

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
Principal Bench, New Delhi**

Original Application No. 270/2020  
(Earlier O. A. No. 50/2017 (WZ))

Anand Uttarkar

Applicant

Vs.

The Municipal Corporation of the  
City of Pune & Ors.

Respondent(s)

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1.	<b>Report of the Joint committee</b> on Action Plan for spending compensation amount for restoration of the environment in compliance to the Hon'ble NGT order dated 03.03.2022 in OA No. 270/2020 (Earlier O. A. No. 50/2017 (WZ), Anand Uttarkar Vs. The Municipal Corporation of the City of Pune & Ors.	
2.	<b>Annexure-A:</b> A copy of letter dated 23.12.2022 and Action Plan prepared by Joint Committee.	
3.	<b>Annexure-B:</b> A copy of Email dated 02.03.2023 of MPCB attaching Hon'ble Supreme Court order dated 29.04.2022.	
4.	<b>Annexure-C:</b> A copy of Hon'ble NGT order dated 03.03.2022.	

*Divya*

**(Divya Sinha)**

Scientist-F

Central Pollution Control Board,  
Parivesh Bhawan, East Arjun Nagar  
Delhi- 110032.

Date: 02.06.2023

Place: Delhi

**REPORT OF THE JOINT COMMITTEE ON ACTION PLAN FOR SPENDING COMPENSATION AMOUNT FOR RESTORATION OF THE ENVIRONMENT IN COMPLIANCE WITH HON'BLE NGT ORDER DATED 03.03.2022 IN THE MATTER OF ORIGINAL APPLICATION NO. 270/2020 (EARLIER OA NO. 50/2017 (WZ)) TITLED "ANAND UTTARKAR VS. THE MUNICIPAL CORPORATION OF THE CITY OF PUNE & ORS."**

In the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune & Ors.", the Hon'ble National Green Tribunal (NGT) vide order dated 03.03.2022 has ordered the project proponent (PP) i.e. M/s Rochem Separations System Pvt. Ltd. to deposit the assessed compensation amount of Rs. 12,49,87,500/- as interim compensation. Further, Maharashtra Pollution Control Board (MPCB) has also been ordered to make final assessment of compensation following due process.

The Hon'ble NGT further constituted a committee and relevant order of the Hon'ble NGT in this regard vide its order dated 03.03.2022 is reproduced below;

*"...If interim compensation is not deposited, the State PCB may take coercive measures, including prosecution and blacklisting. The amount of compensation deposited may be spent for restoration of environment as per action plan to be prepared by the joint Committee of CPCB, State PCB and the PMC in the light of District Environment Plan for the area in question for such assessment may be finalized within three months from today. Action plan may also be finalized within the said period."*

The Hon'ble NGT also directed vide para 16 of the said order dated 03.03.2022 that the compliance status report as on 30.06.2022 be filed by the Joint Committee.

In order to comply with the aforesaid order regarding action plan preparation, the joint committee comprising of the following held meetings on 07.07.2022 and 17.08.2022:

S. No.	Name and designation of the official	Organization being represented
1.	Sh. Bharat K Sharma, Regional Director	CPCB, Regional Directorate, Pune
2.	Sh. Shankar Waghmare, Regional Officer	MPCB, Regional Office, Pune
3.	Sh. Mangesh Dighe, Environment Conservation Officer, Department of Environment	Pune Municipal Corporation

Sh. Pratap Jagtap, Sub-Regional Officer MPCB, Pune also participated in the meetings. The committee also gathered information from PMC and MPCB.

The committee also obtained data/information w.r.t. sewage generation & management, potential sewage users, etc. and after detailed discussions, the committee recommended Action Plan for spending compensation amount for restoration of environment in the light of the District Environment Plan (DEP) for Pune. The same was communicated to Maharashtra Pollution Control Board (MPCB) vide letter dated 23.12.2022 requesting to send the status of the compensation amount deposited by the project proponent and action taken for spending the deposited compensation amount in accordance with aforesaid Hon'ble NGT Order. Copy of the said letter dated 23.12.2022 and the aforesaid Action Plan prepared by the Joint Committee is given at **Annexure A**.

MPCB vide email dated 02.03.2023 informed that the Project Proponent has not submitted Environment Compensation to MPCB and approached to the Hon'ble Supreme Court. The Hon'ble Supreme Court vide order dated 29.04.2022 granted stay for the order of Hon'ble NGT in OA No. 270/2020, 269/2020, 271/2020 dated 03.03.2022 and the matter is sub juridical in Supreme Court.

Copy of the said email dated 02/03/2023 of MPCB attaching therein Hon'ble Supreme Court dated 29.04.2022 is given at **Annexure B**.

The committee deliberated the issues on 18/4/2023 and recommends that upon receipt of Environment Compensation by the project proponent, as applicable, the same may be utilized by PMC as recommended in the action plan prepared by the committee and given at **Annexure A**.



(Shankar Waghmare)  
Regional Officer  
Regional Office, MPCB Pune



(Mrs. Asha Raut)  
Deputy Commissioner  
Pune Municipal Corporation



(Bharat K Sharma)  
Regional Director  
CPCB, Regional Directorate Pune

File No: CM-13015/24/2021-TECH-RD-PUNE-RD (Pune)

Date: 23/12/2022

✓ To  
The Member Secretary  
Maharashtra Pollution Control Board  
Kalpataru Point 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> Floor  
Opp Cine Planet Near Sion Circle, Sion (E)  
Mumbai- 400022, Maharashtra  
Email: [ms@mpcb.gov.in](mailto:ms@mpcb.gov.in)

**Sub:** Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune & Ors."- reg.

Sir,

This has reference to the Hon'ble NGT Order dated 03/03/2022 in OA No. 270/2020 (Earlier O.A No. 50/2017(WZ)) in the matter of "Anand Uttarkar vs. The Municipal Corporation of the City of Pune & Ors."

The project proponent has been directed to deposit interim compensation and MPCB has also been directed make final assessment of compensation following due process. Further, the joint committee of CPCB, MPCB and PMC has been directed to prepare action plan for spending environment compensation deposited by project proponent and file compliance status report. Copy of the said Hon'ble NGT order dated 03/03/2022 is attached for ready reference.

Please find attached herewith action plan prepared by the joint committee in compliance with the aforesaid order of the Hon'ble NGT for spending the compensation amount for ready reference.

It is requested to kindly send at the earliest the status of compensation amount deposited by the project proponent and action taken for spending the deposited compensation amount in accordance with order of the Hon'ble NGT to enable the committee in finalising its compliance status report and filing the same to the Hon'ble NGT.

The matter may kindly be taken on priority being compliance of order of the Hon'ble the NGT.

Yours faithfully,



(Bharat K. Sharma)  
Regional Director



CPCB

## CENTRAL POLLUTION CONTROL BOARD

(Ministry of Environment, Forests &amp; Climate Change, Government of India)

Regional Directorate, Pune

S. No. 110, Hirabal Dhankude Hall, Baner Road, Baner, Pune - 411045

Encl.: As above

Copy to:

- 1 The Regional Officer  
Pune  
Maharashtra Pollution Control Board  
Jog Center, 3<sup>rd</sup> Floor, Mumbai Pune Road  
Wakdewad, Pune, Maharashtra-411003  
Email: ropune@mpcb.gov.in

For kind information and  
necessary action, please.  
(Bharat K. Sharma)CPCB, RD Pune, Email: [rdpune.cpcb@gov.in](mailto:rdpune.cpcb@gov.in)

Head office: Parivesh Bhawan, CBD cum Office Complex, East Arjun Nagar, Delhi - 110032

Website: [www.cpcb.nic.in](http://www.cpcb.nic.in)

**REPORT OF THE JOINT COMMITTEE IN COMPLIANCE WITH HON'BLE NGT ORDER DATED 03.03.2022 IN THE MATTER OF ORIGINAL APPLICATION NO. 270/2020 (EARLIER O.A NO. 50/2017(WZ)) TITLED "ANAND UTTARKAR VS. THE MUNICIPAL CORPORATION OF THE CITY OF PUNE & ORS."**

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Relevant paragraph of the said Hon'ble NGT order dated 03.03.2022 is reproduced below;

*"...If interim compensation is not deposited, the State PCB may take coercive measures, including prosecution and blacklisting. The amount of compensation deposited may be spent for restoration of environment as per action plan to be prepared by the joint Committee of CPCB, State PCB and the PMC in the light of District Environment Plan for the area in question for such assessment may be finalized within three months from today. Action plan may also be finalized within the said period."*

In order to comply with the aforesaid order regarding action plan preparation, the joint committee comprising of the following held meetings on 07.07.2022 and 17.08.2022:

S. No.	Name and designation of the official	Organization being represented
1.	Sh. Bharat K Sharma, Regional Director	CPCB, Regional Directorate, Pune
2.	Sh. Shankar Waghmare, Regional Officer	MPCB, Regional Office, Pune
3.	Sh. Mangesh Dighe, Environment Conservation Officer, Department of Environment	Pune Municipal Corporation

Sh. Pratap Jagtap, Sub-Regional Officer MPCB, Pune also participated in the meetings. The committee also gathered information from PMC and MPCB.

The District Environment Plan (DEP) of Pune prepared by the Environment Department, Govt. of Maharashtra and MPCB is given at Annexure-I and the same is also available at <https://mpcb.gov.in/sites/default/files/environmentactionplan/Pune23062021.pdf>.

Various action points as given for Waste Management (solid waste, plastic waste, C&D waste, hazardous waste, noise control, etc.); Water Quality Management (water resources, domestic and industrial), and; Air Quality Management; in the aforesaid DEP were deliberated by the committee. The committee also deliberated on priorities assigned to such action points of the said action plan under the DEP with an objective to identify activities which could be prioritized and used for spending the environment compensation amount.

**Recommendations:**


- 1) The committee recommends one of the very high and immediate prioritized activities (i.e. "Development of policy for reuse/recycle of treated sewage in the district") of the said DEP for utilizing the aforesaid environment compensation amount.
- 2) The Pune district generates about 1124.8 MLD of sewage. Pune Municipal Corporation (PMC) contributes sewage of about 750 MLD of which 477 MLD is currently treated in STPs and for

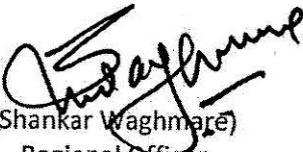
the remaining 273 MLD, the work is under progress or has been planned. Commissioning of treatment of the said remaining sewage of 273 MLD is expected by 2025. Utilization of treated sewage from PMC, which may have potential of 750 MLD utilization, may be prioritized. The committee also noted that part of sewage of Municipal Corporation of Greater Mumbai (MCGM) and Nagpur Municipal Corporation (NMC) are already being utilized by industries in Maharashtra.


The committee also deliberated on various STPs installed by PMC, their capacities, major industries operational adjacent to such STPs & their water demand. Details of the same, as informed by PMC and MPCB, are given at Annexure-II. Besides, other potential sewage utilizers could be railway station, airport, various MIDC areas, etc. within or outside the PMC area.

However, in order to move further towards utilization of the same, there is need to prepare pre-feasibility report also incorporating water demand and supply of the potential users; treated or raw sewage quality vis-à-vis demand water quantity; cost of infrastructure development including pipeline network required, equipment; cost benefit analysis; etc.

- 3) The pre-feasibility report may be prepared immediately by PMC of its own or engaging a consultant. Based on the pre-feasibility report, a Detailed Project Report (DPR) on utilization of PMC's sewage may be prepared and the project be executed by PMC as early as possible in time bound manner as outlined in the DPR.
- 4) The EC amount, as received from M/s. Rochem Separation System Pvt. Ltd. may be utilized by PMC in preparing the aforesaid pre-feasibility report, DPR and execution/implementation of the project. In the event of budget exceeding the said EC amount, PMC may use its own fund or arrange the additional fund.

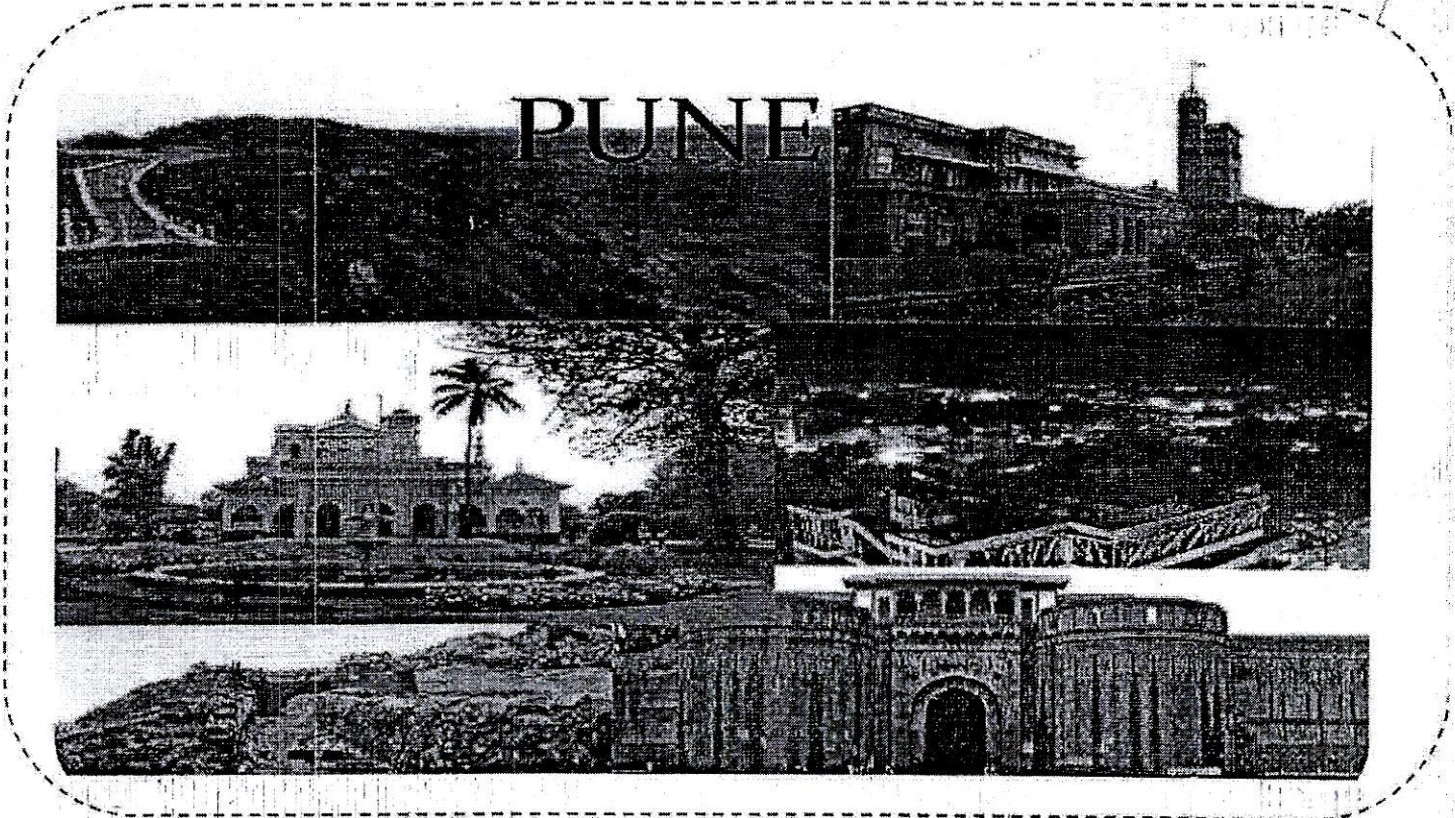
  
(Mangesh Dighe)  
Environment Conservation Officer  
Pune Municipal Corporation

  
(Shankar Waghmare)  
Regional Officer  
Regional Office, MPCB Pune

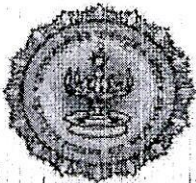
  
(Bharat K Sharma)  
Regional Director  
CPCB, Regional Directorate Pune

Date: 09/12/2022

# District Environment Plan



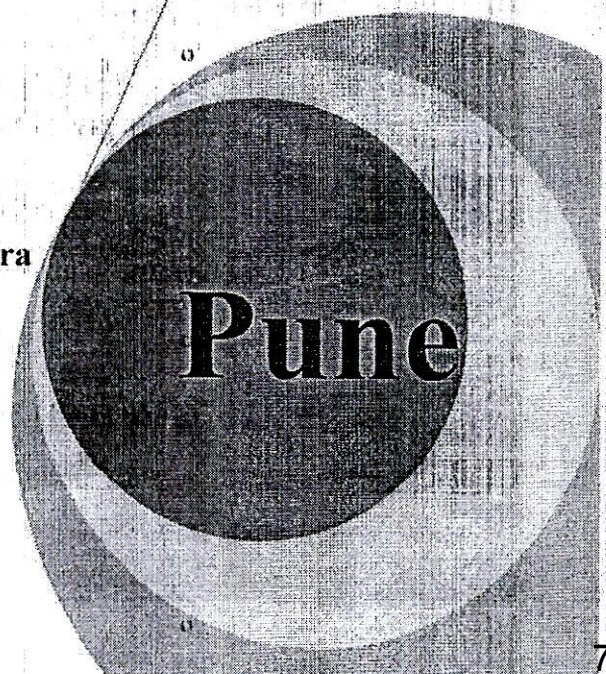
Prepared By



Environment Department, Government of Maharashtra



Maharashtra Pollution Control Board



## 1.0 Preamble

Hon'ble National Green Tribunal vide order dated 26/09/2019 in O.A. No. 360 of 2018 filed by Shree Nath Sharma Vs Union of India and Others directed that CPCB shall facilitate the District Magistrates in preparation of District Environmental Plan by placing Model plan on its website. This model plan may be adopted as per local requirements by all Districts under supervision of District Magistrate.

The said Order also directs that Department of Environment in respective States / UTs should collect district plans to prepare State Environment Plan, which shall be monitored by respective Chief Secretaries of State/UT by 15/12/2019.

Based on State Environmental plans, CPCB and Ministry of Environment, Forest & Climate Change shall prepare National Environmental Plan, under the supervision of Secretary, MoEF&CC and Chairman, CPCB by 31/01/2020. The National Action Plan needs to be submitted before Hon'ble NGT 15/02/2020.

In compliance to above directions and as per the model DEP prepared by CPCB, Environment Action plan for the District is prepared.

## 2.0 Introduction

The eighth largest metropolis city in India, Pune is located in the state of Maharashtra. It is the second largest city in the state after Mumbai, and is an important city in terms of its economical and industrial growth. The city leads as the 'veritable heartland' of cultural Maharashtra. Pune also has made its mark as the educational epicentre winning itself the sobriquet, 'The Oxford of the East'. Not just that, it has a growing industrial hinterland, with information technology, engineering and automotive companies sprouting. General Pune district profile is presented in the **Table 1** and location is shown in **Figure 1**.

**Table 1 District Profile**

Description	Details
Average Climate	Summer: 22°C To 41°C. Winter :8°C TO 25°C. Rainfall: 650 To 700 mm.
Geographical Location	It lies between 18° 32" North Latitude and 73° 51" East Longitude. It lies on the foothills of Sahyadri Mountains. The landscape of Pune district is distributed triangularly in western Maharashtra at the foothills of the Sahyadri Mountains and is divided into three parts: "Ghatmatha", "Maval" and "Desh". Pune district forms a part of the tropical monsoon land and therefore shows a significant seasonal variation in temperature as well as rainfall conditions
Area	15,643 Sq. km.
Boundaries	Ahmadnagar district on North - East, Solapur district on the South - East, Satara district on South, Raigad district on the West and Thane district on the North - West
Languages Spoken	Marathi, Hindi, English are major languages but all Indian languages are spoken
Population	Total: 55,59,058 [According to 2011 Census Report]
Population Density	603 Per Sq. km.
Literacy Rate	87.2
Rivers	Bhima, Nira , Indrayani, Mula, Mutha, Ghod, Meena ,Kukdi, Pushpavati, Pavna, Ramnadi

Description	Details
ULBs	16 Numbers + 2 Municipal Corporations
Municipal Corporations	2 Numbers 1. Pune Municipal Corporation [PMC] 2. Pimpri-Chinchwad Corporation [PCMC]
Cantonment Boards	3 Numbers Pune, Dehu Road and Khadki
Sub districts	14 Numbers
Villages	1,877 Numbers
Statutory Towns	16 Numbers
Tahsils	14 Numbers Haveli, Punecity, Maval, Mulshi, Shirur, Baramati, Indapur, Daund, Bhor, Velha, Purandar, Khed, Junnar, Ambegaon
Pin code	411001 - 411053

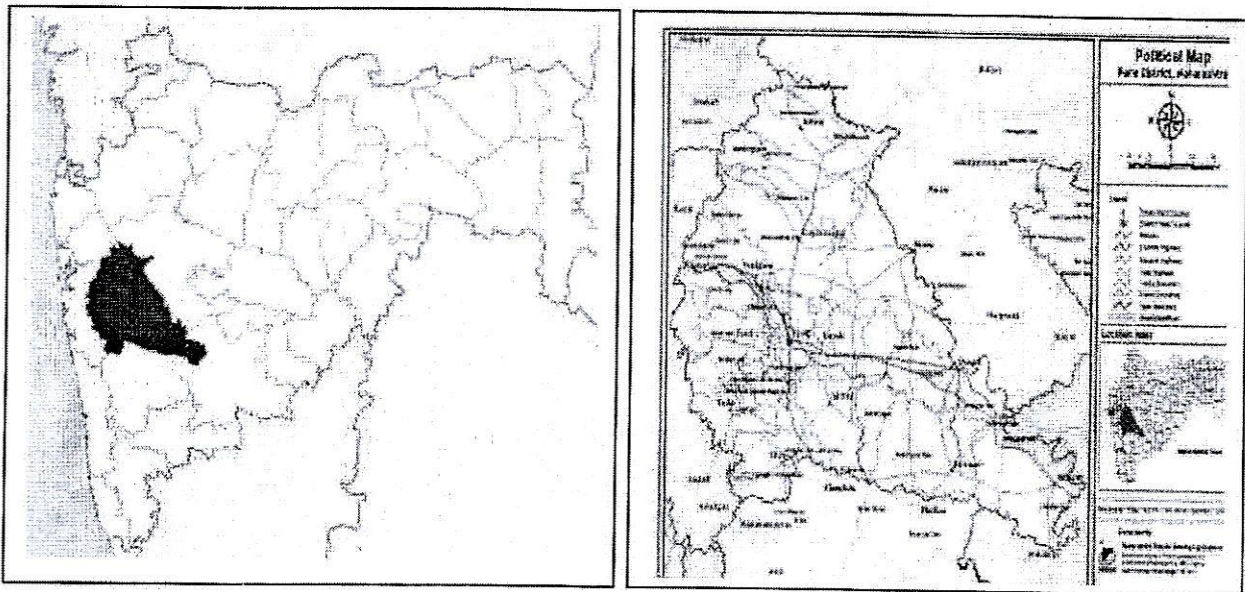


Figure 1 Location of District

### 3.0 Waste Management Plan

Urban India is facing an ever increasing challenge of providing for the incremental infrastructural needs of a growing urban population. According to the 2011 census, the population of India was 1.21 billion; of this 31% live in cities. It is further projected that by 2050 half of India's population will live in cities. With this increasing population, management of Municipal Solid Waste (MSW) in the country has emerged as a severe problem not only because of the environmental and aesthetic concerns but also because of the sheer quantities generated every day.

Solid waste management is among the basic essential services provided by municipal authorities in the country to keep cities clean. In Pune city primary sources of solid waste are local households, commercial establishments, hospitals, hotels, restaurants, and markets. Local Bodies are responsible for collection, storage, segregation, transportation and disposal of all solid waste generated in the city. There are 18 Urban Local Bodies [ULBs]. in Pune district. **Table 2** represents the list of ULBs along with population. Following section gives insight about waste management of Pune districts.

Table 2 List of ULB With Population

Sr. No.	Urban Local Bodies	Population
1.	Pune Municipal Corporation	3,124,458
2.	Pimpri Chinchwad Municipal Corporation	1,723,629
3.	Baramati	108,152
4.	Daund	49,450
5.	Saswad	31,821
6.	Indapur	25,515
7.	Jejuri	14,515
8.	Bhor	18,453
9.	ALANDI MUNICIPAL COUNCIL	28,645
10.	Lonavla Municipal Council	54,119
11.	Shirur Municipal Council	37,111
12.	Chakan	41,113
13.	Cantonment Board Dehuroad	48,961
14.	Junnar Municipal Council, Junnar	25,325
15.	KHADKI CANTONMENT BOARD	70,933
16.	PUNE CANTONMENT BOARD	71,831
17.	Rajgurunagar Municipal Council	28,592
18.	Talegaon Dabhade Municipal Council	56,435

### 3.1 Domestic Solid Waste Management Plan

Pune district is having 18 ULBs with 203 Wards. Municipal Solid Waste [Dry & Wet] generated from each ULBs is given in the **Figure 2** and details of Other Types of Waste is presented in **Figure 3** due to its less quantity and for easy representation. As per collected data, total solid waste generation of Pune district is 3,191.2MTD. wherein, Dry Waste generation is 1,318.3MTD and Wet waste is 1,329.9MTD.

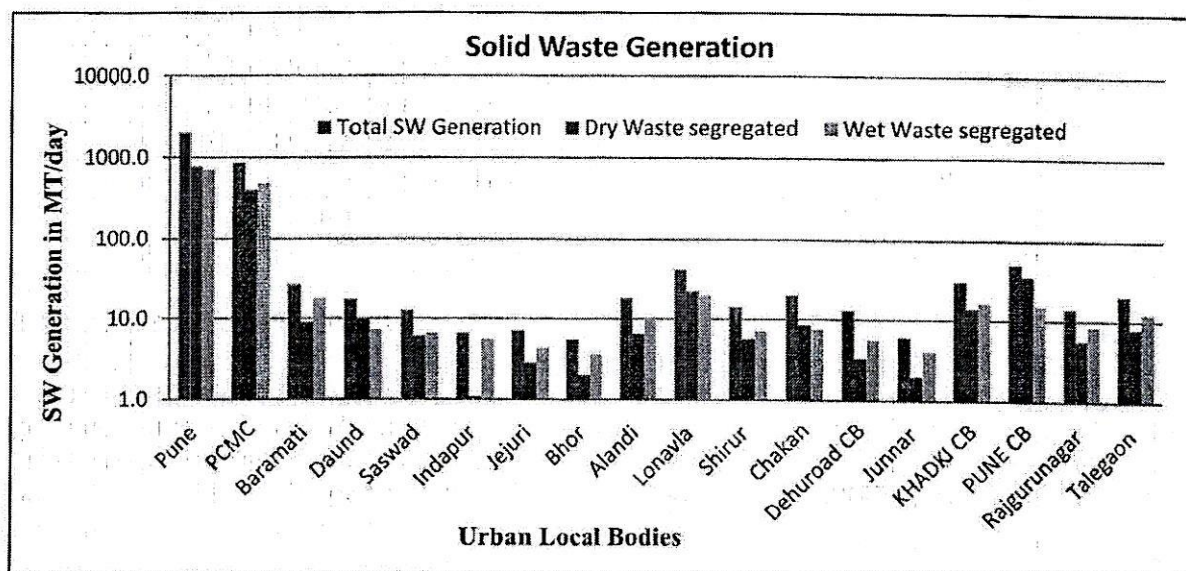


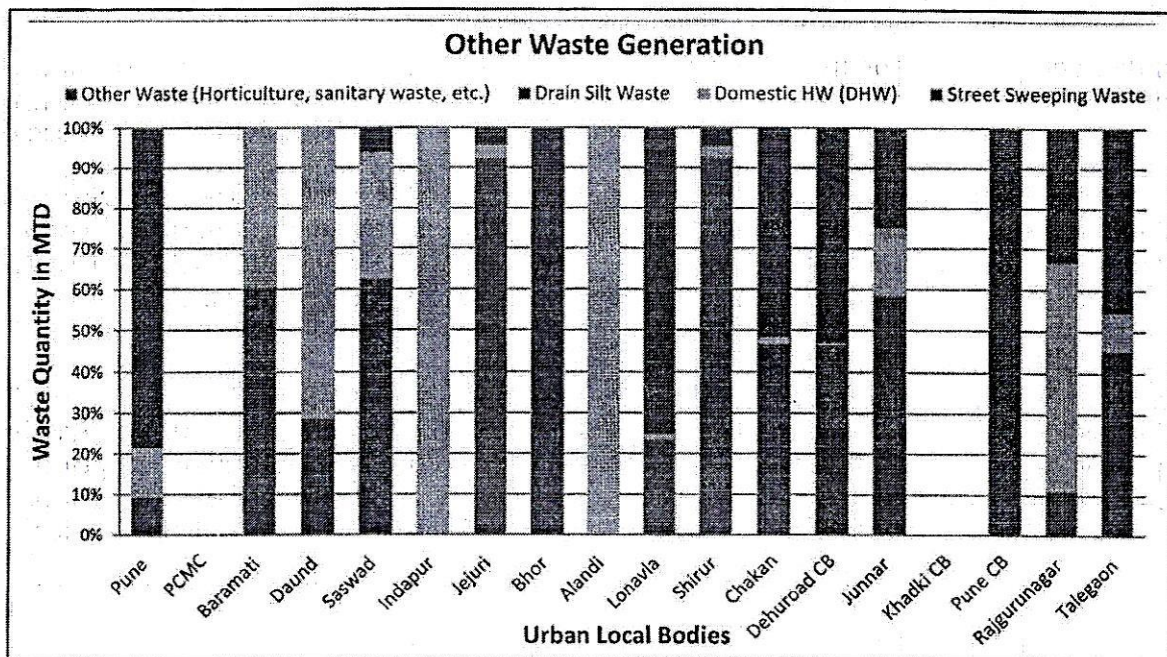
Figure 2 Details of Domestic Solid Waste Generation

It seems that Wet waste comprises of approximately 41.3% of total waste generated of the district and Dry waste contributes 41.6%.] Pune Municipal Corporation stands on top with the highest quantity i.e. 2015MTD out of which dry waste is 783MTD and wet waste is 699MTD. Junnar Municipal Council generates lowest quantity i.e. 6MTD out dry waste is 2MTD and

wet waste is 4MTD. It is observed that quantity of solid waste generation is in line with the respective population of ULBs. As per the data presented in the **Figure 3**, details of other types of waste generation is presented as below;

Pune district generates 40.5MTD of Street Sweeping Waste. Maximum quantity of Street Sweeping Waste is generated by Pune Cantonment Board with total quantity of 20MTD followed by Pune Municipal Corporation with 15MTD and Daund Municipal Council stands lowest with 0.02MTD. Though PCMC is second largest corporation in Pune district, data of Street Sweeping Waste is not estimated.

Total quantity of Drain Silt Waste generated is 685.1MTD. It seems that maximum quantity of Drain Silt Waste is generated by Pune Cantonment Board with total quantity of 500MTD followed by Pune Municipal Corporation with 122MTD. Shirur & Rajgurunagar Municipal Council stands lowest with 0.1MTD. However it is observed that quantity of Drain Silt waste is not estimated by other ULBs like Saswad, Indapur, Jejuri and Alandi.



**Figure 3 Other Waste Generation of Pune District**

Total DHW quantity generated is 20.1MTD. Maximum quantity of DHW is generated by Pune Municipal Corporation with total quantity of 19MTD and Indapur Municipal Council stands lowest with 0.005MTD. Data is not available for PCMC, Bhore, Khadki and Pune Cantonment Board. Total Quantity of Horticulture, Sanitary and other waste is 1615.8MTD. Maximum quantity of Other Waste is generated by Pune Municipal Corporation with total quantity of 1600MTD and Shirur Municipal Council generates lowest quantity i.e. 0.001MTD. Data is not available for PCMC, Baramati, Daund, Indapur, Bhore, Alandi, Khadki and Talegaon Municipal Council. Pune district is having total 1035 bulk Waste Generator with the highest numbers in Pune Municipal Corporation and total number of onsite facility provided for treatment of wet waste is 1941.

### 3.1.1 Compliance in Segregated Waste Collection

Total Waste generation from Pune district is 3185.5MTD and almost all waste is being segregated. Out of 18 ULBs, 16 of them have provided 100% door to door collection facility. Only Pune Cantonment Board and Jejuri Municipal Council has provide 80% and 90% door to door collection facility respectively. 16 ULBs have implemented Mechanical Road

Sweeping and rest of other ULBs have not provided Mechanical Road Sweeping facility. Almost 96% of waste is being transport through segregated waste transport system

Out of 18 ULBs, only 4 ULBs namely Pune, Baramati, Lonavla & Shirur have installed digester with bio-Methanation production capacity of 10%, 25%, 100%, 100% respectively. Pune district generates approximately 1329MTD of wet waste and Out of which 81.7% is treated through composting. Out of 18 ULBs, 14 ULBs is using Multi Re Use Facility to separate and prepare recyclable material whereas 4 ULBs have not installed URF facility. Out of 18 ULBs, 8 ULBs have provision of Sanitary Landfill. 14 ULBs have started reclamation of old dump site using through bio mining process. Only 5 ULBs have linkage with waste to energy boiler / cement plant. 12 ULBs have linkage with recycler whereas 6 ULBs have not started the process yet. All ULBs have issued authorization to the waste pickers. 7 ULBs have linkage with TSDF / CBMWTF whereas no information is available for Indapur, Daund and PCMC.

### 3.1.2 Adequacy of Infrastructure

Availability of infrastructure to handle the waste generated from the Pune district is presented in Figure 4.

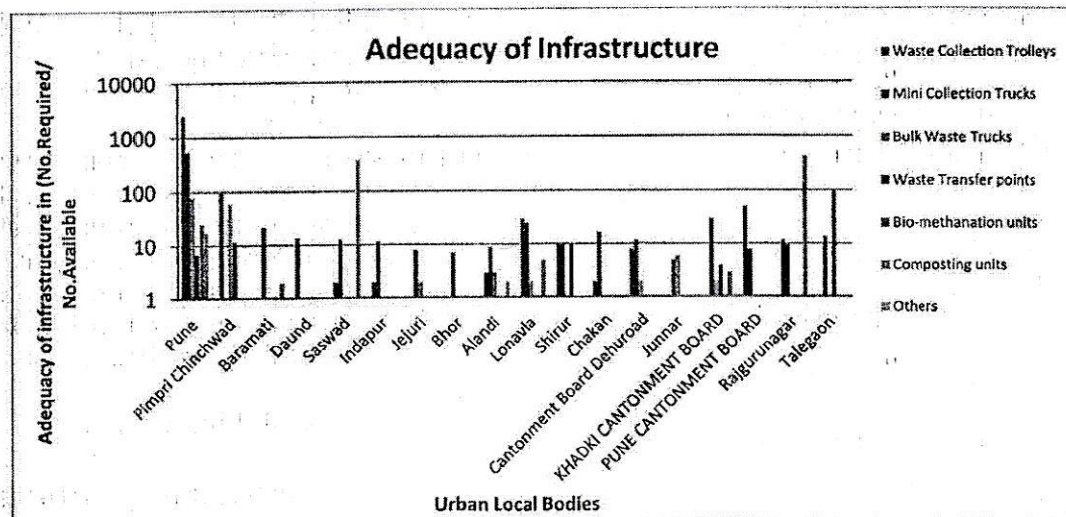


Figure 4 Adequacy of SW Infrastructure

It is observed that There are total 138 waste Transfer points in Pune district with waste trolley of 2718, Mini collection trucks 752 numbers and Bulk transport trucks 161. Total number of Bio - Methanation units are 30 and Pune Municipal Corporation is having highest number of Bio - Methanation units i.e. 25. Composting units available to treat wet waste are 836 [Need to review data as Rajgurunagar is having 420 units]. As per record, Out of 18 ULBs, only 2 ULBs i.e. Dehu and Khadki has not implemented the Solid Waste Management Rules.

### 3.2 C&D Waste Management Plan

The Construction and Demolition Waste [C&D Waste] generated by Pune district is about 234.8MTD. C&D Waste generated by each ULBs is presented in Figure 5. Again being with most populated corporation, Pune Municipal Corporation contribute maximum share of C&D waste to the tune of 200MTD. Least C&D waste is generated by Bhor Municipal Council with the quantity of 0.003MTD whereas it is observed that Khadki Municipal Council not generating any C&D waste which is not practically possible and need to review the data. Non availability of data will not help in preparing ingenuous and executable plan for waste

management of the district hence local bodies must ensure proper sampling and factual measurement of the various types of waste being generated.

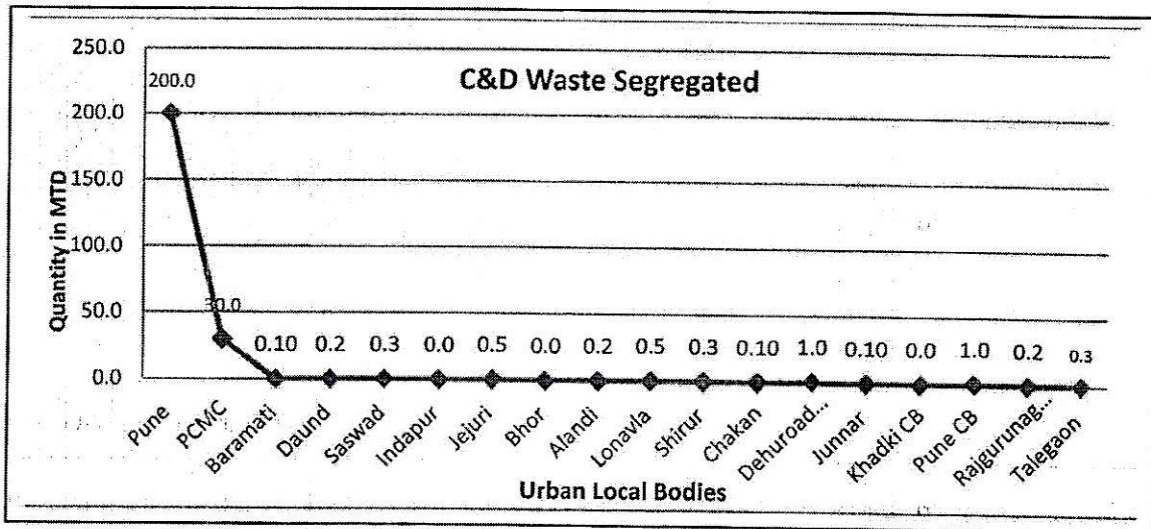


Figure 5 C&D Waste Generation of Pune District

### 3.3 Plastic Waste Management

Total Plastic waste generated by Pune district is 95.71MTD. With 90MTD quantity, PCMC is the highest plastic waste generator and Jejuri generates 0.008MTD of plastic waste. In almost all ULBs, door to door collection and segregation system is implemented 98% & 94% respectively with 199 Plastic Waste Collection Centre by ULBs and 10 Collection Centres by PROs under EPR Scheme. There are 4047 Plastic Waste Pickers with the authorization for waste collection. District has 4 Plastic Manufacturer and 19 Plastic Waste Recyclers. For Treatment and recycling of generated plastic waste, there are 4 number of Pyrolysis Oil Plant. 163.5MT/Month is being treated in the Pyrolysis Oil Plant and 3.5MT/Month is use in Road making. PW Management Rules, 2016 is implemented in all the ULBs. Plastic to Fuel Plant is installed of 4MTD by Brand owner in the Pune Municipal Corporation.

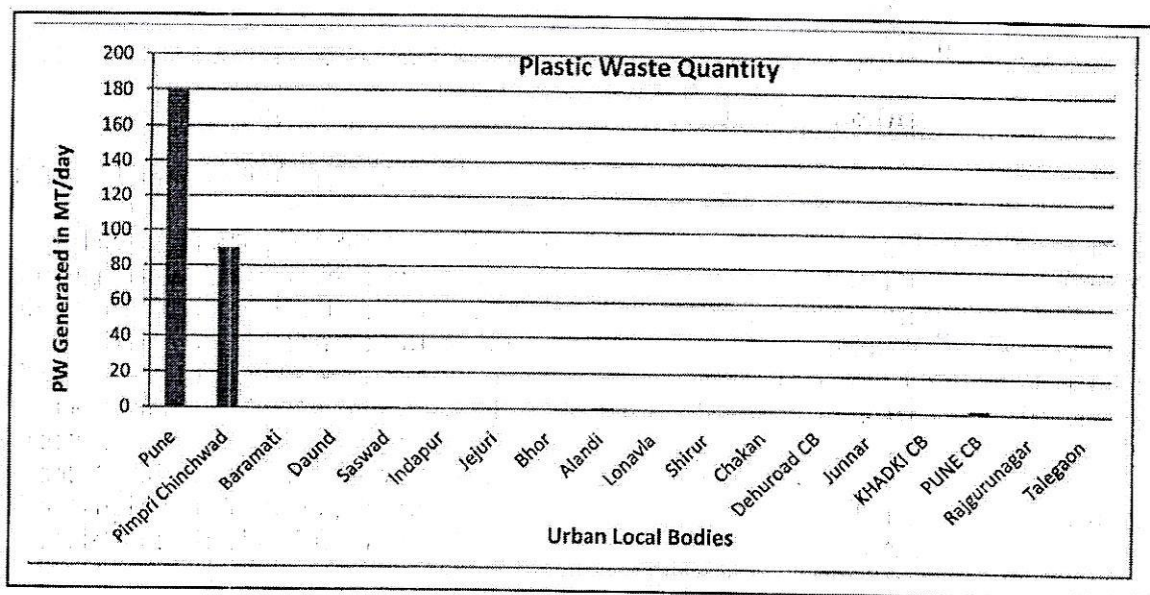


Figure 6 Details of Plastic Solid Waste Generation

### 3.4 Biomedical Waste Management

5607 Health Care Facilities including hospitals, Clinic, Veterinary Hospitals, Blood Banks etc. Out of which only 2279 HCF have taken authorization. Total BMW generation from all above mentioned sources is to the tune of 7719kg/day.

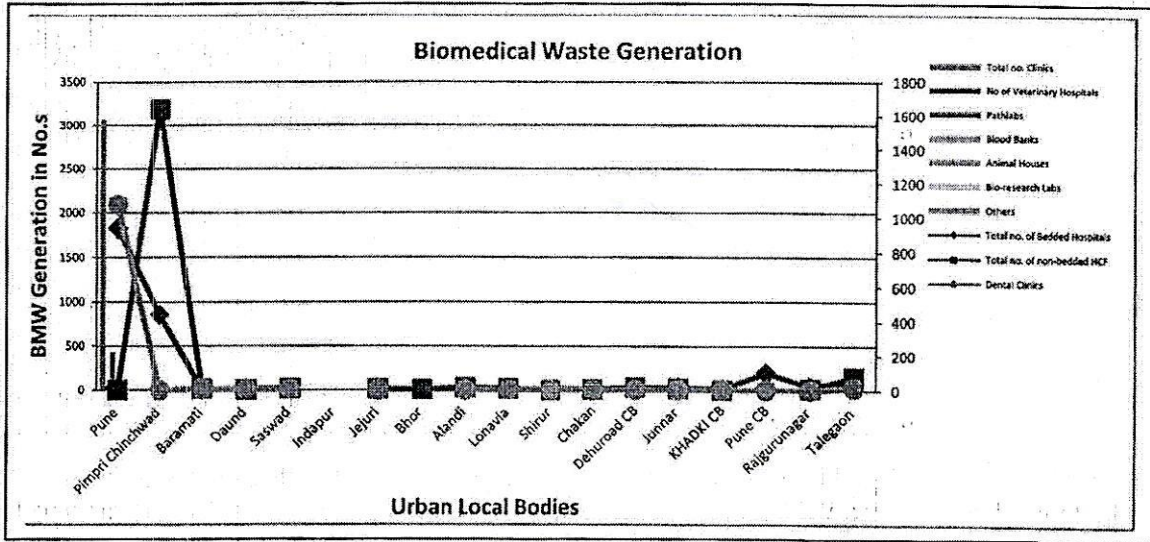


Figure 7 Details of BMW Generation

There are 2 Common Facility available for treatment and disposal of BMW and average BW taken by these facilities are 8,419kg/day. There is requirement of at least one CBWTF in each ULB. Inventory of BMW generating units are mentioned in the **Figure 7**.

### 3.5 Hazardous Waste Management

1311 Number of industry is established. Total HW generation 66,3371.77 MT/Annually, out of which 79,573.92MT is sent for incineration, 87,808.28 MT is sent for land filling and 495989.57MT/A is sent for recovery / utilization of HW material. One Common Treatment Storage Disposal Facility is present at Ranjangaon, Pune and all industries have taken authorization for HW generation and are members of CHWTDSF.

### 3.6 E Waste Management

191 Collection Centres are established by ULBs and 6 are established by Producer under EPR scheme. There are 21 number of authorized E-Waste recyclers / Dismantler. Pune Municipal Corporation has conducted 200 Awareness Campaigns whereas Producers and PROs have conducted 40 Awareness Campaigns.

### 3.7 Action Plan

As per the above mentioned observation, it seems that almost all ULBs are handling solid waste generated as per the Municipal Solid waste Management Rules, however there are certain issues that needs to be addressed for 100% implementation of the rules as mentioned in **Table 3**.

Table 3 Action Plan for Solid Waste Management

Sectors	Gaps	Action Points	Priority
<b>Domestic Solid Waste</b>			
Quantification	<ul style="list-style-type: none"> <li>▪ Methodology for solid waste quantification should be ascertained</li> <li>▪ Quantification based on Income group, culture affluence and technology to be considered</li> </ul>	<ul style="list-style-type: none"> <li>▪ Mechanism for graded weighing system either through intermediate transfer station or at the common receiving station to be created. Usually one weigh bridge at any treatment / disposal location required</li> <li>▪ Quadrate sampling methodology to be adopted in order to reduce quantity as well as quality</li> </ul>	Immediate
Collection System & Transport System	<ul style="list-style-type: none"> <li>▪ Some of the places, efficiency of the collection system is not up to the mark</li> <li>▪ There is gap of 2% Coverage in door to door collection</li> </ul>	<ul style="list-style-type: none"> <li>▪ Ideally most proven method of SWM is 3 Tier System with door to door, community and transfer station approach</li> <li>▪ 100% efficiency to be achieved</li> <li>▪ Intermediate</li> <li>▪ Additional 2% coverage of collection &amp; transportation to augmented</li> </ul>	Short to Mid Term
Infrastructure	<ul style="list-style-type: none"> <li>▪ Mostly composting is the main treatment methodology with about 80% coverage</li> <li>▪ MRF facility is also available but limited to few</li> <li>▪ Sanitary landfill are limited to 2-3 ULBs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intermediate / Transfer station based decentralized waste treatment facility to be evaluated</li> <li>▪ Additional 20% alternative treatment such as bio-Methanation can be explored</li> </ul>	High
Plastic Waste	<ul style="list-style-type: none"> <li>▪ Lack of SOP for not only quantification but also life cycle analysis [LCA]</li> <li>▪ Limited understanding / interpretation of EPR / PRO</li> </ul>	<ul style="list-style-type: none"> <li>▪ Strengthening surveillance of life cycle assessment for type and quantity of Plastic Waste</li> <li>▪ Effective EPR Policy</li> <li>▪ Initiation of 100% compliance to PW Rules at the earliest</li> </ul>	High & Immediate
C&D Waste	<ul style="list-style-type: none"> <li>▪ 2 - 3 of the ULB need to establish C&amp;D Waste management system</li> </ul>	<ul style="list-style-type: none"> <li>▪ Minimum 1 such facility at each of the ULB to be established</li> <li>▪ System for utilization of recovered material and processed C&amp;D waste to be effectively implemented and monitored</li> </ul>	High
Biomedical Waste	<ul style="list-style-type: none"> <li>▪ Rooting and effective collection within 48hrs from the time of generation to be effectively handled</li> <li>▪ Treatment facility lacks implementation of 2016 Notification in line with CPCB</li> </ul>	<ul style="list-style-type: none"> <li>▪ Regular Inventorization through automatic / digital platform to be developed</li> <li>▪ Up-gradation of existing facility to meet 2016 CPCB norms</li> <li>▪ Additional at least 1-2 facilities to cover the of umbrella zone along with increasing burden on the existing coverage area to be</li> </ul>	Very High & Immediate

Sectors	Gaps	Action Points	Priority
	<ul style="list-style-type: none"> <li>audited report</li> <li>▪ Limited Inventorization</li> <li>▪</li> </ul>	<ul style="list-style-type: none"> <li>planned</li> <li>▪ Collection mechanism to be strengthened with additional vehicles to cover vast area and scattered HCF [miniscule quantity]</li> </ul>	
Hazardous Waste	<ul style="list-style-type: none"> <li>▪ Domestic HW being mixed with solid waste posing threat</li> <li>▪ No separate handling of domestic HW</li> <li>▪ Not effective segregation of DHW at source</li> </ul>	<ul style="list-style-type: none"> <li>▪ Either decentralized 4 - 5 step segregation practices to be initiated or at least advisory for intermittent storage and collection of domestic HW to be initiated</li> <li>▪ Inventory to be initiated and maintained</li> </ul>	Very High & Immediate
E Waste	<ul style="list-style-type: none"> <li>▪ Lack of inventory</li> <li>▪ Limited understanding of E waste rule and management</li> <li>▪ Neither segregation nor separate transfer / handling facility</li> <li>▪</li> </ul>	<ul style="list-style-type: none"> <li>▪ Detailed inventory for domestic e waste under 26 different categories</li> <li>▪ Mass awareness campaign</li> <li>▪ Every ULB to have at least one E waste management centre and minimum one collection / drop centre in a radius of 25-30km</li> <li>▪ At least one e waste processing unit in a district</li> </ul>	Very High & Immediate
Noise	<ul style="list-style-type: none"> <li>▪ Most of the source related noise areas show exposure beyond compliance</li> <li>▪ Excessive exposure during noise generating potential events/ festivals</li> <li>▪</li> </ul>	<ul style="list-style-type: none"> <li>▪ Noise mapping to be carried out for zonation purposes</li> <li>▪ At source control using physical or natural attenuation methods to be adopted</li> <li>▪ In the path noise control methodologies using noise absorbers creating zone of inhibition / silence zone to be done</li> <li>▪ End of the pipe measures such as PEs acoustic enclosures etc. to be adopted</li> <li>▪ Event based noise control policy to be effectively implemented</li> </ul>	High

#### 4.0 Water Quality Management Plan

There are 9 Rivers in Pune district with 1703km in length. 25 numbers of drain / nallas are meeting in to the rivers. Lake / Ponds area is about 5 Ha. There are 4582 number of Bore-well within the district.

The district generates about 1124.8 MLD of sewage with an existing capacity of 702MLD of STP with existing sewage network of 2846.38km length leaving a deficit of 62.4%. However it is also many a time the deficit as a representative of treatment capacity / capability. Even though MPCB has been eying to formulate policy w.r.t. reuse treated sewage as a regulation, lack of reuse conveyance system and more often than not due to the limited options of reutilization of treated sewage worsened with consistent output quality of treated sewage only leads to complicated disposal options.

On the other hand industrial effluent are much more regulated wherein 296 MLD from 850 numbers of industry. ULBs are made to treat almost the entire effluent to the best possible norms as stipulated by their permits, monitored effectively and regularly with the aid of final disposal / treatment in the 1 number of CETP. 575 industries are meeting water discharge standards and 45 industries are not meeting discharge Standards. 5 complaints received against industrial pollution in last 3 months

Detailed Issue based management action plan is provided in **Table 4**.

**Table 4 Action Plan for Water Quality Management**

Sectors	Gaps	Action Points	Priority
Water Resources	<ul style="list-style-type: none"> <li>▪ Limited information available on mapping of surface water resources in terms of quantity</li> <li>▪ Limited Inventorization of quantity, usage, availability exploitation etc.</li> <li>▪ Limited Rejuvenation / remediation of water bodies</li> <li>▪ Solid waste dumping i the river bodies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Thorough Mapping of resources to be taken up</li> <li>▪ Extensive assessment of quality to be done</li> <li>▪ Criticality indicators to be established for each water body/resource</li> <li>▪ Extend water quality monitoring network to include representiveness</li> <li>▪ Based on the criticality initiate Rejuvenation / remediation</li> <li>▪ Online Monitoring system for surface water bodies to be established</li> <li>▪ Protection methods to be developed for creative stoppage of dumping of solid waste in the surface water bodies</li> </ul>	High
Domestic	<ul style="list-style-type: none"> <li>▪ Correlation between generation and treatment often misleading</li> <li>▪ Only 60% treatment is available</li> <li>▪ Water budgeting exercise often missing</li> <li>▪ Computation of water footprint missing</li> <li>▪ Surveillance /Inventorization in cradle to grave approach absolutely never applied</li> <li>▪ Limited collection system and treatment facility especially in remote area</li> <li>▪ Often polluting water resources</li> <li>▪ No established reuse options / reuse network</li> </ul>	<ul style="list-style-type: none"> <li>▪ Digital Platform to accommodate water budgeting / reuse potential</li> <li>▪ Approximately 425MLD of STP needed</li> <li>▪ In situ treatment for 1703kms of River stretches to be developed</li> <li>▪ Strengthen the sewage collection network to cover 100% Population</li> <li>▪ Policy for reuse / recycle of treated wastewater</li> </ul>	Very high & Immediate
Industrial	<ul style="list-style-type: none"> <li>▪ Limited information of industries discharging</li> </ul>	<ul style="list-style-type: none"> <li>▪ CETP performance to be more effective in line with</li> </ul>	High

	wastewater in to the river ▪ Performance of CETP is questionable ▪ Almost 66 number of industries Non compliance of in terms of meeting discharge standards ▪ 45 numbers of industries are not meeting discharge standards	various orders of regulatory bodies / courts ▪ Digital compliance methodology to be developed ▪ Disposal system to be under constant surveillance	
--	---	---	--

## 5.0 Air Quality Management

As it is Pune district being one of the most vibrant and outgrowing areas in Maharashtra, Air quality assessment and sectoral management needs are ought to be essentially planned and executed. Both CPCB & MPCB through their NAMP & SAMP programme has set up 4 manual & 1 CAAQM stations across the district.

It seems that PM<sub>10</sub> is Ambient Air is one of the prime reason of the concern and historically Pune has been in the centre of controversy with regards its air quality management. An exceedance factor 1 to 1.8 reveals as per the monitored data that needs immediate attention as is the case in most of the areas of India. In view of the same the primafacea of every ULB shall be to establish at least one such Ambient Air Monitoring Station and coordinate / collaborate with other monitoring organisation to provide for advisory to general public towards health associations and risk of exposure. Inventory and policy formulation action plan is stated in **Table 5**.

**Table 5 Action Plan for Air Quality Management**

Sectors	Gaps	Action Points	Priority
Air	▪ Most of the places PM <sub>10</sub> seems to exceed by a factor of around 1 - 1.8 ▪ Limited CAAQMS to establish / corroborate inferences ▪ Sectoral action plans not effectively established ▪ Pune comes under non attainment cities	▪ Emission inventory and source apportionment supported with dispersion and health based iterative process for science based AQM strategy to be established ▪ Each ULB to have atleast one urban and one rural CAAQMS or three manual stations at least to include criteria pollutants with minimum one location to include parameters of 2009 CPCB notification and meteorological data including cloud cover ▪ Fugitive emission control system for hot spot emission control to be installed ▪ Green barriers / Photo catalyst options to be evaluated ▪ Capacity building to be enhanced ▪ Need to submit and review the action plan with its status for non attainment cities	High & Immediate

## 6.0 Mining Activity Management plan

There is no mining activity in the Pune district jurisdiction.

## 7.0 Noise Action Plan

Other than event base monitoring and special projects related / orders monitoring, MPCB carries out annual noise monitoring at 8 locations. Noise quality reveals mainly source specific non compliance such as traffic related in most of the kerb side analysis. Though zoning categories and regulations therein are particularly specified, in limitation of noise regulations has always been challenge to the regulatory authority. Monitoring results spells potential management plan that could be taken up on priority by each of the ULBs. There are complaints received on noise pollution in last 1 year. District authorities have installed Sign boards in towns and cities in silent zones.

## 8.0 Conclusion

There seems to be vast data gaps and a detailed exercise to collate and validate data gathered through this process needs to be urgently taken up in addition to the adopting a holistic & inclusive consultative process of gathering information, collating & converging it in order to be able to device strategies of future. Also, it is equally important that projection for at least next 20 years be done in order to evaluate management plans for futuristic view to meet the objective of such vast exercise. Digital data availability needs to be one of the prime tasks of government & methods of its validation be created with scope for improvement in near future. The practise needs to be a continual one to be updated regularly in order to monitor progress and effectiveness of this process & shall be linked with financial allocations being designed to be promoted by government of the day. With regards to action plans, the priorities shall be aligned based on sustainability objectives.

Sr. No. (1)	Name of the STP and its Location (2)	Designed capacity of the STP (MLD) (3)		Current Average flow of the Sewage (4)	Typical Analysis Results of the treated sewage (5)					Name and address of major industries/ railway station/ other commercial establishments with approximate distance from the STP (6)	Water Demand of the unit as in Column 6 (in MLD) (7)
		Currently designed capacity	Proposed designed capacity with completion year		pH	Suspended Solids (SS)	Biochemical Oxygen Demand (BOD)	Faecal Coliform	Other parameters with their analysis reports (COD)		
1	Bopodi STP, Sr.No.2A, 2B, 2C, 2D & 6 (P) Bopodi, Pune	18	Capacity details not yet finalised by PMC	18	7.3	14	40	275	---	---	---
2	Bahiroba STP, Final plot No.330, Sr.No.33A, 33B, Koregaon Park,Pune	130	130+75= 205 (2025)	120	7.8	22	44.0	---	----	----	----

3	Erandwana STP, Sr.No.3 & 4 Erandwane, Pune	50	Capacity details not yet finalised by PMC	50	7.4	20	34	85	---	M/s. Cummins India Limited, Sr. No. 3 to 7, 37,38, 41,42 & 43,Dahanukar Colony, Kothrud Tal- Haveli, Dist- Pune	0.072 and 0.971
4	Tanajiwadi STP Sr.No.24, Shivajinagar, Pune	17	17+15= 32 (2025)	17	8.8	28	34	40	---	M/s. Pune Railway Station 32/493, Pune Railway Station, Tal- Haveli, Dist- Pune. M/s. MAHARASHTRAMETRO RAIL CORPORATION LIMITED. Range Hill Depot, S.N. 53-A (City Survey No. 2300), Shivaji Nagar, Tal- Haveli, Dist- Pune.	0.350 0.036
5	Mundhwa STP, Sr. No. 2, 3A, 4 Mundhwa, Pune	45	45+20=65 (2025)	45	8.3	22	36	65	---	M/s. Bharat Forge Ltd, S. No. 72/76, Mundhwa, Tal- Haveli, Dist- Pune. M/s. SAARLOHA ADVANCED MATERIALS PVT.LTD. (Formerly Kalyani Carpenter Special Steel Pvt. Limited) Sr.No.72-76, Mundhwa, Pune, Mundhwa, Industrial Zone Tal- Haveli, Dist- Pune	2.354 0.800
										M/s. Kalyani Technoforge Ltd., Survey No. 72-76, Mundhwa, Pune 411036	0.060

6	Baner STP, S.No.221 To 227 Baner, Pune	30	30+25=55 (2025)	30	7.7	22	36	80	--	--
7	New Naidu STP, S.No.439 To 444 Pune final Plot, No.98 Kennedy Road	115	Capacity details not yet finalised by PMC	110	8.4	28	36	55	--	--
8	Vitthalwadi STP, Sr.No.20(P) Hingane,Pune	32	Capacity details not yet finalised by PMC	32	8.9	34	40.0	40.0	--	--
9	Kharadi STP, S.No.74, 75 Kharadi,Pune	40	40+30=70 (2025)	40	8.2	38	42	45	--	--

**Fw: Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune ...**

**From :** sropune1@mpcb.gov.in

Thu, Mar 02, 2023 11:48 AM

**Subject :** Fw: Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune ...

2 attachments

**To :** CPCB, RD Pune <rdpune.cpcb@gov.in>

**Cc :** ropune@mpcb.gov.in

Sir,

With reference to above subject, Rochem Separation System has not submitted Environment Compensation to Board and approached to Hon'ble Supreme Court and matter is sub juridic in Supreme Court.

Hon'ble Supreme Court vide order dated 29.04.2022 granted stay for the order of Hon'ble NGT in OA No. 270/2020, 269/2020, 271/2020 dated 03/03/2022. and matter is sub juridic in Supreme Court.

Copy of order of Supreme Court dated 29/04/2022 is enclosed herewith.

Thanks & Regards,

(Pratap Jagtap)

Sub Regional Officer,  
MPC Board, Pune-I.

---

**From:** SRO Pune 1 <sropune1@mpcb.gov.in>

**Sent:** 01 March 2023 16:31

**To:** CPCB, RD Pune <rdpune.cpcb@gov.in>

**Cc:** Dr. V. M. Motghare <jdair@mpcb.gov.in>; RO Pune <ropune@mpcb.gov.in>; Netra Chaphekar <lo@mpcb.gov.in>

**Subject:** Re: Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune ...

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Hon'ble Supreme Court vide order dated 29.04.2022 granted stay for the order of Hon'ble NGT in OA No. 270/2020, 269/2020, 271/2020 dated 03/03/2022.

Copy of order of Supreme Court dated 29/04/2022 is enclosed herewith.

Thanks & Regards,

(Pratap Jagtap)

104521/2023/TECH RD (Pune)  
 From : CPCB, RD Pune <ropune.cpcb@gov.in>

Sent: 01 March 2023 11:31

To: Pravin C Darade <ms@mpcb.gov.in>

Cc: BHARAT KUMAR SHARMA <bksharma.cpcb@nic.in>; Dr. Y. B. Sontakke <jdwater@mpcb.gov.in>; RO Pune <ropune@mpcb.gov.in>; SRO Pune 1 <sropune1@mpcb.gov.in>

Subject: Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled "Anand Uttarkar vs. The Municipal Corporation of the City of Pune & Or..."

Sir,

This has reference to the emails dated 16.02.2023 and 26.12.2022 from CPCB-RD, Pune in the Hon'ble NGT Matter OA No. 270/2020 (Earlier O.A No. 50/2017(WZ)) in the matter of "Anand Uttarkar vs. The Municipal Corporation of the City of Pune & Ors."

In aforementioned emails it was requested to kindly send at the earliest the status of compensation amount deposited by the project proponent and action taken for spending the deposited compensation amount in accordance with order of the Hon'ble NGT to enable the committee in finalising its compliance status report and filing the same to the Hon'ble NGT. However, status in this regard is still awaited.

It is once again requested to send the aforesaid status to this office immediately, please.

The matter may kindly be taken on priority being compliance of order of the Hon'ble the NGT.

धन्यवाद,  
 केंद्रीय प्रदूषण नियंत्रण बोर्ड  
 क्षेत्रीय निदेशालय, पुणे



वसुधैव कुटुम्बकम्

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Rochem Hon. Supreme Court order.pdf  
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From : sropune1@mpcb.gov.in

Wed, Mar 01, 2023 04:43 PM

Subject : Re: Preparation of compliance status report in compliance with Hon'ble NGT Order dated 03/03/2022 in the matter of Original Application No. 270/2020 (Earlier O.A No. 50/2017(WZ)) titled

2 attachments

To : CPCB, RD Pune <rdpune.cpcb@gov.in>

Cc : jdair@mpcb.gov.in, ropune@mpcb.gov.in, lo@mpcb.gov.in

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(Pratap Jagtap)

Sub Regional Officer,  
MPC Board, Pune-I.

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**Sent:** 01 March 2023 11:31

**To:** Pravin C Darade <ms@mpcb.gov.in>

**Cc:** BHARAT KUMAR SHARMA <bksharma.cpcb@nic.in>; Dr. Y. B. Sontakke <jdwater@mpcb.gov.in>; RO Pune <ropune@mpcb.gov.in>; SRO Pune 1 <sropune1@mpcb.gov.in>

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केंद्रीय प्रदूषण नियंत्रण बोर्ड  
क्षेत्रीय निदेशालय, पुणे



भारत 2023 INDIA

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 **Rochem Hon. Supreme Court order.pdf**  
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Item Nos. 03 to 05

(Court No.01)

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

(By Video Conferencing)

Original Application No. 270/2020  
(Earlier O. A. No. 50/2017 (WZ))

Anand Uttarkar

Applicant

Versus

The Municipal Corporation of the City  
of Pune & Ors.

Respondent(s)

**WITH**

Original Application No. 269/2020  
(Earlier O.A.No.194/2016 (THC)(WZ)  
(M.A. No. 246/2017)

Dr. Harshwardhan Modak

Applicant

Versus

P.M.C. Pune &amp; Ors.

Respondent(s)

**WITH**

Original Application No. 271/2020  
(Earlier O.A. No. 32/2019 (WZ))

Sandip Aphale

Applicant

Versus

State of Maharashtra &amp; Ors.

Respondent(s)

Date of hearing: 03.03.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER  
HON'BLE DR. VIJAY KULKARNI EXPERT MEMBER  
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Applicant(s): Mr. R.B. Mahabal, Advocate for Applicant in OA 269/2020  
Mr. Asim Sarode, Advocate for Applicant in OA 271/2020

Respondent(s): Mr. Rahul Garg, Advocate for PMC  
 Mr. Anuj Kumar Sharma, Advocate for CPCB  
 Ms. Manasi Joshi, Advocate for MPCB  
 Mr. Subit Chakrabarti, Advocate for M/s Rochem Separations  
 Systems Pvt. Ltd.  
 Mr. Aniruddha S. Kulkarni, Advocate

### ORDER

1. This order will deal with the above three matters which overlap but in substance raise common issue of violation of environmental norms by Rochem Separations Systems Pvt. Ltd. (RSPM) at Pune in the matter of handling and disposal of solid waste under a contract from the Pune Municipal Corporation (PMC). Violations alleged are in the matter of inappropriate location close to habitation, contrary to the Rules, operation without requisite consents, causing environmental hazard by its operation due to waste remaining unprocessed and unremediated. Further details can be seen from the pleadings to which reference will be made.

2. The matter was last considered on 23.03.2021. The pleadings were summed up as follows:-

**“Original Application No. 270/2020 (Earlier O. A.No. 50/2017 (WZ)**

2. *The O.A. No. 270/2020 alleges illegality in operation of Waste to Energy Plant set up by RSPM resulting in pollution and generation of foul odour. Though PMC proposed to terminate the agreement, it has failed to do so. **This has resulted in garbage being dumped in the premises in question which remains unprocessed. The garbage is not being converted to energy as was proposed under the agreement granted in favour of RSPM by the PMC.***

3. *The application was filed on 11.04.2017 and was admitted on 13.04.2017. Subsequently, matter was ordered to be heard with O.A. No. 269/2020 (second matter). Vide order dated 05.12.2017, the stand of the Maharashtra State PCB was considered that the compost in the premises was not of the requisite quality. The air quality was beyond norms. The Tribunal directed the RSPM to remove 25 truckloads of compost and to take the same to the*

sanitary landfill site. The matter was further considered on 05.09.2019 and RSPM was directed to mention whether the waste has been transported. Finally, vide order dated 13.10.2020, the matter was directed to be placed before the Principal Bench.

4. As per stand of the PMC in affidavit dated 22.06.2017, the RSPM is to generate electricity and Refuse Derived Fuel (RDF) on Build, Own, Operate and Transfer (BOOT) basis. Since, it failed to do so, penalty was imposed.

5. **The stand of the State PCB dated 07.07.2017 is that there are violations of norms for which warning was issued to the RSPM.**

6. The stand of the RSPM in its affidavit filed on 24.07.2017 is that it is functioning under agreement dated 07.07.2011 for waste management. It has invested Rs. 60-70 crores in the project. It is running Waste Processing Project and not Waste Disposal Project. It is processing 300-350 TPD of MSW for the last five years with the following sections:

- a. Current MSW intake.
- b. MSW- presorting and segregation.
- c. Gasification section and;
- d. Waste to energy section.

7. It is facing difficulty as there are no buyers for the RDF. The technology needs to be upgraded. Additional affidavit was filed by the said party on 10.11.2017 to the effect that it has received authorization under the Municipal Solid Wastes (Management and Handling) Rules, 2016 and also applied for consent to operate under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 on 17.08.2017. It segregates the waste and converts the same to energy by incineration. The RDF is sold to third parties for boilers or for captive consumption in manufacturing process.

8. The State PCB filed further affidavit on 25.04.2019 with regard to sampling of odorous gas finding that the parameters were marginally exceeding.

9. Further affidavit dated 08.01.2020 has been filed by the RSPM is that legacy waste is being removed.

10. Finally, we have the affidavit filed by the State PCB on 18.03.2021 on the issue of fire incident which took place on 07.03.2018 to the effect that garbage depot, plant and machinery were not affected by the fire. The reason for the fire was not identified.

**Original Application No. 269/2020 (Earlier O.A.No.194/2016 (THC)(WZ)**

11. This Application was received from the Bombay High Court on transfer. It seeks injunction against payment of tipping fee to RSPM. The application states that the **unit was operational without**

**Environmental Clearance (EC) and was not engaged in generation of electricity and Pyrolysis process, as stipulated. It was a source of nuisance. MSW is being supplied to the said company which contains RDF which is hazardous in nature. The gas generated is emitted in the air which is health hazard. There is no scientific disposal of the waste.**

12. The matter has been dealt with by several orders in the last more than four years along with O.A. No. 270/2020 (First matter). It was finally directed to be listed before the Principal Bench.

13. The applicant has filed a written note on 03.11.2020 to the effect that the waste is being burnt resulting in damage to the environment. **The unit does not have requisite consents under the Water Act, 1974 and the Air Act, 1981. It does not have requisite EC as per EIA Notification dated 14.09.2006 on the ground that it is exempted, being under the category of 'generating power from the waste'. Infact, no energy is being generated as claimed. RDF is being sold to persons who do not have permission to use RDF as fuel.**

**Original Application No. 271/2020 (Earlier O.A. No. 32/2019 (WZ))**

14. This Application was filed in the year 2019 and was ordered to be heard along with the above two applications. **The issue raised is about the siting of the plant in violation of MSW Rules, 2016. There is no buffer zone around the Waste Processing Facility. It is at Plot Nos. 88, 86, 87, 56, 57, 58 and 104 Phase-II Ramtekadi Industrial Estate, Hadapsar, Pune, close to residential area. In the vicinity of the Plant, there are three buildings in Survey No. 95 with 84 Flats. Permission to set up the plant has been given in violation of the law."**

3. Following issues were noted for consideration:-

“

- **the Plant in question is causing environmental hazard**
- **it is operating without requisite EC and consents**
- **Its location is not compliant with the statutory rules**
- **This requires remedial action for protection of environment, public health and rule of law."**

4. The Tribunal found that an independent committee was required to undertake visit to the site and ascertain compliance status of the plant in question in terms of location, functioning, statutory compliances and other incidental issues.

5. Accordingly, the Tribunal constituted a six member Committee headed by Justice S.M. Gavhane, former Judge Bombay High Court, presently available at Pune and comprising Central Pollution Control Board (CPCB), NEERI, IIT Mumbai, District Magistrate, Pune and Maharashtra PCB.

6. The Tribunal directed that the report may particularly mention the status of management of Rejects and RDF including waste/ rejects piled up in the Plant premises, potential of fire incidents and whether the direction to remove 25 trucks of waste per day was being complied. The report was also to mention waste generation in PMC areas, existing processing facilities, gaps in processing, quantity of waste being landfilled and steps taken for Bio-mining of legacy waste. It was also to make recommendations for remedial action.

7. In pursuance of above, the joint Committee has filed its report dated 29.11.2021 which gives details of the project operated by M/s Rochem Separations System Pvt. Ltd, DPR submitted by the Project Proponent (PP), salient features of concession agreement dated 18.11.2010 between the PMC and the PP, commencement of the Facility and operation by M/s RSPM, status of prior EC, current process/operation at M/s RSPM, quantity of mixed solid waste being processed, compost, RDF, compliance of provisions of the Solid Waste Management Rules, 2016, siting of the facility, status of consent to establish and operate and authorization granted by MPCB. Relevant extracts from the report are as follows:

***“2.0 About the Project Operated by M/s Rochem Separations System Pvt. Ltd. (hereinafter referred as RSPM)***

*M/s Rochem Separations System Private Limited (RSPM) is a facility engaged in processing of municipal solid waste management located*

at Plot No. 86, TPS-2, Hadapsar Industrial Estate, Pune of land size 2.5 acres. The facility has been setup vide Concession Agreement dated 18/11/2010 between PMC and M/s RSPM. Details of the Detailed Project Report (DPR), Concession Agreement, Commissioning of the facility, Processes at the facility, Quantity of Mixed Solid Waste being processed at M/s RSPM and generation management of by products/ inert waste, Compost, RDF vis-à-vis provisions stipulated under the Solid Waste Management Rules, 2016, Siting of the facility are given below:

### **2.1 Detailed Project Report (DPR)**

The Detailed Project Report (DPR) dated 26/08/2009 submitted by M/s Rochem Separation Systems Private Limited (RSPM) to PMC reveals that processing of 700 tons/day of municipal solid waste by M/s RSPM by subjecting it to shredding, sieving, **magnetic separation etc. followed by pyrolysis and power generation of 10 MW [75000MW/ Annum] considering operating hours of 7500 hour/year.**

### **2.2 The Concession Agreement**

Salient features of the Concession Agreement dated 18/11/2010 between PMC and the concessionaire (RSPM) are as below:

- (a) The concessionaire shall own, operate and maintain the Plant for a period of 30 (thirty) years (“Concession Period”) from the Commencement Date.

[Clause 2.3.2 (ii) of the Concession Agreement]

- (b) PMC is responsible for ensuring availability of the Project site to the Concessionaire with due clearance from District Site Approval Committee. PMC shall within 7 days from the Appointed Date allot 2.5 acres or 10,000 sq.m.(approximately) of land situated at Final Plot No. 86 Hadapsar Industrial Estate (“Project Site”) having its boundaries as described as follows.

East: Remaining area of F Plot No. 86 Hadapsar Industrial Estate

West: 18 meter wide road

South: 18 meter wide road

North: 18 meter wide road & private plot No. 58, Hadapsar Industrial Estate

[Clause 3.1.1 of the Concession Agreement]

(c) *PMC shall deliver to the project site, a total of 700 Tons per day of Mixed MSW free of building debris (“Assured Waste Quantity”) to the concessioner (RSPM) at its cost and expenses*  
*[Clause 3.2.1 of the Concession Agreement]*

(d) *Without prejudice to the generality of the foregoing, the Concessionaire shall have the right to develop the Plant using such technology that it considers suitable and viable for the purpose of implementing the Project, in accordance with the terms of this Concession Agreement. It is acknowledged that **it is the intention of the Concessionaire to use the technology associated with the concept of an integrated waste processing plant and the Concessionaire shall have the right to modify, adopt, upgrade or change the technology from time to time, based on actual operations of the plant and the requirements of the project.***

***It is generally agreed that the concessionaire shall implement suitable technology for Electric Power Generation from the MSW to ensure MSW disposal. The quantum of Waste to Electricity is estimated to be 10 MW however the quantum shall be based on waste Calorific Value.***

***The concessionaire shall ensure that the implemented technology shall at all times have electricity as a byproduct.***

*[Clause 4.4 of the Concession Agreement]*

(e) *Subject to the provisions of this Agreement and in consideration of the Concessionaire accepting the Concession and undertaking to perform and discharge its obligations in accordance with the terms, conditions and covenants set forth in this Concession Agreement, PMC agrees and undertakes to pay to Concessionaire, the Tipping Fee at the rate of Rs. 300 (Rupees Three Hundred Only) per metric tonne of MSW as constant till the Concession Period.*

*[Clause 8.1 of the Concession Agreement]*

(f) *The concessionaire shall be responsible for segregation, drying and any other treatment required on MSW, prior to the commencement of treatment of MSW and PMC shall not be obligated to provide any financial or other such support.*

*[Clause 2.3.2 (iv) of the Concession Agreement]*

- (g) *Prior to the establishment of the Plant, the Concessionaire shall carry out a detailed study and analysis on the MSW generated/created within the PMC Limits and shall ensure that the Plant will be operated as per the features and characteristics of the MSW so generated/ created within the PMC Limits*

*[Clause 2.3.2 (iv) of the Concession Agreement]*

*PMC vide letter dated 15/4/2021 informed that they have issued several notices to M/s RSPM regarding processing the waste below designed capacity. Also on 05/10/2020, primary termination notice has been issued to M/s RSPM for processing under the capacity as well as breach of terms and conditions laid down in the agreement.*

### **2.3 Commencement of the facility and operation by M/s RSPM**

*Construction of the waste processing plant started in July 2010 and it was commissioned in November 2011. As per clause 4.4 of the Concession Agreement, M/s RSPM was to ensure that the implemented technology shall at all times have electricity as a by-product. **However, trial electricity generation could be carried out only for a short period in initial phase during July 2011 till about March 2012. It was informed during the discussion that electric generation was not economical and hence electricity generation was stopped and such supported plant & machineries were dismantled. Thereafter, the plant is processing municipal solid waste being received at its site only for production of RDF and not electricity.***

### **2.4 Prior Environmental Clearance (EC) requirement under notification no. S.O.1533 (E) dated 14<sup>th</sup> September 2006 and status of obtaining the same**

- (i) *The notification no. S.O.1533 (E) dated 14th September 2006 and amendments there of notified under the Environment (Protection) Act, 1986, stipulates that the project or activity i.e. Common Municipal Solid Waste Management Facility (CMSWMF), as listed at 7(i) of Schedule of the said notification, requires prior environmental clearance.*
- (ii) *As per records provided by MPCB, it reveals that as per Minutes of 34<sup>th</sup> meeting of the State Level Expert Appraisal Committee (SEAC) held on 30<sup>th</sup> September 2010, the project was considered as “11 MW solid waste-based power generation project at Pune for the Municipal Corporation, Pune”. The SEAC decided that **“This project does not need prior EC in view of the amendment dated 01.12.2009 issued by the MoEF.”***
- (iii) *As per subsequent amendment vide notification no. S.O. 3067(E) dated 01.12.2009 in the said notification no. S.O.1533 (E) dated 14th September 2006 notified under Environment (Protection) Act, 1986, in case of Thermal Power*

*Plant project or activity, the power plant up to 15 MW, based on non-hazardous municipal waste and using auxiliary fuel such as coal / lignite / petroleum products up to 15% are exempt. It also stipulates that Power plants using waste heat boiler without any auxiliary fuel are exempt.*

(iv) *With regard to the type of project or activity:*

(a) *Title of the Concession Agreement dated 18/11/2010 itself is "Concession Agreement relating to 700 TPD MIXED MSW TREATMENT/ DISPOSAL PLANT (ON BOOT BASIS)"; Recital Clause at paragraph C of the said Concession Agreement also stipulates that "PMC desires to establish a 700 TPD Mixed Municipal Solid Waste Treatment Plant ("Plant") on Build, Own, Operate and Transfer ("BOOT") basis".*

(b) *Clause No. 4.4 of the Concession Agreement stipulates intention of the Concessionaire to use the technology associated with the concept of an integrated waste processing plant and the Concessionaire shall have the right to modify, adopt, upgrade or change the technology from time to time, based on actual operations of the plant and the requirements of the project.*

*It is generally agreed that the concessionaire shall implement suitable technology for Electric Power Generation from the MSW to ensure MSW disposal. The quantum of Waste to Electricity is estimated to be 10 MW however the quantum shall be based on waste Calorific Value.*

***The concessionaire shall ensure that the implemented technology shall at all times have electricity as a by-product.***

(c) *The term "plant" has been defined at page 12 of the Concession Agreement as "Plant shall have the meaning ascribed to the said term in Recital C"*

*The above clauses also read together with DPR infers that 700 Tons per day of mixed municipal solid wastes generated and collected from various sources within PMC were to be centrally processed by shredding, sieving, magnetic separation, etc. prior to subjecting the same for pyrolysis followed by power generation at the premises of M/s RSPM instead of their direct use as fuel for power generation. In view of the same, it appears that the project may not have been considered under the "Thermal Power Plant" project or category but instead under*

*“Common Municipal Solid Waste Management Facility (CMSWMF)” project or category which required prior EC. However, MoEF&CC may examine about applicability of EC notification no. S.O.1533 (E) dated 14th September 2006 and amendments thereof notified under the Environment (Protection) Act, 1986 and violations thereto, if any.*

### **2.5 Current Process/ Operation at M/s RSPM**

*As stated in Paragraph 2.3 above, trial electricity generation could be carried out only for a short period in initial phase on trial basis during July 2011 till about March 2012 for about 250 MTD. Thereafter, the plant is processing municipal solid waste being received at its site only for production of RDF and not electricity. Details of various processes/operations at M/s RSPM as observed during visit of the committee are given below.*

*The mixed municipal solid waste received at the site is subjected to a shredder. The shredder waste is conveyed through conveyor belt through to rotary drum where waste is delumped using blades mounted at the internal periphery of the rotary drum. Wastes from rotary drum is conveyed through a conveyor belt to a rotary drum trowmill and in between manual segregation from the conveyor belt is done for segregation of large/recognizable sized stones/glass/metal parts/etc. The (-) 50 mm size of the waste from the rotary trowmill is subjected to fine screen. The (-) 8 mm output from fine screen is taken as by-product i.e. Compost. The (+) 8 mm size from the fine screen is taken as inerts/ rejects which are sent for land filling.*

*The rest (+) 50 mm sized waste as output from the rotary trowmill are conveyed through two lines of conveyor belts. Each line of such conveyor belt has a magnetic separator (for separation of ferrous materials), Eddy current separator (for separation of non-ferrous materials) and finally a secondary shredder fitted within a screen so as to obtain by-product of less than 65 mm size.*

*The by-product i.e. less than 65 mm is sold in the name of RDF in boilers and cement industries (Ambuja Intermediates Pvt. Ltd. Gate No 351, Behind Akashwani Sangli Village Tung, Taluka- Miraj-4163301) and to one M/s Balasaheb Patil Hygiene Services 102/103 Village Moha -Sangamner, Nashik-422605 who appears to be dealer and further channelizes this RDF to M/s JVS Cosmatsco Industries (P) Ltd., Village-Moha, Taluka- Sinner, Dist- Nashik.*

*The (-) 8 mm sized waste (as output from the fine screen) is claimed to be supplied to farmers in the name of the compost. However, records in this regard is not being maintained about quantity being supplied and their end use i.e. either in the food crops or other purposes.*

**2.6 Quantity of Mixed Solid Waste being processed at M/s RSPM and generation management of by products/ inert waste**

**(A) Quantity of MSW processing and generation of by-products/ rejects**

PMC informed that during January 2019-March 2021, total Municipal Solid Waste received at M/s RSPM facility premises is 78492.62 MT and the waste received during the operational months (except May 2019- September 2019) vary 809.43 MT per month to 6770.94 MT per month. Other details provided by PMC are given in the table below:

**Table 1: Details regarding generation of compost, reject materials, RDF and recyclable materials**

<b>Sr. No.</b>	<b>By-products/ Rejects</b>	<b>*Total Quantity</b>	<b>Average generation (MT/month)</b>	<b>Percentage (%)</b>
1	Compost	12676.55	576.20	4.54
2	Reject Material	8229.20	433.11	5.26
3	Combustable fractions	50679.47	2303.61	4.54
4	Recyclable Materials	2982.72	135.57	4.54

\*During January 2019 to March 2021 except non-operational months (May 2019-September 2019)

M/s RSPM has never crossed per day processing of waste at its facility averagely beyond 250 MTD.

**(B) Management of Combustable fractions claimed as RDF, Compost and Recyclable materials**

- (a) **Combustable fractions claimed as RDF:** Maharashtra Pollution Control Board (MPCB) has been requested by the committee to verify about the end use/ supply to such boiler and cement industries. However, response from MPCB is yet to be provided to the committee.
- (b) **Compost:** Records in this regard is not being maintained about quantity being supplied and their end use i.e. either in the food crops or other purposes.
- (c) **Rejects:** Rejects from the plant are sent to landfill.
- (d) **Recyclable Materials:** Recyclable material (Ferrous material scrap and Nonferrous Scrap) is sold to vendor at Satish Matram Chowk Ramtekdi, Hadpsar, Pune.

Most of these ferrous and non-ferrous materials separated/ segregated as by-product may fall under the category of hazardous or other waste as per the Hazardous Waste Management Rules, 2016 notified under the Environment (Protection) Act, 1986

*and such other wastes require to be stored, packaged, transported, offered for sale, recycled or utilized or disposed to authorized occupier in accordance with the said rules. However, transportation in authorized vehicles, being selling/ handling over to authorized occupier, manifest documents there to, submitting annual returns to MPCB for such hazardous or other waste are not being followed as required under the said rules.*

## **2.7 Compost, RDF vis-à-vis provisions stipulated under the Solid Waste Management Rules, 2016**

- (a) Compost:** *In order to ensure the safe application of compost, specifications for compost quality have been prescribed under Schedule [III] of Solid Waste Management Rules, 2016.*

*The said schedule also stipulates that compost exceeding the prescribed concentration limits w.r.t. various heavy metals (arsenic, cadmium, copper, lead, mercury, nickel, zinc), pH, moisture, conductivity, etc. shall not be used for food crops. Only two analysis results of compost samples dated 05/01/2017 and 27/09/2017 provided to the committee reveal that not all stipulated heavy metals parameters have been carried out except zinc and copper (please refer Annexure-II). Further, the said two analysis results also reveal that composts do not meet the prescribed parameter limits for pH and particle size for use in food crops.*

*Standards for composting as stipulated, under the Schedule [III] of the Solid Waste Management Rules, 2016 also stipulates vide clause A(e) that “ The windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay of 50 cm thick having permeability coefficient less than  $10^{-7}$  cm/ sec. The base shall be provided with 1 to 2 percent slope and circled by lined drains for collection of leachate or surface run-off”.*

***M/s RSPM has neither the prescribed facility for composting nor the end use of the compost not meeting the prescribed limits for usage in food crops is being monitored either by M/s RSPM or MPCB. MPCB is required to monitor such standards and adherence as per Rule 16 [B] of the said rules.***

*It was observed during the visit of the committee on 17/09/2021 that there was no such windrow area provided within the facility. The committee also noted that (-) 8 mm rejects as output from the fine screen and claimed as by product i.e. compost is collected and stored outside the premises of M/s RSPM in open.*

- (b) Refuse Derive Fuel (RDF):** *The Refuse Derive Fuel (RDF) has been defined vide Rule 3, 38 of Solid Waste Management Rules, 2016 as “Fuel derived from combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste”.*

*It was observed that the **facility for drying, dehydrating or compacting were not available at the facility of M/s RSPM and therefore, the combustable fractions as by product being claimed as RDF is not RDF** as defined under Solid Waste Management Rules, 2016 and the prescribed facility for RDF production are also not available at M/s RSPM.*

## **2.8 Siting of the facility**

*The facility of M/s RSPM is located at Plot No. 86, TPS-2, Hadpsar Industrial Estate, Pune of land size 2.5 acres.*

*There is a multi-storey residential building named as “Hill side Society” within 200 m from tip of core waste processing facility of M/s RSPM. The said residential building society is on south and south western boundary of the said facility. Within 200 m distance from tip of core processing facility of M/s RSPM are – Forest area in the south side , industrial area on north and south west side and various waste processing facilities towards the eastern side besides the said residential building.*

*There is no green belt across periphery of the facility.*

*CPCB’s “Guidelines on Buffer Zone around waste processing and disposal facilities in April, 2017” prepared after notification of SWM Rules, 2016 recommends that that ideally a distance of 500 m from the boundary of solid waste processing facility should be maintained as Buffer distance. However, on case to case basis a **distance of minimum 200 meter from the solid waste processing and Disposal facility (sanitary landfill) can be considered subject to the condition that such facility meets the stipulated standards prescribed by State Pollution Control Board with respect to ambient air as well as for stack emissions. Further, a green belt of minimum 10 metres within and all around the facility along the boundary has also been recommended. However, construction of the plant started in July 2010 and was commissioned in November 2011 prior to the said CPCB guidelines.***

### **3.0 Consent to Establish and Consent to Operate and Authorization Granted by Maharashtra Pollution Control Board (MPCB)**

*Application dated 17/01/2010 was made for grant of authorization under Municipal Solid waste (Management and Handling) Rules, 2000. The authorization was granted on 23/05/2011 by MPCB. Thereafter, authorization has been granted/ renewed vide dated 09/12/2013, 27/03/2015 and 16/6/2016. The recent authorization dated 04/05/2017 is valid up to 31.12.2021. In all such authorizations, M/s RSPM has been stipulated as operating agency and authorized for pyrolysis/gasification of Municipal Waste of 700MT per day at Plot No.86, TPS-2, Hadapsar Industrial Estate, Pune. However, the plant has been operating with other processes instead of such authorized pyrolysis/gasification and thus, in violation of the said authorization.*

*With regard to consent to establish and consent to operate under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, M/s RSPM made an application for Consent to Operate on 17/08/2017 for power generating plant- 11 MW per hour. **MPCB has issued show cause notice for refusal on 30/03/2021 and the said application is under the process. Therefore, the unit has been operating without Consent to Establish/ Consent to Operate required under the said Acts.***

*MPCB has issued warning notices, proposed direction, show cause notices and M/s RSPM continued to operate the facility in violation of authorization granted under Solid Waste Management Rules, 2016 and without Consent to Establish/ Consent to Operate in violation of the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981.”*

8. Compliance and other relevant status are mentioned as follows:

#### **“4.0 Compliance status of the Hon’ble NGT order dated 05/12/2017 w.r.t removal of 25 trucks loads of compost and to take the same to the sanitary landfill site**

*About 25 trucks loads of compost lying with M/s RSPM have been lifted during lifting of about 6726 MT of compost from the site in 853 vehicles from 01/03/2018 to 31/12/2018; this includes the 25 truck load of compost. This compost was given free of cost to the farmers.*

*The committee during its visit on 17/9/2021 observed that there is no compost or processed waste or ferrous/non-ferrous waste or rejects stored in the facility premises.*

### 5.0 Fire Clearance

Fire clearance certificate/NOC has not been obtained from the concerned authority. Further, fire fighting equipment were not found to be installed at facility of M/s RSPM during visit of the committee on 17/09/2021.

### 6.0 Other Observations

The committee visited the waste processing facility on 17.09.2021 and other observations made by the committee are as below:

- (a) The plant was found non-operational on the day of visit. It was informed that the **plant is not operated from 16<sup>th</sup> June 2021 as electric power supply is cut due to non-payment of electricity bills by M/s RSPM.** PMC has also stopped supply of municipal solid waste to the facility.
- (b) **Approximately 1000-1200 MT of unprocessed municipal solid waste was found stored in the premises of M/s RSPM.**
- (c) **Leachate from the stored unprocessed municipal solid waste was observed near its storage area and primary shredding facility.**
- (d) **There is no facility provision for collection and management of leachate generated during storage of municipal solid waste being collected at the facility. It was informed that Reverse Osmosis (RO) unit was installed for treatment of leachate and the same has been shifted for maintenance work. However, no supporting document could be provided in this regard by M/s RSPM.**
- (e) Mist spraying system was found to be installed however, the same was not operational. The committee members felt odour during the visit.
- (f) **The area of 2.5 acres (about 10,000 sq.m.) appear to be not adequate for the current adopted municipal solid waste processing activities as it also requires adequate windrows areas, compost storage area, storage area for segregated combustible fractions as its by-product, etc. even for 250 Tons/day of waste input, whereas, M/s RSPM is obligated for 750 Tons/day along with installation of suitable technology for generation of electricity as per the Concession Agreement.**
- (g) No Website has been made available to provide relevant details of the plant and the process that it operates in such reasonable detail as would enable awareness about the Plant operations to any person accessing the web site, as required under the clause 2.3.25 of the Concession Agreement.

### 7.0 Waste generation in PMC areas, existing processing facilities, gaps in processing and quantity of waste being landfilled

As informed by PMC, population of Pune city for the year 2021 is about 45-50 lakh and the quantity of municipal solid waste generated per day under PMC area is approximately about 2100-2200 MT. For processing both the type of wastes PMC has developed various facilities at various locations for managing the same. Of the said 2100-2200 MTD municipal solid waste generation, dry waste is about 1100-1200 MTD and wet (organic) waste is about 900 MTD.

Mechanical Composting, Bio CNG, Bio Gas and Mechanical Shredding (for coconut waste) facilities are installed for processing of wet waste whereas the facilities for processing of dry waste are - Waste to Energy Plants, RDF/Compost Facilities and Material Recovery Facilities. The details of designed capacity, actual quantity being processed and type of products/by-products for the said facilities, as provide by PMC vide letter no. SWM/2928 dated 08-10-2021 is given at Annexure-II, and the same is summarised in the Table No. 2 given below:

**Table 2: Details of designed capacity, actual quantity being processed and type of products/by-products for various processing facilities in Pune**

<b>Sr. No</b>	<b>Type of Processing facilities</b>	<b>Nos. of Processing facilities</b>	<b>Total Designed Capacity (MT/day)</b>	<b>Quantity being processed (MT/day)</b>	<b>Products/ By- products</b>
1.	<b>Wet waste Processing Facility</b>				
	Mechanical Composting	04	212	231	Compost
	Bio CNG	01	300	80	Bio CNG is used in vehicles/industries
	Mechanical Shredding	01	03	02	Coires from coconut is used for rope making
	Bio Gas Plants	13	65	63	Bio Gas is used in captive power generation/ street lighting
	Bulk Waste Generator Processing	-	-	150	Compost
	Composting by independent house owners	-	-	70	Compost
	Segregated wet waste sent to farmers without plastic	-	-	300	Compost in farm pits
	<b>Total</b>	<b>19</b>	<b>580</b>	<b>896</b>	
2.	<b>Dry waste Processing Facility</b>				

	Waste to Energy Plant	02 (01 is currently non-operational)	1450	300	RDF and Compost
	Refuse Derive Fuel (RDF) / Compost	04 (01 is currently non-operational)	650	500	RDF and Compost
	Material Recovery Facility (MRF)	07 (01 is currently non-operational)	325	290	Recyclable items (plastics/ card board paper/ rubber/ etc) to recycling facilities
	Dry waste Recycled through "Swachh"	-	-	110	Recyclable items (plastics/ card board paper/ rubber/ etc) to recycling facilities
	<b>Total</b>	<b>13</b> <b>( 03 non-operational )</b>	<b>2425</b> <b>(of which 950 MTD is non-operational)</b>	<b>1200</b> <b>(excluding non-operational plants)</b>	

The inert from the dry waste facilities are disposed into sanitary landfills located at Survey Number 191 to 195, Uruli/ Fursungi Pune.

The table 2 reveals that there are 19 wet waste processing facilities besides composting of wet waste is also done by bulk waste generators, independent house owners and farmers. The cumulative processing of wet waste per day is about 896 MTD against generation of 900 MTD of wet waste in Pune.

For dry waste, there are 13 processing facilities of which 03 are currently non-operational besides processing by rack pickers affiliated with PMC under "Swachh". The cumulative processing of dry waste per day is about 1200 MTD. The cumulative dry waste processing capacity of 10 operational processing facilities (where M/s RSPM facility has also not been included being non-operational) is 1475 against generation of 1200 MTD of dry waste in Pune.

MPCB has granted authorisation for various processing facilities and the same may be examined by MPCB in terms of quantity & processes.

### **8.0 Sanitary Landfill**

As per information provided by PMC vide letter no. SWM/2928 dated 08-10-2021 (copy given at Annexure- II), a sanitary landfill has been commissioned in 08 acres land w.e.f. 23/11/2020 at Survey No. 191 to 195, Uruli/Fursungi, Pune to dispose inerts/rejects generated from

various municipal solid waste processing plants. Details of the said sanitary landfill are as below:

- (i) Capacity of Sanitary Landfill: 3,65,000 MT
- (ii) Quantity of reject disposed per day: 400-500 MT per day
- (iii) Till August 2021 around 90,000 MT rejects were disposed in sanitary landfill

It has also been informed that PMC has stopped open dumping since 02/1/2020. The rejects generated from the processing facilities during 02/1/2020 till commissioning of the aforesaid sanitary landfill in Nov. 2020, were stacked temporarily at Uruli/Fursungi Depot and Disha Ramtekdi and the same of about 55000 MT have been disposed into the newly commissioned sanitary landfill. Cumulative quantity of rejects disposed into sanitary landfill from November 2020 to September 2021 is about 1,05,000MT.

### **9.0 Legacy Wastes and their Management**

As informed by PMC, from 1985 to 1997 municipal solid waste in the Pune city was disposed at Paud Road (Kothrud) Depot having an area about 29 Acres. During these years the quantity disposed was approximately about 2.5-3 Lakh MT. This land was handed over to Pune Metro for construction of shed and remediation process was carried out on the municipal solid waste at the said location by Pune Metro and a car shed is constructed on this land.

As per information provided by PMC vide letter no. SWM/2928 dated 08-10-2021 (copy given at Annexure-II), PMC was allocated a dump site by the District Collector in 1989 for using it as disposal site. It is spread on total 163 acres of area at Survey No. 191 to 195, Uruli/Fursungi, Pune, out of which PMC has developed cement ground on 8 Acres of land and details of the remaining area of 155 acres are as below:

- (i) **45 acres have old legacy wastes which are scientifically capped using HDPE Liner, Geo Membrane, Gas Collection and flaring system, leachate collection system and covered with vegetation (small shrubs) and it is maintained with annual maintenance contract.**
- (ii) On 20 Acres land where about 09 lakh metric tons (MT) were lying, phase-I bioremediation/ bio-mining is going on since 18/4/2019. 7.5 MT of legacy wastes have been processed and the remaining 1.5 lakh MT will be processed in next 06 months.
- (iii) On approx 15 acres where approximately 08 lakh MT are lying, Phase-II bio-mining is proposed. PMC is carrying out contour survey of area to ascertain exact quantity of legacy waste remaining on this area, once the quantum is finalized, processing of remaining quantity of legacy waste will be started to free this land for which tender is also proseed in upcoming months.

- (iv) 65 acres of land was given to M/s Hanjer Bio Tech Company for setting up 02 processing plants of each 500 MT per day capacity to produce RDF/ Compost and engineered sanitary landfill on 6 acres land for disposing inerts/reject materials. These plants were operated during 2009-2013 and are not operational now due to contract agreement termination and arbitration process is going on between the PMC and M/s Hanjer Bio Tech Company. The said sanitary landfill having 1.25-1.5 lakhs MT of disposed waste has been covered only with soil cover.
- (v) On 8 acres land, PMC has developed sanitary landfill and it is made operational since 23<sup>rd</sup> November 2020 to dispose inerts/rejects generated from various solid waste processing plants.
- (vi) 2 acres consist of internal roads and buffer zone.

Thus, Wastes dumped about 25 Lakh MT during 1997-2008 have been scientifically capped in the aforesaid 45 acres sites. During 2009 till 2013, wastes were processed in processing plants and rejects were dumped into sanitary landfill operated by M/s Hanjer Bio Tech Company and the same has been covered with only soil cover.

During 2014-Dec 2019, about 17 lakh MT wastes were dumped in the aforesaid 20+15 acres land.

- Out of 09 lakh metric tons (MT) lying on the aforesaid 20 acres land, 7.5 MT of legacy wastes have been bioremediated/bio-mined processed and the remaining 1.5 lakh MT will be processed in next 06 months under Phase-I.
- For the other estimated 08 lakh MT lying in the aforesaid 15 acres, bio-mining is proposed as Phase-II. PMC is carrying out contour survey of area to ascertain exact quantity of legacy waste remaining on this area, once the quantum is finalized, processing of remaining quantity of legacy waste will be started to free this land for which tender is also proposed in upcoming months.

#### Bio-Mining/ Bio-Remediation

The work of bio-mining/bio-remediation, as the aforesaid Phase-I of 09 Lakh MT of legacy waste, has been given to M/s Bhumi Green Energy on 1/11/2018. After the plant erection was completed, the processing of legacy waste started w.e.f. 18/4/2019. MPCB has granted authorization dated 3<sup>rd</sup> March 2020 under the Solid Waste Management Rules 2016. PMC has appointed NEERI (National Environmental Engineering Research Institute) as the project consultant for the bio-mining project. It was also informed by PMC that NEERI is taking samples of bio-soil, RDF, legacy waste and inerts on regular basis to ascertain if parameters are within the limit and the analysis results have been reported to be satisfactory.

*In bio-mining/bio-remediation process, the area of legacy waste is divided into cells, around two third cells are converted into heaps of around 8000-10000 square feet through excavator, Bio-culture is spread on these heaps to contain foul odour and it is turned using excavator after 7-8 days for aeration and after around 15 days the stable legacy waste is taken to processing plants through trucks. In the processing plant, legacy waste is separated in sizes through different size trow mills (Size and Density separation) for separation including shredding to obtain RDF, Bio Soil and other parts like recyclables, stones, broken glasses, etc. The non-recyclables/rejects are disposed into sanitary landfill.”*

9. Finally the Committee has concluded and recommended as follows:-

### **“10.0 CONCLUSIONS**

#### **(i) Waste processing plant operated by M/s RSPM**

- (a) *As per the Concession Agreement dated 18/11/2010, M/s RSPM was to develop the Plant using such technology that it considers suitable and viable for the purpose of implementing the Project for Electric Power Generation from 700 Tons per day of mixed municipal solid waste free of building debris to be delivered by PMC to the project site awarded to M/s RSPM at Plot No. 86, TPS-2, Hadpsar Industrial Estate, Pune to ensure MSW disposal. The implemented technology were to have at all times electricity as a byproduct. M/s RSPM is also responsible for segregation, drying and any other treatment required on MSW as per the said Concession Agreement. (Please refer para 2.2 of this report)*

*However, since commencement of its operation in November 2011, electricity generation could not be carried out as by-product except trial electricity generation only for a short period during July 2011 till about March 2012 and such supported plant & machineries were dismantled. Thereafter, the plant is processing municipal solid waste being received at its site only for production of combustable fractions of waste being claimed as RDF and not electricity which is in violation of the said Concession Agreement.*

- (b) *M/s RSPM has never crossed per day processing of waste at its facility averagely beyond 250 MTD. Shredding and various segregation/separation are being imparted so as to obtain combustable fractions (claimed to be RDF) and other recyclables, (-)8 mm fractions claimed as compost and rejects. The plant is non-operational w.e.f. 16/6/2021 and supply of municipal solid waste to the facility is also stopped.*

- (c) *The facility for drying, dehydrating or compacting were not available at the facility of M/s RSPM and therefore, the processed combustible fractions by-product being claimed as RDF is not RDF as defined under Solid Waste Management Rules, 2016 and the prescribed facilities for RDF production are also not available at M/s RSPM. Response from MPCB is awaited about verification of such combustible by-product (claimed as RDF by M/s RSPM) usage in cement plant/boilers. It was observed that (-) 8 mm rejects as output from the fine screen and claimed as by product i.e. compost is collected and stored outside the premises of M/s RSPM in open. M/s RSPM has neither the prescribed facility for composting nor the end use of the compost not meeting the prescribed limits for usage in food crops (for which standards have been prescribed under the Solid Waste Management Rules 2016) is being monitored either by M/s RSPM. Records in this regard are not being maintained about quantity being supplied to farmers and their end use i.e. either in the food crops or other purposes by the farmers.*

*Most of ferrous and non-ferrous materials separated/segregated as by-product may fall under the category of hazardous or other waste as per the Hazardous Waste Management Rules, 2016 notified under the Environment (Protection) Act, 1986 and such wastes require to be stored, packaged, transported, offered for sale, recycled or utilized or disposed to authorized occupier in accordance with the said rules. However, transportation in authorized vehicles, being selling/ handling over to authorized occupier, manifest documents there to, submitting annual returns to MPCB for such hazardous or other waste are not being followed as required under the said rules.*

- (d) *M/s RSPM has obtained authorization under Municipal Solid waste (Management and Handling) Rules, 2000/ Solid Waste Management Rules 2016 notified under the Environment (Protection) Act, 1986, for pyrolysis/gasification of municipal waste of 700 MT per day. However, the plant has been operating with other processes/activities instead of such authorized pyrolysis/gasification and thus, in violation of the said authorization.*

*M/s RSPM has commissioned & operated plant without Consent to establish and Consent to operate required under section 25 of the Water (Prevention and Control of Pollution) Act, 1974 and under section 21 of the Air (Prevention and Control of Pollution) Act, 1981, though an application for Consent to Operate was made on 17/08/2017 for power generating plant- 11 MW per hour. MPCB has refused the said application for grant of consent on 05/10/2021. Therefore, the unit is also in violation the said Acts.*

- (e) *About 1000-1200 MT of unprocessed municipal solid waste was found stored in the premises of M/s RSPM on the day of visit on 17/9/2021. Leachate from the stored unprocessed municipal solid waste was observed near its storage area and primary shredding facility. There is no facility for collection and management of leachate generated during storage of municipal solid waste being collected at the facility.*
- (f) *The other required facilities such as composting, compost storage area, covered storage area for segregated combustable fractions as its by-product, etc. are not available at the site.*
- (g) *Fire clearance certificate/NOC has not been obtained from the concerned authority. Further, firefighting equipment were not found to be installed at facility of M/s RSPM during visit of the committee on 17/09/2021.*
- (h) *Mist spraying system was found to be installed however, the same was not operational. The committee members felt odour during the visit.*
- (i) *No Website has been made available to provide relevant details of the plant and the process for public, as required under the clause 2.3.25 of the Concession Agreement.*
- (j) *About 25 trucks loads of compost lying with M/s RSPM, as referred in the Hon'ble NGT order dated 05/12/2017, have been lifted during lifting of about 6726 MT of compost from the site in 853 vehicles from 01/03/2018 to 31/12/2018; this includes the 25 truck load of compost. This compost was given free of cost to the farmers.*

**(ii) Waste generation in PMC areas, existing processing facilities, gaps in processing, quantity of waste being landfilled**

- (a) *About 2100-2200 MT quantity of municipal solid waste is generated per day under PMC area as informed by PMC and given at Annexure-II. Mechanical Composting, Bio CNG, Bio Gas and Mechanical Shredding (for coconut waste) facilities are installed for processing of wet waste whereas the facilities for processing of dry waste are - Waste to Energy Plants, RDF/Compost Facilities and Material Recovery Facilities.*
- (b) *The cumulative processing of wet waste per day at 19 wet waste processing facilities (Mechanical composting/Bio CNG/Biogas) besides bulk waste generators, independent house owners and farmers is about 896 MTD against generation of 900 MTD of wet waste in Pune as per information provided by PMC and given at Annexure-II.*

For dry waste, there are 13 processing facilities of which 03 are currently nonoperational besides processing by rack pickers affiliated with PMC under "Swachh". The cumulative processing of dry waste per day is about 1200 MTD. The cumulative dry waste processing capacity of 10 operational processing facilities (where M/s RSPM facility has also not been included being non-operational) is 1475 MTD against generation of 1200 MTD of dry waste in Pune.

The inert from the dry waste facilities are disposed into sanitary landfills located in 08 acres land at Survey Number 191 to 195, Uruli/ Fursungi, Pune, and commissioned w.e.f. 23/11/2020 having capacity of 3,65,000 MT. Cumulative quantity of rejects disposed into the sanitary landfill from November 2020 to September 2021 is about 105000MT.

- (c) MPCB has granted authorisation for various processing facilities and the same may be examined by MPCB in terms of quantity & processes.
- (d) **The current practice of managing 300 MTD of wet waste by handing over to individual farmers may not be appropriate due to its unregulated use especially w.r.t. their application in food crops and that Rule 15(v) stipulates PMC to facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation of various components of solid waste adopting suitable technology.**
- (e) Waste deposition centres for domestic hazardous waste have not been established as stipulated under Rule 15(i) of Solid Waste Management Rules, 2016.

**(iii) Steps taken for Bio-Mining of legacy waste**

- (a) It has been informed that PMC has stopped open dumping since 02/1/2020. [please refer para 9 and Annexure-II]
- (a) PMC has informed about identification of legacy waste dumpsites since 1985. The dumpsite used during 1985-1997 at Paud Road (Kothrud) Depot has been handed over to Pune Metro for construction of shed and remediation process was carried out on the municipal solid waste at the said location by Pune Metro and a car shed is constructed on this land. [please refer para 9 and Annexure-II]
- (b) About 25 Lakh MT dumped during 1997-2008 have been claimed to be scientifically capped in 45 acres sites at Survey No. 191 to 195, Uruli/Fursungi, Pune.

- (c) During 2009 till 2013, wastes were processed in processing plants and about 1.25-1.5 lakhs MT of rejects were dumped into sanitary landfill operated by M/s Hanjer Bio Tech Company in 06 acres within the said Survey No. 191 to 195, Uruli/Fursungi, Pune. The sanitary landfill is not operational due to contract agreement termination and ongoing arbitration process. It has been covered with only soil cover which needs to be properly managed. [please refer para 9 and Annexure-II]
- (d) Of about 17 lakh MT wastes dumped in 20+15 acres land during 2014-Dec 2019 at the same Survey No. 191 to 195, Uruli/Fursungi, Pune:
- Out of 09 lakh metric tons (MT) lying on the aforesaid 20 acres land, 7.5 MT of legacy wastes have been bio remediated/bio-mined processed and the remaining 1.5 lakh MT will be processed in next 06 months under Phase-I.
  - For the other estimated 08 lakh MT lying in the aforesaid 15 acres, bio-mining is proposed as Phase-II. PMC is carrying out contour survey of area to ascertain exact quantity of legacy waste remaining on this area, once the quantum is finalized, processing of remaining quantity of legacy waste will be started to free this land for which tender is also prosed in upcoming months.
- [please refer para 9 and Annexure-III]

## 11.0 RECOMMENDATIONS

### **(i) Waste processing plant operated by M/s RSPM**

- (a) In view of the various violations of provisions under the Solid Waste Management Rules, 2016 and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 - notified under the Environment (Protection) Act, 1986, Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981; Concessions Agreement dated 18/11/2010 and that the required facilities are not available for the current adopted municipal solid waste processing activities, the plant may not be allowed to operate.
- (b) **Estimation of environmental damage and damage cost thereto is difficult to assess due to lack of data/information availability.** However, an attempt has been made by this committee to assess the environmental compensation using the formula prescribed in the "Report of the CPCB In-house Committee on Methodology for Assessing Environmental Compensation and Action Plan to Utilize the Fund" which has also been referred by the Hon'ble NGT in its order (para 14 to 16) dated 28/8/2019 in the matter of Original Application No. 593/2017 titled Paryavaran

*Suraksha Samiti & Anr. Versus Union of India & Ors.* The formula takes into account of number of days violation took place, pollution index of unit, scale of operation, location factor based on population and an amount factor in Rupees. Using the said formula, as given at Annexure-III of this report, the environmental compensation comes out to be Rs. 12,49,87,500/- (Rupees Twelve Crores Forty-nine Lakhs Eighty-seven Thousands and Five Hundred Only). In case the Hon'ble NGT finds appropriate, **it may consider imposing the aforesaid amount of Rs. 12,49,87,500/- (Rupees Twelve Crores Forty-nine Lakhs Eighty-seven Thousands and Five Hundred Only) or other amount, as deemed fit by the Hon'ble NGT, on M/s RSPM as environmental compensation OR as damages for contravening provisions under the Solid Waste Management Rules, 2016 and Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 - notified under the Environment (Protection) Act, 1986, Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 OR both.**

**(ii) Waste generation in PMC areas, existing processing facilities, gaps in processing, quantity of waste being landfilled**

- (a) **The current gap of processing 300 MTD of wet waste being sent to individual farmers be discouraged. PMC to explore on-site/decentralised processing of wet waste at community level subject to control of odour and maintenance of hygienic conditions or enhance capacity or existing wet processing facilities or install additional facilities in accordance with Solid Waste Management Rules 2016 also taking into account of future generation of wet waste.**
- (b) *MPCB shall monitor environmental standards and adherence to conditions as specified under the Schedule I and Schedule II for all waste processing and disposal sites, in compliance with provisions as stipulated under Rule 16 [B] of the said Solid Waste Management Rules 2016. MPCB may also examine compliance of authorisation to various facilities ensuring compliance of the Solid Waste Management Rules 2016.*
- (c) **PMC shall establish waste deposition centres for domestic hazardous waste within a time bound manner (preferably within 03 months) and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a manner that one centre is set up for the area of twenty square kilometers or part thereof and notify the timings of receiving domestic hazardous waste at such centres, as stipulated under Rule 15(i) of**

**Solid Waste Management Rules, 2016. Necessary awareness programme may also be carried out upon setting up the same by PMC.**

**(iii) Bio-Mining of legacy waste**

**(a) PMC to expedite bio-mining/bio-remediation of 08 lakh MT lying in the 15 acres at Survey Number 191 to 195, Uruli/ Fursungi, Pune.**

**(b) With regard to the sanitary landfill in 06 acres operated during 2009 till 2013 where 1.25-1.5 Lakhs MT of rejects have been disposed and not operational due to contract agreement termination and on-going arbitration process, cover with only soil cover attracts various environmental concerns. There is, therefore, need of immediate intervention to expedite arbitration process so that work of bio-remediation/ bio-mining or closure of landfill, as appropriate, meeting the prescribed norms may be initiated at the earliest to address various environmental concerns due to improper closure of the same.**

**(c) The ground water quality in and around within 50 meter of the periphery of the capped old legacy sites in 45 acres including the newly commissioned sanitary landfill in 08 acres and non-operational sanitary landfill in 06 acres land, be periodically monitored by PMC covering different seasons in a year that is, summer, monsoon and post-monsoon period to ensure that the ground water is not contaminated, as stipulated under clause (E) read with clause (H) of Schedule I of Solid Waste Management Rules, 2016. Usage of groundwater in and around landfill sites for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. Further, monitoring of leachate collection system be also regularly conducted by PMC.**

**The concentration of methane gas generated at the said 03 landfill sites shall also be regularly monitored ensuring that the same do not exceed 25 per cent of the lower explosive limit (LEL). Further, ambient air quality at the landfill site and at the vicinity shall also be regularly monitored ensuring that ambient air quality do not exceed the standards prescribed for industrial area, as stipulated under clause (F) read with clause (H) of Schedule I of Solid Waste Management Rules, 2016.”**

10. The PMC has filed its written submissions on 22.02.2022 in response to the observations of the joint Committee as follows:-

- “2. *Joint committee has confirmed the fact that PMC is processing almost 100% waste generated within the municipal limits. The cumulative processing of wet waste per day at 19 wet waste processing facilities (Mechanical composting/Bio CNG/Biogas) besides bulk waste generators, independent house owners and farmers is about 896 MTD against a generation of 900 MTD wet waste. For dry waste, there are 13 processing facilities of which 3 are currently non-operational. The cumulative production of dry waste is about 1200 MTD. The cumulative dry waste processing capacity of 10 operational processing facilities (Excluding Rochem plant) is 1475 MTD against a waste generation of 1200 MTD.*
3. *It is pertinent to note that recently the limits of Pune Municipal Corporation have been expanded to include 23 new villages vide Government of Maharashtra GR dated 30 June 2021 which has added around 150 MT of MSW per day. Presently the total generation of MSW in Pune city with newly added 23 villages is around 2100-2200 MT per day which is processed in the existing MSW processing plants/Home Composting/Bulk Waste generators.*
4. *The Joint Committee in its report dated 29/11/2021 has made the following recommendations –*
- a. *The practice of bridging the current processing gap of Rs. 300 MT by sending the wet waste to farmers is must be stopped.*
  - b. *PMC shall establish waste deposition centers for processing domestic hazardous waste within a time bound manner. PMC shall expedite the process of bio-mining/bioremediation.*
5. *With regard to the first recommendation, four plants with High Density Stalk (HDS) technology having a capacity of 50 MT per day each shall be set up at the following locations*
- a. *Peshwe Park*
  - b. *Katraj Transfer station*
  - c. *Ghole Road Transfer station*
  - d. *Kothrud Transfer station*

*All of these plants shall be operational within the next four months, i.e., by July 2022. Thereafter, no wet waste shall be distributed to the farmers and all the wet waste shall be processed in the processing plants.*

6. *The capacity of the existing processing plant shall be increased by 100 MT. All the administrative approvals have been obtained and the plants with increased capacity shall be operational within the next 3 months, i.e., by May 2022.*
7. *With regard to bio-remediation/bio-mining, EA. No 2 of 2021 in OA 52 of 2015 Bhagwan Bhadale Vs The Commissioner, PMC is pending before this Hon'ble Tribunal. A Joint Committee was constituted in above matter and The Pune Municipal Corporation is abiding by all the orders passed by the Hon'ble Tribunal.*
8. *Pune Municipal Corporation is also setting up a 2500 MT per year (6-7 MT per day) sanitary waste processing plant at Ramtekdi in co-ordination with IWS Proctor & Gamble. Approval of the General Body has been obtained and the plant shall be operational within the next four months, i.e., by July 2022.*
9. *The Swach Sevaks working for PMC also segregate E-waste from the door-to-door MSW that is collected daily. An e-waste collection drive is initiated twice a month by the PMC and the e-waste thus collected is sent to the authorized recyclers and dismantlers. 7-8 Tons of E-waste is collected per month.*
10. *From the above, it is clear that the Pune Municipal Corporation is alive to the problem of waste generation within Municipal limits especially since the addition of 23 new villages within the Municipal limits and the PMC is taking concrete and tangible steps to increase the waste processing capacity taking into the account the inevitable increase in waste generation in the future. It is also clear that PMC is proactively establishing new waste processing plants to cater to specific types of waste like e-waste and sanitary waste.”*

11. We have heard learned counsel for the parties. At the outset, we note the stand of the PMC that from June, 2021, agreement with the PP has been terminated and PP is no longer operational. Thus, the only issue which remains is the liability of the PP for past violations and

remedial action for future for scientific handling of the solid waste by the PMC. We also note that the issue of scientific handling of waste generated in the extended limits of PMC has been dealt with in another matter being *E.A No. 02/2021(WZ), Bhagwan Laxman Bhadale v. The Commissioner Pune Municipal Corporation & Ors.*, vide order dated 06.01.2022 in the light of status report filed by the PMC and report of joint Committee of CPCB and State PCB filed on 05.01.2022. Directions were issued for remedial measures to speedily and scientifically remediate the legacy waste and filing of a compliance report before the Tribunal. To the extent relevant, the said direction will cover this matter to that extent.

12. We now come to report. We do not find any reason not to accept the report of the independent Committee, headed by a former Judge of High Court, which has been furnished after undertaking visit to the site and interacting with the concerned stakeholders, including the PP. No objection has been filed against the report. Accordingly, the report is accepted except and to the extent of different observations in this order.

13. The report finds that contrary to the agreement terms on which the PP was appointed by the PMC, electricity generation did not take place. PP did not have facility for composting or end use thereof. The PP also did not have facilities for RDF. Establishing of facility was non-compliant with the norms, particularly, green belt across the periphery of the facility which was close to the habitation. The plant did not operate authorized pyrolysis/gasification. In fact, the said operation was never undertaken as mentioned by the State PCB in para 2 of its earlier report dated 18.03.2021. The State PCB issued show-cause notice proposing to refuse consent for power generation but the unit continued to operate

without consent in spite of warning. The Committee has found leachate from the unprocessed waste found stored with the PP, without facility for collection and management thereof. The area in the complex was not adequate for processing activities. There was unprocessed legacy waste, required to be handled by the PMC. Part of waste was capped without remediation, contrary to the Rules, as held in the earlier order of this Tribunal dated 06.01.2022 in *E.A No. 02/2021(WZ), Bhagwan Laxman (Supra)*. The Committee has concluded that the PP violated the concession agreement to scientifically remediate the waste. It did not have requisite facilities. The plant was commissioned and operated without requisite consents. There was unscientific handling of leachate generated from the waste. There was no fire clearance and other facilities. The management of wet waste by the PMC was also not scientific. The Committee has recommended that the plant should not be allowed to operate, compensation of Rs. 12,49,87,500/- should be required to be paid by the PP as per in-house methodology adopted by CPCB on the issue of compensation for water pollution, subject to this Tribunal finally taking a call in the matter. Further recommendation is for scientific handling of 300 MTD of wet waste by the PMC which was the gap in generation and disposal and which waste was being handed over to the farmers. The same needs to be overseen by the State PCB. PMC should establish waste deposition centres for safe disposal and bio-mining/bio-remediation of legacy waste which should be ensured by the State PCB. Sanitary landfill which is non-operational should be made operational by expediting arbitration process. Ground Water quality in the area where legacy waste has been kept should be monitored as per Rules, apart from monitoring of methane gas generated from landfill sites.

14. Para 2.6 and 7.0 of the report clearly indicate overall mismanagement of solid waste being generated. Inference drawn from the statistics presented in Table 1 and 2 are:-

- i. Compost produced 12676.55 MT with average monthly generation of 576.20 MT/d is not accounted for its end use leaving apart concern over its quality for safe utilization.
- ii. Rejects generated to the tune of 8229.20 MT (433.11 MT/M) are sent to the landfill rather than their conversion to useful products.
- iii. The segregated combustible fraction (50679.47 MT) remains questionable for its use as fuel.
- iv. There is no compliance of HoWM rules with regard to hazardous waste which is 2982.72 MT having no proper manifest system.
- v. Nineteen (19) facilities set up to process wet waste are designed to a capacity of 580 MT/d against which 896 MT is processed having no mention on their performance. Further, facility like Bio- CNG is underutilized (80 MT against 300 MT).
- vi. With regard to dry waste, against designed capacity of 1450 MT, only 300MT/d of waste is processed.

This clearly necessitates that proper waste auditing and utilizing is required. Facilities need authorization and need to comply with environmental norms.

15. Having considered the matter with the assistance of all appearing learned counsels, accepting the report of the Committee in substance, we issue directions in terms of the recommendations in the report. However, with regard to arbitration process, we are of the opinion that pendency of arbitration process should not be a ground not to remediate the waste, which remains the responsibility of the PMC, the contract with the PP having been terminated. Arbitration process will only be concerned with the financial claims. Waste management is not to be linked to the arbitration process. PMC may accordingly ensure further remedial action on the issue of management and disposal of legacy and current waste as

per statutory rules, to be overseen by the statutory regulators as well as higher administrative authorities, including the Chief Secretary, Maharashtra. The compensation assessed may-be deposited by the PP as interim compensation within 30 days. Compensation is not being accepted as final, as the Committee has made assessment merely on the basis of in-house mechanism which does not take into account the binding law laid down by the Hon'ble Supreme Court inter alia in MC Mehta (1987) 1 SCC 395, Sterlite (2013) 4 SCC 575 and Goel Ganga (2018) 18 SCC 257 requiring consideration of financial capacity of the PP, cost of remediation, repeated nature of violations and the deterrent element. Considering these factors, the State PCB may make final assessment of compensation following due process. If interim compensation is not deposited, the State PCB may take coercive measures, including prosecution and blacklisting. The amount of compensation deposited may be spent for restoration of environment as per action plan to be prepared by the joint Committee of CPCB, State PCB and the PMC in the light of District Environment Plan for the area in question for such assessment may be finalized within three months from today. Action plan may also be finalized within the said period. Steps taken by the PMC are taken on record subject to compliance of recommendation in the report of the Committee, including stopping of giving of the alleged compost to the farmers, in violations of the Rules.

16. Compliance status report as on June 30, 2022 be filed by the joint Committee of CPCB, State PCB and PMC by July 15, 2022 by email at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in) for being placed before the Registrar General of this Tribunal. In case any further direction becomes necessary, the RG may place the matter before the Bench.

Subject to above, the Application is disposed of.

A copy of this order be forwarded to the CPCB, State PCB and PMC  
by email for compliance.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

Dr. Vijay Kulkarni, EM

Dr. Afroz Ahmad, EM

March 03, 2022  
Original Application No. 270/2020  
(Earlier O. A. No. 50/2017 (WZ) and other connected matters  
AB