

## **Form IVA**

**(January-December'2017)**

**Format for Submission of the Annual Report Information on Bio-medical Waste Management (to be submitted by the State Pollution Control Boards or Pollution Control Committees and Director General Armed Forces Medical Services to Central Pollution Control Board on or before 31st July of every year for the period from January to December of the preceding calendar year)**

Part-1 (Summary of Information)

- (1) Name of the Organization:** Punjab Pollution Control Board, Patiala
- (2) Name of the Nodal Officer with contact telephone number and e-mail :**  
Er. Rajiv Garg, Senior Environmental Engineer, 98789-50515,  
epappcb@gmail.com
- (3) Total no. of Health Care Facilities / Occupiers: = 7137**
  - (i) Bedded Hospitals and Nursing Homes (bedded) : =3568**
  - (ii) Clinics, dispensaries: =2277**
  - (iii) Veterinary institutions: =73**
  - (iv) Animal houses: 0**
  - (v) Pathological laboratories: =1209**
  - (vi) Blood banks: =6**
  - (vii) Clinical establishment: 0**
  - (viii) Research Institutions: 2**
  - (ix) AYUSH: 2**
- (4) Total no. of beds : =65866**
- (5) Status of authorization :**
  - (i) Total number of Occupiers applied for authorization: 2375**
  - (ii) Total number of Occupiers granted authorization: 2246**
  - (iii) Total number of applications under consideration: 129**
  - (iv) Total number of applications rejected: 0**

(v) **Total number of Occupiers in operation without applying for authorization:** 1987 (These HCFs are non-bedded HCFs which were exempted in BMW Rules, 1998 and have to obtain one-time authorization from PPCB as per BMW Rules, 2016. The HCFs are being perused by PPCB to obtain one-time authorization of the Board by issuing show-cause notices for violation of the provisions of the BMW Rules, 2016. Further, PPCB has developed an online module for one-time authorization of the healthcare facilities for the ease of these type of healthcare facilities)

**(6) Quantity of Bio-medical Waste Generation (in kg/day) :**

(please enclose District Wise Bio-medical Waste Generation as per Part-2)

(i) **Bio-medical waste generation by bedded hospitals(in kg/day) :=** 14554 kg/day

(ii) **Bio-medical waste generation by non-bedded hospitals (in kg/day) : =** 649 kg/day

(iii) **Any other : Nil**

**Total : 15203 Kg/day**

**(7) Bio-medical waste treatment and disposal**

(a) **By Captive bio-medical waste treatment and disposal by Health Care Facilities** (please enclose details as per Part-3)

(i) **Number of Health Care Facilities having captive treatment and Disposal facilities:** Nil

(ii) **Total bio-medical waste treated and disposed by captive treatment facilities in kg/day:** Nil

(b) **Bio-medical waste treatment and disposal by Common Bio Medical Waste Treatment Facilities** (please enclose details as per Part 4)

(i) **Number of Common Bio Medical Waste Treatment Facilities in Operation:** 4

(ii) **Number of Common Bio Medical Waste Treatment Facilities under construction:** 2 (one in Distt. Jalandhar and one in Distt. Sri Muktsar Sahib)

(iii) **Total bio-medical waste treated in kg/day:** = 15,203 kg/day

(iv) **Total treated bio-medical waste disposed through authorized recyclers (in Kg/day):** = 1892698 kgs/annum treated glass & plastic waste ( approx. 5185 kg/day)

**(8) Total no. of violation by:**

(i) **Health Care Facilities (bedded and non-bedded):** 1423

(ii) **Common Bio Medical Waste Treatment Facilities:** 2

(iii) **Others (please specify):** 0

**(9) Show cause notices/directions issued to defaulters:**

(i) **Health Care Facilities (bedded and non-bedded) :** 1428

(ii) **Common Bio Medical Waste Treatment Facilities :** 2

(iii) **Others :** 0

**(10) Any other relevant information:**

(i) **Number of workshops / trainings conducted during the year:** 94

(ii) **Number of occupiers installed liquid waste treatment facility:** 3649 (This includes Healthcare Facilities having only facility of pre-treatment of liquid waste using sodium hypo-chlorite solution. Further, the Regional Offices of PPCB have been asked to take action against the remaining HCFs which have not installed liquid waste treatment facility under the provisions of the BMW Rules, 2016).

(iii) **Number of captive incinerators complying to the norms:** NA as no captive incinerator installed.

(iv) **Number of occupiers organized trainings:** 642

(v) **Number of occupiers constituted Bio-medical Waste Management Committees:** 876

(vi) **Number of occupiers submitted Annual Report for the previous calendar year:** 2875 (The Regional Offices of PPCB have been asked to take action against the remaining HCFs which have not submitted their Annual Return under the provisions of the BMW Rules, 2016)

(vii) **Number of occupiers practicing pre-treatment of lab microbiology and Bio-technology waste:** 1377(The Regional Offices of PPCB have been asked to take action against the remaining HCFs which have not submitted their Annual Return under the provisions of the BMW Rules, 2016)

(viii) **Number of Common Bio Medical Waste Treatment Facilities that have installed Continuous Online Emission Monitoring Systems:**  
4 (All the 4 CBWTFs operating in the State have installed OCEMS)

**Part 2: District-wise Bio-medical Waste Generation (for the previous calendar year 2017)**

S. No	Name of the State / Union Territory	Name of the District	Bio-medical Waste Generation (in Kg/day)	Existing Total bio-medical waste treatment capacity (both captive and CBMWTF) in kg/day	
1	Punjab	Mohali	2336.42	Equipment	Total
		Fatehgarh Sahib	108.20	Incinerator	21,230 kg/day (assuming 22 hrs operation per day)
		Ropar	229.43	Autoclave:	16515 kg/day (assuming 9 batch operation per autoclave per day)
		SBS Nagar	284.42	Shredder:	60,000 kg/day (assuming 24 hrs operation per day)
		Jalandhar	1475.80		
		Kapurthala	235.64		
		Hoshiarpur	505.52		
		Barnala	163.48		
		Bathinda	658.90		
		Ludhiana	3787.15		
		Mansa	176.40		
		Moga	273.30		
		Patiala	652.57		
		Sangrur	243.83		
		Pathankot	324.70		
		Gurdaspur	419.66		
		Amritsar	2097.76		
		Tarn Taran	227.80		
		Faridkot	553.28		
		Muktsar	150.45		
		Firozpur	156.93		
		Fazilka	141.36		
			<b>15203 kg/day</b>		

**Part 3: Information on Health Care Facilities having captive treatment facilities (for the previous calendar Year 2017)**

S. No.	Name and address of the Health Care Facility	Quantity of Bio-medical waste Generation (in kg/day)					Total Installed Treatment Capacity in kg/day				Total bio-medical waste treated and disposed by Health Care Facilities in kg/day	
		Yellow	Red	Blue	White	Total biomedical waste generated (in kg/day)	Incinerator	Autoclave	Deep Burial	Any other		
Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Incinerator	
											Autoclave	
											Deep Burial	
											Any other	
											Total:	

**Part 4: Information on Common Bio-Medical Waste Treatment and Disposal Facilities (for the previous calendar Year 2017)**

S.No	Name and Address of the Common Bio Medical Waste Treatment Facilities with contact person name and telephone number	GPS Coordinates	Coverage Area in KMS	Name of the cities/ areas covered by Common Bio-Medical Waste Treatment Facilities	Total number of Health Care Facilities being covered	Total number of beds covered	Total Quantity of Bio Medical Waste collected from member Health Care Facilities (in Kg/day)	Capacity of Treatment equipments installed by Common Bio Medical Waste Treatment Facilities			Total Bio Medical waste treated in kg/day	Method of Disposal of treated wastes (Incineration Ash/Sharps/Plastics)
								Equipment	Numbers	Total installed capacity (kg/day)		
1	M/s. Rainbow Environment Pvt Ltd., Village Balyali, Mohali, Punjab (Sh. Sarabjeet Singh, Owner M: +91-98150-75782)	Latitude-30.713863, Longitude-76.678181	More than 150 kms	Complete Districts of SAS Nagar, Rupnagar, Fatehgarh Sahib, SBS Nagar and partial district of Jalandhar, Hoshiarpur & Kapurthala	2497	17052	4438.3	Incinerator	2(150 kg/hr & 65 kg/hr)	4730 kg/day (considering 22 hrs operation)	1826.614 kg/day	Incineration Ash generated disposed off to TSDF, Nimbua  Incineration Ash generated: 9954 kgs  Incineration Ash disposed off: 10520 kgs
								Plasma Pyrolysis	Nil	Nil	Nil	
								Autoclave	1 (2600 ltr/batch)	2925 kg/day (considering 9 batches per day)	2611.69 kg/day (it includes plastic waste, glass waste and sharp waste)	

								Hydroclave	nil	Nil	Nil	
								Microwave	nil	Nil	Nil	
								Shredder	3 (400 kg/hr, 150 kg/hr, 200 kg/hr)	18000 kg/day (considering 24 hrs operation)	1721.55 kg/day (it includes plastic waste)	<p>Treated Plastics &amp; glass disposed off to recycler.</p> <p>Quantity generated: 497105 kgs</p> <p>Quantity Disposed off: 497105 kgs</p>
								Sharps Encapsulation or concrete pit	2 (Size 10 ft*10ft* 5ft & 10 ft* 10Ft*6ft)	One no. pit of Size 10 ft*10ft* 5ft completely filled. The other pit of size 10 ft* 10Ft*6ft is in use.	2.34 kgs/day	Sharps disposed off into sharp pit after autoclaving.
								Effluent Treatment Plant	1	21.6 KLD	-	<p>ETP Sludge disposed off by incineration by CBWTF.</p> <p>Quantity generated: 1430 kgs</p> <p>Quantity Disposed off: 1430 kgs</p>
2	Amritsar Enviro Care System Pvt. Ltd., Village Ibban	Latitude-31.573741 Longitude-74.834828	150 KMS	Districts of Amritsar, Tarn Taran, Faridkot,	1398	16189	3327.6	Incinerator	2 (100 kg/hr & 100 kg/hr)	4400 kg/day (considering 22 hrs operation)	1032.22 Kg/Day	Incineration Ash generated disposed off to TSDF, Nimbua



	Kalan, Amritsar (Dr. Inderpal Singh Pasricha, Owner) (98140-55094 96534-70000)			Muktsar, Firozpur and Fazilka								Incineration Ash generated: 29487.600 kgs  Incineration Ash disposed off: 5208.7 Kg
							Plasma Pyrolysis	Nil	Nil	Nil	-	
							Autoclave	2 (2000 ltr/batch & 1800 ltr/batch)	5850 kg/day (considering 9 batches per day)	2295.7 kg/day (it includes plastic waste, glass waste and sharp waste)		
							Hydroclave	Nil	Nil	Nil		
							Microwave	Nil	Nil	Nil		
							Shredder	3 (100 kg/hr each)	7200 kg/hr (considering 24 hrs operation)	2183.04 kg/day (it includes plastic waste and glass waste)	Treated Plastics & glass disposed off to recycler.  Quantity generated: 442753 kgs  Quantity Disposed off: 442753 kgs	
							Sharps Encapsulation or concrete pit	2 (Size 10 ft*10ft* 8ft & 10 ft* 10Ft* 2.5ft)	One no. pit of Size 10 ft*10ft* 8ft completely filled. The other pit of size 10 ft*	56.32 Kg/Day	Sharps disposed off into sharp pit after autoclaving.	

										10Ft*2.5ft is in use.		
								Effluent Treatment Plant	1	40 KLD	-	ETP Sludge disposed off to TSDF, Nimbua.  Quantity generated: 3276.3 kgs  Quantity Disposed off: 3276.3 kgs
3	M/s BMW Trust, Vill. Pangoli, Defence Road, Distt. Pathankot  (Dr. SK Saini, Owner M: +91-98168-49003)	(Latitude-32.318229, Longitude-75.669861 )	Less than 150 kms	Complete Districts of Pathankot, Gurdaspur and partial district of Jalandhar, Hoshiarpur & Kapurthala	779	8256	1381.46	Incinerator	1 (150 kg/hr)	3300 kg/day (considering 22 hrs operation)	551.57 kg/day	Incineration Ash generated disposed off to TSDF, Nimbua  Incineration Ash generated: 9701.2 kg  Incineration Ash disposed off: 10105 kg
								Plasma Pyrolysis	Nil	Nil	Nil	
								Autoclave	2 (2000 ltr/batch each)	4950 kg/day (considering 9 batches per day)	829.8 kg/day (it includes plastic waste, glass waste and sharp waste)	
								Hydroclave	nil	Nil	Nil	

								Microwave	nil	Nil	Nil	Treated Plastics & glass disposed off to recycler.  Quantity generated: 234281 kg  Quantity Disposed off: 234281 kg
								Shredder	3 (300 kg/hour, 250 kg/hour, 100 kg/hour)	15600 kg/day (considering 24 hrs operation)	749.14 kg/day (it includes plastic waste and glass waste)	
								Sharps Encapsulation or concrete pit	3 (Size 8 ft* 8ft*9ft, 8ft* 9ft*9ft and 5ft *6 ft *10ft)	Two no. pit of Size 8ftX8ftX9ft and 5ftX6ftX10ft completely filled. The other pit of size 8ft X 9ft X 9ft is in use.	40.38 kg/day	
								Effluent Treatment Plant	1	15 KLD	-	ETP Sludge disposed off to TSDF, Nimbua.  Quantity generated: 495 kgs  Quantity Disposed off: 880 kgs
4	M/s Medicare Environmental Management (P) Ltd., Opp. Central Jail, Ludhiana	Latitude- 30.9261 240 Longitud e-	More than 150 kms	Complete Districts of Ludhiana, Bathinda, Patiala, Sangrur,	2462	24369	6055.5	Incinerator	2 (200 kg/hr & 200 kg/hr)	8800 kg/day (considering 22 hrs operation)	3026.5 Kg/day	Incineration Ash generated disposed off to TSDF, Nimbua  Incineration

	(Sh. Sunil Aggarwal, GM M: +91-98148-01375)	75.9125 990		Barnala, Mansa, Moga.								Ash generated: 123828 kg  Incineration Ash disposed off: 116073 kgs
								Plasma Pyrolysis	Nil	Nil	Nil	
								Autoclave	2 (1250 ltr/batch & 850 ltr/batch)	2790 kg/day (considering 9 batches per day)	3029 kg/day (it includes plastic waste, glass waste and sharp waste)	Sharps disposed off into sharp pit after autoclaving.
								Hydroclave	Nil	Nil	Nil	
								Microwave	Nil	Nil	Nil	Treated Plastics & glass disposed off to recycler.  Quantity generated: 718559 kgs  Quantity Disposed off: 718559 kgs
								Shredder	2 (350 kg/hr & 400 kg/hr)	18000 kg/day (considering 24 hrs operation)	2999 kg/day (it includes plastic waste and glass waste)	
								Sharps Encapsulation or concrete pit	2 (Size 10 ft*10ft* 7ft & 10ft X 10ft X 10ft)	One no. pit of Size 10 ft*10ft* 10ft completely filled. The other pit of size 10ft X 10ft X 7ft is in use.	30 Kg/Day	

								Effluent Treatment Plant	1	6-8 KL/hr		ETP Sludge disposed off to TSDF, Nimbua.  Quantity generated: 15015 kgs  Quantity Disposed off: 13215 kgs
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- (a) **Total Number of transportation vehicles used for collection of Bio-medical Waste on daily basis by the Common Bio-Medical Waste Treatment Facilities:** = 74 collection vehicles (out of which 66 vehicles are used for collection of bio-medical waste and 8 vehicles are spare).
- (b) **List of Health Care Facilities not having membership with the Common Bio-Medical Waste Treatment Facilities and neither having captive treatment facilities:** 341 (The Regional Offices of PPCB have been asked to take action against these HCFs under the provisions of the BMW Rules, 2016)
- (c) **Number of trainings organized by the Common Bio-Medical Waste Treatment Facility operators:** 20
- (d) **Number of Accidents reported by the Common Bio Medical Waste Treatment Facilities:** Nil

