

# BRIHANMUMBAI MUNICIPAL CORPORATION

## Chief Engineer (Solid Waste Management) Project

No.Ch.Eng./ 3928 / SWM/Project dtd. 27/12/2023

Office of the  
Chief Engineer (SWM) Project  
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Bai Padmabai Thakkar Marg,  
Kotwadi, Mahim (Shivaji  
Park),  
Mumbai-400016.  
Tel. No.: 022-24320665

To,  
**Scientist & Incharge,**  
Central Pollution Control Board,  
Parivesh Bhavan,  
Opposite VMC ward office No.10,  
Shubanpura,  
**Vadodra- 390 023**

Sub: Submission of Environmental Statement Form V for the financial year ending with 31<sup>st</sup> March 2023 in respect of the stipulated prior Environment Clearance terms and conditions in the revised Environment Clearance (E.C) accorded for the modernization of MSW processing and disposal facility of capacity 4000 TPD- 7500 TPD at Kanjur, Mumbai.


Ref: Revised Environmental Clearance issued by State Level Environmental Impact Assessment Authority (SEIAA) vide no. SEAC-2014/CR-162/TC2dtd 05.12.2014.

This has reference to the conditions of revised environmental clearance issued for proposed modernization of MSW processing and disposal facility of capacity 4000 TPD - 7500 TPD at Kanjur, Mumbai.

In this context, the MCGM is hereby submitting the hard copy of Environmental Statement Form V for the financial year ending with 31<sup>st</sup> March 2023 in respect of the stipulated prior environment clearance terms and conditions in the revised environment clearance (E.C) accorded for the modernization of MSW and disposal facility of capacity 4000 TPD- 7500 TPD at Kanjur, Mumbai.

Submitted please.

Yours faithfully,

  
27-12-2023  
**Chief Engineer (SWM-Project) (416)**

## ANNEXURE

### ENVIRONMENTAL STATEMENT FORM-V (See rule 14)

Environmental Statement for the financial year ending with 31<sup>st</sup> March 2023

#### PART-A

- i. Name and address of the owner/  
occupier of the industry operation  
or process. **Municipal Corporation of Greater Mumbai**  
Integrated Solid Waste Management Site,  
Off Eastern Express Highway, Near  
Kannamwar Nagar,  
Kanjur (E), Mumbai - 400042.  
Operator- M/s. Antony Lara Enviro Solutions  
Pvt. Ltd.
- ii. Industry category: Primary- (STC Code) Secondary- (STC Code)  
- NA
- iii. Production Capacity- Municipal Solid Waste processing 7500 MTD  
Bio reactor Plant -6500 MTD  
Windrows Composting Plant-1000 MTD
- iv. Year of establishment - **2009**
- v. Date of the last environmental  
statement submitted. - **23-08-2022 for the year 2021-2022.**

#### PART -B

##### Water and River Material Consumption

##### I. Water consumption in M<sup>3</sup>/day

Process: 30.00 m<sup>3</sup>/Day

Cooling: NIL

Domestic: 70.00 m<sup>3</sup>/Day

i) Name of Products	Process Water Consumption Per Unit of Products	
	During the Financial Year April 2021- March 2022	During the Current Financial Year April 2022- March 2023
1. City Compost	0.86 m <sup>3</sup> /Ton	0.86 m <sup>3</sup> /Ton

1 Substituted by Rule 2 (b) of the Environment (Protection) Amendment Rules, 1993 notified vide G.S.R 3'6 (E) dated 22.04.1993.

## ii. Raw material consumption

Name of Raw materials*	Name of Products	Consumption of Raw material per unit of output	
		During the Financial Year April 2021 –March 2022	During the Current Financial Year April 2022-March 2023
Municipal Solid Waste (un-segregated) Fresh	City Compost	37.40 Ton/Ton of city	25.26 Ton/Ton of city compost
Municipal Solid Waste (un-segregated) from Biodegradably Stabilized BLF Cells	City Compost	10.00 Tons/Ton of City Compost	9.98 Tons/Ton of City Compost
Municipal Solid Waste (un-segregated) from active BLF Cells	Landfill gases	1.25 Ton /M <sup>3</sup> of gas generated.	1.00 Ton/M <sup>3</sup> of gas generated.
Municipal Solid Waste (un-segregated) from active BLF Cells	Electricity	5.30 Ton/unit of electricity	4.65 Ton /unit of electricity.

\*Industry may use codes if disclosing details of raw material would violate contractual Obligations otherwise all industries have to name the raw materials used.

## PART-C

**Pollutants Discharged to environment/unit of output (Parameter as specified in the consent issued)**

<b>Pollutants</b>	<b>Quantity of Pollutants Discharged (mass/day)</b>	<b>Concentration of Pollutants Discharged mass/volume</b>	<b>Percentage of Variation from Prescribed Standards with Reasons.</b>
(a) Water	Nil	Nil	Nil
(b) Air	Nil	Nil	Nil

As per MoEF & NABL accredited Laboratory reports, all the parameters analyzed are within prescribed limits.

## PART-D

### HAZARDOUS WASTES

(As specified under Hazardous Wastes (Management & Handling Rules, 1989).

<b>Hazardous Wastes</b>	<b>Total Quantity (Kg)</b>	
	<b>During the Previous Financial Year April 2021-March 2022</b>	<b>During the Current Financial Year April 2022-March 2023</b>
1. From Process	Not applicable	Not applicable
2. From Pollution Control Facilities	Not applicable	Not applicable

## PART – E

### Solid Waste

		Total Quantity (Kg/Ton)	
		During the previous financial year April 2021-March 2022	During the current financial year April 2022-March 2023
a. From process		NIL	NIL
b. From Pollution Control Facility (Sludge from LTP)		45.00 Ton	45.00 Ton
c.(1) Quantity recycled or re-utilized within the unit.		45.00 Ton	45.00 Ton
(2) Sold	Plastic Bags	934.60 Ton	830.610 Ton
	Pet-bottles	147.80 Ton	120.591 Ton
	Non-ferrous -Glass	153.18 Ton	75.170 Ton
	Metal	91.64 Ton	111.020 Ton
	Others	126.40 Ton	211.45 Ton
	RDF	8280.36 Ton	49714.00 Ton
(3) Disposed Land filled material at Sanitary Landfill (SLF)*		NIL	10069.82 Ton

\*ISWM Facility at Kanjur is processing MSW by way of bioreactor landfill and composting technologies received from Municipal Corporation of Greater Mumbai. Rejects from compost plant are being disposed at Sanitary landfill

## PART – F

Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste is not received at this Integrated Solid Waste Management Site at Kanjur, Mumbai.

Metal, Plastic, Glass, RDF, Coconut shell, Paper scrape, Chappal, Sponge, Thermocol, Tires, Wood Chips etc. are recycled through vendors.

Inerts generated after Bio-mining are used in BLF Cells as cover, Sludge generated is diverted to BLF cells for enrichment of Microbes.

## PART-G

### **Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.**

Conservation of natural resources-

Due to the scientific design of bioreactor landfill with the arrangement of impervious lining at the bottom along with leachate collection arrangement has protected the ground water from contamination.

Due to Scientific land filling, the emission of greenhouse gases admeasuring 3506.984 Ton/Year Methane i.e., 87674.6 equivalent CO<sub>2</sub>Ton/year is controlled. Also, part of landfill gas is converted into electricity which is used as captive power thus natural conventional fuels are saved.

The use of culture-based bio-enzyme for spraying during unloading and spreading MSW at landfill site before compacting and blanketing with soil cover, the generation of smell nuisance is controlled and enhances the Biodegradation.

The arrangement of Mist spraying, around MSW unloading area, leachate treatment plant by using diluted solution helps in minimizing odor nuisance from VOC/Mercaptans/H<sub>2</sub>S etc.

Spreading of soil cover blanket on inactive area of MSW helps in controlling odor and enhances biological activity due to the controlled temperature inside Bio-reactor Land Fill Cell.

The leachate is collected in 2 Nos. of impervious ponds. Leachate Treatment Plant installed on ISWM Project Site, Kanjur is fully working. This helps in conservation/ protection of surface water and ground water in surrounding areas. Also use of technology for avoiding denitrification process by using special bio-culture has reduced the chemical consumption like lime and alum.

The segregation into Recyclables, RDF and composting of Organic rich MSW at the compost plant helps improving economy of the project and the composted material obtained is used by vendors in soil improvement, thus natural resources are conserved.

During the year new 612 numbers of plants were planted and the regular maintenance of about 8863 numbers of peripheral plants along the boundary wall of the project in two rows has helped in arresting the smell spreading during the winter season.

Impact of abatement measures on cost is as shown below:

Sr. No.	Particular	Total Rs. in Lakh
1	Bio-enzyme	46.00
2	Misting of Jasmine fragrance	410.00
3	LTP	90.65
4	Captive Power generation	109.12
5	Expenditure on environmental monitoring & analysis for checking compliance	27.56
6	Dust suppression	12.00
7	Plantation	6.00
8	Website Maintenance for information to Public	1.50
9	Modification of treatment process	50.00
10	Additional Leachate collection pond	20.00
	Total (Rs.)	772.83

#### PART – H

**Additional measures/investment proposal for environmental protection including abatement of pollution.**


Sr. No.	Particular	Total Rs. in Lakh
1	Plantation	10.00
2	Installation of IMW electricity engine to generate electricity from Landfill gas	500.00
3	Canon Misting Units for spraying	14.00
	Total (Rs.)	524.00

#### PART-I

**Miscellaneous:**

**Any other particulars in respect of environmental protection and abatement of pollution.**

Recycle of carbon from stabilized composted solid waste into soil will help in improving quality of soil.

  
 27.12.2023  
**Ch. Eng.(SWM) Project (2/1)**