Report of the Committee on Categorization Of States as Small States Based on Threshold Limit of Generation of Hazardous Waste

(In Compliance to the Order dated 26.08.19 of Hon'ble National Green Tribunal in the matter of OA No. 804/2017: Rajiv Narayana & Anr. Vs Union of India & Ors.)

September 24, 2019

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Scientist-D, WM-II Division, CPCB, Delhi

Members of the Committee Constituted by CPCB

1.0 Preamble

The Hon'ble National Green Tribunal, Principal Bench, New Delhi in the matter of OA No. 804/217: Rajiv Narayan & Anr. Vs Union of India & Ors. has passed the following orders on 26/08/2019:

"...20. (iii) As already directed, all the States which have not set up TSDF may do so and the States which fail to set up the same up to 31.03.2020, will be liable to pay environmental compensation of Rs. 10 lakh per month. However, with regard to States which may be categorized as small States, having regard to the quantum and nature of generation of hazardous waste, the liability to pay compensation with start from 01.01.2021. The categorization based on threshold limit of generation of hazardous waste be made by the CPCB within one month from today and placed on its website..."

In order to comply to the aforesaid order of the Hon'ble NGT, the Central Pollution Control Board (CPCB), constituted a Committee comprising the following –

1.	Dr. R. S. Mahwar, Former Additional Director, Central Pollution Control Board	Chairman
2.	Dr. A. K. Swar, Chief Environment Engineer, Odisha State Pollution Control Board	Member
3.	Sh. Nandkumar Gaurav, Environment Engineer, Regional Officer, Maharashtra State Pollution Control Board	Member
4.	Ms. Deepti Kapil, Scientist-D, WM-II Division, CPCB, Delhi	Member Convener

The details of the work done by the Committee along with the recommendations are given in the subsequent paragraphs of this Report.

2.0 Methodology

2.1 Committee Meeting

The Committee deliberated on the issue during its meeting held on September 20, 2019 at CPCB. The members recognised that categorisation of States based on threshold limit of hazardous waste generation is first time attempt and decided to go by the State-wise generation of the quantum & type of the hazardous waste and the status of the Common TSDFs in the States/UTs. The latest status of the hazardous waste management in the States/UTs where the Common TSDFs are not existing was also reviewed by the Committee.

2.2 Information/Documents Studied/Reviewed

(i) Hazardous Wastes (Management and Handling) Rules, 1989

(ii) Hazardous Wastes (Management and Handling) Amendment Rules, 2003

(iii) Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008

(iv) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

(v) National Inventory of Hazardous Wastes Generating Industries & Hazardous Waste Management in India, CPCB (2009)
https://cpcb.nic.in/displaypdf.php?id=aHdtZC9OZXdJdGVtXzE0NV9od19pbnZlbnRvcnlfZmluYWxfcmVwb3J0XzIwMDkucGRm

(vi) National Inventory of Hazardous Wastes Generating Industires & Hazardous Wastes Managment in India (2015-16)
https://cpcb.nic.in/uploads/hwmd/Annual_Inventory2015-16.pdf

(vii) National Inventory on Hazardous Waste Generation and their Management (2016-2017) prepared by CPCB
https://cpcb.nic.in/uploads/hwmd/Annual_Inventory2016-17.pdf

(viii) Sectors/processes for which Standard Operating Procedures and Checklists of Minimal Requisite Facilities for utilization of hazardous waste under Rule 9 of the Hazardous and Other Wastes (Management and Trans-boundary movement) Rules, 2016, have been prepared and published by CPCB for use of wastes as resources.
https://cpcb.nic.in/sop-for-hw-specific/

(ix) CPCB Guidelines for Pre-Processing and Co-Processing of Hazardous and Other Wastes in Cement Plant as per H&OW(M & TBM) Rules, 2016
https://cpcb.nic.in/uploads/hwmd/GUIDELINES-ON_CO-ProcessinginCement.pdf

(ix) Minutes of Fifth Meeting of the Executing Committee held on 22.10.2018 at 'Conference Hall, Ground Floor, U.T. Secretariat, Sector 9, Chandigarh under the Chairmanship of Hon'ble Justice Pritam Pal, Former Judge, Punjab & Haryana High Court for ensuring compliance to the Hon'ble NGT order dated 07.08.2018 in the matter of OA No. 139 of 2016 titled Strench Grips Mansa's Sacred Ghaggar River (Suo-Motu Case) and Yogender Kumar.
http://www.ppcb.gov.in/Attachments/Executing%20Committee%20for%20River%20Ghaggar/Draft%20Minutes%205%20meeting%20on%2022.10.2018.pdf

(x) Request for Proposal for Setting up and Operating the Common Hazardous Waste Treatment, Storage and Disposal Facility (HWTSDF) in Chhattisgarh
https://csidc.in/tenderc/19%20rfp%20tsdf.pdf

(xi) Action Plan by River Rejuvenation Committee (RRC) Govt. Of NCT of Delhi
http://scvriti.delhi.gov.in/wps/wcm/connect/da19c1804a3947108be99f15ffe59382/RRC+revised+action+plan.pdf?MOD=AJPERES&lmod=-1756106827&CACHEID=da19c1804a3947108be99f15ffe59382

(xii) Govt has proposed hazardous waste treatment storage, disposal facility at Pissurlem: Sudin
https://navhindtimes.in/govt-has-proposed-hazardous-waste-treatment-storage-disposal-facility-at-pissurlem-sudin/

(xiii) Hazardous Waste (Management and Transboundary Movement (Year: 2017-18)– Annexure A 2 - Details on inter-state movement of Hazardous waste for recycling/utilisation/disposal Sikkim
http://sikenvis.nic.in/WriteReadData/UserFiles/file/hw%202017-18.pdf

(xiv) Interim Report of the Monitoring Committee constituted in compliance to the orders of the Hon'ble National Green Tribunal, in the matter of O. A No 804/2017: Rajiv Narayan & Anr. Vs Union of India & Ors
https://cpcb.nic.in/openpdffile.php?id=TGF0ZXN0RmlsZS8yNDBfMTU1MjA1MjUwMV9tZWRpYXBob3RvMzE1NTUucGRm

3.0 Analysis of the Developments and Current Scenario

(I) The Hazardous Waste generated in the country has been broadly categorised into four types depending upon their permitted mode of management options. These are –(a) Landfillable, (b) Incinerable, (c) Recyclable and (d) Utilizable

(ii) The concept of TSDF got introduced as a common facility for the Landfilling/Incineration of the hazardous waste at a stage when the Recycling/Utilization of such wastes was neither a pressure nor an interest.

(iii) There is a major change in the criteria of classification of the hazardous waste from composition-based (Schedule-II, HW Rules, 2008) to its leachability (Schedule-II, HOWM Rules, 2016), which may result into some of the hazardous waste getting classified as non-hazardous as per the HOWM Rules, 2016. Infact, a material that is not intended to be produced but gets produced in the production process of intended product and is used 'as such' is eligible for consideration to be taken as a by-product as per para 3(1)(38)(ii) of the HOWM Rules, 2016.

(iv) The new provisions for utilisation of hazardous waste (Rule 9) in the HOWM Rules, 2016 and the Guidelines/Standard Operating Procedures (SOPs) prepared and published by CPCB, are adding to the increasing Recycling/Utilization of the hazardous wastes. **This includes co-processing of the incinerable hazardous waste also in cement kilns.**

(v) There are presently 17 States/UTs which do not have common TSDFs. Out of these the States, namely Bihar, Chhattisgarh, Delhi and Goa, are at the various stages of development of common TSDFs in their respective States. The States/UTs, namely Sikkim, Pondicherry and Chandigarh have made agreements for sending their hazardous wastes to the common TSDFs of other neighbouring States. The state-wise availability of the TSDF is given at **Annexure 1**

(vi) It can be seen from the data of the hazardous waste generated in the 17 States/UTs which do not have TSDFs (given at **Annexure 2**) that the generation of landfillable waste in these States/UTs varies widely from Zero in the States like Mizoram and Nagaland to as high as 11900 MTA in Chhattisgarh. The hazardous waste generation in the UTs of Andaman & Nicobar Islands and Lakshadweep has been reported as Nil.

(vii) The States which are in the process of putting up the TSDFs, include Delhi where the generation of the landfillable hazardous waste is close to 5000 metric tonnes per annum and that of the incinerable hazardous waste is Nil.

(viii) The sustainability of a TSDF is completely dependent on the quantity and the type of the hazardous waste that is assured to be received throughout its design life which is usually 25 years at least

(ix) The changing scenario involving increasing use of hazardous wastes and the trend of incinerable waste getting diverted from TSDFs to the cement plants (for co-processing) indicate that the need of a common treatment and disposal facility may become limited to the landfillable waste.

(x) Based on the above analysis, increasing use of hazardous waste for recycling /utilisation and the increasing efforts for zero waste landfill, the Committee concluded that the categorisation of states as Small States for the purpose of developing TSDFs be based on the quantity of the landfillable waste that is generated in the State/UT.

4.0 Conclusions

(i) The development of Common TSDF is a must for the treatment and disposal of atleast for the Landfillable Hazardous wastes regardless of where the TSDF is located or going to be located.

(ii) The States/UTs generating 5000 metric tonnes per annum or more of the landfillable hazardous waste need to take immediate actions for the commissioning of the Common TSDFs.

(ii) The States which are generating 500 metric tonnes per annum or more but less than 5000 metric tonnes per annum of the landfillable hazardous waste may be given more time for the commissioning of the Common TSDFs.

(iii) The States/UTs generating less than 500 metric tonnes per annum of landfillable hazardous waste may be permitted to continue with their existing sharing arrangements with their neighbouring states/UT having authorised Common TSDF.

5.0 Recommendations

(I) The States/UTs generating 500 metric tonnes per annum or more but less than 5000 metric tonnes per annum of the landfillable hazardous waste may be

Categorized as Small States for the purpose of taking of action proposed in the order of the Hon'ble NGT.

(ii) The States/UTs generating less than 500 metric tonnes per annum of the landfillable hazardous waste may be permitted for inter-state transport of the hazardous waste for its treatment and disposal and making sharing arrangement with the authorised Common TSDF of neighbouring States/UT.

Annexure I

State-wise Availability of Common Integrated Treatment, Storage & Disposal Facilities (TSDFs) with Common Incinerators & Secured Landfills

S. No.	Name of the State/UT	Integrated TSDFs (with both SLF and Incinerator)	TSDFs with Only Common Incinerators	TSDFs with only Common Secured Landfills
1.	Arunachal Pradesh	No Common TSDF		
2.	Andaman & Nicobar	No Common TSDF		
3.	Andhra Pradesh	1	-	-
4.	Assam	No Common TSDF		
5.	Bihar	No Common TSDF		
6.	Chhattisgarh	No Common TSDF		
7.	Chandigarh	No Common TSDF		
8.	Delhi	No Common TSDF		
9.	Daman, Diu, Dadra & Nagar Haveli	1	-	-
10.	Gujarat	4	2	3
11.	Goa	No Common TSDF		
12.	Haryana	1	-	-
13.	Himachal Pradesh	-	-	1
14.	Jammu & Kashmir	No Common TSDF		
15.	Jharkhand	1	-	-
16.	Karnataka	-	6	2
17.	Kerala	-	-	1
18.	Lakshadweep	No Common TSDF		
19.	Madhya Pradesh	1	-	-
20.	Maharashtra	3	-	1
21.	Manipur	No Common TSDF		
22.	Meghalaya	No Common TSDF		
23.	Mizoram	No Common TSDF		
24.	Nagaland	No Common TSDF		
25.	Odisha	-	-	1
26.	Punjab	-	-	1
27.	Puducherry	No Common TSDF		
28.	Rajasthan	-	1	2
29.	Sikkim	No Common TSDF		
30.	Tamil Nadu	1	-	1
31.	Tripura	No Common TSDF		
32.	Telangana	1	-	-

S. No.	Name of the State/UT	Integrated TSDFs (with both SLF and Incinerator)	TSDFs with Only Common Incinerators	TSDFs with only Common Secured Landfills
33.	Uttar Pradesh	2	1	1
34.	Uttarakhand	1	-	-
35.	West Bengal	1	-	-
	TOTAL	**18**	**10**	**14**

Annexure -II

State-wise status of hazardous waste generation

S.No.	SPCB/PCC	No. of Hazardous Wastes Generating Industries	Authorized Quantity of Hazardous waste (MT)					Quantity of Hazardous waste generated as per Annual Return within the state/UT (MT)				
			Landfillable	Incinerable	Recyclable	Utilizable	Total	Landfillable	Incinerable	Recyclable	Utilizable	Total
1	Andaman and Nicobar Islands	02	0	0	23.4	0	23.4	0	0	0.16	0	0.16
2	Arunachal Pradesh	12	-				-	19.26	0.6	3.33	157.7	181.23
3	Assam	77	0	0	0	0	0	9965	0	6946	32132	49,043
4	Bihar	152	45	207	1533	0	1,784	42	131	953	1980	3,106
5	Chhattisgarh	282	56566	23173	9766	162490	2,51,995	11900	4645	3042	84274	1,03,861
6	Delhi	301	5829	0	904	0	6,733	4751	0	777	0	5,528
7	Goa	1440	18237	47591	1015		75,984	3046	18898	1565	2522	26,031
8	J.& K	227	190	392	3642	272	4,496	190	392	3642	272	4,496
9	Lakshadweep	0	0				0	0				0
10	Manipur	353	-				-	0	17.04	342.97	29.01	389.02
11	Meghalaya	14	517				517	459				459
12	Mizoram	41	-				0	-	-	29.83	-	29.83
13	Nagaland	1	0	0	10	0	10	0	0	10	0	10
14	Sikkim	56	0	600	0	0	600	0	1051	0	0	1,051
15	Tripura	171	5	4	274	5	287	5	4	262	2	273
16	Puducherry	147	15	1591	13299	424167	4,39,072	4	398	1567	24456	26,425
17	Chandigarh	245	25	2	8713	0	8,741	129	25	1962	0	2,116
Total		3,521	-				7,90,242.4	-				2,22,999.24

NOTE- ABOVE INFORMATION IS BASED ON THE INFORMATION SUBMITTED BY SPCBs/PCCs