCB:

1. Action plan does not indicates the following information as per provision under BMWM Rules:
 - Inventory of Healthcare Facilities generating biomedical waste
 - Authroisation to HCFs (bedded & non-bedded) under BMWM Rules, 2016
 - Implementation status of Barcode system
 - Monitoring of compliance to BMWM Rules, 2016 by Healthcare Facilities including Veterinary Hospitals, Animal Houses, AYUSH Hospitals etc.
 - Coverage of Common Biomedical Waste Treatment Facilities (CBWTFs) in entire State/UT
 - Compliance of CBWTFs to new emission standards prescribed under BMWM Rules, 2016
2. Performance Guarantee w.r.t. action plan is not submitted to CPCB.

Recommendations:

UP State may revise its Action Plan by addressing State specific issues and action points of key performance indicators within a month. The following action points may also be addressed;

1. Upgradation of existing CBWTFs so as to meet new emission standards
2. Providing Performance Guarantee on Action Plan
3. Carry out inventory of number of Healthcare Facilities and biomedical waste generation within three months.
4. Ensure authorization to non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. within three months.
5. Implement Barcode system by HCFs and CBWTFs within 03 months.
6. Carryout gap analysis to assess the need for additional CBWTFs to cover HCFs in UP State.
7. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. within one month
8. Include Action points identified under Key Performance Indicators

3.4.35 West Bengal

As per annual report on implementation of BMWM Rules, 2016 and action plan submitted for State of West Bengal, following are the issues /shortcomings observed by CPCB:

1. Inventory on Biomedical waste generating HCF is not yet complete
2. Authorization to non-bedded HCFs like clinics, laboratories, etc. is not yet completed
3. Captive treatment facility are permitted, despite having CBWTFs.

Recommendations:

Following time bound action plan may be added for ensuring effective compliance to BMWM Rules, 2016:

1. West Bengal should carry out inventory of number of Healthcare Facilities, biomedical waste generation within **three months**.
2. West Bengal SPCB should ensure authorization of all identified non-bedded HCFs like clinics, laboratories, research institutes as well as veterinary hospitals etc. **within three months**.
3. Evolve a mechanism for monitoring compliance by HCFs for segregation in colour coded bins/containers, pre-treatment to laboratory waste, separate biomedical waste storage space, liquid waste treatment etc. **within one month**.
4. Carryout gap analysis to assess the need for additional CBWTFs to cover all HCFs in the State of West Bengal.
5. May include action points identified under Key Performance Indicators

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