

CENTRAL POLLUTION CONTROL BOARD

(Hazardous Waste Management Division)

DELHI – 110 032

Subject: Status and Issues on implementation of Bio-medical Waste (Management & Handling) Rules, 1998 and as amended

1. **Introduction to the Bio-medical Waste (Management & Handling) Rules, 1998 and amendments made thereof:**

The Bio-medical Waste (Management & Handling) Rules, 1998 and amendments thereof (hereafter referred as BMW Rules) were notified under the Environment (Protection) Act, 1986 by the Ministry of Environment & Forests (MoEF) in the year 1998 and further amendments were made in the year 2000 and 2003. As per BMW Rules, 1998, State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) in the respective States/UTs and Director General Armed Forces Medical Services (DGAFMS) in respect of the Health Care Establishments (HCEs) under the jurisdiction of the Ministry of Defence have been notified as the 'Prescribed Authority' for overall enforcement of the said Rules. As per Rule 10 of the BMW Rules, 'SPCBs and PCCs as well as DGAFMS are required to submit annual report information in a compiled form to the Central Pollution Control Board (CPCB), for the preceding year by 31st March of every year.

2. **Bio-medical Waste Management Scenario:**

Annual report information for the year 2012 is not received from the two states i.e. Chhattisgarh & Kerala SPCBs. As per the annual report information received from the State Pollution Control Boards (SPCBs)/ Pollution Control Committees (PCCs) and Director General of Armed Forces Medical Services (DGAFMS) for the year 2012, there are 1,59,838 no. of HCFs having 16,12,600 beds and generating bio-medical waste at about 416 tons/day. 98,074 no. of HCFs have obtained authorization under the BMW Rules. There are 190 no. of CBWTFs in operation (29 under construction) as well as 21,870 no. of HCFs are having captive bio-medical waste treatment and disposal facilities and 380 Tons per day (TPD) out of 416 TPD of bio-medical waste generated is treated and disposed of by these facilities. About 12,990 no. of HCFs/CBWTFs violating the provisions of the BMW Rules. The detailed bio-medical waste management scenario in the Country (**Annexure-I**) is given below:

- No. of healthcare facilities : 1,59,838
- No. of beds :16,12,600
- No. of Common Bio-medical Waste Treatment Facilities (CBWTFs) : **190* + 29****

➤ No. of healthcare facilities (HCFs) using CBWTFs	: 1,21,279
➤ No. of HCFs having treatment & disposal facilities	: 21,870
➤ No. of healthcare facilities applied for authorization	: 1,02,086
➤ No. of healthcare facilities granted authorization	: 98,074
➤ Total no. of on-site/captive treatment equipment installed (excluding CBWTFs) by the HCFs:	
• No. of incinerators	
i) With Air Pollution Control Device	: 431
(ii) Without Air Pollution Control Device	: 233
• No. of autoclaves	: 4,158
• No. of microwaves	: 186
• No. of Hydroclave	: 21
• No. of Shredders	: 6,477
➤ Total no. of treatment equipment installed by the CBWTFs:	
• No. of incinerators	: 194
• No. of autoclaves	: 157
• No. of microwaves	: 05
• No. of Hydroclave	: 02
• No. of Shredders	: 163
➤ Quantity of bio-medical waste generated in Tons/day	: 416
➤ Quantity of bio-medical waste treated in Tons /day	: 380
➤ No. of HCFs violated BMW Rules	: 12,990
➤ No. of Show-cause notices/Directions issued to defaulter HCFs	: 11,583

Note:

(i) * - **CBWTFs in operation**

(ii) ** - **CBWTFs under installation**

(iii) **The information in respect of the States (namely Chhattisgarh & Kerala) has been included as per the Annual Report submitted for the year 2011.**

3. Issues on Bio-medical Waste Management:

- a) **Non-submission of Annual Report within the due date (i.e., by 31st March of every year)** : The annual report information is not submitted regularly within the due date (by 31 March every year) as stipulated under the Bio-medical Waste (Management & Handling) Rules, 1998 by most of the SPCBs/PCCs thereby making it difficult to compile the national status on bio-medical waste management and its submission to MoEF by 30th June of every year. CPCB has given time frame for ensuring submission of Annual Report on BMW Management within the due date i.e. 31st March of the every year by all the concerned so that compiled information can be submitted to MoEF by CPCB by 30th June of every year.

b) Captive Incinerators in violation of BMW Rules:

There are 233 no. of captive incinerators without APCD or may be having single chamber which are in violation of BMW Rules, in the States like Arunachal Pradesh, Assam, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Kerala, Lakshadweep, Madhya Pradesh, Maharashtra and Puducherry. Such, captive incinerators need to be closed by the respective SPCB.

c) States/UTs which are yet to develop CBWTFs in the respective State/UT:

06 States namely Arunachal Pradesh, Goa, Manipur, Mizoram, Nagaland & Sikkim and 02 UTs namely Andaman & Nicobar Islands, Lakshadweep where, are yet to develop CBWTFs in the respective State/UT.

d) Improper implementation of guidelines for CBWTFs by the SPCBs/PCCs:

Some of the States like Haryana, Gujarat and Karnataka are allowing more number of CBWTFs violating the location criteria and coverage area as stipulated under CBWTF guidelines due to which mushrooming of CBWTFs is taking place and leading to Court Matters.

e) Installation of ETP/STP by the Healthcare Facilities:

Many of the HCFs have not installed ETPs/STPs for ensuring proper treatment of liquid waste generated the HCFs in compliance to the discharge norms stipulated under BMW Rules. CPCB already requested all the SPCBs/PCCs for initiating further necessary action.

4. Suggested Actions for effective management of Bio-medical Waste:

- 1) All the HCFs which are in operation without obtaining authorization as required under BMW Rules, 1998 should be directed to obtain authorization from the prescribed authority.
- 2) The HCFs which generate bio-medical waste but not require authorization as per BMW Rules should be directed to take adequate steps and to take a membership from the nearby CBWTF for safe disposal of bio-medical waste generated by such HCFs.
- 3) SPCBs/PCCs should direct all the HCFs/CBWTFs located in the respective State/UT for submission of Annual Report by 30th of January of every year in accordance with BMW Rules.
- 4) As far as possible the captive incinerators should be discouraged. All the Captive BMW Incinerators operated by the HCFs, which are single chamber or not

connected with adequate APCD should be directed to upgrade within 3 months, failing which action should be taken for closure of such facilities.

- 5) All the SPCBs and PCCs should ensure that the HCFs have adequate facilities for on-site segregation, intra-mural movement and safe storage of Bio-medical waste, prior to sending the waste to the CBWTFs.
- 6) Action should be taken by the States/UTs of Andaman & Nicobar Islands, Arunachal Pradesh, Goa, Lakshadweep, Manipur, Mizoram, Nagaland & Sikkim for Development of Common Bio-medical Waste Treatment and Disposal Facilities (CBWTFs) in the respective State/UT by availing the MoEF financial assistance for development of CBWTFs.
- 7) Additional CBWTFs be allowed in the States/UTs only after examining the gap between the bio-medical waste generation & the existing treatment capacities as well as techno-economic viability and feasible operation of the CBWTFs'.
- 8) All the HCFs be directed to ensure compliance to the liquid waste discharge norms stipulated under the BMW Rules, by installing adequate STP/ETP as required under the BMW Rules.
- 9) All the HCFs be directed to 'phase out use of mercury based medical instruments' by the year 2020 in line with the 'Minamata Convention for Mercury Phase out'.
- 10) Wherever feasible, inter-state transportation of Bio-medical waste for further treatment and disposal may be allowed at least in border districts by granting authorization to the Occupier as well as CBWTF operator.

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Annual Report Information on Bio-medical Waste Management for the Year 2012 (as submitted by SPCBs/PCCs and DGAFMS)

S.No.	Name of the State/UT (Date of submission of Annual Report)	Total no. of Healthcare Facilities (HCFs)	Total no. of Beds (Approx.)	No. of Common Bio-medical Waste Treatment Facilities (CBWTFs)/Private agencies		No. of HCFs utilizing CBWTFs/private agencies	No. of HCFs having own Treatment and Disposal facilities	No. of HCFs applied for Authorization	No. of HCFs granted Authorization	Total no. of on-site treatment equipment (Excluding CBWTF) installed by HCFs						Total no. of treatment equipment installed at CBWTFs					Total Quantity of BMW generated (kg/day) (Approximately)	Total Quantity of BMW treated (kg/day) (Approximately)	No. of HCFs/CBWTFs violated BMW Rules	Total No. of Show cause notices/Directions issued to defaulter-HCFs/CBWTFs
				Operational	Under Construction					Incinerator		Autoclave	Microwave	Hydroclave	Shredder	Incinerator	Autoclave	Microwave	Hydroclave	Shredder				
										With APCD	Without APCD													
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)	(xxi)	(xxii)	(xxiii)	(xxiv)	(xxv)
1	Andaman & Nicobar (22.03.2013)	29	1055	Nil	Nil	Nil	06	INP	01	06	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	230	230	Nil	Nil
2	Andhra Pradesh (16.09.2013)	7213	155153	16	03	6743	01	6876	6876	01	Nil	Nil	Nil	Nil	Nil	16	16	Nil	Nil	16	22187	17104	74	74
3	Arunachal Pradesh (17.04.2013)	44	682	Nil	Nil	Nil	02	08	07	01	01	10	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	85	85	Nil	Nil
4	Assam (25.09.2013)	1009	19762	05	Nil	140	192	452	294	39	168	116	38	Nil	116	01	02	Nil	Nil	02	4293	4260	Nil	Nil
5	Bihar (01.07.2013)	174	4099	03	01	117	57	174	168	15	Nil	07	Nil	Nil	06	03	03	Nil	Nil	03	623.9	623.9	39	39
6	Chandigarh (15.04.2013)	681	3847	02	Nil	676	03	27	35	02	Nil	Nil	Nil	Nil	03	Nil	01	Nil	Nil	01	2039	2039	22	01
7	Chhattisgarh * (21.06.2012)	740	14678	6	Nil	446	181	478	425	7	4	295	7	0	354	3	10	0	0	4	4492	4492	20	20
8	Daman & Diu and Dadra & Nagar Haveli (20.05.2013)	76	623	01	Nil	152	Nil	76	76	Nil	Nil	Nil	Nil	Nil	Nil	01	01	Nil	Nil	01	133.21	133.21	Nil	Nil
9	Delhi (30.04.2013)	3941	46569	03	Nil	3941	17	403	433	04	Nil	16	02	Nil	17	05	03	Nil	Nil	05	13911.65	13921.65	128	128

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				Incinerator						Autoclave	Microwave	Hydroclave	Shredder	Incinerator	Autoclave	Microwave	Hydroclave	Shredder						
				With APCD	Without APCD																			
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)	(xxi)	(xxii)	(xxiii)	(xxiv)	(xxv)
10	Goa (20.05.2013)	371	4649	Nil	Nil	INP	INP	375	371	01	Nil	177	01	Nil	Nil	Nil	Nil	Nil	Nil	Nil	5720.46	5720.46	INP	01
11	Gujarat (21.09.2013)	27201	150000	14	10	22656	250	26369	24583	Nil	Nil	Nil	Nil	Nil	Nil	17	16	Nil	Nil	19	23500	23500	8745	8747
12	Haryana (21.11.2013)	2375	35947	12	01	2374	01	2375	2374	01	Nil	255	Nil	18	996	13	13	Nil	Nil	12	8695.11	8695.11	144	144
13	Himachal Pradesh (17.10.2013)	570	11619	03	Nil	299	271	378	226	02	01	04	Nil	Nil	02	03	02	Nil	Nil	02	2858.4	2858.4	17	17
14	Jharkhand (17.10.2013)	838	19172	01	Nil	300	12	206	144	13	04	355	Nil	Nil	572	01	01	Nil	Nil	01	4810.27	4810.27	56	56
15	J&K (24.10.2013)	1136	10588	02	01	196	111	311	197	04	02	63	Nil	Nil	01	04	03	Nil	Nil	03	4359	3013	794	94
16	Karnataka (03.05.2013)	26788	167851	17	06	12649	8346	26788	26496	11	Nil	Nil	Nil	Nil	Nil	20	17	Nil	Nil	15	82812	75899	909	897
17	Kerala* (06.08.2012)	3399	119286	1	Nil	1799	303	1234	689	50	39	304	12	1	524	4	2	Nil	Nil	2	40252	36759	139	82
18	Lakshadweep (05.10.2013)	11	110	Nil	Nil	Nil	01	INP	INP	Nil	01	10	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	50	50	Nil	Nil
19	Madhya Pradesh (29.06.2013)	2663	63276	15	Nil	2429	586	1466	1434	06	05	309	Nil	Nil	797	12	12	Nil	01	13	9405.15	9014.73	235	176

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				Incinerator						Autoclave	Microwave	Hydroclave	Shredder	Incinerator	Autoclave	Microwave	Hydroclave	Shredder						
				With APCD	Without APCD																			
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)	(xxi)	(xxii)	(xxiii)	(xxiv)	(xxv)
20	Maharashtra (01.11.2013)	51185	236557	34	02	43148	8037	17206	17115	12	06	1085	40	01	2840	32	Treatment Equipment : INP (Deep Burial allowed in 05 CBWTFs)				45089.6	44955	104	91
21	Manipur (31.03.2013)	577	2545	Nil	Nil	Nil	539	43	40	04	Nil	26	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	414.71	355.03	Nil	10
22	Meghalaya (05.04.2013)	699	6049	01	Nil	27	671	80	80	05	Nil	Nil	Nil	Nil	01	01	Nil	Nil	Nil	Nil	651.9	651.9	97	01
23	Mizoram (08.07.2013)	94	2876	Nil	Nil	Nil	94	37	57	04 (not in operation)	Nil	07	02	Nil	Nil	Nil	Nil	Nil	Nil	Nil	2039	750.1	Nil	Nil
24	Nagaland (12.04.2013)	118	2378	Nil	Nil	Nil	90	90	90	Information not provided (INP)														
25	Odisha (04.04.2013)	1415	31116	04	Nil	443	854	229	243	06	Nil	853	07	Nil	39	06	03	04	Nil	06	5772.5	4674.4	62	49
26	Puducherry (03.12.2013)	127	6970	01	Nil	88	02	70	70	01	02	Nil	01	Nil	01	01	01	Nil	Nil	01	9152.73	9152.73	08	08
27	Punjab (28.03.2013)	2935	44483	04	01	2743	Nil	2723	2669	Nil	Nil	Nil	Nil	Nil	Nil	05	05	Nil	Nil	08	9299.95	9299.95	269	269
28	Rajasthan (01.10.2013)	3566	68967	12	03	2460	639	1045	950	Equipment installed : Nil (but disposal by deep burial allowed)						12	12	Nil	Nil	12	15569.4	12445.7	294	419
29	Sikkim (21.05.2013)	48	1292	Nil	Nil	Nil	INP	11	11	06	Nil	01	INP	INP	01	Nil	Nil	Nil	Nil	Nil	208	208	Nil	01

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				Incinerator						Autoclave	Microwave	Hydroclave	Shredder	Incinerator	Autoclave	Microwave	Hydroclave	Shredder						
				With APCD	Without APCD																			
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)	(xi)	(xii)	(xiii)	(xiv)	(xv)	(xvi)	(xvii)	(xviii)	(xix)	(xx)	(xxi)	(xxii)	(xxiii)	(xxiv)	(xxv)
30	Tamilnadu (03.04.2013)	5563	129770	10	01	5563	Nil	4998	4940	Nil	Nil	Nil	Nil	Nil	Nil	09	11	Nil	Nil	13	33024	33024	255	186
31	Tripura (22.04.2013)	1157	3842	01	Nil	INP	01	463	463	01	Nil	Nil	Nil	Nil	Nil	01	Nil	Nil	Nil	Nil	1251	1068	Nil	Nil
32	Uttrakhand (05.10.2013)	623	12791	01	Nil	425	251	440	303	04	Nil	80	21	Nil	92	03	02	01	01	03	2070	2070	Nil	43
33	Uttar Pradesh (10.05.2013)	5711	108007	15	Nil	5142	20	3239	2868	20	Nil	13	Nil	01	11	15	15	Nil	Nil	15	22995.65	21464	549	INP
34	West Bengal (12.11.2013)	6440	96035	06	Nil	6318	16	3107	3037	01	Nil	12	03	Nil	11	06	06	Nil	Nil	06	31397.03	19535	30	30
35	DGAFMS (25.09.2013)	321	29956	Nil	Nil	05	316	309	309	204	Nil	160	52	Nil	93	Nil	Nil	Nil	Nil	Nil	6647	6647	INP	INP
	Total	159838	1612600	190	29	121279	21870	102086	98074	431	233	4158	186	21	6477	194	157	05	02	163	416039.5	379509.54	12990	11583

Note: (1) * Annual Report for the year 2012 is not submitted by Chhattisgarh and Kerala SPCBs and hence the information in respect of the States (namely Chhattisgarh & Kerala) has been included as per the Annual Report submitted for the year 2011.

(2) INP : Information not provided

Annual Report finalized as on 26.06.2014

Details of Healthcare Facilities and status of authorization

S.No.	Name of the State/UT	Total no. of Healthcare Facilities (HCFs)	No. of HCFs applied for Authorization	No. of HCFs granted Authorization	No. of HCFs operating without obtaining authorization
1	Andaman & Nicobar	29	0	1	28
2	Andhra Pradesh	7213	6876	6876	337
3	Arunachal Pradesh	44	8	7	37
4	Assam	1009	452	294	715
5	Bihar	174	174	168	6
6	Chandigarh	681	27	35	646
7	Chhattisgarh *	740	478	425	315
8	Daman & Diu and Dadra & Nagar Haveli	76	76	76	0
9	Delhi	3941	403	433	3508
10	Goa	371	375	371	0
11	Gujarat	27201	26369	24583	2618
12	Haryana	2375	2375	2374	1
13	Himachal Pradesh	570	378	226	344
14	Jharkhand	838	206	144	694
15	J&K	1136	311	197	939
16	Karnataka	26788	26788	26496	292
17	Kerala*	3399	1234	689	2710
18	Lakshadweep	11	0	0	11
19	Madhya Pradesh	2663	1466	1434	1229
20	Maharashtra	51185	17206	17115	34070
21	Manipur	577	43	40	537
22	Meghalaya	699	80	80	619
23	Mizoram	94	37	57	37
24	Nagaland	118	90	90	28
25	Odisha	1415	229	243	1172
26	Puducherry	127	70	70	57
27	Punjab	2935	2723	2669	266
28	Rajasthan	3566	1045	950	2616
29	Sikkim	48	11	11	37
30	Tamilnadu	5563	4998	4940	623
31	Tripura	1157	463	463	694
32	Uttarakhand	623	440	303	320
33	Uttar Pradesh	5711	3239	2868	2843
34	West Bengal	6440	3107	3037	3403
35	DGAFMS	321	309	309	12
	Total	159838	102086	98074	61764

Details of HCFs neither having captive treatment facilities nor are the member of CBWTF

S.No.	Name of the State/UT	Total no. of Healthcare Facilities (HCFs)	No. of HCFs utilizing CBWTFs/private agencies	No. of HCFs having own Treatment and Disposal facilities	No. of HCFs neither having captive treatment facilities nor are the member of CBWTF
1	Andaman & Nicobar	29	0	6	23
2	Andhra Pradesh	7213	6743	1	469
3	Arunachal Pradesh	44	0	2	42
4	Assam	1009	140	192	677
5	Bihar	174	117	57	0
6	Chandigarh	681	676	3	2
7	Chhattisgarh *	740	446	181	113
8	Daman & Diu and Dadra & Nagar Haveli	76	152	0	-76
9	Delhi	3941	3941	17	-17
10	Goa	371	0	0	371
11	Gujarat	27201	22656	250	4295
12	Haryana	2375	2374	1	0
13	Himachal Pradesh	570	299	271	0
14	Jharkhand	838	300	12	526
15	J&K	1136	196	111	829
16	Karnataka	26788	12649	8346	5793
17	Kerala*	3399	1799	303	1297
18	Lakshadweep	11	0	1	10
19	Madhya Pradesh	2663	2429	586	-352
20	Maharashtra	51185	43148	8037	0
21	Manipur	577	0	539	38
22	Meghalaya	699	27	671	1
23	Mizoram	94	0	94	0
24	Nagaland	118	0	90	28
25	Odisha	1415	443	854	118
26	Puducherry	127	88	2	37
27	Punjab	2935	2743	0	192
28	Rajasthan	3566	2460	639	467
29	Sikkim	48	0	0	48
30	Tamilnadu	5563	5563	0	0
31	Tripura	1157	0	1	1156
32	Uttarakhand	623	425	251	-53
33	Uttar Pradesh	5711	5142	20	549
34	West Bengal	6440	6318	16	106
35	DGAFMS	321	5	316	0
	Total	159838	121279	21870	16689

Status of Bio-medical waste generation & treatment

S.No.	Name of the State/UT	Total Quantity of BMW generated (kg/day) (Approximately)	Total Quantity of BMW treated (kg/day) (Approximately)	Gap (in kg/hr)	Gap in treatment (in %)	Treatment (%)
1	Andaman & Nicobar	230	230	0	0.00	100.00
2	Andhra Pradesh	22187	17104	5083	22.91	77.09
3	Arunachal Pradesh	85	85	0	0.00	100.00
4	Assam	4293	4260	33	0.77	99.23
5	Bihar	623.9	623.9	0	0.00	100.00
6	Chandigarh	2039	2039	0	0.00	100.00
7	Chhattisgarh *	4492	4492	0	0.00	100.00
8	Daman & Diu and Dadra & Nagar Haveli	133.21	133.21	0	0.00	100.00
9	Delhi	13911.65	13911.65	0	0.00	100.00
10	Goa	5720.46	5720.46	0	100.00	0.00
11	Gujarat	23500	23500	0	0.00	100.00
12	Haryana	8695.11	8695.11	0	0.00	100.00
13	Himachal Pradesh	2858.4	2858.4	0	0.00	100.00
15	J&K	4359	3013	1346	30.88	69.12
14	Jharkhand	4810.27	4810.27	0	0.00	100.00
16	Karnataka	82812	75899	6913	8.35	91.65
17	Kerala*	40252	36759	3493	8.68	91.32
18	Lakshadweep	50	50	0	0.00	100.00
19	Madhya Pradesh	9405.15	9014.73	390.42	4.15	95.85
20	Maharashtra	45089.6	44955	134.6	0.30	99.70
21	Manipur	414.71	355.03	59.68	14.39	85.61
22	Meghalaya	651.9	651.9	0	0.00	100.00
23	Mizoram	2039	750.1	1288.9	63.21	36.79
24	Nagaland			0	0.00	0.00
25	Odisha	5772.5	4674.4	1098.1	19.02	80.98
26	Puducherry	9152.73	9152.73	0	0.00	100.00
27	Punjab	9299.95	9299.95	0	0.00	100.00
28	Rajasthan	15569.4	12445.7	3123.7	20.06	79.94
29	Sikkim	208	208	0	0.00	100.00
30	Tamilnadu	33024	33024	0	0.00	100.00
31	Tripura	1251	1068	183	14.63	85.37
33	Uttar Pradesh	22995.65	21464	1531.65	6.66	93.34
32	Uttrakhand	2070	2070	0	0.00	100.00
34	West Bengal	31397.03	19535	11862.03	37.78	62.22
35	DGAFMS	6647	6647	0	0.00	100.00
	Total	416039.5	379509.54	36529.96	8.78	91.22

Details of Common Bio-medical Waste Treatment Facilities

S.No.	Name of the State/UT	Total no. of Healthcare Facilities (HCFs)	No. of Common Bio-medical Waste Treatment Facilities (CBWTFs)/Private agencies	
			Operational	Under Construction
1	Andaman & Nicobar	29	Nil	Nil
2	Andhra Pradesh	7213	16	03
3	Arunachal Pradesh	44	Nil	Nil
4	Assam	1009	05	Nil
5	Bihar	174	03	01
6	Chandigarh	681	02	Nil
7	Chhattisgarh *	740	6	0
8	Daman & Diu and Dadra & Nagar Haveli	76	01	Nil
9	Delhi	3941	03	Nil
10	Goa	371	Nil	Nil
11	Gujarat	27201	14	10
12	Haryana	2375	12	01
13	Himachal Pradesh	570	03	Nil
14	J&K	838	01	Nil
15	Jharkhand	1136	02	01
16	Karnataka	26788	17	06
17	Kerala*	3399	1	0
18	Lakshadweep	11	Nil	Nil
19	Madhya Pradesh	2663	15	Nil
20	Maharashtra	51185	34	02
21	Manipur	577	Nil	Nil
22	Meghalaya	699	01	Nil
23	Mizoram	94	Nil	Nil
24	Nagaland	118	Nil	Nil
25	Odisha	1415	04	Nil
26	Puducherry	127	01	Nil
27	Punjab	2935	04	01
28	Rajasthan	3566	12	03
29	Sikkim	48	Nil	Nil
30	Tamilnadu	5563	10	01
31	Tripura	1157	01	Nil
32	Uttar Pradesh	623	01	Nil
33	Uttrakhand	5711	15	Nil
34	West Bengal	6440	06	Nil
35	DGAFMS	321	Nil	Nil
	Total	159838	190	29

Details of captive bio-medical waste incinerator installed by Healthcare Facilities

S.No.	Name of the State/UT	Total no. of Healthcare Facilities (HCFs)	Total no. of Incinerator installed by HCFs	
			With APCD	Without APCD
1	Andaman & Nicobar	29	06	Nil
2	Andhra Pradesh	7213	01	Nil
3	Arunachal Pradesh	44	01	01
4	Assam	1009	39	168
5	Bihar	174	15	Nil
6	Chandigarh	681	02	Nil
7	Chhattisgarh *	740	7	4
8	Daman & Diu and Dadra & Nagar Haveli	76	Nil	Nil
9	Delhi	3941	04	Nil
10	Goa	371	01	Nil
11	Gujarat	27201	Nil	Nil
12	Haryana	2375	01	Nil
13	Himachal Pradesh	570	02	01
14	J&K	838	13	04
15	Jharkhand	1136	04	02
16	Karnataka	26788	11	Nil
17	Kerala*	3399	50	39
18	Lakshadweep	11	00	01
19	Madhya Pradesh	2663	06	05
20	Maharashtra	51185	12	06
21	Manipur	577	04	Nil
22	Meghalaya	699	05	Nil
23	Mizoram	94	04 (not in operation)	Nil
24	Nagaland	118		
25	Odisha	1415	06	Nil
26	Puducherry	127	01	02
27	Punjab	2935	Nil	Nil
28	Rajasthan	3566		
29	Sikkim	48	06	Nil
30	Tamilnadu	5563	Nil	Nil
31	Tripura	1157	01	Nil
32	Uttar Pradesh	623	04	Nil
33	Uttrakhand	5711	20	Nil
34	West Bengal	6440	01	Nil
35	DGAFMS	321	204	Nil
	Total	159838	431	233