BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH,

NEW DELHI

O.A. NO. 1303 OF 2024

IN THE MATTER OF:-

News item titled "New waste mounds creep up on capital" appearing in the Hindustan Times dated 04.11.2024.

.....Applicant

INDEX

	Copy of latest test reports submitted to DPCC on 22.07.2025.	
6	**Annexure-E** Copy of DPCC directions issued on 09.12.2024.	107 - 109
7	**Annexure-F** Copy of the report submitted by the concessionaire, M/s DMSWSL, vide letter dated 08.10.2025.	110 - 132
6	**Annexure-G (Colly.)** Photographs showing the site after removal of the silt and its present condition	133 136

Through

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Standing Counsel for MCD

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Comprehensive Report on behalf of the Municipal Corporation of Delhi (MCD) in compliance of the order dated 14.07.2025 passed by this Hon'ble Tribunal.

Affidavit of Sunil Dawar S/o Sh. O. P. Dawar, Aged about 59 years, EMS Department, Municipal Corporation of Delhi, on behalf of the MCD.

I, the above named deponent, do hereby solemnly affirm and declare here as under:-

1. That I am presently working as Executive Engineer in EMS Department, MCD and fully conversant with the facts of the case on the basis of the record maintained and made available in this regard and as such am competent to depose and swear the present affidavit on behalf of the respondent/ MCD.
2. That the present application was registered as suo-motu exercise of power on the basis of the newspaper report dated 04.11.2024 published in 'Hindustan Times' is titled "New waste mounds creep up on capital".

NOTARY PUBLIC GOVT. OF INDIA

3. That the present comprehensive report is being filed in compliance of orders dated 14.07.2025 of this Hon'ble Tribunal.

4. **The report related to Bawana SLF is as follows:**

a. MCD had entered into a concession agreement with M/s DMSWSL on 17/07/2009 for a period of 20 years for the work of "Door to Door Collection, Transfer, Transportation, Developing an Integrated Municipal Solid Waste Processing Facility and Engineered Sanitary Landfill Facility as per MSW(M&H) Rules 2000, for select zones in Delhi on a long-term Build, Operate and Transfer (BOT) basis for Municipal Solid Waste."

b. For this project, a 100-acre plot of land was handed over to the concessionaire at Bawana. As per the agreement, the concessionaire is responsible not only for establishing the MSW processing facility but also for constructing and managing an engineered sanitary landfill (SLF) for the disposal of residual inert matter (MSW process rejects) in compliance with Solid Waste Management Rules.

c. Accordingly, an engineered sanitary landfill has been developed on 34.25 acres of land (out of 100 acres). The DPCC also issues its Consent to Operate (CTO) from time to time. A copy of the consent order issued by the DPCC on 12/03/2025 (valid upto 15/06/2029), and Authorisation issued by DPCC under SWM Rules, 2016 on 12/03/2025 are attached herewith as **Annexure-A (Colly.)**.

d. DPCC has authorized the concessionaire to operate waste processing/ recycling/ treatment/ disposal facility (including Composting, RDF & Material Recovery Facility and engineered SLF) for processing of 700 TPD of MSW for production of 80 TPD of compost and disposal of inerts/ rejects in the Engineered Sanitary Landfill (Capacity – 22.68 Lakh

NOTARY PUBLIC VINOD KR. TIWARI Delhi High Court Regn No. 214/2020 Expiry Date 15/03/2030 GOVT. OF INDIA

cum) at their Integrated MSW facility (of total capacity of 2000 TPD including 1300 TPD of WtE Plant).

5. It is respectfully submitted that the point wise submissions in respect of the observations of Hon'ble NGT vide orders dated 14/07/2025 are as under:

Nature of Intake

The concessionaire carries out door-to-door collection of Municipal Solid Waste (MSW) from five zones of MCD, namely Civil Lines Zone, Keshav Puram Zone, Rohini Zone, part of Narela Zone, and part of City SP Zone, and transports the same to the processing facility at Narela-Bawana.

At present, approximately 2400 metric tons of waste is generated daily from all these zones. Since the inception of this facility and up to 31.03.2025, a total of 99,76,489 metric tons of MSW has been received at the processing facility.

Treatment facilities including capacity of WtE plant and its capacity utilisation with details of electricity production

a. As per the Concession Agreement, the concessionaire was required to adopt two processing technologies - Composting and Refuse Derived Fuel (RDF). The biodegradable fraction of MSW (wet waste) was to be used for compost production, while the non-biodegradable fraction (dry waste) was to be processed into RDF through pelletisation. The Sanitary Landfill Facility (SLF) is intended solely for the disposal of residual inert matter, duly certified as "fit for landfilling" by the Independent Consultant.

NOTARY PUBLIC
VINOD KR. TIWARI
Delhi High Court
Regn No. 21[illegible]/2020
Expiry Date
15/03/2030
GOVT. OF INDIA

4

b. The Concessionaire set up the composting facility but did not establish the RDF plant to produce Refuse Derived Fuel (RDF) as per the specifications laid down in the Concession Agreement. Instead, DMSWSL commenced the construction of a Waste-to-Energy (WtE) plant in 2012 without obtaining approval from MCD and began accumulating the combustible fraction of MSW at the landfill site. The erstwhile North DMC raised objections in this regard.

c. Subsequently, the Hon'ble NGT, vide orders dated 02/12/2016 in O.A. No. 281 0f 2016, directed all authorities concerned to ensure that the waste to energy plant at Narela operate to their optimum capacity and made interim arrangement of 3% revenue sharing subject to settlement of claims in the arbitration proceedings. The relevant para of the Hon'ble NGT's order dated 02/12/2016 is reproduced as under:

> *"The plant at Narela is a kind of self-contained plant as it has its own landfill site adjacent to its premises to dump inert waste. It is the exclusive responsibility of the Project Proponent.* ***It has a capacity of 2000 MT/day processing of municipal solid waste and it is presently receiving 2000 MT of municipal solid waste. Out of this, as already noticed, the plant is getting about 20% of inert and C&D waste which leaves the plant with approximately 1600 MT of municipal solid waste. Thus, we direct the Corporation to permit the Project Proponent to collect waste to the extent of 2400 MT/day so that it can operate to its optimum capacity***

after segregating inert and C&D waste. *The Corporation and the Project Proponent is ad idem that the Delhi Electricity Regulatory Commission has fixed tariff of power charges @ 7.43% per unit. Furthermore, revenue sharing shall be effective between the parties @ 3% but from the date they commission generation of power. This, however, is an interim direction without prejudice to the rights and contention of the parties. Under the agreement between the parties dated 17th July, 2009, clause 12.2 is the arbitration clause for resolving dispute between the parties. The Project Proponent or the Corporation, as the case may be, are at liberty to invoke arbitration proceedings in accordance with the agreement and the rate and date both for revenue sharing would be fixed by the arbitrator and the parties would be entitled to proceed with reference to the interim directions issued by the Tribunal above."*

d. A copy said order dated 02.12.2016 is annexed herewith as **Annexure-B**. Since then, the Waste-to-Energy (WtE) plant with a capacity of 24 MW has been in operation at Narela-Bawana, and the matter relating to the arbitration award is still pending before the Hon'ble High Court. The consent order issued by DPCC on 06.10.2021, valid up to 04.05.2026, is attached herewith as **Annexure-C**.

NOTARY PUBLIC
VINOD KR. TIWARI
Delhi High Court
Regn. No. 21410/2020
Expiry Date
15/03/2030
GOVT. OF INDIA

A summary of electricity generation is provided herein for reference:-

Details of Electricity Production-WtE plant									
	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-Jun. 25
Gross Generation (Lakh Units)	1,071	1,359	1,456	1,596	1,633	1,636	1,718	1,531	422
Plant availability	91%	98%	92%	99%	99.8%	94%	99%	99%	99%
PLF (%)	51%	65%	69%	76%	78%	78%	82%	73%	81%

Compliance with emission norms and other supporting material

a) The concessionaire regularly conducts tests on stack emissions and ambient air. The reports of these tests are submitted to the DPCC on a quarterly basis. The latest test reports submitted to DPCC on 22.07.2025 is attached herewith as **Annexure-D**.

NOTARY PUBLIC
VINOD KR. TIWARI
Delhi High Court
Regn. No. 21416/2020
Expiry Date
15/03/2030
GOVT. OF INDIA

7

b) In addition, DPCC portal also captures real-time data from stack sensors for monitoring purposes. This portal primarily records data for SO_2, PM, NOx, and HCl. The remaining parameters are monitored monthly, and their test reports are submitted to DPCC.

c) The DPCC issues its Consent to Operate (CTO) from time to time.

Details of Composting Facility

Windrow Composting facility has been set up on an area measuring 8.12 acres. Compost production at this facility and sale data of last 15 years is as follows:

Sr. No.	Financial Year	Compost Production (MT)	Compost Sale (MT)
1	FY-2011-2012	2,501	0
2	FY- 2012-2013	23,338	8,107
3	FY- 2013-2014	22,597	7,484
4	FY- 2014-2015	27,748	7,837
5	FY- 2015-2016	28,996	9,427
6	FY- 2016-2017	18,380	6,381
7	FY- 2017-2018	24,665	16,198
8	FY- 2018-2019	21,798	16,800
9	FY- 2019-2020	19,486	15,574
10	FY- 2020-2021	19,708	26,184
11	FY- 2021-2022	25,511	22,134
12	FY- 2022-2023	24,195	21,288
13	FY- 2023-2024	21,611	20,861
14	FY- 2024-2025	20,446	14,443
15	FY- 2025-2026	5,959	3640
	Compost given to farmers till date		40,000

8

	Compost consumed in Green Belt		55,000
	Compost stored in plant		15,573
	Total	**3,06,939**	**3,06,939**

As per the concession agreement the concessionaire is free to sell the compost and keep the revenue generated.

Arrangement made to prevent contamination of ground water on account of leachate generation

A leachate collection system has been setup to collect the leachate from the tipping floor and sanitary landfill, which are the primary sources of leachate overflow. The Leachate collected is channelled to a leachate pond. A 200 KLD of Leachate treatment plant ("LTP") has been installed to purify the collected leachate, converting it into water, which is primarily utilized in waste-to-energy boilers (90%) and the remainder is used for irrigating the green belt.

Extent of dump which is lying at site

The current volume of the Sanitary Landfill Facility (SLF) is 26.80 lakh cubic metres, with the height varying between 22.3 metres and 35.0 metres. The permissible height of the landfill is not specified in the Concession Agreement; however, it stipulates that the maximum height of the landfill is achieved when the area at the top is 30% of the area at the base, while maintaining the required benching and a slope ratio of 1:3.

The concessionaire is obligated to maintain the height and slopes in accordance with the provisions of the Concession Agreement during the closure of the SLF and to cover it with a 600 mm layer of compacted soil, followed by a vegetative cover.

9

It is important to highlight that the existing volume of the SLF, i.e. 26.80 lakh cubic metres, exceeds the approved capacity mentioned in the DPCC consent order, which is 22.68 lakh cubic metres. The existing volume includes the combustible fraction of MSW that was stacked at the landfill site prior to the commissioning of the Waste-to-Energy (WtE) Plant. The intake of waste at the facility began in 2011, whereas the WtE plant became operational in January 2017, pursuant to the order of the Hon'ble NGT.

During the intervening period, only the biodegradable waste was processed through the composting facility, while the non-biodegradable fraction (dry waste), which was supposed to be processed into Refuse Derived Fuel (RDF) through pelletization, was instead stacked at the SLF. It is pertinent to note that the SLF is intended solely for the disposal of residual inert matter (MSW processing rejects) and not for dry waste.

MCD is diligently pursuing the matter with the concessionaire, seeking an action plan for the disposal of this waste dumped at the SLF and for reducing the height of the landfill, if found to exceed the permissible limits, in compliance with the prescribed provisions regarding slope, base area, and top area.

The concessionaire, vide its letter dated 08.10.2025, stated that the Plan of Action to undertake height correction and partial capping of the SLF, and the final capping, will be submitted to MCD along with timelines in due course.

Reasons for dumping of inert into SLF

As per the concession agreement (CA), the Sanitary Landfill Facility (SLF) is intended solely for the disposal of residual inert matter, duly certified as "fit for landfilling" by the Independent Consultant. CA also stipulates that the

10

Concessionaire shall ensure that the quantum of Landfill Waste does not exceed 25 % of the garbage entered at the gate of processing and land fill site.

Presently, intake of MSW at this facility is approx. 2400 TPD out of which only around 350-400 TPD is disposed of in the sanitary landfill as process rejects and WtE ash.

Utilisation of WtE Ash

The concessionaire has taken up the ash reprocessing and recycling activity to divert the ash away from the landfill. The concessionaire is mandated to do so as per the following conditions of the consent order issued by DPCC on 06/10/2021 for the WtE Plant:

21. The consentee shall properly operate and maintain the existing Bottom ash Processing facility and utilize the processed products

22. The consentee shall provide the facility for Fly ash utilization & the same shall be used in brick manufacturing etc.

As reported by DPCC vide its directions issued on 09.12.2024 (Copy attached as **Annexure-E**), the total ash generation at the Bawana Waste-to-Energy (WtE) Plant during the year 2023–24 was 305.5 TPD, out of which only 133.6 TPD was disposed of at the Engineered Sanitary Landfill Facility (ESLF) at Bawana, while the remaining quantity of ash was utilized.

Operational area of the MSW processing facility

Narela Bawana- 100 Acre -Details		
S. No.	Description	Area in Acres

11

1	Non usable area due to presence of High-tension line	6
2	Compost processing area	8.12
3	WtE and allied infra	8.03
4	Landfill Area	34.25
5	Other infra and future expansions	10.6
6	Green Belt area	33
		100

The report submitted by the concessionaire, M/s DMSWSL, vide letter dated 08.10.2025, containing the aforementioned details, is enclosed herewith as **Annexure-F.**

6. **The Status report of Singhola Site is as follows:**
   a. That after the slide / collapse of SLF Ghazipur in September 2017, a piece of land measuring approx., 7.2 acres was allotted on a temporary basis for two years in the year April -2018 at Village Singhola Khampur for diverting / disposing off the drain silt, by DDA to the erstwhile East Delhi Municipal corporation, vide letter dated 03.04.18.
   b. By July 2022, approximately 9.0 lakh MT of silt had accumulated at the site. The silt was deposited by the Shahdara North and Shahdara South zones of MCD. It is also pertinent to mention that the PWD and the Irrigation & Flood Control Department of GNCTD also deposited drain silt at this site. That further dumping would have caused the risk of sliding / slipping of silt towards adjoining area, therefore, dumping of silt was stopped at this site in July,2022.
   c. That MCD awarded the work for bio-mining and disposal of the stacked silt at this site on 01.11.2024.

NOTARY PUBLIC
VINOD KR. TIWARI
Delhi High Court
Regn. No. 21[illegible]/2020
Expiry Date
15/03/2030
GOVT. OF INDIA

12

d. The entire quantity of stacked silt at the site was removed in May 2025.

e. Subsequently, owing to the urgency of pre-monsoon de-silting operations, MCD had to temporarily resume deposition of silt at the site in July 2025.

f. To avoid the formation of fresh mounds, MCD is in the process of establishing a facility for daily processing and disposal of the incoming silt.

g. Photographs showing the site after removal of the silt and its present condition are enclosed herewith as **Annexure-G (Colly.).**

NOTARY PUBLIC VINOD KR. TIWARI Delhi Regn No 2...2020 Expiry Date 15/02/2026 GOVT. OF INDIA

Identify the Deponent who has signed/put thumb impression in my presence

DEPONENT

SUNIL DAWAR
Executive Engineer (WtE) DEMS
Municipal Corporation of Delhi

VERIFICATION:

Verified at New Delhi on this 13 OCT 2025 day of October, 2025, that the contents of the above affidavit are true and correct to the best of my knowledge and belief. No part of it is false and nothing material has been concealed therefrom.

DEPONENT

SUNIL DAWAR
Executive Engineer (WtE) DEMS
Municipal Corporation of Delhi

CERTIFIED THAT THE DEPONENT
Shri/Smt./Km. Sunil ... Dawar
S/o, W/o, D/o, Sh. O.P. Dawar S/o
Identified by Shri/Smt. ...
has solemnly Attested before me at Delhi
on ... Sl. No. 186
that the contents of the affidavit which have been read Over & explained to him/her are true & correct to his/her knowledge

NOTARY 13 OCT 2025

ANNEXURE A-Colly 13. 199

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI
B-Block, 3rd FLOOR, DELHI IT PARK, SHASTRI PARK, DELHI-110053
visit us at: https://dpcc.delhigovt.nic.in

F. No. DPCC / WMC-II / 418- 423 Dated: 12.03.2025

CONSENT ORDER

Name of the Unit : **Delhi Municipal Solid Waste Solutions Ltd.**

Address : Behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi-110039.

Consent Order No : DPCC / WMC-II / 2025/ 03

Date of Issue : **12.03.2025** **Date of Expiry: 15.06.2029**

Product/Activity : Composting, RDF & Material Recovery Facility and Engineered Sanitary Landfill in the Integrated MSW Facility at Bawana, Delhi
[Compost Production Capacity - 2400 Tons / Month (80 TPD) (From Processing of 700 TPD of MSW),
Engineered Sanitary Landfill Capacity – 22.68 Lakh m^3]

This **Consent to Operate (Renewal)** is hereby granted under section 21 of the Air (Prevention and Control of Pollution) Act, 1981 and under section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 under **RED** Category. This consent is subjected to terms and conditions including prescribed standards enclosed herewith for compliance .

Enclosure: Terms and Conditions of Consent to Operate (Renewal).

Senior Environmental Engineer
Verified by:

Addl. Director, WMC-II
Issuing Authority:

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

Terms and Conditions of Consent to Operate (Renewal) to M/s Delhi Municipal Solid Waste Solutions Ltd, Behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi -110039.

1. The Consent to Operate (Renewal) is granted for the activity of Composting, RDF production, Material Recovery Facility and Engineered Sanitary Landfill at Bawana, Delhi.
2. The Consentee shall comply with the conditions prescribed by the Ministry of Environment, Forest and Climate Change (MOEF&CC), Govt. of India in the Environmental Clearance issued vide letter F. No. 10 – 67 / 2009 – IA . III Dated 25.10.2010 for the establishment of Integrated Municipal Solid Waste Management Facility at Narela Bawana , Delhi.
3. The Consent is Activity specific and based on the information provided in the Consent application along with the documents submitted to DPCC on 01.07.2024 & subsequent documents / information submitted to Delhi Pollution Control Committee (DPCC) .The Consentee shall apply for fresh consent in case of any change in the activity / process.
4. The Consentee shall display the Name of the Facility along with its Address, Name of the Directors etc., Contact Phone No(s) and its Activities / Processes / Products etc., on a Display Board to be placed / fixed at the main gate of the unit.
5. The Consentee shall not extract Ground Water without permission from Delhi Jal Board / CGWA, as per the various orders / Notifications issued in this regard.
6. The Consentee shall operate the Facility & process the Municipal Solid Waste as per the provisions of Solid Waste Management Rules, 2016 and also comply with the Guidelines / Manual etc. prepared by Central Pollution Control Board in this regard from time to time.
7. The Consentee shall comply with the provisions of the Environment (Protection) Act, 1986, as amended to date and Rules made thereunder including following Rules:
   (i) Solid Waste Management Rules, 2016, as amended to date.
   (ii) Construction and Demolition Waste Management Rules, 2016, as amended to date.
   (iii) Plastic Waste Management Rules, 2016, as amended to date.
   (iv) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended to date.
   (v) E - Waste (Management) Rules, 2022, as amended to date.
   (vi) Battery Waste Management Rules, 2022, as amended to date,
   (vii)Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended to date.
   (viii) Noise Pollution (Regulations and Control) Rules, 2000, as amended to date.

   All such wastes generated from the facility will be managed and handled as per the provisions of the said Rules and will be disposed only through the Recycler / Reprocessor /Authorized Agencies for such wastes, authorized by MOEF&CC / Central Pollution Control Board / State Pollution Control Board/Committee/ DPCC.
8. The Consentee shall provide and properly maintain the following facilities:
   (i) Fencing / Hedging of the site.
   (ii) Proper gate to monitor incoming vehicles to prevent entry of unauthorised persons and stray animals.
   (iii)Concreted / Paved Approach & Internal Roads to avoid generation of dust particles due to vehicular movement and to ensure free movement of vehicles and other machinery.
   (iv) Waste inspection facility to monitor waste brought in for landfilling.

(v) Office facility for record keeping & shelter for keeping equipment and machinery including pollution monitoring equipment. Records / Log Books of Municipal Solid Waste Received, processed & disposed, Materials Recovered / Recycled and production of Compost & RDF etc. on daily basis.

(vi) Weigh Bridge to measure quantity of waste brought at the facility , Fire Protection Equipment and other facilities as may be required.

(vii) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill & other operations during night hours.

(viii) Safety provisions including health inspections of workers.

(ix) Parking, cleaning, washing of transport vehicles carrying solid waste. The wastewater so generated to be treated in the Leachate Treatment Plant (LTP) to meet the prescribed standards.

9. The Consentee shall maintain the Radioactive Sensors installed at facility before the entry points to detect any Radio Active material in the incoming Municipal Waste to the facility.

10. The Consentee shall manage the Odour from the facility as per the guidelines of CPCB issued from time to time.

11. The Consentee shall use the treated water from the nearby Pragati Power Station or Sewage Treatment Plant (STP) of Delhi Jal Board for operational process requirements / various activities in the facility except for drinking purpose.

12. The Consentee shall provide and maintain separate drainage system for collection of trade effluent (Leachate etc.) and sewage effluent. Terminal manholes shall be provided at the end of collection system.

13. The Consentee shall properly collect the leachate & other waste water generated from the facility from various sources , treat the same in installed Leachate Treatment Plant (LTP) (Mechanical Vapour Recompression) of 200 KLD Capacity and recycle back to enhance the process of composting / use within the premises of the facility e.g. in horticulture, Green Belt / Plantation etc.. Leachate Treatment Plant (LTP) shall be properly operated and maintained to meet the prescribed standards as given at **Annexure - I**.

14. The Consentee shall submit test reports for inlet & outlet of the Leachate Treatment Plant (LTP) in respect of the prescribed parameters on **Quarterly basis** to DPCC from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC.

Flow Meters shall be provided and maintained at the Inlet & Outlet of the Leachate Treatment Plant (LTP) to measure the quantity of Leachate generation and treatment. No bypass (Pipe / Drain) shall be provided. Records /Logbooks shall be maintained on daily basis for the operation & maintenance of the of the Leachate Treatment Plant (LTP) including Leachate received, treated & used/recycled, use of various chemicals, Quality of Waste Water at Inlet and outlet of LTP, functioning of various units of LTP including mechanical Equipment / Parts etc and shall be produced during the inspection of DPCC official(s).

In no case, leachate shall be released into open environment and arrangements shall be made to prevent leachate runoff from landfill area entering any drain, stream, river, lake or pond. In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concerned authority.

15. The Consentee shall treat the waste water generated from Toilets & Kitchen / Bathrooms through the installed Septic Tank and dispose the septic tank effluent / septage only through the Authorised Vendor by Delhi Jal Board for treatment of the same in the Sewage Treatment Plant of Delhi Jal Board.

16. The Consentee shall not discharge any Trade Effluent (including Leachate) or Sewage Effluent from the premises of the facility.

Quantum of Effluent Discharge from the facility (i) Trade Effluent – Nil
(ii) Sewage / Domestic Effluent – Nil.

17. The Consentee shall properly maintain the Rain Water Harvesting System (RWHS) provided in the premises of the facility.

18. The Consentee shall submit test reports for prescribed parameters in respect of treated leachate, Ambient Air Quality, Ambient Noise level on **Quarterly basis** to DPCC from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC.

19. The Consentee shall comply the other prescribed standards of Effluent / Emissions as prescribed and as applicable under the provisions of the Environment (Protection) Act, 1986, as amended to date and the various Rules made thereunder including the Noise Pollution(Regulation and Control) Rules, 2000,as amended to date.

20. The Consentee shall ensure proper channelization / control system for fugitive emissions generated from the various activities / processes including RDF making section and maintain good housekeeping practices so as to maintain clean and safe environment in and around the premises of the facility.

21. The Consentee shall operate & maintain the Waste Processing Facility in accordance with the quality, procedure and standards outlined in the Schedule I & II of Solid Waste Management Rules, 2016, as applicable and also as per the Guidelines / Manual of Central Pollution Control Board in this regard.

22. The Consentee shall take following measure to prevent pollution from Compost Plant in the facility :

(a) The incoming organic waste at the site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility

(b) Necessary precaution shall be taken to minimise nuisance of Odour, Flies, Rodents, Bird menace and Fire hazard

(c) In case of breakdown or maintenance of the Compost Plant, arrangements shall be made for its proper storage within the facility and will be again reprocessed when Compost Plant is in order.

(d) Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions (RDF) shall be segregated and sent to Waste to Energy Plant existing within the premises of the Facility. Only rejects from all processes shall be sent to Sanitary Landfill Site.

(e) Impermeable base of concrete having permeability coefficient less than 10–7 cm/sec with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off shall be provided and maintained for the Windrow Area.

(f) Odour nuisance at down-wind direction on the boundary of processing plant shall be checked regularly.

(g) Leachate shall be re-circulated in compost plant for moisture maintenance.

(h) Compost produced after segregation through Trommels shall be kept / stored in the enclosed covered area.

(i) The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.

23. The Consentee shall ensure that composting of the waste is as per the procedure specified by the Consentee while filing the application. In order to ensure safe application of compost the specifications for compost quality as given at **Annexure – II** shall be met.

24. The Consentee shall ensure proper lining at the walls and base of waste storage / handling area with impermeable material for leachate containment in order to avoid contamination of ground water through seepage and comply with the Guidelines of CPCB issued in this regard.

25. The Consentee shall maintain proper non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) shall have liner of composite barrier of 1.5 mm thick High Density Poly Ethylene (HDPE) geo-membrane or geo-synthetic liners, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer provided at the bottom of landfills.

26. The Consentee shall adopt and implement adequate safeguards to avoid any contamination of surface as well as ground water as specified in the standards specified in the Acts / Rules.

27. The Consentee shall maintain adequate measures to minimize the overland surface water flow (especially during monsoon season) in and around the plant site.

28. The Consentee shall maintain necessary precautions for prevention of bird menace in the said area.

29. The Consentee shall dispose the non-combustible waste / Inerts and rejects at the Engineered Sanitary Landfill within the premises of the Integrated Waste Management Facility in an environmentally acceptable manner.

30. The Consentee shall ensure that waste for landfilling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. The landfill cell shall be covered at the end of each working day with minimum 10 cm of soil, inert debris or construction material. Prior to the commencement of monsoon season, an intermediate cover of 40 - 65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon.

31. The Consentee shall ensure & maintain proper drainage to divert run-off away from the active cell of the landfill.

32. After completion of landfill, a final cover shall be provided to minimise infiltration & erosion and shall meet the following specifications :

(i)The Final Cover shall have a barrier soil layer comprising of 60 cm of clay or amended soil with permeability coefficient less than 1×10^{-7} cm/sec

(ii) On top of the barrier soil layer, there shall be a drainage layer of 15 cm

(iii) On top of the drainage layer, there shall be a vegetative layer of 45 cm to support natural plant growth and to minimize erosion.

33. The Consentee shall periodically monitor ground water quality within 50 meter of the periphery of landfill site covering different seasons in a year that is summer, monsoon and post monsoon period to ensure that the groundwater water is not contaminated. Usage of groundwater in and around landfill site for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. The specifications for drinking water quality shall be applicable for monitoring purpose and the same is annexed as **Annexure - III.**

34. The Consentee shall provide / maintain landfill gas control system including gas collection system at landfill site to minimize odour, prevent off-site migration of gases and to protect vegetation planted on the rehabilitated landfill surface. For enhancing landfill gas recovery, use of geomembranes in cover systems along with gas collection wells should be considered. The concentration of methane gas at the

landfill site shall not exceed 25% of the Lower Explosive Limit (LEL). The landfill gas collected from the facility shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to escape directly to the atmosphere or for illegal tapping. Passive venting shall be allowed in case if its utilisation or flaring is not possible.

35. The Consentee shall provide & maintain a vegetative cover over the completed site in accordance with the following specifications : (i) Locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be planted (ii) The selection of plants should be of such variety that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilized. (iii) Selected plants shall have ability to thrive on low nutrient soil with minimum nutrient addition (iv)Plantation to be made in sufficient density to minimize soil erosion (v) Green belts shall be developed all around the boundary of the landfill in consultation with Delhi Pollution Control Committee.

36. The Consentee shall follow the criteria for post -- care of landfill site as mentioned in Schedule I of the Solid Waste Management Rules, 2016 and given below :

(1) The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :-

(a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run- on and run-off from eroding or otherwise damaging the final cover;

(b) Monitoring leachate collection system in accordance with the requirement;

(c) Monitoring of ground water in and around landfill;

(d) Maintaining and operating the landfill gas collection system to meet the standards.

(2) Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous emission and leachate quality analysis complies with the specified standards and the soil stability is ensured.

37. The Consentee shall comply with the Noise standards laid down vide Gazette Notification of Ministry of Environment, Forest & Climate Change(MoEF&CC), Government of India Dated 17.05.2002 & 12.07.2004, as amended to date, for the Diesel Generator Set(s).

38. The Consentee shall comply with the Directions of Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) issued from time to time including directions in respect of Diesel Generator Sets for Retrofitting of DG Set with Emission Control Device / Equipment / conversion or installation of Gas based Generator with proper Acoustic Enclosure and adequate stack height to meet the prescribed norms / standards for DG Sets.

39. The Consentee shall take adequate measures for control of noise level, from its own sources within the premises in respect of noise, to less than 75 dB (A) Leq during day time and 70 dB (A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned between to 6 AM and 10 PM and night time reckoned between 10 PM to 6 AM.

40. The Consentee shall use only Approved Fuel as per the Notification of Delhi Pollution Control Committee Dated 29.06.2018.

41. The Consentee shall properly Operate & Maintain the installed Continuous Ambient Air Quality Monitoring Station (CAAQMS) for the prescribed parameters as mentioned in the Notification of MoEF& CC Dated 16.01.2009 within the premises. Calibration of CAAQMS shall be carried out as per the Guidelines/ Protocols of CPCB.

42. The Consentee shall regularly monitor the Ambient Air Quality at the landfill site and its vicinity and shall meet the standards prescribed by the Central Pollution Control Board for industrial area.

43. The Consentee shall give the priority for the health monitoring of the workers engaged in the facility since handling of waste affects their health. Therefore, they shall be given annual medical examination and monitoring, appropriate health education and free medical treatment if it is felt that the illness is occupation-related. This important aspects needs to be prominence apart from employing skilled experienced technicians / operators and providing safety appliances and utilizing certified handling equipment.

44. If, at any stage it is established that the information regarding the said facility as tendered by the Consentee / Applicant is actually different from the tendered & which could adversely affect Aircraft operations, then the structure or part(s) thereof in respect of which this Consent is being issued will have to be demolished by the Consentee at his own cost as may be directed by the Airport Authority of India.

45. The Consentee shall not install light or a combination of lights, which by reason of its intensity, configuration of colour may cause confusion with aeronautical ground lights of the Airport during or after the construction of the building.

46. The Consentee shall adhere to the utilisation program for waste processed (product utilization).

47. The Consentee shall adhere to the methodology mentioned in the application for disposal of waste processing rejects (quantity & quality) strictly.

48. The Consentee shall ensure the development & maintenance of adequate green belt all around the boundary of the Unit to comply with conditions stipulated in Environmental Clearance given by MOEF&CC.

49. The Consentee shall submit the Ground Water Monitoring Report from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC on Quarterly basis to DPCC and the State Unit Office of CGWA, New Delhi .

50. The Consentee shall have a separate Environment Management Cell under the supervision of a Senior Executive to look after all the activities related to Environmental Issues, Control of Pollution and proper operation and maintenance of the Facility to meet the prescribed standards and comply with the provisions of the various applicable Pollution Control Laws. Senior Responsible Officer shall be deputed (24 x 7) to redress the complaints, if any, against the Facility, from the public etc. and his name & mobile no. shall be displayed at the main gate in bold letters.

51. The Consentee shall inform Delhi Pollution Control Committee in advance for shutdown of the plant for maintenance or any other reasons thereof.

52. This Consent is valid subject to the fulfilment of all the other statutory requirements of other Laws/ Acts/Rules as applicable.

53. The Consentee shall apply afresh for grant of Consent in case of any change in the project profile/ process/ products/ implementing agency etc. or any deviation from the submitted information to DPCC.

54. The Consentee shall submit the **Annual report in Form III** as prescribed under the Solid Waste Management, Rules, 2016 to the concerned Local Body (Municipal Corporation of Delhi) on or before the 30th day of April every year.
55. The Consentee shall not carry out any activity falling under the Prohibited/ Negative list of Industries (as mentioned in MPD–2021) which are prohibited in National Capital Territory of Delhi, as per Master Plan of Delhi.
56. The Consentee shall submit Environment Statement for each Financial Year ending 31st March in Form-V to DPCC by 30th day of April every year.
57. The Consentee shall submit application for renewal of the Consent to Operate, two months in advance of the expiry date of this Consent Order.

In the event of any information furnished by the Consentee found to be false OR in case of failure to comply with any of the above mentioned Consent conditions, Consent granted through this Consent Order shall be deemed to be revoked without any notice and necessary action as per law shall be taken.

Notwithstanding anything contained in this Consent to Operate (Renewal) order, Delhi Pollution Control Committee hereby reserves to it the right & powers to review any / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of enforcement of the Air (Prevention and Control of Pollution)Act, 1981, as amended to date and the Water(Prevention and Control of Pollution)Act, 1974, as amended to date.

This issues in view of the Approval of the Competent Authority in DPCC.

(D.K.Singh)
Addl. Director (WMC–II)

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building, Shastri Park

To,

M/s Delhi Municipal Solid Waste Solutions Ltd.
Behind Pragati Power Plant, Sector 5, Bawana Industrial Area
Delhi-110039

Copy to:

1. The Commissioner, Municipal Corporation of Delhi, 9th Floor, Dr. S.P.M Civic Center, JLN Marg, New Delhi- 110002.
2. The Additional Chief Secretary, Urban Development Department, Govt of NCT of Delhi, 9th Level, Delhi Secretariat, I.P. Estate, Delhi -110002.
3. The Member Secretary, Central Pollution Control Board , Parivesh Bhawan, East Arjun Nagar, Delhi -32
4. The Chief Executive Officer, Delhi Jal Board,Varunalaya Ph-II, Jhandewalan, Karol Bagh, Delhi- 05
5. Member Secretary, DPCC.

(S.K. Goyal)
Senior Env. Engineer (WMC–II)

21

Annexure- I

Standards for Treated Leachates

S.No.	Parameter		Standards
1.	Suspended Solids, mg/l, max	Not to Exceed	100
2.	Oil and Grease, mg/l, max	Not to Exceed	10
3.	Dissolved Solids (inorganic) mg/l, max.	Not to Exceed	2100
4.	pH value		5.5 to 9.0
5.	Ammonical Nitrogen (as N), mg/l, max.	Not to Exceed	50
6.	Total Kjeldahl Nitrogen (as N), mg/l, max.	Not to Exceed	100
7.	Biochemical Oxygen Demand (3 days at 27 ^{O}C) max.(mg/l)	Not to Exceed	30
8.	Chemical Oxygen Demand, mg/l, max.	Not to Exceed	250
9.	Arsenic (as As), mg/l, max	Not to Exceed	0.2
10.	Mercury (as Hg), mg/l, max	Not to Exceed	0.01
11.	Lead (as Pb), mg/l, max	Not to Exceed	0.1
12.	Cadmium (as Cd), mg/l, max	Not to Exceed	2.0
13.	Total Chromium (as Cr), mg/l, max.	Not to Exceed	2.0
14.	Copper (as Cu), mg/l, max.	Not to Exceed	3.0
15.	Zinc (as Zn), mg/l, max.	Not to Exceed	5.0
16.	Nickel (as Ni), mg/l, max	Not to Exceed	3.0
17.	Cyanide (as CN), mg/l, max.	Not to Exceed	0.2
18.	Chloride (as Cl), mg/l, max.	Not to Exceed	1000
19.	Fluoride (as F), mg/l, max	Not to Exceed	2.0
20.	Phenolic compounds (as C6H5OH) mg/l, max.	Not to Exceed	1.0

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

22

Annexure- II

Specifications for Compost Quality

(To ensure safe application of Compost as mentioned in Schedule II of the Solid Waste Management Rules, 2016)

S. No.	Parameters	Organic Compost (FCO 2009)	Phosphate Rich Organic Manure (FCO 2013)
(1)	(2)	(3)	(4)
1	Arsenic (mg/Kg)	10.00	10.00
2	Cadmium (mg/Kg)	5.00	5.00
3	Chromium (mg/Kg)	50.00	50.00
4	Copper (mg/Kg)	300.00	300.00
5	Lead (mg/Kg)	100.00	100.00
6	Mercury (mg/Kg)	0.15	0.15
7	Nickel (mg/Kg)	50.00	50.00
8	Zinc (mg/Kg)	1000.00	1000.00
9	C/N ratio	< 20	Less than 20 : 1
10	pH	6.5 - 7.5	(1:5 solution) maximum 6.7
11	Moisture, percent by weight, maximum	15.0-25.0	25.0
12	Bulk density (g/cm3)	<1.0	Less than 1.6
13	Total Organic Carbon, per cent by weight, minimum	12.0	7.9
14	Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
15	Total Phosphate (as P205) percent by weight, minimum	0.4	10.4
16	Total Potassium (as K20), percent by weight, minimum	0.4	-
17	Colour	Dark brown to black	-
18	Odour	Absence of foul Odor	-
19	Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
20	Conductivity (as dsm-1), not more than	4.0	8.2

Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

Annexure- III

Specifications for Drinking Water Quality for Monitoring Purpose

S. No.	Parameters	Desirable Limit (mg/l except for pH) [IS 10500 : 2012, Edition 2.2 (2003- 09)]
1.	Arsenic	0.01
2.	Cadmium	0.01
3.	Chromium(as Cr6+)	0.05
4.	Copper	0.05
5.	Cyanide	0.05
6.	Lead	0.05
7.	Mercury	0.001
8.	Nickel	-
9.	Nitrate as NO_3	45.0
10.	pH	6.5-8.5
11.	Iron	0.3
12.	Total Hardness (as $CaCO_3$)	300.0
13.	Chlorides	250
14.	Dissolved Solids	500
15.	Phenolic Compounds (as C_6H_5OH)	0.001
16.	Zinc	5.0
17.	Sulphate (as SO_4)	200

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI
B-Block, 3rd FLOOR, DELHI IT PARK, SHASTRI PARK, DELHI-110053
visit us at: https://dpcc.delhigovt.nic.in

FORM-II

AUTHORISATION UNDER THE SOLID WASTE MANAGEMENT RULES, 2016

F. No. DPCC / WMC-II / 424-429 **Dated: 12.03.2025**

Authorization No: DPCC/SWM/Auth./ 03/2025

To,

M/s Delhi Municipal Solid Waste Solutions Ltd,
Behind Pragati Power Plant, Sector 5, Bawana Industrial Area,
Delhi-110039

Ref: Your Application dated 15.06.2024(Id.: 11252765).

Delhi Pollution Control Committee (DPCC) after examining the proposal hereby authorises **M/s Delhi Municipal Solid Waste Solutions Ltd** having administrative office in their Municipal Waste Processing & Disposal Facility, behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi -110039 to operate waste processing / recycling / treatment/ disposal facility (including Composting, RDF & Material Recovery Facility and Engineered Sanitary Landfill) for processing of **700 tons per day** of Municipal Solid Waste for production of **80 Tons per day** of compost and disposal of Inerts / Rejects in the Engineered Sanitary Landfill (**Capacity - 22.68 Lakh $m^{3)}$** at their Integrated Municipal Solid Waste Management Facility (of Total Capacity of 2000 TPD including 1300 TPD of Waste to Energy Plant) behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi-110039, on the basis of application for Authorisation and documents submitted.

The Authorisation is hereby granted under the Solid Waste Management Rules, 2016, to operate the facility for processing, recycling, treatment and disposal of solid waste with validity upto **15.06.2029**

The Authorisation is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and standards laid down in Schedules I & II under these rules.

The Delhi Pollution Control Committee (DPCC) may, at any time, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

Any violation of the provision of the Solid Waste Management Rules, 2016, will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

Enclosure: Terms and Conditions of Authorization under the Solid Waste Management Rules, 2016.

(S.K. Goyal)
Senior Env. Engineer (WMC-II)

(D.K.Singh)
Addl. Director (WMC-II)

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

Terms and Conditions of Authorisation under the Solid Waste Management Rules, 2016 to M/s Delhi Municipal Solid Waste Solutions Ltd, Behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi-110039.

The Authorisation under the Solid Waste Management Rules, 2016 is granted for processing / recycling / treatment / disposal facility (including Composting, RDF & Material Recovery Facility and Engineered Sanitary Landfill) for processing of **700 tons** per day of Municipal Solid Waste for production of 80 Tons per day of compost and disposal of Inerts / Rejects in the Engineered Sanitary Landfill (Capacity - 22.68 Lakh m^3) at their Integrated Municipal Solid Waste Management Facility (of Total Capacity of 2000 TPD including 1300 TPD of Waste to Energy Plant) behind Pragati Power Plant, Sector 5, Bawana Industrial Area, Delhi-110039, on the basis of application for Authorisation and documents submitted to DPCC.

1. The Operator of the Facility shall comply with the conditions prescribed by the Ministry of Environment, Forest and Climate Change (MOEF&CC), Govt. of India in the Environmental Clearance issued vide letter F.No. 10 – 67 / 2009 – IA . III Dated 25.10.2010 for the establishment of Integrated Municipal Solid Waste Management Facility at Narela Bawana , Delhi.

2. The Operator of the Facility shall operate the Facility & process the Municipal Solid Waste as per the provisions of Solid Waste Management Rules, 2016 and also comply with the Guidelines / Manual etc. prepared by Central Pollution Control Board in this regard from time to time.

3. The Operator of the Facility shall comply with the provisions of the Environment (Protection) Act, 1986, as amended to date and Rules made thereunder including following Rules :
   - (i) Solid Waste Management Rules, 2016, as amended to date.
   - (ii) Construction and Demolition Waste Management Rules, 2016, as amended to date.
   - (iii) Plastic Waste Management Rules, 2016, as amended to date.
   - (iv) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended to date.
   - (v) E - Waste (Management) Rules, 2022, as amended to date.
   - (vi) Battery Waste Management Rules, 2022, as amended to date,
   - (vii) Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended to date.
   - (viii) Noise Pollution (Regulations and Control) Rules, 2000, as amended to date.

   All such wastes generated from the facility will be managed and handled as per the provisions of the said Rules and will be disposed only through the Recycler / Reprocessor /Authorized Agencies for such wastes, authorized by MOEF&CC / Central Pollution Control Board / State Pollution Control Board/Committee/ DPCC.

4. The Operator of the Facility shall provide and properly maintain the following facilities :
   - (i) Fencing / Hedging of the site.
   - (ii) Proper gate to monitor incoming vehicles to prevent entry of unauthorised persons and stray animals.
   - (iii) Concreted / Paved Approach & Internal Roads to avoid generation of dust particles due to vehicular movement and to ensure free movement of vehicles and other machinery.
   - (iv) Waste inspection facility to monitor waste brought in for landfilling.
   - (v) Office facility for record keeping & shelter for keeping equipment and machinery including pollution monitoring equipment. Records / Log Books of Municipal Solid Waste Received.

processed & disposed, Materials Recovered / Recycled and production of Compost & RDF etc. on daily basis.

(vi) Weigh Bridge to measure quantity of waste brought at the facility , Fire Protection Equipment and other facilities as may be required.

(vii) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill & other operations during night hours.

(viii) Safety provisions including health inspections of workers. (vii) Parking, cleaning, washing of transport vehicles carrying solid waste . The wastewater so generated to be treated in the Leachate Treatment Plant (LTP) to meet the prescribed standards.

5. The Operator of the Facility shall maintain the Radioactive Sensors installed at facility before the entry points to detect any Radio Active material in the incoming Municipal Waste to the facility.

6. The Operator of the Facility shall manage the Odour from the facility as per the guidelines of CPCB issued from time to time.

7. The Operator of the Facility shall use the treated water from the nearby Pragati Power Station or Sewage Treatment Plant (STP) of Delhi Jal Board for operational process requirements / various activities in the facility except for drinking purpose.

8. The Operator of the Facility shall provide and maintain separate drainage system for collection of trade effluent (Leachate etc.) and sewage effluent. Terminal manholes shall be provided at the end of collection system.

9. The Operator of the Facility shall properly collect the leachate & other waste water generated from the facility from various sources , treat the same in installed Leachate Treatment Plant (LTP) (Mechanical Vapour Recompression) of 200 KLD Capacity and recycle back to enhance the process of composting / use within the premises of the facility e.g. in horticulture, Green Belt / Plantation etc.. Leachate Treatment Plant (LTP) shall be properly operated and maintained to meet the prescribed standards as given at Annexure - I.

10. The Operator of the Facility shall submit test reports for inlet & outlet of the Leachate Treatment Plant (LTP) in respect of the prescribed parameters on Quarterly basis to DPCC from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC.

Flow Meters shall be provided and maintained at the Inlet & Outlet of the Leachate Treatment Plant (LTP) to measure the quantity of Leachate generation and treatment. No bypass (Pipe / Drain) shall be provided. Records /Logbooks shall be maintained on daily basis for the operation & maintenance of the of the Leachate Treatment Plant (LTP) including Leachate received, treated & used/recycled, use of various chemicals, Quality of Waste Water at Inlet and outlet of LTP, functioning of various units of LTP including mechanical Equipment / Parts etc and shall be produced during the inspection of DPCC official(s).

In no case, leachate shall be released into open environment and arrangements shall be made to prevent leachate runoff from landfill area entering any drain, stream, river, lake or pond. In case of mixing of runoff water with leachate or solid waste, the entire mixed water shall be treated by the concerned authority.

11. The Operator of the Facility shall treat the waste water generated from Toilets & Kitchen / Bathrooms through the installed Septic Tank and dispose the septic tank effluent / septage only through the Authorised Vendor by Delhi Jal Board for treatment of the same in the Sewage Treatment Plant of Delhi Jal Board.

12. The Operator of the Facility shall not discharge any Trade Effluent (including Leachate) or Sewage Effluent from the premises of the facility.

Quantum of Effluent Discharge from the facility (i) Trade Effluent – Nil
(ii) Sewage / Domestic Effluent – Nil.

13. The Operator of the Facility shall properly maintain the Rain Water Harvesting System (RWHS) provided in the premises of the facility.

14. The Consentee shall submit test reports for prescribed parameters in respect of treated leachate , Ambient Air Quality, Ambient Noise level on **Quarterly basis** to DPCC from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC.

15. The Operator of the Facility shall comply the other prescribed standards of Effluent / Emissions as prescribed and as applicable under the provisions of the Environment (Protection) Act, 1986, as amended to date and the various Rules made thereunder including the Noise Pollution(Regulation and Control) Rules, 2000,as amended to date.

16. The Operator of the Facility shall ensure proper channelization / control system for fugitive emissions generated from the various activities / processes including RDF making section and maintain good housekeeping practices so as to maintain clean and safe environment in and around the premises of the facility.

17. The Operator of the Facility shall operate & maintain the Waste Processing Facility in accordance with the quality, procedure and standards outlined in the Schedule I & II of Solid Waste Management Rules, 2016, as applicable and also as per the Guidelines / Manual of Central Pollution Control Board in this regard.

18. The Operator of the Facility shall take following measure to prevent pollution from Compost Plant in the facility :

(a) The incoming organic waste at the site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility

(b) Necessary precaution shall be taken to minimise nuisance of Odour, Flies, Rodents, Bird menace and Fire hazard

(c) In case of breakdown or maintenance of the Compost Plant, arrangements shall be made for its proper storage within the facility and will be again reprocessed when Compost Plant is in order.

(d) Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions (RDF) shall be segregated and sent to Waste to Energy Plant existing within the premises of the Facility. Only rejects from all processes shall be sent to Sanitary Landfill Site.

(e) Impermeable base of concrete having permeability coefficient less than 10−7 cm/sec with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off shall be provided and maintained for the Windrow Area.

(f) Odour nuisance at down-wind direction on the boundary of processing plant shall be checked regularly.

(g) Leachate shall be re-circulated in compost plant for moisture maintenance.

(h) Compost produced after segregation through Trommels shall be kept / stored in the enclosed covered area.

214

(i) The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.

19. The Operator of the Facility shall ensure that composting of the waste is as per the procedure specified by while filing the application. In order to ensure safe application of compost the specifications for compost quality as given at **Annexure – II** shall be met.

20. The Operator of the Facility shall ensure proper lining at the walls and base of waste storage/ handling area with impermeable material for leachate containment in order to avoid contamination of ground water through seepage and comply with the Guidelines of CPCB issued in this regard.

21. The Operator of the Facility shall maintain proper non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of waste processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, polishes, batteries, waste oils, paint products and pesticides) shall have liner of composite barrier of 1.5 mm thick High Density Poly Ethylene (HDPE) geo-membrane or geo-synthetic liners, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer provided at the bottom of landfills.

22. The Operator of the Facility shall adopt and implement adequate safeguards to avoid any contamination of surface as well as ground water as specified in the standards specified in the Acts / Rules.

23. The Operator of the Facility shall maintain adequate measures to minimize the overland surface water flow (especially during monsoon season) in and around the plant site.

24. The Operator of the Facility shall maintain necessary precautions for prevention of bird menace in the said area.

25. The Operator of the Facility shall dispose the non-combustible waste / Inerts and rejects at the Engineered Sanitary Landfill within the premises of the Integrated Waste Management Facility in an environmentally acceptable manner.

26. The Operator of the Facility shall ensure that waste for landfilling shall be compacted in thin layers using heavy compactors to achieve high density of the waste. The landfill cell shall be covered at the end of each working day with minimum 10 cm of soil, inert debris or construction material. Prior to the commencement of monsoon season, an intermediate cover of 40 - 65 cm thickness of soil shall be placed on the landfill with proper compaction and grading to prevent infiltration during monsoon.

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(iii) On top of the drainage layer, there shall be a vegetative layer of 45 cm to support natural plant growth and to minimize erosion.

29. The Operator of the Facility shall periodically monitor ground water quality within 50 meter of the periphery of landfill site covering different seasons in a year that is summer, monsoon and post monsoon period to ensure that the groundwater water is not contaminated. Usage of groundwater in and around landfill site for any purpose (including drinking and irrigation) shall be considered only after ensuring its quality. The specifications for drinking water quality shall be applicable for monitoring purpose and the same is annexed as **Annexure - III.**

30. The Operator of the Facility shall provide/maintain landfill gas control system including gas collection system at landfill site to minimize odour, prevent off-site migration of gases and to protect vegetation planted on the rehabilitated landfill surface. For enhancing landfill gas recovery, use of geomembranes in cover systems along with gas collection wells should be considered. The concentration of methane gas at the landfill site shall not exceed 25% of the Lower Explosive Limit (LEL). The landfill gas collected from the facility shall be utilized for either direct thermal applications or power generation, as per viability. Otherwise, landfill gas shall be burnt (flared) and shall not be allowed to escape directly to the atmosphere or for illegal tapping. Passive venting shall be allowed in case if its utilisation or flaring is not possible.

31. The Operator of the Facility shall provide & maintain a vegetative cover over the completed site in accordance with the following specifications : (i) Locally adopted non-edible perennial plants that are resistant to drought and extreme temperatures shall be planted (ii) The selection of plants should be of such variety that their roots do not penetrate more than 30 cms. This condition shall apply till the landfill is stabilized. (iii) Selected plants shall have ability to thrive on low nutrient soil with minimum nutrient addition (iv)Plantation to be made in sufficient density to minimize soil erosion (v) Green belts shall be developed all around the boundary of the landfill in consultation with Delhi Pollution Control Committee.

32. The Operator of the Facility shall follow the criteria for post – care of landfill site as mentioned in Schedule I of the Solid Waste Management Rules, 2016 and given below :

(1) The post-closure care of landfill site shall be conducted for at least fifteen years and long term monitoring or care plan shall consist of the following, namely :-

(a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover;

(b) Monitoring leachate collection system in accordance with the requirement;

(c) Monitoring of ground water in and around landfill;

(d) Maintaining and operating the landfill gas collection system to meet the standards.

(2) Use of closed landfill sites after fifteen years of post-closure monitoring can be considered for human settlement or otherwise only after ensuring that gaseous emission and leachate quality analysis complies with the specified standards and the soil stability is ensured.

33. The Operator of the Facility shall comply with the Noise standards laid down vide Gazette Notification of Ministry of Environment, Forest & Climate Change(MoEF&CC), Government of India Dated 17.05.2002 & 12.07.2004, as amended to date, for the Diesel Generator Set(s).

34. The Operator of the Facility shall comply with the Directions of Commission for Air Quality Management in National Capital Region and Adjoining Areas (CAQM) issued from time to time including directions in respect of Diesel Generator Sets for Retrofitting of DG Set with Emission Control Device / Equipment / conversion or installation of Gas based Generator with proper Acoustic Enclosure and adequate stack height to meet the prescribed norms / standards for DG Sets.

35. The Operator of the Facility shall take adequate measures for control of noise level, from its own sources within the premises in respect of noise, to less than 75 dB (A) Leq during day time and 70 dB (A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned between to 6 AM and 10 PM and night time reckoned between 10 PM to 6 AM.

36. The Operator of the Facility shall use only Approved Fuel as per the Notification of Delhi Pollution Control Committee Dated 29.06.2018.

216

37. The Operator of the Facility shall properly Operate & Maintain the installed Continuous Ambient Air Quality Monitoring Station (CAAQMS) for the prescribed parameters as mentioned in the Notification of MoEF&.CC Dated 16.01.2009 within the premises. Calibration of CAAQMS shall be carried out as per the Guidelines/ Protocols of CPCB.
38. The Operator of the Facility shall regularly monitor the Ambient Air Quality at the landfill site and its vicinity and shall meet the standards prescribed by the Central Pollution Control Board for industrial area.
39. The Operator of the Facility shall give the priority for the health monitoring of the workers engaged in the facility since handling of waste affects their health. Therefore, they shall be given annual medical examination and monitoring, appropriate health education and free medical treatment if it is felt that the illness is occupation-related. This important aspects needs to be prominence apart from employing skilled experienced technicians / operators and providing safety appliances and utilizing certified handling equipment.
40. If, at any stage it is established that the information regarding the said facility as tendered by the Applicant is actually different from the tendered & which could adversely affect Aircraft operations, then the structure or part(s) thereof in respect of which this Authorisation is being issued will have to be demolished by the Operator of the Facility at his own cost as may be directed by the Airport Authority of India.
41. The Operator of the Facility shall not install light or a combination of lights, which by reason of its intensity, configuration of colour may cause confusion with aeronautical ground lights of the Airport during or after the construction of the building.
42. The Operator of the Facility shall adhere to the utilisation program for waste processed (product utilizati on)
43. The Operator of the Facility shall adhere to the methodology mentioned in the application for disposal of waste processing rejects (quantity & quality) strictly.
44. The Operator of the Facility shall ensure the development & maintenance of adequate green belt all around the boundary of the Unit to comply with conditions stipulated in Environmental Clearance given by MOEF&CC.
45. The Consentee shall submit the Ground Water Monitoring Report from any of the EPA Recognised Laboratories / Approved Laboratory of DPCC on Quarterly basis to DPCC and the State Unit Office of CGWA, New Delhi.
46. The Operator of the Facility shall have a separate Environment Management Cell under the supervision of a Senior Executive to look after all the activities related to Environmental Issues, Control of Pollution and proper operation and maintenance of the Facility to meet the prescribed standards and comply with the provisions of the various applicable Pollution Control Laws. Senior Responsible Officer shall be deputed (24 x 7) to redress the complaints, if any, against the Facility, from the public etc. and his name & mobile no. shall be displayed at the main gate in bold letters.
47. The Operator of the Facility shall inform Delhi Pollution Control Committee in advance for shutdown of the plant for maintenance or any other reasons thereof.
48. This Authorisation is valid subject to the fulfilment of all the other statutory requirements of other Laws/ Acts/Rules as applicable.
49. The Operator of the Facility shall apply afresh for grant of Authorisation in case of any change in the project profile/ process/ products/ implementing agency etc. or any deviation from the submitted information to DPCC.
50. The Operator of the Facility shall submit the **Annual report in Form III** as prescribed under the Solid Waste Management, Rules, 2016 to the concerned Local Body (North Delhi Municipal Corporation) on or before the 30th day of April every year.

51. The Operator of the Facility shall not carry out any activity falling under the Prohibited/ Negative list of Industries (as mentioned in MPD–2021) which are prohibited in National Capital Territory of Delhi, as per Master Plan of Delhi.

52. The Consentee shall submit Environment Statement for each Financial Year ending 31st March in Form-V to DPCC by 30th day of April every year.

53. The Operator of the Facility shall submit application for renewal of the Authorisation, two months in advance of the expiry date of this Authorisation.

In the event of any information furnished by the Operator of the Facility / Applicant found to be false OR in case of failure to comply with any of the above mentioned conditions, Authorisation granted through this Authorisation letter shall be deemed to be revoked without any notice and necessary action as per law shall be taken.

Notwithstanding anything contained in this Authorisation letter . Delhi Pollution Control Committee , reserves its right to review any / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of enforcement of the Solid Waste Management Rules, 2016 and Environment (Protection) Act, 1986, as amended to date.

This issues in view of the Approval of the Competent Authority in DPCC.

(D.K.Singh)
Addl. Director (WMC–II)
D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

To,

M/s Delhi Municipal Solid Waste Solutions Ltd.
Behind Pragati Power Plant, Sector 5, Bawana Industrial Area
Delhi-110039

Copy to:

1. The Commissioner, Municipal Corporation of Delhi, 9th Floor, Dr. S.P.M Civic Center, JLN Marg, New Delhi- 110002.
2. The Additional Chief Secretary, Urban Development Department, Govt of NCT of Delhi, 9th Level, Delhi Secretariat, I.P. Estate, Delhi -110002.
3. The Member Secretary, Central Pollution Control Board , Parivesh Bhawan, East Arjun Nagar, Delhi -32
4. The Chief Executive Officer, Delhi Jal Board,Varunalaya Ph-II, Jhandewalan, Karol Bagh, Delhi-05
5. Member Secretary, DPCC.

(S.K. Goyal)
Senior Env. Engineer (WMC–II)

32

Annexure- I

Standards for Treated Leachates

S.No.	Parameter		Standards
1.	Suspended Solids, mg/l, max	Not to Exceed	100
2.	Oil and Grease, mg/l, max	Not to Exceed	10
3.	Dissolved Solids (inorganic) mg/l, max.	Not to Exceed	2100
4.	pH value		5.5 to 9.0
5.	Ammonical Nitrogen (as N), mg/l, max.	Not to Exceed	50
6.	Total Kjeldahl Nitrogen (as N), mg/l, max.	Not to Exceed	100
7.	Biochemical Oxygen Demand (3 days at 27 ^{o}C) max.(mg/l)	Not to Exceed	30
8.	Chemical Oxygen Demand, mg/l, max.	Not to Exceed	250
9.	Arsenic (as As), mg/l, max	Not to Exceed	0.2
10.	Mercury (as Hg), mg/l, max	Not to Exceed	0.01
11.	Lead (as Pb), mg/l, max	Not to Exceed	0.1
12.	Cadmium (as Cd), mg/l, max	Not to Exceed	2.0
13.	Total Chromium (as Cr), mg/l, max.	Not to Exceed	2.0
14.	Copper (as Cu), mg/l, max.	Not to Exceed	3.0
15.	Zinc (as Zn), mg/l, max.	Not to Exceed	5.0
16.	Nickel (as Ni), mg/l, max	Not to Exceed	3.0
17.	Cyanide (as CN), mg/l, max.	Not to Exceed	0.2
18.	Chloride (as Cl), mg/l, max.	Not to Exceed	1000
19.	Fluoride (as F), mg/l, max	Not to Exceed	2.0
20.	Phenolic compounds (as C6H5OH) mg/l, max.	Not to Exceed	1.0

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

Annexure- II

Specifications for Compost Quality

(To ensure safe application of Compost as mentioned in Schedule II of the Solid Waste Management Rules,2016)

S.No.	Parameters	Organic Compost (FCO 2009)	Phosphate Rich Organic Manure (FCO 2013)
(1)	(2)	(3)	(4)
1	Arsenic (mg/Kg)	10.00	10.00
2	Cadmium (mg/Kg)	5.00	5.00
3	Chromium (mg/Kg)	50.00	50.00
4	Copper (mg/Kg)	300.00	300.00
5	Lead (mg/Kg)	100.00	100.00
6	Mercury (mg/Kg)	0.15	0.15
7	Nickel (mg/Kg)	50.00	50.00
8	Zinc (mg/Kg)	1000.00	1000.00
9	C/N ratio	< 20	Less than 20 : 1
10	pH	6.5 - 7.5	(1:5 solution) maximum 6.7
11	Moisture, percent by weight, maximum	15.0-25.0	25.0
12	Bulk density (g/cm3)	<1.0	Less than 1.6
13	Total Organic Carbon, per cent by weight, minimum	12.0	7.9
14	Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
15	Total Phosphate (as P205) percent by weight, minimum	0.4	10.4
16	Total Potassium (as K20), percent by weight, minimum	0.4	-
17	Colour	Dark brown to black	-
18	Odour	Absence of foul Odor	-
19	Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
20	Conductivity (as dsm-1), not more than	4.0	8.2

Compost (final product) exceeding the above stated concentration limits shall not be used for food crops. However, it may be utilized for purposes other than growing food crops.

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park, Delhi-110053

34

Annexure- III

Specifications for Drinking Water Quality for Monitoring Purpose

S. No.	Parameters	Desirable Limit (mg/l except for pH) [IS 10500 : 2012, Edition 2.2 (2003- 09)]
1.	Arsenic	0.01
2.	Cadmium	0.01
3.	Chromium(as Cr6+)	0.05
4.	Copper	0.05
5.	Cyanide	0.05
6.	Lead	0.05
7.	Mercury	0.001
8.	Nickel	-
9.	Nitrate as NO_3	45.0
10.	pH	6.5-8.5
11.	Iron	0.3
12.	Total Hardness (as $CaCO_3$)	300.0
13.	Chlorides	250
14.	Dissolved Solids	500
15.	Phenolic Compounds (as C_6H_5OH)	0.001
16.	Zinc	5.0
17.	Sulphate (as SO_4)	200

D. K. Singh
Additional Director
Delhi Pollution Control Committee
3rd Floor, DMRC Building IT Park
Shastri Park Delhi-110053

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

**Original Application No. 281 of 2016
(M.A. NO. 1007/2016)
And
Original Application No. 22(T_{HC}) of 2013
(M.A. No. 19 of 2014)**

IN THE MATTER OF :-

**Kudrat Sandhu Vs. Govt. of NCT & Ors.
And
Sukhdev Vihar Residents Welfare Association & Ors.
Vs.
State of NCT of Delhi & Ors.**

CORAM : HON'BLE MR. JUSTICE SWATANTER KUMAR, CHAIRPERSON
HON'BLE MR. JUSTICE U.D.SALVI, JUDICIAL MEMBER
HON'BLE MR. JUSTICE RAGHUVENDRA S. RATHORE, JUDICIAL MEMBER
HON'BLE MR. BIKRAM SINGH SAJWAN, EXPERT MEMBER
HON'BLE DR. AJAY A DESHPANDE, EXPERT MEMBER

Present:	**Applicant:**	Mr. Pawan K. Bahl and Mr. S.N Mehrotra, Advs. Mr. Arun Monga & Mr. Suryajyoti Singh Paul, Advs.
	Respondent No. 2:	Mr. Balendu Shekhar & Mr. Vivek Jaiswal, Advs. for EDMC
	Respondent No. 3:	Ms. Sakshi Popli, Mr. Anurag Kumar Advs. for NDMC
	Respondent No. 4:	Mr. Raman Yadav, Mr. Dlasher Singh Advs. for GDA
	Respondent No. 7:	Mr. Raj Kumar, Adv. and Mr. Bhupender Kr., LA, Central Pollution Control Board
	Respondent No. 7 :	Mr. Rajiv Bansal, Mr. Kush Sharma, and Mr. Anirudh Chadha and Mr. Anurag Tripathi, Advs. for Delhi Development Authority
	Respondent No. 8:	Ms. Krishna Kumar Singh, Adv. for MoEF Ms. Puja Kalra, Adv. for North & South MCD Mr. Biraja Mahapatra, Adv. with Dinesh Jindal, LO, Delhi Pollution Control Committee Ms. Alpana Poddar, Adv. With Mr. Bhupneder Kr. LA, Central Pollution Control Board Mr. Raj Shekhar Rao and Mr. NIshant Kumar and Ms. Shikha Ohri, Advs. for DMSWSL Mr. Tarunvir Singh Khehar and Ms. Guneet Khehar, Advs. for GNCTD Ms. Deep Shikha Bharati, Adv. for Ministry of Environment, Forest and Climate Change Ms. Sakshi Popli, Adv. for NDMC Mr. Krishna Kumar Singh, Adv. for MOEF Mr. Tarunvir Singh Khehar and Ms. Guneet Khehar, Advs. Mr. Balendu Shekhar, Mr. Vivek Jaiswal, Advs. for East Delhi Municipal Corporation Mr. Matrugupta Mishra, ADO, Mr. Nishant Kumar, Mr. Piyush Singh and Mr. Rajshekhar Rao, Adv. for DMSWSL Mr. Biraja Mahapatra, Adv. and Mr. Dinesh Jindal, LO

36

Dr. Abhishek Attrey, Adv. for Ministry of Environment, Forest and Climate Change
Mr. Manoj K. Singh, Adv. along with Ms. Nilava Bandyopadhyay, Advs.

	Date and Remarks	Orders of the Tribunal
	Item No. 28 & 27 **December 02, 2016**	**Original Application No. 281 of 2016** **M.A. No. 1007 of 2016** Dimensions of Article 21 of the Constitution of India were expanded by the Hon'ble Supreme Court of India so as to include right to decent and clean environment as a Fundamental Right squarely falling within the ambit and scope of Right to Life enshrined in Article 21 of the Constitution of India. This obviously enables the citizens to enjoy such a right without restrictions and necessarily imposes an obligation upon the State and its instrumentalities to provide decent and clean environment to every citizen of India. It cannot and in fact is not disputed before us that all the Corporations and the Public Authorities including the development Authorities are responsible for ensuring not only that the decent and clean environment is provided but also it so remains consistently at all times. The municipal solid waste is one of the most serious pollutants in our country particularly in NCT of Delhi and its surrounding areas. The Authorities are under statutory and public law obligation to ensure that the waste is collected, transported and disposed of in accordance with Solid Waste Management Rules, 2016 and does not cause public health hazards, damage or degradation of the environment of NCT of Delhi. The first and foremost factor that requires to be noticed by the Tribunal is how much municipal solid

	Item No. 28 & 27 **December 02, 2016**	waste is generated in NCT of Delhi. It is more than unfortunate that none of the Authorities, Corporations, Boards and the State Government appearing before the Tribunal is able to provide correct figures thereof with some exactitude. Every Authority shifts the blame to other and submits that figures/statistics quoted are based upon the data provided by other Authorities, while according to the other Authorities the same are captured from certain studies or surveys carried out by different Agencies, not part of regular administration or governance of NCT of Delhi. The Learned counsel appearing for the Corporations fairly conceded before us that none of the Corporations or any other local Authority vested with the powers and duties for dealing with the municipal solid waste has ever conducted any survey directly or through an agency under their control so as to ascertain how much municipal solid waste is generated and how it is disposed of in accordance with Rules of either 2016 or even that of 2000, or how it is being ensured that the huge quantity of solid municipal waste generated in Delhi does not cause any health and environmental hazards in NCT of Delhi. However, certain statistical data which have been accepted by the respective Corporations - East, North, South Municipal Corporations, NDMC and Delhi Cantonment Board as a joint statistical data of generation of municipal solid waste have been filed before the Tribunal. According to this document, 14100 metric tons of solid waste is generated in Delhi every day. It contains approximately 9600 metric tons of Municipal Solid Waste

38

	Item No. 28 & 27 **December 02, 2016**	which also has an element of inert material or even C&D waste. According to the Corporations the inert and C&D waste in this waste is 15%, however, according to the companies who are running waste to energy plant, inert and C&D waste municipal solid waste received for disposal is 20% to 25% at all the three plants of Ghazipur, Narela and Okhla. Another constituent of this municipal solid waste is silt from various drains which is approximately 600 metric tons per day. Beside this municipal solid waste, there is bottom and fly ash generated by the three waste to energy plants. There are three wastes to energy plants in NCT of Delhi. These are at Okhla, Ghazipur and Narela. The waste to energy plant at Okhla has a capacity of 1950 metric tons of municipal solid waste per day. This plant is stated to have obtained Environmental Clearance as well as consent to operate from the Authority/ Board. Certain issues with regard to functioning and operationalisation of this plant have been raised before this Tribunal in Original Application 22/2013 in the matter of Sukhdev Vihar Residents Welfare Association & Ors. vs. State of NCT of Delhi & Ors. According to the residents this plant is causing serious environmental hazards and polluting the air quality and release of fly ash from this plant is resulting in pollution of the air as well as spreading of particulate matters in their houses which has made their living difficult and unhealthy. This matter is being argued currently before the Tribunal and is part-heard. According to the Project Proponent and some of the

	Item No. 28 & 27 **December 02, 2016**	reports submitted by the Board, emissions from this plant are within the prescribed parameters. It is not necessary for us to dwell upon these rival contentions at this stage and we would deal with all the contentions raised by the respective parties in Original Application 22/2013 independently as it is a part-heard matter before the Tribunal. Suffice it to note that this plant has the capacity of processing the municipal solid waste to the extent of 1950 metric tons out total 14100 metric tons per day, of waste generated in the city. However, Learned counsel appearing for the Project Proponent (Okhla Plant) submits that they have capacity of processing 3000 metric tons of municipal solid waste and they are in a position to handle and process the increased capacity at this stage itself. In fact the South Municipal Corporation of Delhi has also requested to them to take additional load of 1000 metric tons per day and have asked the Project Proponent to apply to DPCC for consent to operate for enhanced capacity. Okhla waste to energy is constructed on 15 Acres of land located in Okhla near STP plant. The entire land of the project is used for waste processing. However, segregated C&D, inert waste and bottom and fly ash are taken to Okhla dumping site which is located nearly 7 Km away from the plant. Within the land of the plant, it has established a brick manufacturing plant where bricks are manufactured from fly ash alone. They are already in process of constructing automatic waste segregation plant which is likely to become operative by February, 2017. Second plant is at Ghazipur which is being run on

40

	Item No. 28 & 27 **December 02, 2016**	under trial basis. It has capacity of 2000 metric tons per day. The consent to operate granted by the DPCC to this plant presently has put a cap on its capacity at 1300 metric tons per day. But this plant is receiving only 800 metric tons per day. Learned counsel appearing for the Project Proponent submits that infact they are receiving 1000 metric tons of mixed municipal solid waste and after subtracting and extracting of 20% of C&D and inert waste, they actually process 800 metric tons of municipal solid waste. After processing the waste, remnants i.e. bottom and fly ash is collected by this Project Proponent and dumped at Ghazipur dumping site. As far as 200 metric tons of C&D and inert waste is concerned, the Project Proponent is sending the same at the Ghazipur dumping site. According to the Project Proponent, it has capacity of process 2000 metric tons of municipal solid waste and they are prepared to accept the same quantum of municipal solid waste as they are presently under trial and have restricted consent to operate the plant upto 1300 metric tons per day of waste. The Project Proponent proposed to apply to the Board for increase in capacity utilization upto 2000 metric tons per day. Beside this, a sister concern of this Project Proponent is operating C&D processing plant at Shastri Park which is just near to the site of this waste to energy plant and if the concerned Authorities grant consent to operate to the said plant, it has capacity of processing 500 metric tons of C&D waste. Then, not only, that there will be no occasion for the Project Proponent to dump the C&D and inert waste at Ghazipur dumping site, even the inert and C&D waste

Item No. 28 & 27

December 02, 2016

from other places can also be processed at the Shastri Park plant. The Project Proponent has submitted a comparative emission parameters statement from its plant to show that not only it is complying with the prescribed standards under consent to operate order, even it is Euro norms compliant. The table showing the comparative parameters are reproduced as under:-

Compound Name	Unit	Test Value	Euro Norms	DPCC Norms
Particulate matter (PM)	Mg_3/Nm	6	10	30
Nitrogen Dioxide (as NO2)	Mg_3/Nm	57	200	350
Sulphur Dioxide (as SO2)	Mg_3/Nm	0.0	50	100
Carbon Monoxide (as CO)	Mg_3/Nm	31	50	100
Hydrogen Chloride (HCL)	Mg_3/Nm	11.8	10	50
Lead (pb)	Mg_3/Nm	0.38	0.5	0.1
Total Mercury (Hg)	Mg_3/Nm	0.009	0.05	0.02
Total Dioxin & Furans OCDD & FCDD	$ngTEQ/Nm^3$	0.015	0.1	0.1

The submissions on behalf of the Project Proponent is that their capacity for processing the municipal solid waste should be increased to 2000 metric tons and C&D processing plant at Shastri Park should be made operative immediately. This plant is located in 5.65 acres of land and does not have its own dumping site for dumping and its of waste rejects and fly and bottom ash are dumped at Ghazipur dump site.

Lastly, we shall proceed to deal with waste to energy plant at Narela Bawana industrial area. This plant is

	Item No. 28 & 27 **December 02, 2016**	located in 100 Acres of land with its own sanitary land fill site admeasuring 28.5 acres. This plant has capacity of processing 2000 metric tons of waste per day. The plant is actually receiving 2000 metric tons of municipal solid waste out of which nearly 280 metric tons is found to be inert inclusive of C&D which is segregated at the threshold. The project has its own automatic waste segregation plant. This project comprises of composting, RDF and then the waste to energy process. However, this plant does not have its own plant to manufacture bricks from fly ash or bottom ash. This plant is also being run under trial and has obtained Environmental Clearance as well as consent to operate from MOEF and DPCC respectively. The Delhi Electricity Regulatory Commission has fixed the tariff rate for sale of power of this plant at Rs. 7.03 per Unit. As per the agreement between the Corporation and Project Proponent, they had agreed to share revenue to the extent of 3% payable 8 years from the data of commission/start of power generation starts. Project does not transport or send any of its waste or fly ash / bottom ash outside its plant. The entire inert waste is dumped within its owns premises and is appropriately stored. The Project Proponent does not have its own brick manufacturing plant. Learned counsel appearing for the Corporations submits that the Corporations are supporting the operatonalisation of these plants and would ensure that the requisite quantity of municipal solid waste is sent to these plants, as per their agreements with the

	Item No. 28 & 27 **December 02, 2016**	Corporations. They also pointed out that Lieutenant Governor of Delhi had taken a meeting and directed that enhanced capacity of the plant at Ghazipur should become operative at the earliest and 2000 metric tons of waste should be provided to the said plant and its process capacity should accordingly be increased. It is also pointed out that an Agreement has been arrived at between the National Highway Authority of India, Road Transport & Highways Ministry and the Corporation under which the existing waste would be segregated, collected and utilized by NHAI for construction, expansion of road or any other project for embankment and bituminization of NH-24 and other projects. Okhla plant has been subjected to various inspections by DPCC and CPCB, besides the Inspection conducted by the Joint Inspection Team constituted by the Tribunal. Initially, deficiencies were pointed out in the plant in relation to emissions. However, the last four reports have reflected that the project is being operated properly and its emissions are as per the prescribed standards. However, certain deficiencies with regard to segregation of the waste have been pointed out. The Plants at Narela and Ghazipur have been granted consent to operate after they were subjected to proper inspection in accordance with law by DPCC and the team responsible for issuance of Environmental Clearance. Even during the pendency of these Applications, the joint inspection team constituted by the Tribunal was directed to inspect these plants and report to

	Item No. 28 & 27 **December 02, 2016**	the Tribunal if they were in operation and their work had been concluded. The Joint Inspection Team reported that their construction work and other processes were completed in all respects, including anti-pollution devices. Therefore, both these plants were permitted to run on trial basis by the respective corporations and DPCC. Till date, they are operating on trial and no complaint has been filed either by authorities including the Board or any other individual for that matter. It may be noticed that the joint inspection team was constituted under the order of the Tribunal consisting of Secretary of Environment, NCT Delhi, Secretary of Power, Member Secretary of CPCB, Member Secretary of DPCC, Sr. Scientist from MoEF, Sr. Officer from the Irrigation Dept. of State of U.P. and Chief Engineer of the Corporation. The Report of this High Powered Joint Inspection Team has been placed on record. As already noticed in this Judgment, we are primarily dealing with the plant at Ghazipur and Narela and would be dealing with Okhla plant separately in O.A. No. 22 of 2013. Before we proceed to discuss the merit of the case, we must dwell upon one of the important aspect of this case relating to fly ash. As noticed above, all the three waste to power energy plant operating in Delhi generate ash as under: • Okhla plant generates 50 metric tons of fly ash and 150 metric tons of bottom ash, total is 200 metric tons. • Narela plant generates 30 metric tons of fly ash and 70 metric tons of bottom ash, total is 100

	Item No. 28 & 27 **December 02, 2016**	metric tons. • Ghazipur generates 20 metric tons of fly ash and 50 metric tons of bottom ash, total is 70 metric tons. Nearly 1000 metric tons of fly or bottom ash is generated at Badarpur Thermal Power Plant which is presently lying closed. In other words, besides, handling 14,100 metric tons of Municipal Solid Waste every day, Delhi is required to handle 1, 370 metric tons fly ash and/ or bottom ash. Needless to notice that mere dumping of this quantity of ash would be most improper as fly ash with the wind would become part of air pollutants in Delhi and would obviously deteriorate the ambient air quality causing environmental and health hazards. The MoEF had on 14th September, 1999 issued a notification under Rule 3 of sub-Rule 3 and Rule 5 of the Environmental Protection Rules, 1986 read with sub Section 1 and Clause 5 of sub-Section 2 or sub-Section 3 and Section 5 of the Environmental Protection Act, 1986. It was to provide compulsive utilisation of fly ash for manufacture of cement, bricks, blocks, tiles etc. as well as restriction on manufacture of clay bricks in terms of this Notification. Fly ash would include bottom ash. In terms of this Notification, the fly ash means and includes all categories or groups of coal or lignite ash generated at Thermal Plant collected by ESP and other specified means. The Notification of 14th September, 1999 has been subjected to various amendments and the last being on 25th January, 2016. Notification stated that no person shall, within the radius of 100km from coal or lignite

	Item No. 28 & 27 **December 02, 2016**	based thermal power plant, manufacture clay bricks or tiles or blocks for use in construction activity without mixing atleast 25% of ash (Fly ash, bottom ash, pond ash) with soil on weight to weight basis. The Notification also specified the minimum percentage of fly ash by weight that was required to be used in a particular building material or products. The radius and the percentage kept on varying with each Notification, to increase the radius area as well as percentage. In terms of the last Notification, the radius of 100 kms stands substituted by radius area of 300km. The purpose and object of the Notification was primarily to restrict, effect and encourage prohibition for use of absolute clay bricks and encourage use of more and more fly ash, bottom ash and pond ash in manufacture of bricks, blocks, titles and allied construction materials. The Notification issued by Central Govt. was adopted by Government of Delhi. In fact, PWD, NCT Delhi issued a circular that in construction of all govt. buildings the bricks manufacture with fly ash in terms of the Notification should be used and clay bricks should not be used in such construction activity. Despite such legislative directions and executive orders, manufacture and use of bricks containing fly ash to the prescribed extent remained hardly implemented. Enforcement of this Notification is both in the interest of Environment and Public Health. It was expected from all the concerned authorities to enforce this condition without default. Needless to notice that both, Centre and the State Govt., are vested with punitive powers in the event of non-compliance to the directions issued under Section 3

	Item No. 28 & 27 **December 02, 2016**	and/or 5 of the Environmental Protection Act, 1986. The Applicant Ms. Kudrat Sandhu has raised a specific issue with regard to mismanagement of municipal solid waste in Delhi as well as with regard to terrible conditions that are prevailing in relation to landfill sites. According to her, there is acute shortage of landfill sites in Delhi to the extent that the existing landfills sites at Bhalasava is 45m high, in violation to the norms of 30m as prescribed in the Municipal Solid Waste Manual. At this site the mixed Municipal Solid Waste is being dumped indiscriminately and in violation to the Municipal Solid Waste Rules, 2000 as substituted by Solid Waste Management Rules, 2016. Besides generating foul odour these sites are consistently source of air pollution. The sites are always at fire due to both intentional and unintentional reasons. The dumped waste generates methane which can cause fire Corporation or its agency responsible for dumping waste may also be responsible for the fire. In different cases, various photographs have been placed to show that Municipal Solid Waste is being consistently burned at different sites as well as in the colonies. The continuous burning of the waste including plastic either at the landfill site or at different locations emits gases which are injurious to human health and in fact, are carcinogenic. The situation at other landfill sites of Okhla and Ghazipur are no different and no useful purpose would be served by repeating the same sad state of affairs. Suffice it to note that all three landfill sites are source of serious pollution and cause continuous threat to environment and health. We are in agreement with the

48

	Item No. 28 & 27 **December 02, 2016**	contentions of the Applicant that these sites are not being maintained in conformity with either the Rules of 2000 or 2016. Infact, the waste is being dumped in violation of the prescribed rules and they are not segregated at all. Most of the waste, even if segregated at source, is brought to community dhalaos where it gets mixed, defeating the very purpose of segregation at source. Further, the waste is again transported in an unsegregated form to the dump sites or to the waste processing plants in complete contravention of Rules of 2000 or Rules of 2016. Also, there is no proper covering of clay and to say the least, there is no spray of disinfectants as required under the Rules. To add to these, Learned counsel appearing for the DPCC submits that all these sites are operating without any authorization. The DPCC had imposed fine upon the Corporations which has not been paid by them. In light of the scenario afore-stated, one fact becomes evident and cannot be disputed that all Authorities, Boards and Corporations have miserably failed to save the city from environmental and health hazards resulting from massive generation of municipal solid waste that is nearly 14000 metric tons per day which includes the fly ash and bottom ash generated by the three plants. All these Corporations and public Authorities are obliged to ensure proper collection, segregation, transportation, processing and final disposal of municipal solid waste. At each stage, there is clear violation and non- performance. Regulatory and supervisory Authorities like CPCB, DPCC and other higher Authorities have not been able to perform the functions as contemplated under law to prevent and

	Item No. 28 & 27 **December 02, 2016**	control the menace of pollution arising from municipal solid waste. The scene of scattered municipal solid waste all over Delhi is a fact which cannot and infact has not been denied by the Learned counsel appearing before us. There has to be implementation of law and directions of the Tribunal at micro and macro level. The helplessness on the part of the State including financial limitation, is no excuse for enforcement of environmental rights and particularly rights falling under Article 21 of the Constitution of India. The Corporations, Development Authorities, Cantonment Board and all such Authorities as well as supervisory Authorities must rise to the occasion and perform. They have to demonstrate, the NCT of Delhi, the Capital of our country can be a city free of pollution arising from municipal solid waste and we are quite hopeful that it is a achievable goal. The Authorities must change their approach and set the priorities for considering the urgency in view of public health. The Authorities must take all concerns steps and as would be evident with the directions that we propose to pass, it is achievable with large benefits for the environment and public health, the greatest concern for the resident of Delhi as of now. There is no other crises as equivalent to the air pollution and other pollution in Delhi and we must provide due remedies for the same. At the cost of repetition, we may notice that even if all the three waste to energy plants operate to their optimum capacity, in terms of consent and Environmental Clearance granted to them, still out of which 9600 metric tons of municipal solid waste per day, the city would be left with 4900 metric tons

	Item No. 28 & 27 **December 02, 2016**	municipal solid waste per day besides 600 metric tons silt from drains and road sweeping and 3900 C&D and inert waste. There is no clear map ready to deal with the huge quantity of waste which remains with the Corporation after providing waste to these three plants, as per their capacity. Besides this, another factor which has not been taken note of is that, there is some quantity of waste, in addition to the municipal solid waste and all other waste which is not collected by the Corporation or other agencies. According to the Applicant still there is more waste which is apparent at various locations, thus adding the deposition to waste collected from different places of Delhi. The percentage of uncollected waste has not been estimated by the Ministry of Environment, Forest and Climate Change, DPCC, CPCB and Corporation. According to the Learned counsel appearing for the Corporation, it is approximately 5%, while the Learned counsel appearing for the Ministry of Environment, Forest and Climate Change puts the figures at 10%. The Learned counsel appearing for the Ministry of Environment, Forest and Climate Change state that based on the information given by Central Pollution Control Board, uncollected waste is nearly 10%. We do not think it necessary for the Tribunal to get into the controversy regarding the computation of waste generated. The fact of the matter is that the waste of all kind generated would be in the range of 16500 to 17000 MT/day approximately. In our considered view the following directions are required to be issued in the interest of environment and

	Item No. 28 & 27 **December 02, 2016**	public health:- 1. We direct all authorities concerned to ensure that the waste to energy plant at Narela and Ghazipur operate to their optimum capacity in accordance with law, in terms of the conditions of consent to operate order granted and the environmental clearances. 2. All the Local Authorities and the Development Authorities shall ensure that segregated municipal solid waste is supplied to the waste to energy plants in Delhi in accordance with terms and conditions of their Agreement. 3. The plant at Ghazipur is presently receiving only 1000 MT of mixed municipal solid waste out of which 200 metric tons is excluded as inert and Construction and Demolition debris (in short 'C&D') waste thus, leaving 800 MT of mixed waste to be processed in the plant for generation of energy. This plant is capable of manufacturing Refuse Derived Fuels (in short 'RDF') and then use the same for marketing purposes or entirely and partly for generation of energy within the plant. We direct East Delhi Municipal Corporation to supply immediately, at least 1500 MT, of municipal solid waste, out of which upon exclusion of segregated inert and C&D waste, at least 1300 MT of waste should be available to the plant for the purpose of manufacturing of RDF and generation of energy. The plant in terms of consent to operate can process

	Item No. 28 & 27 **December 02, 2016**	1300 MT of municipal solid waste while it has a capacity of 2000 MT of waste. 4. We grant liberty to the plant owner to approach Delhi Pollution Control Committee for operating with increased capacity of 2000 MT. If such an application is filed, the Delhi Pollution Control Committee shall dispose it with utmost expeditiousness, in any case, not later than two months from the date of filing of such application, in accordance with law. 5. The C&D waste plant at Shastri Park is ready to operate, in all respect. We direct the Project Proponent to approach all the concerned Authorities and complete all the requirements of law including consent to operate and Environmental Clearance, if required. All the authorities concerned including Delhi Pollution Control Committee and NCT, Delhi shall fully cooperate and ensure that this plant becomes operative at the earliest, in any case, not later than six weeks from today. 6. We make it clear that we are not issuing directions to any Authority to grant consent/permission if the plant is not entitled to perform in accordance with law. 7. The plant at Narela is a kind of self-contained plant as it has its own landfill site adjacent to its premises to dump inert waste. It is the exclusive responsibility of the Project Proponent. It has a

	Item No. 28 & 27 **December 02, 2016**	capacity of 2000 MT/day processing of municipal solid waste and it is presently receiving 2000 MT of municipal solid waste. Out of this, as already noticed, the plant is getting about 20% of inert and C&D waste which leaves the plant with approximately 1600 MT of municipal solid waste. Thus, we direct the Corporation to permit the Project Proponent to collect waste to the extent of 2400 MT/day so that it can operate to its optimum capacity after segregating inert and C&D waste. The Corporation and the Project Proponent is ad idem that the Delhi Electricity Regulatory Commission has fixed tariff of power charges @ 7.43% per unit. Furthermore, revenue sharing shall be effective between the parties @ 3% but from the date they commission generation of power. This, however, is an interim direction without prejudice to the rights and contention of the parties. Under the agreement between the parties dated 17th July, 2009, clause 12.2 is the arbitration clause for resolving dispute between the parties. The Project Proponent or the Corporation, as the case may be, are at liberty to invoke arbitration proceedings in accordance with the agreement and the rate and date both for revenue sharing would be fixed by the arbitrator and the parties would be entitled to proceed with reference to the interim directions issued by the Tribunal above. 8. The Project Proponent shall start revenue sharing with the Corporation from the date on which plant

	Item No. 28 & 27 **December 02, 2016**	is commissioned i.e. energy is generated and sold but it will be subject to final award of the arbitration. The Delhi Electricity Regulatory Commission shall deal with the matters of approval of power purchase agreement with utmost expeditiousness, with respect to generation of power and its sale. 9. We expect both these plants to operate to their optimum capacity without causing any pollution either in their process or through their emissions. They shall operate strictly as per the prescribed norms in relation to ambient air quality, stack emissions provided under the Air Act and collect and dispose of waste strictly in terms of Solid Waste Management Rules, 2016. 10. In the event, they are found at default at any one point of time, they shall be liable to pay environmental compensation of Rs. 5 Lakh for each default. The default would be determined by the joint inspection team that we will constitute under these directions. 11. The joint inspection team shall consist of Member Secretary, Central Pollution Control Board; Member Secretary, Delhi Pollution Control Committee; Senior Scientist from Ministry of Environment, Forest and Climate Change and a member of faculty nominated by the Director, I.I.T., Delhi. 12. The Okhla plant shall continue to operate but it

	Item No. 28 & 27 **December 02, 2016**	would be subject to the orders of the Tribunal that may be passed in Original Application No. 22 of 2013. 13. This committee shall be Supervisory Committee and would visit the plant in question at least once in two months. The day-to-day working of the plant shall be examined and report be submitted to the supervisory committee by a team selected by the Supervisory Committee consisting of members of the above organizations. 14. We also expect that all the Authorities would cooperate and provide required assistance, help and guidance to the plant owners if they are found to be deficient and not performing as per the prescribed norms. Polluter Pays Principle has to be adhered to but it should not be converted into 'pay and pollute'. The goal of achieving decent and clean environment is possible only with due cooperation of the Authorities, in the position of satisfactory performance by the Project Proponent and full cooperation from the public at large. The public cannot ignore its duty provided by the constitution itself under Article 51(g) of the Constitution of India. There are three landfill sites/dumping sites in Delhi at Ghazipur, Bhalswa and Okhla. Each of these sites is a depiction of mess that can be created adversely affecting environment and health of the people of Delhi. All the Corporation, Delhi Development

	Item No. 28 & 27 **December 02, 2016**	Authority and all other public authorities including Government of NCT, Delhi are directed to take immediate steps for reduction and utilization of dumped waste for other purposes. We are informed that an agreement has been entered into with National Highways Authority of India and the Ministry concerned for utilization of the segregated waste from the dumping site for the purpose of road construction including expansion of National Highway No. 24. We direct Corporation and all Authorities to take all appropriate and immediate steps for segregation of waste in terms of the agreement entered into by them. Maximum efforts should be made to utilize segregated waste for road construction of NH-24 in terms of the agreement and even other roads. We hereby direct CPWD, PWD, Delhi to take segregated waste from all the three dumping sites and use the same for construction of the road and embankment, wherever required. We hereby appoint a High Level Committee under Additional Secretary, Ministry of Urban Development, Govt. of India, comprising of Secretary, Environment; NCT, Delhi, Chairman, CPCB; Chairman, DPCC; DDA and all Municipal commissioners. The Committee shall prepare a clear cut action plan for disposal of entire solid waste generated in Delhi and shall prepare a comprehensive plan for Bio-stabilization of all these sites and submit it before the Tribunal within one

	Item No. 28 & 27 **December 02, 2016**	month. The Additional Secretary, Ministry of Urban Development would be entitled to co-opt or call any other person besides members that we have directed i.e. Delhi Pollution Control Committee, Central Pollution Control Board, CPWD, PWD, Delhi Development Authority and Corporation. All the Corporation, Public Authorities, Delhi Development Authority, including Ministry while issuing tender for construction of road in any part of NCT, Delhi would make it compulsory, to whomever the work is awarded, to utilize the usable waste for the said purpose. 15. It is stated that one point of time there were nearly 24 landfill sites for waste management identified in the Master Plan 2021. We direct the Committee constituted above, chaired by Additional Secretary, Urban Development, to identify and submit report to the Tribunal as to the possibility of providing landfill site for waste management in Delhi particularly out of 24 sites stated in the Master Plan. We are informed by the Government about scarcity of land in Delhi, therefore, it has becomes necessary that we should have greater number of Waste to Energy Plant and RDF Plant so that the waste generated can be processed and very limited residue remains. The remaining residue is manageable, possible to store and to dump the same without adversely affecting environment and public health. We further direct Public Authorities, Corporation and Development Agencies to ensure that these dump

58

	Item No. 28 & 27 **December 02, 2016**	sites are covered with clay particularly disinfected in terms of Solid Waste Management Rules, 2016 without any further delay. 16. From the entire discussions above, it is evident that none of the authorities whatsoever till today has any correct data of generation of municipal solid waste with all its components in Delhi, upon conducting physical survey. We have no hesitation in observing that the statistics and data furnished to the court and Tribunal are based on some imaginatory figures of questionable authenticity. Everybody relies on data furnished by the other or by some studies to which they were not involved as a party. It is undisputed before us that none of the Corporation, Delhi Development Authority or any other agency responsible for development has ever physically conducted survey to collect primary data even for smaller part of Delhi so as to find out the exact generation of municipal solid waste, per capita, which is formally stated to be adopted by them. Therefore, we direct each Corporation, Development Agencies or Authorities to at least pick up two colonies, one from unauthorized colony and one from authorized colony, under their jurisdiction. They shall engage agencies who shall collect data in their presence or collect data themselves in relation to population as well as municipal solid waste generated in that colony as a whole or per capita and they shall also state the composition of waste. The Corporations will maintain special records in

	Item No. 28 & 27 **December 02, 2016**	regular course of day-to-day business showing as to how much waste has been collected, its components and how much waste remained uncollected. The Corporation will also ensure that such waste, if collected by the Corporation, it should be at the source or in any case at the Dhalao or point of collection. 17. We direct the Commissioner of each Corporation to submit a scheme before the Tribunal for providing incentive to the people who give segregated waste at source, by way of rebate in property tax and on the other hand to impose penalties on residents, societies, RWAs who do not provide segregated waste. It should be kept in mind that on Polluter Pays Principle, each person would be liable to pay for causing pollution, if the waste is generated. It is the duty of a citizen to ensure that said waste is handled properly and not to cause any pollution or cause inconvenience to other persons. The entire burden cannot be shifted on the state and authorities. It shall be submitted, within one month, to the Tribunal. 18. All major sources of municipal solid waste generation – hotels, restaurants, slaughter houses, vegetable markets etc. should be directed to provide segregated waste and handover the same to the Corporation in accordance with rules. Any such body, person, hotels, residents, slaughter houses, vegetable markets etc. which does not comply with

	Item No. 28 & 27 **December 02, 2016**	the directions or throw their waste over any drain or public place shall be liable to pay environmental compensation at the rate of Rs. 10,000/- per default. It is their obligation to segregate the waste at their place and handover the same to the Corporation centers for waste collection or the Agencies appointed. 19. The NCT, Delhi, all Authorities and concerned Ministries will ensure complete implementation of the notification 1999 as amended by 2016, in all respect. The Delhi Development Authority and Corporation shall collectively consider and submit a proposal to the Tribunal for establishment of brick manufacturing plant with mixtures of fly ash. We direct that all the construction activity in Delhi should be preferably done, to the extent notified in the notification, by bricks produced from such plant rather than clay bricks. The Government has already issued directions thus it will be the obligation of NCT, Delhi to see that direction is implemented in its spirit and substance. The possibility of establishing more such plants should be comprehensively examined. We may notice that there are at least 3 or 4 thermal power plants within 300 Kms. which are generating considerable fly ash/bottom ash. The Government and Authorities concerned should ensure that the fly ash/bottom ash generated or collected in ash ponds shall be utilized for the purpose of manufacturing blocks etc. and is not merely dumped. We further direct that

	Item No. 28 & 27 **December 02, 2016**	wherever fly ash or bottom ash is dumped, should be sprinkled on regular intervals and should be particularly covered by all the Agencies, Corporation, Project Proponent and other concerned stakeholders. 20. We direct that Corporations, Development Agencies and Fire Departments of Delhi should ensure that none of the dumping site is ever seen at fire. It shall be a collective responsibility and Fire Department shall, in consultation with the Commissioner of Corporations, fix responsibility and dedicated fire vehicles would be made available for each site, in addition to their normal duties. 21. Wherever it is feasible, the waste shall be composted or biomethanated near to the point of its generation and collection and in that case it may not be necessary for transporting the compostable waste to the landfill site or waste processing plant. We direct that the Corporation shall make every attempt to segregate compostable and C&D waste out of 4900 MT municipal solid waste that they receive. That segregated C&D waste along with 3900 MT C&D waste collected shall be utilized henceforth for construction activity, particularly in relation to road embankment wherever needed and other allied construction project. Every Public Authority, all Corporations, Cantonment Board and Delhi Development Authority should immediately stipulate such a condition in their tender documents.

62

	Item No. 28 & 27 **December 02, 2016**	22. The High Level Committee constituted under this order shall be at liberty to require NCT, Delhi and even the Government to provide fund for compliance of these directions and implementation of the project prepared there under. The Corporation and Public Authorities would also be at liberty to invoke Polluter Pays Principle and require the public at large to pay for that purpose. 23. We further direct that the use of disposable plastic glasses is prohibited in entire NCT, Delhi at hotels, restaurants and public as well as private functions. The NCT, Delhi shall take appropriate steps against storage, sale and use of such plastic material at above places and it shall stand prohibited w.e.f. 01st of January, 2017. 24. There should be segregation of waste at source. In order to ensure that the waste segregated at source is transported, stored and processed separately, the existing Dhalaos wherever constructed within the limits of NCT, Delhi should be compartmentalized, one chamber for bio-degradable waste, the second for non-biodegradable and recyclable waste and the third for the hazardous & other wastes. Even, wherever Dhalaos are not provided the concerned Corporation should provide/construct three separate bins as indicated above, of proper sizes which can be mechanically handled and are in accordance with Solid Waste Management Rules, 2016.

	Item No. 28 & 27 **December 02, 2016**	25. The planning and municipal authorities shall, while approving the layout plan for new housing colonies where the area exceeds 5000 sqms, mandate provision for decentralised processing of segregated, biodegradable and compostable waste of the colony within its premises in terms of the Solid Waste Management Rules 2016. Even in respect of the existing Colonies/Group Housing Societies/ Residential Welfare Associations, the Planning and Municipal Authorities should identify areas within the premises of colony / RWA where such decentralised processing of biodegradable/ compostable waste could be carried out either by biomethanation or composting. 26. Recognising that the waste generated in Delhi will have to be processed within its territory, all the Municipal authorities, other public authorities including DDA and State of NCT Delhi should draw up an integrated waste management plan for city of Delhi, identifying landfill sites, improvement of existing landfill sites as also the efficiency and functioning of waste processing units. Such integrated action plan shall be prepared within a period of two months. The Committee Constituted, under para 14 of this order, should examine and submit the Action Plan to the Tribunal, within the period specified above. 27. We direct that all the concerned Authorities, Corporation, Delhi Development Authority,

	Item No. 28 & 27 **December 02, 2016**	Cantonment Board, NDMC, all Boards, Project Proponents, Railway, NCT, Delhi should co-operate with each other to comply with these directions in their true spirit and substance. In the event of default the person, irrespective of status in hierarchy of the Government or Department, shall be liable to be proceeded against personally in accordance with law. Both the Committees constituted under this order shall submit their reports to the Tribunal within the specified time, in any case, not later than six weeks from today. Report as and when submitted shall be numbered separately by the Registry and matter be placed before the Tribunal for appropriate orders. We grant liberty to the applicant to approach the Tribunal in the event of non-compliance of the directions contained herein. With the above directions, Original Application No. 281 of 2016 stands disposed of, without any order as to cost. **M.A. No. 1007/2016** The M.A. No. 1007 of 2016 does not survive for consideration as the main Original Application No. 281 of 2016 itself stands disposed of. Thus the M.A. No. 1007 of 2016 stands disposed of accordingly. **Original Application No. 22(THC) of 2013** List this matter on 07th December, 2016. .....,CP (Swatanter Kumar)

65

	Item No. 28 & 27 **December 02, 2016**	.....,JM (U.D. Salvi) .....,JM (Raghuvendra S. Rathore) .....,EM (Bikram Singh Sajwan) .....,EM (Dr. Ajay A Deshpande)

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELH
5th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-11000
visit us at : http://dpcc.delhigovt.nic.in

F. No. DPCC/WMC-II /2019/ 7690 - 7692 **Dated : 06.10.2021**

CONSENT ORDER

[Waste to Energy Plant & Associated Activities]

Name of the Unit : **M/s Delhi Municipal Solid Waste Solutions Limited**

Address : Sector - 5, Behind Pragati Power Plant, Bawana, Delhi - 110039

Consent Order No : DPCC / WMC II / 2021 /

Date of Issue : **06.10.2021** **Date of Expiry : 04.05.2026**

Product/Activity : **Waste to Energy Plant (1300 TPD and 24 MW Capac by Processing of Municipal Solid Waste**

This **Consent to Operate (Renewal)** is hereby granted under section 21 of the Ai (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of the Wate (Prevention & Control of Pollution) Act, 1974 under **Red** Category. This Consent i subject to Terms and Conditions including prescribed standards enclosed herewith fo compliance.

Assistant Environmental Engineer
(Verified by)

M.I. Siddiqui
Asstt. Environmental Engineer
Delhi Pollution Control Committee
5th Floor ISBT Building
Kashmere Gate Delhi-110006

Senior Environmental Engineer
(Issuing Authority)

DEEPAK KR. SINGH
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

Enclosure: Terms and Conditions of Consent to Operate (Renewal)

Terms and Conditions of Consent to Operate (Renewal) to M/s Delhi Municipal Solid Waste Solutions Limited, Sector-5, Behind Pragati Power Plant, Bawana, Delhi-110039.

1. The Consent to Operate (Renewal) is granted for the Waste to Energy Plant & Associated Activities (1300 TPD and 24 MW Electricity generation Capacity) by Processing of Municipal Solid Waste.
2. The Consentee shall comply with the conditions prescribed by the Ministry of Environment, Forest and Climate Change (MoEF&CC), Govt. of India in the Environmental Clearance given vide Letter F. No. 10-67/2009-IA.III dated 08.05.2012 and Consent to Establish issued by DPCC for Waste to Energy Plant.
3. The Consent is Activity specific and based on the information provided in the consent application along with the documents/subsequent documents/ information submitted to Delhi Pollution Control Committee (DPCC). The Consentee shall apply for fresh consent in case of any change in the activity/manufacturing process.
4. The Consentee shall display the Name of the unit along with its Address, name of the Proprietor /Directors/ Partners etc., Contact Phone No(s) and its Activities /Processes/ Products etc., on a Display Board placed / fixed at the main gate of the unit and maintain the same.
5. The Consentee / unit shall have / take separate Electricity / Power Connection in its name and shall have / install separate meter in this regard.
6. The Consentee shall obtain permission from Delhi Jal Board, for ground water extraction, if any, as per the various orders / Notifications of Govt. of NCT of Delhi.
7. The Consentee shall operate the Waste to Energy Plant as per the provisions of Solid Waste Management Rules, 2016 and also comply with the Guidelines / Manual etc. prepared by Central Pollution Control Board in this regard from time to time.
8. The Consentee shall comply with the provisions of the Environment (Protection) Act, 1986, as amended to date and Rules made thereunder including following Rules :
   (i) Solid Waste Management Rules, 2016, as amended to date.
   (ii) Construction and Demolition Waste Management Rules, 2016, as amended to date.
   (iii) The Plastic Waste Management Rules, 2016, as amended to date.
   (iv) The Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended to date.
   (v) E-Waste (Management) Rules, 2016, as amended to date.
   (vi) The Batteries (Management and Handling) Rules, 2001, as amended to date,
   (vii)The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended to date,

   All such wastes generated from the facility will be managed and handled as per the provisions of the said Rules and will be disposed only through the Recycler / Reprocessor /Authorized Agencies for such wastes, authorized by MoEF&CC / Central Pollution Control Board / State Pollution Control Board/Committee/ DPCC.
9. The Consentee shall ensure that processing of Municipal Solid Waste is using RDF combustion based Reciprocating Grate Technology.
10. The Consentee shall maintain the facility of weighbridge at the entry point of Integrated Municipal Solid Waste Management Facility in which the Waste to Energy Plant is located and maintain Records / Log Book of Municipal Solid Waste received, RDF produced & used for combustion in WTE, electricity generated and Ash generated etc.
11. The Consentee shall maintain the Radioactive Sensors at the entry point of Integrated Municipal Solid Waste Management Facility to detect any radioactive material in the incoming Municipal Waste to the Facility.
12. The Consentee shall use only Approved Fuel as per the Notification of Delhi Pollution Control Committee Dated 29.06.2018.

254

12. The Consentee having installed Emission Control System (ECS) shall properly operate and maintain the ECS to meet the prescribed standards as given at **Annexure – I**. No Bypass stack/ arrangement shall be provided. Records /Logbook shall be maintained for the operation of the ECS and shall be produced during the inspection of DPCC official(s).
14. The Consentee shall run the Plant in automatic mode to achieve stable operating conditions within the design specifications. The manual mode of operations shall be switched to automatic mode. Control systems should be set up in such a way that the operational data should be stored online for at least one year. In case, the control system does not provide enough storage, external storage facilities shall be set up for long term storage of operational data.
15. The Consentee shall ensure that Waste to be incinerated shall not be chemically treated with any chlorinated disinfectants and there is no incineration of chlorinated plastics. All the facilities in twin chamber incinerators shall be maintained to achieve a minimum temperature of 950 Degree Centigrade in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds. Incineration plant shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve Total Organic Carbon (TOC) content in the slag and bottom ash less than 3%, or the loss on ignition is less than 5% of the dry weight. The CO_2 concentration in tail gas shall not be more than 7%.
16. The Consentee shall make arrangement for interlocking of flue gas treatment system with operation of incinerator so that whenever Flue Gas Treatment System fails, the plant operations will be shut down.
17. One common Stack with minimum Height of 60 Meters above the Ground Level shall be maintained for the discharge of emissions from the Boiler. No Bypass Stack/ Arrangement shall be provided for discharge of Emissions.
18. The Consentee shall provide and maintain safe & easy accessible Ladders, Platforms, Ports and other Facilities as per the CPCB guidelines, for conducting the monitoring of Emissions from the Stack.
19. The Consentee shall ensure proper channelization / control system for fugitive emissions generated from the various activities / processes including RDF making section and maintain good housekeeping practices so as to maintain clean and safe environment in and around the premises of the facility.
20. The Consentee shall transport Fly Ash / Bottom Ash / Inert materials in properly covered vehicles and ensure that no fugitive emission occurs in the air either during loading, unloading and transportation.
21. The Consentee shall properly operate and maintain the existing Bottom Ash Processing Facility and utilize the processed products.
22. The Consentee shall provide the facility for Fly Ash utilization & the same shall be used in brick manufacturing etc.
23. The Consentee shall manage the Odour as per guidelines of CPCB issued from time to time.
24. The Consentee shall ensure that entry gates of waste storage pit are functional so that gates should be closed when there is no truck unloading the waste to avoid escape of odour.
25. Negative Pressure in the Waste Storage Pit shall be maintained by taking the air from waste pit to the incinerator through ID fans so that odour does not escape from the waste pit. Pressure monitoring system showing the atmospheric pressure and pressure inside the waste pit shall be installed and the data shall be transferred to CPCB and DPCC through server.
26. The Consentee shall properly operate & maintain the installed Online Continuous Emission Monitoring System (OCEMS) for stack emissions for all parameters provided in the 'Guidelines for Continuous Emission Monitoring Systems, CPCB'. The real time data of OCEMS shall be transferred to the servers of CPCB & DPCC. The Real Time Monitoring Data of OCEMS shall also be displayed at the gate of the facility. Calibration of the OCEMS shall be carried out once in 15 days as per the Guidelines / Protocols of CPCB. The Consentee shall have functional CCTV cameras with linkage to the servers of DPCC & CPCB.
27. The Consentee shall properly operate & maintain Continuous Ambient Air Quality Monitoring Station (CAAQMS) for the prescribed parameters as mentioned in the Notification of MoEF&CC Dated

16.01.2009 within the premises. Calibration of CAAQMS shall be carried out as per the Guidelines/ Protocols of CPCB.

28. The Consentee shall comply the other prescribed standards of Effluent / Emissions as prescribed and as applicable under the provisions of the Environment (Protection) Act, 1986, as amended to date, and the various Rules made thereunder including the Noise Pollution (Regulation and Control) Rules, 2000, as amended to date.
29. In case the concentration of toxic metals in incineration ash exceeds the limits specified in the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended from time to time, the Consentee shall send the ash to the Treatment, Storage and Disposal Facility for Hazardous Waste at Bawana in Delhi.
30. The Consentee shall ensure the storage of compost produced from the Compost Facility within the premises of Integrated Municipal Solid Waste Management Facility and the same shall be sold to the to the Fertilizer Companies & other users. Proper measures shall be taken to control the odour from the Compost Facility.
31. The Consentee shall use the treated water from the nearby Pragati Power Station or Sewage Treatment Plant (STP) of Delhi Jal Board for operational process requirements / various activities in the facility except for drinking purpose.
32. The Consentee shall provide and maintain separate drainage system for collection of trade (Leachate & other waste water) and sewage effluents. Terminal manholes shall be provided at the end of collection system.
33. The Consentee shall properly collect the leachate & other waste water generated from the facility from various sources including Waste Storage Pit of Waste to Energy Plant in the existing Leachate Collection Ponds with proper lining at the walls and base of leachate storage area with impermeable material for containment of leachate in order to avoid contamination of ground water through seepage and comply with the Guidelines of CPCB issued in this regard.
34. The Consentee shall properly operate and maintain the installed Mechanical Vapour Recompression (MVR) System of 200 KLD capacity for leachate treatment / management to meet the prescribed standards as given at **Annexure –II.** Flow Meters/ suitable flow measuring devices shall be provided and maintained to measure the quantity of Leachate generation and treatment by the unit. No bypass (Pipe / Drain) shall be provided. The treated leachate / effluent shall be used/ recycled within the premises of the Integrated Municipal Solid Waste Management Facility including Boilers of Waste to Energy Plant, Horticulture, Green Belt/ Plantation etc. Records /Logbook shall be maintained for the operation of the MVR, Leachate/ Effluent generated, treated, reused/recycled and quality of waste water at inlet and outlet of MVR shall be produced during the inspection of DPCC official(s). In no case, leachate / effluent shall be released into open environment and arrangements shall be made to prevent leachate runoff entering into any drain, stream, river, lake or pond.
35. The Consentee shall treat the waste water generated from Toilets & Kitchen / Bathrooms (8 KLD) through the installed Septic Tank and dispose the septic tank effluent / septage only through the Authorised Vendor by Delhi Jal Board for treatment of the same in the Sewage Treatment Plant of Delhi Jal Board.
36. The Consentee shall not discharge any Trade Effluent (including Leachate) or Sewage Effluent from the premises of the facility.

Quantum of Effluent Discharge from the facility (i) Trade Effluent – Nil

(ii) Sewage / Domestic Effluent – Nil.

37. The Consentee shall submit test reports for prescribed parameters in respect of Stack Emissions, TCLP/MVR, Fly Ash / Bottom Ash, Ambient Air Quality, Ambient Noise level on Quarterly basis to DPCC from any of the Approved Laboratories of DPCC / MoEF&CC / CPCB.

Analysis of total Dioxins & Furans, Cd + Th & their compounds, Hg & its compounds, Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V & their Compounds shall be carried out once in a month and Test

70

256 Reports shall be submitted to DPCC from any of the Approved Laboratories of DPCC / MoEF&CC / CPCB.

38. The Consentee shall comply with the noise standards laid down vide Gazette Notification of Ministry of Environment, Forest & Climate Change (MoEF&CC), Government of India Dated 17.05.2002 & 12.07.2004, as amended to date, for the Diesel Generator Set(s) and shall also comply with the Emission Standards prescribed for Diesel Engines [(Engine rating more than 0.8 MW) for Power Plant, Generator Set applications and other requirements], if any, as per the Gazette Notification of MOEF, Dated 09.07.2002, as amended to date.

    Stack Height for sets (Engine rating more than 0.8 MW) commissioned after 01.07.2003 shall be maximum of following:

    (i) Minimum 6 meter above the building where generator set is installed
    (ii) 30 meter
    (iii) 14 (Q) 0.3 [Q- Total SO_2 emission from the plant in kg/hr and for other DG Set(s) (upto 0.8 MW)]

    Stack height shall be as per the following formula

$$H = h + 0.2\sqrt{KVA}$$

    H = Total Height of stack in meter, h = Height of the building in meters where the Generator Set is installed and KVA = Total Generator capacity of the set in KVA.

39. The Consentee shall properly operate & maintain one DG Set of 600 KVA capacity with proper Acoustic Enclosure and adequate stack height to meet the prescribed standards/ norms as mentioned above. As per the Directions u/s 31 (A) of the Air (Prevention and Control of Pollution) Act, 1981, issued by DPCC on 02.07.2021, the Consentee is also required to Retrofit the said DG Set with an Emission Control Device / Equipment having a minimum specified Particulate Matter capturing efficiency of at least 70 % in 5 mode D2 cycle . The Emission Control Device / Equipment must be tested over an ISO-81785 mode D2 cycle for equivalent KVA rating at any one of the five Central Pollution Control Board, Govt. of India recognized / approved laboratories as given below :

    (a) Automotive Research Association of India, Pune (Maharashtra)
    (b) International Centre for Automotive Technology, Manesar (Haryana)
    (c) Indian Oil Corporation, Research and Development Centre, Faridabad (Haryana)
    (d) Indian Institute of Petroleum , Dehradun (Uttarakhand); or
    (e) Vehicle Research Development Establishment , Ahmednagar (Maharashtra)

    OR

    Install New Gas based Generator of 600 KVA capacity with proper Acoustic Enclosure and adequate stack height to meet the prescribed standards/ norms as mentioned above.

40. The Consentee shall not operate the DG Set / Gas based Generator till compliance of the prescribed norms/standards.
41. The Consentee shall take adequate measures for control of noise level, from its own sources within the premises in respect of noise, to less than 75 dB (A) Leq during day time and 70 dB (A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned between to 6 AM and 10 PM and night time reckoned between 10 PM to 6 AM.
42. Noise level emanating from turbines shall be so controlled such that the noise in work zone shall be limited to 85 dB (A) from source. For people working in the high noise area, requisite personal protective equipment like earplug / ear muffs etc. shall be provided. Workers engaged in noisy areas such as turbine area, air compressors etc. shall be periodically examined to maintain audiometric record and for treatment for any hearing loss including shifting to non-noisy / less noisy areas.
43. The Consentee shall ensure the development & maintenance of adequate green belt all around the boundary of the Unit to comply with conditions stipulated in Environmental Clearance given by MoEF&CC.

44. The Consentee shall inform Delhi Pollution Control Committee in advance for shutdown of the pla for maintenance or any other reasons thereof.
45. The Consentee shall submit the **Annual report in Form III** as prescribed under the Solid Was Management, Rules, 2016 to the Local Body (concerned Municipal Corporation) and DPCC on before the 30th day of April every year.
46. The Consentee shall not carry out any activity falling under the Prohibited/ Negative list of Industri (as mentioned in MPD – 2021) which are prohibited in National Capital Territory of Delhi, as p Master Plan of Delhi.
47. The Consentee shall submit Environment statement for each financial year ending 31st March in Forr V to DPCC.
48. The Consentee shall submit application for renewal of the Consent to Operate, two months in advan of the expiry date of this Consent Order.

In the event of any information furnished by the Consentee found to be false OR in case of failure tc comply with any of the above mentioned consent conditions, consent granted through this Consent Orde shall be deemed to be revoked without any notice and necessary action as per law shall be taken, which may include closure of the unit and prosecution for wrong declaration.

Notwithstanding anything contained in this Consent to Operate (Renewal) order. Delhi Pollution Control Committee, reserves its right to review any / or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of enforcement of the Air (Prevention and Control of Pollution) Act, 1981, as amended to date and the Water (Prevention and Control of Pollution) Act, 1974, as amended to date.

The Consent granted to the Consentee is to ensure control of pollution from the premises of the unit in accordance with various Pollution Control Laws and in no way confers the right to the Consentee / unit to exist in violation of other laws and statutory provisions including the Master Plan of Delhi.

This issues in view of the Office Order F.No. DPCC/IT/EODB/2015/627-641 Dated 12.04.2016 & subsequent orders issued in this regard and as per the approval of Chairman, Delhi Pollution Control Committee.

(D. K. Singh)
Sr. Env. Engineer & I/c WMC – II

To,

M/s Delhi Municipal Solid Waste Solutions Limited,
Sector - 5, Behind Pragati Power Plant, Bawana,
Delhi - 110039

DEEPAK KR. SINGH
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

Copy to :

1. The Commissioner, North Delhi Municipal Corporation (North DMC), 4th Floor, Dr. S.P.M Civic Center, JLN Marg, Delhi-110002.
2. The Chief Executive Officer, Delhi Jal Board, Varunalaya Ph-II, Jhandewalan, Karol Bagh, Delhi-05

(M. I. Siddiqui)
Asstt. Env. Engineer (WMC–II)

M.I. Siddiqui
Asstt. Environmental Enginee
Delhi Pollution Control Committe
5th Floor ISBT Building
Kashmere Gate Delhi-110006

72

Annexure-

Prescribed Standards for Emission from Incinerator of Municipal Waste to Energ Plants in Delhi

(As decided in the meeting of CPCB, DPCC and Deptt. of Environment, Govt. of NCT of Delh held on 29.07.2016)

S. No.	Parameters	Emission Standards	
	(1)	(2)	(3)
1.	Particulates	30 mg/Nm^3	Standard refers to half hourly average valu
2.	HCl	50 mg/Nm^3	Standard refers to half hourly average valu
3.	SO_2	100 mg/ Nm^3	Standard refers to half hourly average valu
4.	CO	100 mg/Nm^3 50 mg/Nm^3	Standard refers to half hourly average valu Standard refers to daily average value
5.	Total Organic Carbon	20 mg/Nm^3	Standard refers to half hourly average valu
6.	HF	0.5 mg/Nm^3	Standard refers to half hourly average valu
7.	NOx (NO and NO_2 expressed as NO_2)	350 mg/Nm^3	Standard refers to half hourly average valu
8.	Total dioxins and furans	0.1 ng TEQ/Nm^3	Standard refers to 6-8 hours sampling. Please refer guidelines for 17 concerned congeners for toxic equivalence values to arrive at total toxic equivalence.
9.	Cd + Th + their compounds	0.05 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
10.	Hg and its compounds	0.02 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
11.	Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds	0.5 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
12.	Pb	0.1 mg/Nm^3	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
	Note.- All values corrected to 11% oxygen on a dry basis.		

Annexure- II

Standards for Treated Leachates to be met / complied by Municipal Solid Waste t Energy Plants.

S. No.	Parameter		Standards
1.	Suspended Solids, mg/l, max	Not to Exceed	100
2.	Oil and Grease, mg/l, max	Not to Exceed	10
3.	Dissolved Solids (inorganic) mg/l, max.	Not to Exceed	2100
4.	pH value		5.5 to 9.0
5.	Ammonical Nitrogen (as N), mg/l, max.	Not to Exceed	50
6.	Total Kjeldahl Nitrogen (as N), mg/l, max.	Not to Exceed	100
7.	Biochemical Oxygen Demand (3 days at 27 °C) max.(mg/l)	Not to Exceed	30
8.	Chemical Oxygen Demand, mg/l, max.	Not to Exceed	250
9.	Arsenic (as As), mg/l, max	Not to Exceed	0.2
10.	Mercury (as Hg), mg/l, max	Not to Exceed	0.01
11.	Lead (as Pb), mg/l, max	Not to Exceed	0.1
12.	Cadmium (as Cd), mg/l, max	Not to Exceed	2.0
13.	Total Chromium (as Cr), mg/l, max.	Not to Exceed	2.0
14.	Copper (as Cu), mg/l, max.	Not to Exceed	3.0
15.	Zinc (as Zn), mg/l, max.	Not to Exceed	5.0
16.	Nickel (as Ni), mg/l, max	Not to Exceed	3.0
17.	Cyanide (as CN), mg/l, max.	Not to Exceed	0.2
18.	Chloride (as Cl), mg/l, max.	Not to Exceed	1000
19.	Fluoride (as F), mg/l, max	Not to Exceed	2.0
20.	Phenolic compounds (as C_6H_5OH) mg/l, max.	Not to Exceed	1.0

ANNEXURE- D

74

Email **Executive Engineer DEMS**

Regarding Stack emission and other test reports

From : ankur verma <ankur.verma@resustainability.com> Fri, Oct 10, 2025 06:01 PM

Subject : Regarding Stack emission and other test reports 2 attachments

To : Executive Engineer DEMS <eedems-hq@mcd.nic.in>

Cc : lalit vijay <lalit.vijay@resustainability.com>, prasadreddy b <prasadreddy.b@resustainability.com>, anupam mishra <anupam.mishra@resustainability.com>

Dear Sir,

This pertains to the emission testing carried out at the Processing Facility and SLF in Narela-Bawana. We regularly conduct tests on stack emissions and ambient air. The reports of these tests are submitted to the DPCC on a quarterly basis.

In addition, we are also enclosing the link of the DPCC portal, which captures real-time data from stack sensors for monitoring purposes. This portal primarily records data for SO_2, PM, NOx, and HCl. The remaining parameters are monitored monthly, and their test reports are submitted to DPCC.

As directed , we are also enclosing the latest test reports submitted to DPCC dated 22.07.2025 for your kind consideration.
Link details- https://dpcccems.nic.in/industry-public-view?industry_id=228

Rds.
Ankur

DPCC quartely June 2025_compressed.pdf
6 MB

75

DELHI MSW SOLUTIONS LTD

Ref No: DMSWSL/WTE/25-26/Q1 Date: 22.07.2025

To,
Senior Environmental Engineer,
WMC-II,
Delhi Pollution Control Committee.

Sub: Quarterly Environment Monitoring reports submission for the period of April-25 to June-25.
Reference Number- DPCC/WMC-II/2025/03

Respected Sir,

We Delhi MSW Solutions Limited, Waste to Energy Plant-Bawana here with submitting the Quarterly Environment monitoring reports for Stack, Air, Noise, Treated Leachate and Bottom Ash as per Consent/authorization conditions for the period of April-25 to June-25.

This is for kind information and record please.

Thanking you,

Yours Sincerely
For Delhi MSW Solutions Limited

Authorized signatory

DELHI MSW SOLUTIONS LIMITED BAWANA DELHI-39

Enclosures: Environment monitoring reports.

Delhi MSW Solutions Limited (P&D)
Site Address
Sector 5, Pocket No 1, Bawana Industrial Area
Behind Pragati Power Plant, Bawana
New Delhi-110039
CIN: U90001DL2009PLC196706
GSTIN: 07AADCD0783E1ZS

Registered Office
Level 11B, Aurobindo Galaxy
Hyderabad Knowledge City
Hitech City Road, Hyderabad, 500081, India

T: 8999868644
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Vimta Labs Limited
Registered Office
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Hyderabad-500 051, Telangana, India
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TC-5418

76

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Driven by Quality, Inspired by Science.

ISSUED TO:
M/s. DELHI MSW SOLUTIONS LTD.,
DELHI WASTE TO ENERGY,
BAWANA INDUSTRIAL AREA,
SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number	: VLL/VLS/25/05162/001
Issued Date	: 2025.06.09
P. Order Ref	: 0400113023
P.O. Date	: 2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2

Sample Registration Date	:	2025.05.29	Sampling Date	:	2025.05.27
Analysis Starting Date	:	2025.05.29	Analysis Completion Date	:	2025.06.08
Test Required	:	Velocity, Flow rate, O_2, CO2, CO, NO_x, SO_2, HCl, HF, TOC and PM.			
Capacity of Power	:	24 MW			

Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr.No.	Parameters	UoM	Method of Testing	Results	Emission Limits # CTO issued by DPCC
1	Total Height of Stack	M	--	60	--
2	Height of the Sampling Port	M	--	32	--
3	Dia of the Stack	M	--	3.2	--
4	Velocity of Flue Gas, Ve.	m/sec	USEPA Method 3	15.1	--
5	Volumetric Flow Rate	Nm^3/Hr		243396	--
6	Oxygen as O_2	%	USEPA CTM 30&3443.8 by Combustion Analyser	12.83	--
7	Carbon Dioxide as CO_2	%		7.24	--
8	Carbon Monoxide as CO	mg/Nm^3		30.0	100.0
9	Oxides as Nitrogen as NOx as NO_2	mg/Nm^3	USEPA Method -07	189.0	350.0
10	Sulphur dioxide as SO_2	mg/Nm^3	USEPA Method -08	35.0	100.0
11	Hydrogen Chloride as HCl	mg/Nm^3	USEPA Method -26	5.8	50.0
12	Hydrogen Fluoride as HF	mg/Nm^3	USEPA method -13B	0.1	0.5
13	Total Organic Compounds as TOC	mg/Nm^3	USEPA method -40 & MM5(10)	3.9	20.0
14	Particulate Matter as PM	mg/Nm^3	USEPA Method 5	22.8	30.0

ELV-Emission Limit Value
All values expressed in Dry basis
Instruments used for Gaseous Composition: Optima 7 Multi Gas Analyzer
All the values are represented at 11% O_2

Dr. Subba Reddy Mallampati
Manager-Environment

Vimta Labs Limited
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SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number	:	VLL/VLS/25/05162/001
Issued Date	:	2025.06.09
P.O. Number	:	0400113023
P.O. Date	:	2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2

Sample Registration Date	:	2025.05.29	Sampling Date	:	2025.05.27
Analysis Starting Date	:	2025.05.29	Analysis Completion Date	:	2025.06.08
Test Required	:	Metals And their Compounds			
Capacity of Power Plant	:	24 MW			

Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr. No.	Parameters	UoM	Method of Testing	Results	Emission Limits by DPCC
1	Cadmium as Cd	mg/Nm³	USEPA Method -29	0.002	< 0.05 (Cd + Th + their compound)
2	Thorium as Th	mg/Nm³	USEPA Method -29	0.002	
3	Total Mercury as Hg	mg/Nm³	USEPA Method -29	0.002	< 0.02 Hg + their compound)
4	Chromium as Cr	mg/Nm³	USEPA Method -29	0.09	< 0.5 (Pb,Cr, Mn, As, Sb, Pb, Co, Cu, Ni, V + their, compound)
5	Manganese as Mn	mg/Nm³	USEPA Method -29	0.02	
6	Arsenic as As	mg/Nm³	USEPA Method -29	<0.001	
7	Antimony as Sb	mg/Nm³	USEPA Method -29	<0.001	
8	Cobalt as Co	mg/Nm³	USEPA Method -29	0.02	
9	Copper as Cu	mg/Nm³	USEPA Method -29	0.02	
10	Nickel as Ni	mg/Nm³	USEPA Method -29	0.02	
11	Vanadium as V	mg/Nm³	USEPA Method -29	<0.001	
12	Zirconium as Zr	mg/Nm³	USEPA Method 29	<0.001	--
13	Lead as Pb	mg/Nm³	USEPA Method -29	<0.001	<0.1

All values expressed in Dry basis
ELV-Emission Limit Value
All the values are represented at 11% O₂

Dr. Subba Reddy Mallampati
Manager-Environment

264

78

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DELHI WASTE TO ENERGY,
BAWANA INDUSTRIAL AREA,
SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number : VLL/VLS/25/05162/002
Issued Date : 2025.06.09
P.O. Number : 0400113023
P.O. Date : 2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2.

Sample Registration Date	: 2025.05.29	Sampling Date	: 2025.05.27
Analysis Starting Date	: 2025.05.29	Analysis Completion Date	: 2025.06.08
Test Reauired	: PCDD& PCDF		
Capacity of Power Plant	: 24 MW		

Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr. No.	Congeners of Dioxin & Furans	Concentration		
		Concentration (ng)	TEF	TEQ (ng)
1	2,3,7,8-TCDD	0.06250	1	0.0625
2	1,2,3,7,8-PeCDD	0.31250	0.5	0.1563
3	1,2,3,4,7,8-HxCDD	0.03125	0.1	0.0031
4	1,2,3,6,7,8-HxCDD	0.03125	0.1	0.0031
5	1,2,3,7,8,9-HxCDD	0.03125	0.1	0.0031
6	1,2,3,4,6,7,8-HpCDD	0.00313	0.01	0.0000
7	OCDD	0.00019	0.001	0.0000
8	2,3,7,8-TCDF	0.00625	0.1	0.0006
9	1,2,3,7,8-PeCDF	0.00938	0.05	0.0005
10	2,3,4,7,8-PeCDF	0.09375	0.5	0.0469
11	1,2,3,4,7,8-HxCDF	0.03125	0.1	0.0031
12	1,2,3,6,7,8-HxCDF	0.03125	0.1	0.0031
13	1,2,3,7,8,9-HxCDF	0.03125	0.1	0.0031
14	2,3,4,6,7,8-HxCDF	0.03125	0.1	0.0031
15	1,2,3,4,6,7,8-HpCDF	0.00313	0.01	0.0000
16	1,2,3,4,7,8,9-HpCDF	0.00313	0.01	0.0000
17	OCDF	0.00019	0.001	0.0000
			Total (ng TEQ)	0.2887
			Vstd (Nm^3)	5.4
			ng TEQ/Nm^3	0.0535
			% Of O_2 in Flue Gas	12.83
			Total Dioxins & Furans (ng TEQ/Nm3 at 11 % O_2 Correction)	0.0656
			Limits as per As per # CTO issued by DPCC	< 0.1

Detection Limit: 0.01pg
TEF: Toxicity Equivalence Factor by W.H.O.

Dr. Subba Reddy Mallampati
Manager-Environment

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DELHI WASTE TO ENERGY,
BAWANA INDUSTRIAL AREA,
SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number : VLL/VLS/25/03055/001
Issued Date : 2025.05.13
P. Order Ref : 0400113023
P.O. Date : 2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2

Sample Registration Date : 2025.05.02 Sampling Date : 2025.04.30
Analysis Starting Date : 2025.05.02 Analysis Completion Date : 2025.05.12
Test Required : Velocity, Flow rate, O_2, CO2, CO, NO_x, SO_2, HCl, HF, TOC and PM.
Capacity of Power : 24 MW
Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr.No.	Parameters	UoM	Method of Testing	Results	Emission Limits # CTO issued by DPCC
1	Total Height of Stack	M	--	60	--
2	Height of the Sampling Port	M	--	32	--
3	Dia of the Stack	M	--	3.2	--
4	Velocity of Flue Gas, Ve.	m/sec	USEPA Method 3	15.1	--
5	Volumetric Flow Rate	Nm^3/Hr		247500	--
6	Oxygen as O_2	%	USEPA CTM 30&3443.8 by Combustion Analyser	10.19	--
7	Carbon Dioxide as CO_2	%		9.21	--
8	Carbon Monoxide as CO	mg/Nm^3		38.0	**100.0**
9	Oxides as Nitrogen as NOx as NO_2	mg/Nm^3	USEPA Method -07	160.0	**350.0**
10	Sulphur dioxide as SO_2	mg/Nm^3	USEPA Method -08	37.0	**100.0**
11	Hydrogen Chloride as HCl	mg/Nm^3	USEPA Method -26	6.0	**50.0**
12	Hydrogen Fluoride as HF	mg/Nm^3	USEPA method -13B	0.1	**0.5**
13	Total Organic Compounds as TOC	mg/Nm^3	USEPA method -40 & MM5(10)	3.0	**20.0**
14	Particulate Matter as PM	mg/Nm^3	USEPA Method 5	23.0	**30.0**

ELV Emission Limit Value
All values expressed in Dry basis
Instruments used for Gaseous Composition: Optima 7 Multi Gas Analyzer
All the values are represented at 11% O_2

Dr. Subba Reddy Mallampati
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TC-5418

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Driven by Quality. Inspired by Science

ISSUED TO:

M/s. DELHI MSW SOLUTIONS LTD.,
DELHI WASTE TO ENERGY,
BAWANA INDUSTRIAL AREA,
SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number : VLL/VLS/25/03055/001
Issued Date : 2025.05.13
P.O. Number : 0400113023
P.O. Date : 2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2

Sample Registration Date	:	2025.05.02	Sampling Date	:	2025.04.30
Analysis Starting Date	:	2025.05.02	Analysis Completion Date	:	2025.05.12
Test Required	:	Metals And their Compounds			
Capacity of Power Plant	:	24 MW			

Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr.No.	Parameters	UoM	Method of Testing	Results	Emission Limits by DPCC
1	Cadmium as Cd	mg/Nm³	USEPA Method -29	0.002	< 0.05 (Cd + Th + their compound)
2	Thorium as Th	mg/Nm³	USEPA Method -29	0.002	
3	Total Mercury as Hg	mg/Nm³	USEPA Method -29	0.002	< 0.02 Hg + their compound)
4	Chromium as Cr	mg/Nm³	USEPA Method -29	0.08	< 0.5 (Pb,Cr. Mn, As, Sb, Pb, Co, Cu, Ni, V + their, compound)
5	Manganese as Mn	mg/Nm³	USEPA Method -29	0.02	
6	Arsenic as As	mg/Nm³	USEPA Method -29	<0.001	
7	Antimony as Sb	mg/Nm³	USEPA Method -29	<0.001	
8	Cobalt as Co	mg/Nm³	USEPA Method -29	0.02	
9	Copper as Cu	mg/Nm³	USEPA Method -29	0.02	
10	Nickel as Ni	mg/Nm³	USEPA Method -29	0.02	
11	Vanadium as V	mg/Nm³	USEPA Method -29	<0.001	
12	Zirconium as Zr	mg/Nm³	USEPA Method -29	<0.001	--
13	Lead as Pb	mg/Nm³	USEPA Method -29	<0.001	<1.0

All values expressed in Dry basis
ELV-Emission Limit Value
All the values are represented at 11% O2

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M/s. DELHI MSW SOLUTIONS LTD.,
DELHI WASTE TO ENERGY,
BAWANA INDUSTRIAL AREA,
SECTOR-5, POCKET N1,
NEW DELHI-110055

Report Number : VLL/VLS/25/03055/002
Issued Date : 2025.05.13
P.O. Number : 0400113023
P.O. Date : 2024.06.19

SAMPLE PARTICULARS: Sample Collected from Common Stack Attached to Boiler No. 1, 2.

Sample Registration Date	: 2025.05.02	Sampling Date	: 2025.04.30
Analysis Starting Date	: 2025.05.02	Analysis Completion Date	: 2025.05.12
Test Required	: PCDD& PCDF		
Capacity of Power Plant	: 24 MW		

Sample collected by Vimta Labs Ltd. Sampling Person: Dushyant Kumar & Shivansh Singh

TEST REPORT

Sr. No.	Congeners of Dioxin & Furans	Concentration		
		Concentration (ng)	TEF	TEQ (ng)
1	2,3,7,8-TCDD	0.06250	1	0.0625
2	1,2,3,7,8-PeCDD	0.31250	0.5	0.1563
3	1,2,3,4,7,8-HxCDD	0.03125	0.1	0.0031
4	1,2,3,6,7,8-HxCDD	0.03125	0.1	0.0031
5	1,2,3,7,8,9-HxCDD	0.03125	0.1	0.0031
6	1,2,3,4,6,7,8-HpCDD	0.00313	0.01	0.0000
7	OCDD	0.00019	0.001	0.0000
8	2,3,7,8-TCDF	0.00625	0.1	0.0006
9	1,2,3,7,8-PeCDF	0.00938	0.05	0.0005
10	2,3,4,7,8-PeCDF	0.09375	0.5	0.0469
11	1,2,3,4,7,8-HxCDF	0.03125	0.1	0.0031
12	1,2,3,6,7,8-HxCDF	0.03125	0.1	0.0031
13	1,2,3,7,8,9-HxCDF	0.03125	0.1	0.0031
14	2,3,4,6,7,8-HxCDF	0.03125	0.1	0.0031
15	1,2,3,4,6,7,8-HpCDF	0.00313	0.01	0.0000
16	1,2,3,4,7,8,9-HpCDF	0.00313	0.01	0.0000
17	OCDF	0.00019	0.001	0.0000
			Total (ng TEQ)	0.2887
			Vstd (Nm^3)	4.6
			ng TEQ/Nm^3	0.0628
			% Of O_2 in Flue Gas	10.19
			Total Dioxins & Furans (ng TEQ/Nm3 at 11 % O_2 Correction)	0.0580
			Limits as per As per # CTO issued by DPCC	< 0.1

Detection Limit: 0.01pg
TEF: Toxicity Equivalence Factor by W.H.O

Dr. Subba Reddy Mallampati
Manager-Environment

82

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TC-5064

TEST REPORT

Issued to:		Issued Date	16.06.2025
M/s. Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Our Ref No.(ULR No.)	TC506425000003774F
		Your Ref No	0400125605
		Date	21.05.2025
Monitoring Location	**Admin Building Area**		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:15 am		
Ambient Temperature °C	28 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	69	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	38	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	10.2	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	340	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA – 2019
6.	Ozone (O_3)	$\mu g/m^3$	8.8	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	–	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I, VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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83

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TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No	VL-202500003774
		Your Ref No	0400125605
		Date	21.05.2025
Monitoring Location	**Admin Building Area**		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:15 am		
Ambient Temperature °C	28 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 – 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 – 2004
3.	Methane (CH_4)	ppm	1.46	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	8.0	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	872	<2000	IS: 5182 P 10– 1999 NDIR Method

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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170

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TC-5064

TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No.(ULR No.)	TC506425000003775F
		Your Ref No	0400125605
		Date	21.05.2025
Monitoring Location	**Near Land Filling Area**		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	09:30 am		
Ambient Temperature °C	28 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	65	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	34	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	8.2	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	324	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA – 2019
6.	Ozone (O_3)	$\mu g/m^3$	8.5	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	--	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I, VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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85

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TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No	VL-202500003775
		Your Ref No	0400125605
		Date	21.05.2025

Monitoring Location	**Near Land Filling Area**		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	09:30 am		
Ambient Temperature °C	28 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 – 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 – 2004
3.	Methane (CH_4)	ppm	1.50	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	7.1	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	882	<2000	IS: 5182 P 10– 1999 NDIR Method

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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272

86

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TC-5064

TEST REPORT

Issued to:			
M/s. Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No.(ULR No.)	TC506425000003776F
		Your Ref No	0400125605
		Date	21.05.2025

Monitoring Location	Near WTE Temple		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:00 am		
Ambient Temperature °C	28 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	58	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	30	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	7.3	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	304	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA - 2019
6.	Ozone (O_3)	$\mu g/m^3$	7.5	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	--	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I, VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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87

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TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi - P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	16.06.2025
	Our Ref No	VL-202500003776
	Your Ref No	0400125605
	Date	21.05.2025

Monitoring Location	Near WTE Temple		
Sample collection date	04.06.2025 to 05.06.2025	Sample Description	Ambient Air
Sample Registration date	06.06.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:00 am		
Ambient Temperature °C	2 (Average)	Weather Condition	Clear
Wind Direction	SE	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	06.06.2025	Analysis Completion Date	14.06.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 - 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 - 2004
3.	Methane (CH_4)	ppm	1.29	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	6.5	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	792	<2000	IS: 5182 P 10- 1999 NDIR Method

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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TC-5064

TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	17.04.2025
	Our Ref No.(ULR No.)	TC506425000002419F
	Your Ref No	Verbal
	Date	05.04.2025

Monitoring Location	**Admin Building Area**		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	11:00 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025

Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	75	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	40	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the mensurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	11.6	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	352	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA – 2019
6.	Ozone (O_3)	$\mu g/m^3$	10.8	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	--	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I. VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VISON LABS Determining Quality

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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89

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No	VL-202500002419
		Your Ref No	Verbal
		Date	05.04.2025
Monitoring Location	**Admin Building Area**		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	11:00 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 – 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 – 2004
3.	Methane (CH_4)	ppm	1.50	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	9.3	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	910	<2000	IS: 5182 P 10– 1999 NDIR Method

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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VISON LABS

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Accredited by NABL vide certificate number TC-5064
MoEF & CC, ISO 9001 : 2015 & OHSAS 45001 : 2018

TC-5064

TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area. Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No.(ULR No.)	TC506425000002417F
		Your Ref No	Verbal
		Date	05.04.2025
Monitoring Location	Near Land Filling Area		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:30 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	79	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	41	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	9.5	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	346	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA – 2019
6.	Ozone (O_3)	$\mu g/m^3$	9.3	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	--	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I, VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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91

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TEST REPORT

Issued to:			
Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No	VL-202500002417
		Your Ref No	Verbal
		Date	05.04.2025

Monitoring Location	**Near Land Filling Area**		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:30 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025
Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines			

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 – 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 – 2004
3.	Methane (CH_4)	ppm	1.62	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	8.8	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	936	<2000	IS: 5182 P 10– 1999 NDIR Method

		Authorized Signature Technical Manager – T. Laxmikanth Reddy
Checked By	Sr. Chemist	

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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TC-5064

TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No.(ULR No.)	TC506425000002418F
		Your Ref No	Verbal
		Date	05.04.2025
Monitoring Location	Near WTE Temple		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:45 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025

Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Particulate Matter (PM_{10})	$\mu g/m^3$	66	<100	Respirable Dust Sampler method (IS : 5182 P 23 – 2006, RA-2017)
2.	Particulate Matter ($PM_{2.5}$)	$\mu g/m^3$	34	<60	SOP. No. VL/SOP/01 Issue No.01, Issue Date 24.03.2023, based on CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I
3.	Sulphur Dioxide (SO_2)	$\mu g/m^3$	8.1	<80	Improved West and Geake method (IS : 5182 P II – 2001, RA-2017)
4.	Ammonia (NH_3)	$\mu g/m^3$	318	<400	CPCB guidelines for the measurement of Ambient Air Pollutants, Vol. I May 2011 – VL/SOP/INS/11
5.	Lead as Pb	$\mu g/m^3$	<0.01	<01	IS 5182 (Part-22) 2004, RA - 2019
6.	Ozone (O_3)	$\mu g/m^3$	8.2	<180	IS 5182 (Part 9) 1974, RA-2019
7.	Arsenic as AS	ng/m^3	< 0.06	--	CPCB Guidelines for the measurement of Ambient Air Pollutants Vol. I, VL/SOP/INS/38, Issue No.02, Issue date:11.01.2023 Annexure-B (As), Annexure-A (Ni)
8.	Nickel as Ni	ng/m^3	< 1.0	--	

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

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93

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No	VL-202500002418
		Your Ref No	Verbal
		Date	05.04.2025

Monitoring Location	Near WTE Temple		
Sample collection date	08.04.2025 to 09.04.2025	Sample Description	Ambient Air
Sample Registration date	10.04.2025	Sample(s) condition of testing	Found Ok
Monitoring Time	10:45 am		
Ambient Temperature °C	30 (Average)	Weather Condition	Clear
Wind Direction	SW	Flow Rate of Gases (LPM)	0.20
Analysis Start Date	10.04.2025	Analysis Completion Date	16.04.2025

Monitoring and Sampling done by Mr. Hari Krishna on behalf of VISON LABS as per CPCB Guidelines

TEST RESULTS

S.No.	Parameters	Units	Test Results	National Ambient Air Quality Standards (NAAQS)	Analysis Method
1.	Benzine as C_6H_6	$\mu g/m^3$	< 0.01	--	IS: 5182 P 11 - 2006
2.	Benzo[a]pyrene as BaP	ng/m^3	< 0.01	--	IS: 5182 P 12 - 2004
3.	Methane (CH_4)	ppm	1.48	--	IS: 5182 Part 17: 1979
4.	Nitrogen Oxide (NO)	$\mu g/m^3$	8.1	--	IS: 5182 Part VI : 2017
5.	Carbon Monoxide (CO)	$\mu g/m^3$	884	<2000	IS: 5182 P 10– 1999 NDIR Method

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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280

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TC-5064

TEST REPORT

Issued to: M/s. Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	16.06.2025
	Our Ref No.(ULR No.)	TC506425000003777F
	Your Ref No	0400125605
	Date	21.05.2025

Sampling Station	Near Admin Building Area		
Date of Monitoring	04.06.2025 to 05.06.2025	Registration date	06.06.2025
Monitoring conducted by Mr. Hari Krishna on behalf of VISON LABS			

TEST RESULTS

Time (Day)	Noise Level dB(A)	Time (Night)	Noise Level dB(A)
6.00-7.00	52.6	22.00-23.00	55.4
7.00-8.00	55.2	23.00-00.00	53.1
8.00-9.00	54.1	00.00-01.00	51.9
9.00-10.00	56.7	1.00-2.00	49.7
10.00-11.00	59.3	2.00-3.00	46.5
11.00-12-00	61.7	3.00-4.00	44.9
12.00-13.00	64.5	4.00-5.00	46.7
13.00-14.00	67.8	5.00-6.00	48.5
14.00-15.00	65.3	--	--
15.00-16.00	66.1	--	--
16.00-17.00	64.2	--	--
17.00-18.00	67.4	--	--
18.00-19.00	63.9	--	--
19.00-20.00	61.7	--	--
20.00-21.00	59.5	--	--
21.00-22.00	57.2	--	--
Average	**61.1**	**Average**	**49.6**
Max.	**67.8**	**Max.**	**55.4**
Min.	**52.6**	**Min.**	**44.9**
L day	**63.5**	**L night**	**50.4**

Notes:
1. Noise monitoring were done as per standard method prescribed by IS 9876: 1981 (Reaffirmed-2001).

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VL/QM/7. 8/TR

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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TC-5064

TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No.(ULR No.)	TC506425000003778F
		Your Ref No	0400125605
		Date	21.05.2025
Sampling Station	**Near Land Filling Area**		
Date of Monitoring	04.06.2025 to 05.06.2025	Registration date	06.06.2025
Monitoring conducted by Mr. Hari Krishna on behalf of **VISON LABS**			

TEST RESULTS

Time (Day)	Noise Level dB(A)	Time (Night)	Noise Level dB(A)
6.00-7.00	50.2	22.00-23.00	53.6
7.00-8.00	52.6	23.00-00.00	51.7
8.00-9.00	53.1	00.00-01.00	49.2
9.00-10.00	56.4	1.00-2.00	47.5
10.00-11.00	54.2	2.00-3.00	45.1
11.00-12-00	58.6	3.00-4.00	43.9
12.00-13.00	61.4	4.00-5.00	46.5
13.00-14.00	64.1	5.00-6.00	49.1
14.00-15.00	62.8	--	--
15.00-16.00	60.3	--	--
16.00-17.00	63.7	--	--
17.00-18.00	61.6	--	--
18.00-19.00	58.9	--	--
19.00-20.00	60.4	--	--
20.00-21.00	58.8	--	--
21.00-22.00	55.3	--	--
Average	**58.3**	**Average**	**48.3**
Max.	**64.1**	**Max.**	**53.6**
Min.	**50.2**	**Min.**	**43.9**
L day	**60.2**	**L night**	**49.4**

Notes:

1. Noise monitoring were done as per standard method prescribed by IS 9876: 1981 (Reaffirmed-2001).

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VL/QM/7. 8/TR

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	17.04.2025
	Our Ref No.(ULR No.)	TC506425000002420F
	Your Ref No	Verbal
	Date	05.04.2025

Sampling Station	**Near Admin Building Area**		
Date of Monitoring	08.04.2025 to 09.04.2025	Registration date	10.04.2025
Monitoring conducted by Mr. Hari Krishna on behalf of VISON LABS			

TEST RESULTS

Time (Day)	Noise Level dB(A)	Time (Night)	Noise Level dB(A)
6.00-7.00	51.1	22.00-23.00	57.5
7.00-8.00	53.8	23.00-00.00	55.1
8.00-9.00	56.6	00.00-01.00	53.4
9.00-10.00	59.1	1.00-2.00	52.1
10.00-11.00	60.9	2.00-3.00	49.6
11.00-12-00	62.4	3.00-4.00	46.8
12.00-13.00	66.1	4.00-5.00	44.5
13.00-14.00	64.3	5.00-6.00	47.9
14.00-15.00	62.5	--	--
15.00-16.00	65.2	--	--
16.00-17.00	67.7	--	--
17.00-18.00	69.1	--	--
18.00-19.00	66.4	--	--
19.00-20.00	64.7	--	--
20.00-21.00	62.1	--	--
21.00-22.00	59.8	--	--
Average	**62.0**	**Average**	**50.9**
Max.	**69.1**	**Max.**	**57.5**
Min.	**51.1**	**Min.**	**44.5**
L day	**64.3**	**L night**	**52.2**

Notes:
1. Noise monitoring were done as per standard method prescribed by IS 9876: 1981 (Reaffirmed-2001).

		Authorized Signature Technical Manager – T. Laxmikanth Reddy
Checked By	Sr. Chemist	

VL/QM/7. 8/TR

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No.(ULR No.)	TC506425000002421F
		Your Ref No	Verbal
		Date	05.04.2025
Sampling Station	Near Land Filling Area		
Date of Monitoring	08.04.2025 to 09.04.2025	Registration date	10.04.2025
Monitoring conducted by Mr. Hari Krishna on behalf of VISON LABS			

TEST RESULTS

Time (Day)	Noise Level dB(A)	Time (Night)	Noise Level dB(A)
6.00-7.00	48.5	22.00-23.00	54.1
7.00-8.00	50.6	23.00-00.00	51.6
8.00-9.00	53.8	00.00-01.00	48.8
9.00-10.00	55.1	1.00-2.00	45.2
10.00-11.00	57.7	2.00-3.00	43.7
11.00-12-00	59.6	3.00-4.00	40.2
12.00-13.00	61.5	4.00-5.00	42.1
13.00-14.00	63.1	5.00-6.00	45.3
14.00-15.00	60.4	--	--
15.00-16.00	62.7	--	--
16.00-17.00	64.6	--	--
17.00-18.00	67.4	--	--
18.00-19.00	65.1	--	--
19.00-20.00	61.8	--	--
20.00-21.00	59.5	--	--
21.00-22.00	56.2	--	--
Average	**59.2**	**Average**	**46.4**
Max.	**67.4**	**Max.**	**54.1**
Min.	**48.5**	**Min.**	**40.2**
L day	**61.9**	**L night**	**48.2**

Notes:
1. Noise monitoring were done as per standard method prescribed by IS 9876: 1981 (Reaffirmed-2001).

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VL/QM/7.8/TR

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98

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TEST REPORT

Issued to: **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No	VL-20250003785
		Your Ref No	0400125605
		Date	21.05.2025

Sample description	**Leachate Outlet Water (Condensate Water)**		
Appearance of the Sample	Clear Liquid	Sample condition of testing	Found Ok
Environmental Conditions at the time of Sampling (Tem/RH)		27.5 °C/52%	
Sample collection date	04.06.2025	Sample Quantity	1 ltr
Sample Collection Time	11:40 am	Analysis starting date	06.06.2025
Sample Registration date	06.06.2025	Analysis Completion date	14.06.2025
Sampling done by Mr. Hari Krishna on behalf of VISON LABS Hyderabad as per VL/SOP/C/53			

TEST RESULTS

Sr. No.	Parameters	Test Method	Unit of measurements	Results	Limits
1.	pH at 25 °C	IS 3025 : Part 11 : 2022	--	8.05	5.5 to 9.0
2.	Total Dissolved Solids	IS 3025 Part 16:2023	mg/L	492	< 2100
3.	Total Suspended Solids	IS 3025 Part 17 :2022	mg/L	<2.0	< 100
4.	Chloride as Cl	IS 3025 Part 32 1988, RA-2019	mg/L	45	< 1000
5.	Total Kjeldahl Nitrogen (TKN)	IS 3025 Part 34 1988, RA-2019	mg/L	60	< 100
6.	Ammonical Nitrogen	IS 3025 Part 34 1988, RA-2019	mg/L	28	<50
7.	Fluorides as F	APHA 24th ed 4500 F B D	mg/L	0.32	< 2.0
8.	Iron as Fe	IS: 3025 Part 53 2003, RA-2019	mg/L	0.12	--
9.	Arsenic as As	APHA 24th ed 3120B	mg/L	<0.001	< 0.2
10.	Nickel as Ni	APHA 24th ed 3111B	mg/L	<0.001	< 3.0
11.	Lead as Pb	APHA 24th ed 3111B	mg/L	<0.001	< 0.1
12.	Zinc as Zn	APHA 24th ed 3111B	mg/L	<0.002	< 5.0
13.	Copper as Cu	APHA 24th ed 3111B	mg/L	<0.002	< 3.0
14.	Chromium as Cr	APHA 24th ed 3111B	mg/L	<0.001	< 2.0
15.	Cadmium as Cd	APHA 24th ed 3111B	mg/L	<0.001	< 2.0
16.	Mercury as Hg	APHA 24th ed 3125B	mg/L	<0.001	<0.01
17.	Chemical Oxygen Demand (COD)	IS 3025 Part 58 2006, RA-2017	mg/L	120	< 250
18.	Biochemical Oxygen Demand (BOD) (3 day at 27°C)	IS 3025 Part 44:2023	mg/L	25	< 30
19.	Cyanide as CN	IS 3025 Part 27 1986	mg/L	<0.001	< 0.2
20.	Nitrites as N	IS 3025 Part 34 1988, RA-2019	mg/L	<0.01	--
21.	Phenols as C_6H_5OH	IS 3025 Part 43 1988	mg/L	<0.10	< 1.0

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	21.05.2025
	Our Ref No	VL-202500003027
	Your Ref No	0400125605
	Date	21.05.2025

Sample description	**Leachate Outlet Water (Condensate Water)**		
Appearance of the Sample	Clear Liquid	Sample condition of testing	Found Ok
Environmental Conditions at the time of Sampling (Tem/RH)		29.2 °C/461%	
Sample collection date	06.05.2025	Sample Quantity	1 ltr
Sample Collection Time	11:45 am	Analysis starting date	08.05.2025
Sample Registration date	08.05.2025	Analysis Completion date	15.05.2025
Sampling done by Mr. Hari Krishna on behalf of VISON LABS Hyderabad as per VL/SOP/C/53			

TEST RESULTS

Sr. No.	Parameters	Test Method	Unit of measurements	Results	Limits
1.	pH at 25 °C	IS 3025 : Part 11 : 2022	--	8.23	5.5 to 9.0
2.	Total Dissolved Solids	IS 3025 Part 16:2023	mg/L	514	< 2100
3.	Total Suspended Solids	IS 3025 Part 17 :2022	mg/L	<2.0	< 100
4.	Chloride as Cl	IS 3025 Part 32 1988, RA-2019	mg/L	75	< 1000
5.	Total Kjeldahl Nitrogen (TKN)	IS 3025 Part 34 1988, RA-2019	mg/L	62	< 100
6.	Ammonical Nitrogen	IS 3025 Part 34 1988, RA-2019	mg/L	28.4	<50
7.	Fluorides as F	APHA 24th ed 4500 F B D	mg/L	0.37	< 2.0
8.	Iron as Fe	IS: 3025 Part 53 2003, RA-2019	mg/L	0.14	--
9.	Arsenic as As	APHA 24th ed 3120B	mg/L	<0.01	< 0.2
10.	Nickel as Ni	APHA 24th ed 3111B	mg/L	<0.01	< 3.0
11.	Lead as Pb	APHA 24th ed 3111B	mg/L	<0.01	< 0.1
12.	Zinc as Zn	APHA 24th ed 3111B	mg/L	<0.01	< 5.0
13.	Copper as Cu	APHA 24th ed 3111B	mg/L	<0.01	< 3.0
14.	Chromium as Cr	APHA 24th ed 3111B	mg/L	<0.01	< 2.0
15.	Cadmium as Cd	APHA 24th ed 3111B	mg/L	<0.01	< 2.0
16.	Mercury as Hg	APHA 24th ed 3125B	mg/L	<0.001	<0.01
17.	Chemical Oxygen Demand (COD)	IS 3025 Part 58 2006, RA-2017	mg/L	120	< 250
18.	Biochemical Oxygen Demand (BOD) (3 day at 27°C)	IS 3025 Part 44:2023	mg/L	23	< 30
19.	Cyanide as CN	IS 3025 Part 27 1986	mg/L	<0.001	< 0.2
20.	Nitrites as N	IS 3025 Part 34 1988, RA-2019	mg/L	<0.01	--
21.	Phenols as C_6H_5OH	IS 3025 Part 43 1988	mg/L	<0.10	< 1.0

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VISON LABS

VL/QM/7. 8/TR

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Tel : 040-24544320, 24541338, Mob : 98491 10019 / 94408 41338, E-mail : Info@visonlabs.com, vison.labs@gmail.com

286

100

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No	VL-20250002423
		Your Ref No	Verbal
		Date	05.04.2025

Sample description	**Leachate Outlet Water (Condensate Water)**		
Appearance of the Sample	Clear Liquid	Sample condition of testing	Found Ok
Environmental Conditions at the time of Sampling (Tem/RH)		28.8 °C/491%	
Sample collection date	08.04.2025	Sample Quantity	1 ltr
Sample Collection Time	12:40 pm	Analysis starting date	10.04.2025
Sample Registration date	10.04.2025	Analysis Completion date	16.04.2025
Sampling done by Mr. Hari Krishna on behalf of VISON LABS Hyderabad as per VL/SOP/C/53			

TEST RESULTS

Sr. No.	Parameters	Test Method	Unit of measurements	Results	Limits
1.	pH at 25 °C	IS 3025 : Part 11 : 2022	--	8.18	5.5 to 9.0
2.	Total Dissolved Solids	IS 3025 Part 16:2023	mg/L	536	< 2100
3.	Total Suspended Solids	IS 3025 Part 17 :2022	mg/L	<2.0	< 100
4.	Chloride as Cl	IS 3025 Part 32 1988, RA-2019	mg/L	60	< 1000
5.	Total Kjeldahl Nitrogen (TKN)	IS 3025 Part 34 1988, RA-2019	mg/L	78	< 100
6.	Ammonical Nitrogen	IS 3025 Part 34 1988, RA-2019	mg/L	34	<50
7.	Fluorides as F	APHA 24th ed 4500 F B D	mg/L	0.40	< 2.0
8.	Iron as Fe	IS: 3025 Part 53 2003, RA-2019	mg/L	0.18	--
9.	Arsenic as As	APHA 24th ed 3120B	mg/L	<0.001	< 0.2
10.	Nickel as Ni	APHA 24th ed 3111B	mg/L	<0.001	< 3.0
11.	Lead as Pb	APHA 24th ed 3111B	mg/L	<0.001	< 0.1
12.	Zinc as Zn	APHA 24th ed 3111B	mg/L	<0.002	< 5.0
13.	Copper as Cu	APHA 24th ed 3111B	mg/L	<0.002	< 3.0
14.	Chromium as Cr	APHA 24th ed 3111B	mg/L	<0.001	< 2.0
15.	Cadmium as Cd	APHA 24th ed 3111B	mg/L	<0.001	< 2.0
16.	Mercury as Hg	APHA 24th ed 3125B	mg/L	<0.001	<0.01
17.	Chemical Oxygen Demand (COD)	IS 3025 Part 58 2006, RA-2017	mg/L	140	< 250
18.	Biochemical Oxygen Demand (BOD) (3 day at 27°C)	IS 3025 Part 44:2023	mg/L	28	< 30
19.	Cyanide as CN	IS 3025 Part 27 1986	mg/L	<0.001	< 0.2
20.	Nitrites as N	IS 3025 Part 34 1988, RA-2019	mg/L	<0.01	--
21.	Phenols as C_6H_5OH	IS 3025 Part 43 1988	mg/L	<0.10	< 1.0

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VL/QM/7. 8/TR

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Tel . 040-24544320, 24541338, Mob : 98491 10019 / 94408 41338, E-mail : info@visonlabs.com, vison.labs@gmail.com

101

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TEST REPORT

Issued to **M/s. Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.06.2025
		Our Ref No	VL-202500003790
		Your Ref No	Verbal
		Date	04.06.2025
Sample description given by Customer	**Bottom Ash**		
Sample collection date	04.06.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	06.06.2025	Analysis starting date	06.06.2025
Sample Registration Time	11:15 am	Analysis Completion date	14.06.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Aluminum as Al_2O_3	USEPA 1311 - 1992	mg/L	0.97
2.	Arsenic as As		mg/L	<0.01
3.	Mercury as Hg		mg/L	<0.01
4.	Silver as Ag		mg/L	<0.01
5.	Barium as Ba		mg/L	<0.01
6.	Lead as Pb	USEPA 1311 - 1992	mg/L	<0.01
7.	Cadmium as Cd		mg/L	<0.01
8.	Chromium as Cr		mg/L	0.37
9.	Cobalt as Co		mg/L	<0.01
10.	Zinc as Zn		mg/L	0.68
11.	Nickel as Ni	USEPA 1311 - 1992	mg/L	<0.01
12.	Iron as Fe		mg/L	0.46
13.	Manganese as Mn		mg/L	1.02
14.	Vanadium as V		mg/L	0.30
15.	Copper as Cu		mg/L	0.24

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet. Hyderabad - 500 036.

102

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TEST REPORT

Issued to:		Issued Date	16.06.2025
M/s. Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Our Ref No	VL-202500003790
		Your Ref No	Verbal
		Date	04.06.2025
Sample description given by Customer	**Bottom Ash**		
Sample collection date	04.06.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	06.06.2025	Analysis starting date	06.06.2025
Sample Registration Time	11:15 am	Analysis Completion date	14.06.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Loss of Ignition as LOI	ASTM D7348	%	3.64
2.	Total Organic Carbon as TOC	As Per FCO- 1985 Amendment- November -2023	%	1.50

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VISON LABS Hyderabad

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183

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	16.05.2025
		Our Ref No	VL-202500003031
		Your Ref No	Verbal
		Date	05.05.2025
Sample description given by Customer	**Bottom Ash**		
Sample collection date	06.05.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	08.05.2025	Analysis starting date	08.05.2025
Sample Registration Time	12:00 pm	Analysis Completion date	15.05.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Aluminum as Al_2O_3	USEPA 1311 - 1992	mg/L	1.14
2.	Arsenic as As		mg/L	<0.01
3.	Mercury as Hg		mg/L	<0.01
4.	Silver as Ag		mg/L	<0.01
5.	Barium as Ba		mg/L	<0.01
6.	Lead as Pb	USEPA 1311 - 1992	mg/L	<0.01
7.	Cadmium as Cd		mg/L	<0.01
8.	Chromium as Cr		mg/L	0.42
9.	Cobalt as Co		mg/L	<0.01
10.	Zinc as Zn		mg/L	0.56
11.	Nickel as Ni	USEPA 1311 - 1992	mg/L	<0.01
12.	Iron as Fe		mg/L	0.38
13.	Manganese as Mn		mg/L	0.96
14.	Vanadium as V		mg/L	0.35
15.	Copper as Cu		mg/L	0.28

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
Tel : 040-24544320, 24541336, Mob : 98491 10019 / 94406 41336, E-mail : info@visonlabs.com, vison.labs@gmail.com

290

104

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	16.05.2025
	Our Ref No	VL-202500003031
	Your Ref No	Verbal
	Date	05.05.2025

Sample description given by Customer	**Bottom Ash**		
Sample collection date	06.05.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	08.05.2025	Analysis starting date	08.05.2025
Sample Registration Time	12:00 pm	Analysis Completion date	15.05.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Loss of Ignition as LOI	ASTM D7348	%	3.40
2.	Total Organic Carbon as TOC	As Per FCO- 1985 Amendment- November -2023	%	1.32

Checked By	Sr. Chemist	Authorized Signature (Quality Technical Manager – T. Laxmikanth Reddy)

VISON LABS Determining Quality Hyderabad

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
Tel : 040-24544320, 24541338, Mob : 98491 10019 / 94408 41338, E-mail : Info@visonlabs.com, vison.labs@gmail.com

105

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TEST REPORT

Issued to:		
Delhi MSW Solutions Ltd. Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.	Issued Date	17.04.2025
	Our Ref No	VL-202500002428
	Your Ref No	0400116081
	Date	17.09.2024

Sample description given by Customer	**Bottom Ash**		
Sample collection date	08.04.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	10.04.2025	Analysis starting date	10.04.2025
Sample Registration Time	09:30 am	Analysis Completion date	16.04.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Aluminum as Al_2O_3	USEPA 1311 - 1992	mg/L	0.96
2.	Arsenic as As		mg/L	<0.01
3.	Mercury as Hg		mg/L	<0.01
4.	Silver as Ag		mg/L	<0.01
5.	Barium as Ba		mg/L	<0.01
6.	Lead as Pb	USEPA 1311 - 1992	mg/L	<0.01
7.	Cadmium as Cd		mg/L	<0.01
8.	Chromium as Cr		mg/L	0.63
9.	Cobalt as Co		mg/L	<0.01
10.	Zinc as Zn		mg/L	0.49
11.	Nickel as Ni	USEPA 1311 - 1992	mg/L	<0.01
12.	Iron as Fe		mg/L	0.44
13.	Manganese as Mn		mg/L	0.79
14.	Vanadium as V		mg/L	0.21
15.	Copper as Cu		mg/L	0.46

Checked By	Sr. Chemist	Authorized Signature Technical Manager – T. Laxmikanth Reddy

VL/QM/7. 8/TR

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet, Hyderabad - 500 036.
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106

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TEST REPORT

Issued to: **Delhi MSW Solutions Ltd.** Delhi – P&D Project, Sector-5, Pocket N1, Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.		Issued Date	17.04.2025
		Our Ref No	VL-202500002428
		Your Ref No	0400116081
		Date	17.09.2024
Sample description given by Customer	**Bottom Ash**		
Sample collection date	08.04.2025	Sample Quantity	1.0 Kg (Approximately)
Sample Registration date	10.04.2025	Analysis starting date	10.04.2025
Sample Registration Time	09:30 am	Analysis Completion date	16.04.2025
Sample Collected by Customer			*Sample Tested as Received Basis*

TEST RESULTS

S. No.	Parameters	Test Method for Ref	Units	Results
1.	Loss of Ignition as LOI	ASTM D7348	%	3.49
2.	Total Organic Carbon as TOC	As Per FCO- 1985 Amendment- November -2023	%	1.84

Checked By	Sr. Chemist	Authorized Signature (Determining) Technical Manager – T. Laxmikanth Reddy

VISON LABS Hyderabad

H.No. 16-11-23/37/A, Flat No. 205, 2nd Floor, Opp. R.T.A. Office, Musarambagh, Malakpet. Hyderabad - 500 036.
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ANNEXURE E 107

By Speed Post/E-mail 298

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI
B-Block, 3rd FLOOR, DELHI IT PARK, SHASTRI PARK, DELHI-110053
visit us at: https://dpcc.delhigovt.nic.in

F. No. DPCC / WMC-II /Ash Utilization / 2024/3437-3445 Dated: 09/12/2024

Subject: Directions u/s 5 of the Environment (Protection) Act, 1986 read along with Solid Waste Management Rules, 2016 regarding utilization of Ash generated from Waste to Energy Plants in Delhi.

Central Government has notified the standards for discharge of environmental pollutants from various categories of industries under the Environment (Protection) Act, 1986 and the Rules framed there under.

Ministry of Environment, Forest & Climate Change has notified Solid Waste Management Rules, 2016 (SWM Rules, 2016) which inter-alia state procedures for Solid Waste Management.

Local Authorities / Municipal Corporation in Delhi are responsible for proper management of Solid Waste in their area of jurisdiction as per the SWM Rules, 2016 and duties & responsibilities of Local Authorities are mentioned under Rule 15 of said SWM Rules, 2016.

As per Rule 16 (a) of Solid Waste Management Rules, 2016, the State Pollution Control Board or Pollution Control Committee [Delhi Pollution Control Committee (DPCC) in case of Delhi] shall enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department.

The Ministry of Environment, Forest & Climate Change has issued notification dated 14.09.1999 followed by subsequent amendments including amendment vide notification dated 27.08.2003 from time to time regarding use of fly ash bricks or blocks or tiles or clay fly ash bricks or cement fly ash bricks or blocks or similar products or combination or aggregate of them in construction projects giving time schedule for compliance, 100 % (by volume) use of fly ash bricks blocks and tiles by August, 2005 in respect of construction of buildings within a radius of 50 kilometers from a Coal or Lignite based Thermal Power Plant and by August, 2007 in respect of construction of buildings within a radius of 100 kilometers from a Coal or Lignite based Thermal Power Plant.

The above-mentioned provisions are also applicable to all construction agencies such as Housing Boards and those in the private sector builders of apartments, hotels, resorts and cottages and the like. It shall be the responsibility of the construction agencies either undertaking the construction or approving the design or both to ensure compliance of the above-mentioned provisions.

Municipal Solid Waste being sent to Waste to Energy Plants in Delhi is having inert (Soil/ Silt/ C&D Waste) which is about 50 % of the total Rejects [Inert + Ash Generated from Waste to Energy Plants (About 25 % of total MSW received at WTE)] due to improper segregation at source. The mixing of inert (Soil/ Silt/ C&D Waste) can be avoided through proper segregation at source.

There are operational C & D Waste Processing Facilities in Delhi meant for processing of C & D Waste generated in Delhi including inert (Soil/ Silt/ C&D Waste).

In the 32nd Meeting of the Committee for II (a) Category cases headed by Chairman, DPCC held on 27.12.2023, following decision was taken by the Committee:

"The Committee underlined that there is substantial amount [about 1200 TPD] of Ash (Fly Ash and Bottom Ash) generated from the existing four operation Waste to Energy Plants at Okhla, Bawana, Ghazipur & Tehkhand in Delhi. The disposal of this quantity of Ash from the Waste to Energy Plants in the Low-lying areas or at Dumpsite or even at Engineered Sanitary Landfill is not solution to problem.

Engineered Sanitary Landfill will also filled and then MCD will again start seeking another piece of land. Delhi cannot afford to have such graveyard of Engineered Sanitary Landfill sites, Land is precious resource in Delhi. Therefore, ash generated from all the existing operational Waste to Energy Plants in Delhi must be used in making Bricks and other products which can be consumed in construction activities-road/building construction etc.

DPCC shall issue necessary directions under section 5 of the Environment (Protection) Act, 1986 on the pattern of instructions issued by MoEF&CC for usage of ash from Thermal Power Plants, to the Municipal Corporation of Delhi and all the existing four operational Waste to Energy Plants in Delhi for production & usage of products from Ash generated from the Waste to Energy Plants in Delhi. Accordingly dumping of such ash in the low-lying area/Dumping sites / Engineered Sanitary Landfill shall be phased out at the earliest.

Directions will also be issued to Govt. Departments involved in construction to off take/ utilize ash based products from ULBs"

A meeting was taken by the Member Secretary, DPCC with the Operators of Waste to Energy Plants in Delhi regarding utilization of Ash generated from the Waste to Energy Plants in Delhi held on 02.04.2024

Various issues related to utilization of Ash generated from the Waste to Energy Plants in Delhi, were deliberated.

Representatives of Waste to Energy Plants suggested that Fly Ash & Bottom Ash can be utilised in making following, Fly Ash Bricks, Fly Ash Tiles, Paver Blocks, Kerb Stones, Aggregates (Sand & Other Aggregates of various size), Fine Ash upto 12mm can be used in making Subgrade of Road and Road Embankments.

Information regarding Ash Generation, Utilisation & Disposal by the Waste to Energy Plants in Delhi for the Financial Year 2023-2024 is briefed in following table:

S. No.	Name of Waste to Energy Plant	Qty. of Ash Generated						Ash Utilisation		Ash Disposed				
		Fly Ash		Bottom Ash		Total				ESLF		Dumpsite		
		Total (MT)	In (TPD)	Total (MT)	In (TPD)	Total (MT)	In (TPD)	Total (MT)	In (TPD)	Name of ESLF	Qty. (in MT)	Name of Dumpsite	Qty. (in MT)	Qty. (in TPD)
1.	WtE at Okhla (1950 TPD Capacity)	10750	29.4	62655	171.2	73405	200.6	2648	7.23	-	-	Okhla	70756	193.3
2.	WtE at Tehkhand (2000 TPD Capacity)	10677	29.2	81708	223.2	92385	252.4	72578	198.3	-	-	Okhla	19807	54.1
3.	WtE at Ghazipur (1300 TPD Capacity)	1791	4.90	81435	222.5	83226	227.4	0	0	-	0	Ghazipur	83226	227.4
4.	WtE at Bawana (1300 TPD Capacity)	4930	13.47	106883	292	111813	305.5	62911	171.9	Bawana	48902	-	-	133.6
Total		28148	76.97	332681	908.11	360829	985.9	138137	377.43	-	48902	-	173789	608.4

Now therefore, in view of the above and in exercise of the powers conferred upon Delhi Pollution Control Committee, following directions u/s 5 of Environment (Protection) Act, 1986, as amended to date, read along with Solid Waste Management Rules, 2016 are issued to the existing operational Waste to Energy Plants at Okhla, Bawana, Ghazipur & Tehkhand in Delhi & Municipal Corporation of Delhi:

1. **Waste to Energy Plants shall ensure following:**

   (i) Phasing out of dumping of ash in the Low-Lying Areas / Dumping sites / Engineered Sanitary Landfill at the earliest (at least within six months) and an Action Plan shall be submitted in this regard within 30 days.

   (ii) Ash (Fly Ash & Bottom Ash) must be used by Waste to Energy Plants in making Bricks and other products which can be consumed in construction activities – road (Paver Blocks, Kerbs Stones, subgrade preparation etc.) / building construction (Fly Ash Bricks, etc.), and submit Time Bound Action Plan in this regard within 30 days for 100 % utilization of Ash within six months.

2. **Municipal Corporation of Delhi shall ensure following:**

   (i) Ensure compliance of above-mentioned Directions at (i) & (ii) by the existing four operational Waste to Energy Plants in Delhi.

   (ii) Ensure proper segregation of waste at source so that inert (Soil/ Silt/ C & D Waste) does not mix with the General Municipal Solid Waste being sent to Waste to Energy Plants and also ensure collection and disposal of the segregated inert (Soil/ Silt/ C & D Waste) generated from the operational Waste to Energy Plants in Delhi to the C & D Waste Processing Facilities in Delhi.

   (iii) Shall prepare detailed Action Plan for utilization of Ash (Fly Ash & Bottom Ash) from the existing as well as proposed Waste to Energy Plants in Delhi so that there is no/ minimal disposal of Ash (Fly Ash & Bottom Ash) in the Engineered Sanitary Landfills in future and submit the same to DPCC within two months.

   (iv) Shall provide requisite assistance and support to the existing Waste to Energy Plants in utilization of Ash (Fly Ash & Bottom Ash) generated from the Plants.

   (v) Shall ensure procurement of products made from Ash (Fly Ash & Bottom Ash) by the Waste to Energy Plants for use in construction activities – road (Paver Blocks, Kerbs Stones, subgrade preparation etc.) / building construction (Fly Ash Bricks) etc.).

Abovementioned directions shall be strictly complied and Action Taken / Compliance Report shall be submitted to Delhi Pollution Control Committee within stipulated time as mentioned above failing which necessary action as deemed fit shall be initiated / taken under the provisions of Environment (Protection) Act, 1986.

(Dr. K. S. Jayachandran)
Member Secretary, DPCC

To,

1. Commissioner, Municipal Corporation of Delhi, Dr. S.P.M Civic Center, JLN Marg, Delhi – 110002.
2. M/s Timarpur-Okhla Waste Management Company Limited, Old NDMC Compost plant, Behind CRRI, Mathura Road, New Delhi-110025.
3. M/s Delhi MSW Solutions Limited, Sector 5, Pocket-N1, Bawana Industrial Area, Behind Pragati Power Plant, Bawana, New Delhi-110039.
4. M/s Tehkhand Waste to Electricity Project limited, Adjacent DTC Tehkhand Depot, Maa Anandmai Marg, Tehkhand, New Delhi-110020.
5. M/s East Delhi Waste Processing Company Limited, Adjacent to Veterinary Hospital, Behind Ghazipur DDA Flats, Ghazipur, Delhi-110096.

Copy to:

1. Chairman, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
2. Additional Chief Secretary (UD), Urban Development Department, GNCTD, 9th Level, Delhi Secretariat Delhi -02.
3. Vice Chairman, Delhi Development Authority, Vikas Sadan, INA, Delhi-110023.
4. PS to Chairman, DPCC

(Dr. K. S. Jayachandran)
Member Secretary, DPCC

Annexure-F 110

DMSWSL
A Company

Ref- DMSWL/DEMS/25-26/NGT/01 Dated-08.10.2025

The Executive Engineer (WtE) DEMS,
Municipal Corporation of Delhi (MCD),
Room No. 1901, 19th Floor, Dr. SPM, Civic Centre,
JLN Marg, New Delhi – 110 002.

Project: Door to Door collection, Transfer, Transportation, developing an integrated Municipal Solid Waste Processing Facility and Engineered Sanitary Landfill Facility as per MSW (M&H) Rules 2000, for Select Zones in Delhi, on a long-term Build, Operate and Transfer (BOT) basis for Municipal Solid Waste in Delhi, (Agreement dated 17.07.2009 r/w Novation Agreement dated 25.02.2020)

Subject: Hon'ble NGT's order dated 14.07.2025 on O.A No.1303/2024, in the matter of the news item titled "New waste mounds creep upon Capital" appearing in the Hindustan Times on 04.11.2024

References:

1. Concession Agreement ("CA") dated 17/07/2009;
2. EE/WtE/MCD/DEMS/2025-26/D-15 Dated 17.07.2025;
3. D-10/CE/Project/DEMS/MCD/25-26 Dated 01.08.2025;
4. EE/WtE/MCD/DEMS/2025-26/D-28 Dated 29.08.2025;
5. EE/WtE/MCD/DEMS/2025-26/D-39 Dated 18.09.2025.

Dear Sir,

This is in reference to the above cited letters, wherein DMSWL was asked to provide further information for MCD's onward submission in the matter of the *Suo motu* proceedings before Hon'ble NGT, pursuant to news article which wrongly alleged new waste mounds at Bawana and mistakenly found as unorganized /uncontrolled dumping of waste, as opposed to the factual operation of fully compliant sanitary landfilling at Bawana.

Delhi MSW Solutions Limited
(A Subsidiary of Re Sustainability Limited)
CIN No. U90001TG2009PLC063708
Registered Office:
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City, Hitech City Road,
Hyderabad - 500081,
Telangana.

Site Address:
MCD Workshop,
Near Metro Station,
Model Town, Phase - I,
Delhi - 110009

Ph. : 011-47355234
Tollfree : 1800 11 4243
IVR : 080 6235 8949
E: ccc.dmswsl@resustainability.com
delhimswsolutions.com

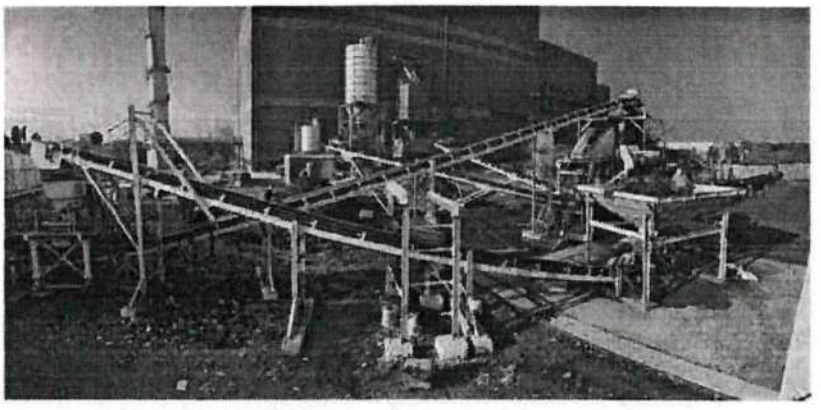
At the very outset, it is pertinent to submit that-DMSWL, as a Concessionaire is responsible towards the Operation & Maintenance of the sole Engineered Sanitary Landfill in the state of Delhi, which was set up as per the provisions of Concession Agreement dated 17.07.2009. The Hon'ble NGT in its order vide OP 199 of 2014 dated 22nd December 2016 has recognized that the DMSWL facility at Narela – Bawana is a self-contained facility, with an Engineered sanitary landfill being part of the processing plant that includes a Waste to Energy plant as well.

Thus, DMSWL stands out as unique as a fully compliant Processing & Disposal facility under SWM Rules framework, which also consists of a most modern Leachate Treatment Plant with the MVRE technology whereby the entire treated leachate is being reused in the plant , and a dedicated ash recycling facility for segregation of ash /slag into usable, recyclable fractions which is a first of its kind in the country.

It is also pertinent to draw your attention to the circular of DPCC dated 09.12.2024, which has taken cognizance of the fact that DMSWL is the only WTE plant in the state of Delhi to have set up the ash recycling facility and diverted significant quantity of ash away from sanitary landfill. For ready reference the details of circular of DPCC are reproduced as under:

"Ash Processing & Recycling Facility

In addition to the above, DMSWL has voluntarily taken up the installation of Ash recycling plant. The plant was commissioned in Aug'2021. The Concessionaire has proactively managed ash generated from the Waste-to-Energy (WtE) plant by operating an on-site ash recycling unit. Currently this unit processing about 250 MT of ash on daily basis. Furthermore, we are in the process to expand our facility to accommodate the remaining ash generated which comes around Approx 100 Mt. The Concessionaire is the only entity in Delhi NCR to have inhouse Ash recycling unit from WtE plants in compliance with the Environment Protection Act along with the Solid Waste Management (SWM) Rules, 2016."



112

Till date DMSWL has processed approx. 1.6 Lakh MT of Ash through our Ash recycling plant.

Information regarding Ash Generation, Utilisation & Disposal by the Waste to Energy Plants in Delhi for the Financial Year 2023-2024 is briefed in following table:

S. No.	Name of Waste to Energy Plant	Qty. of Ash Generated						Ash Utilisation		Ash Disposed				
		Fly Ash		Bottom Ash		Total				[illegible]		Dumpsite		
		Total (MT)	In (TPD)	Total (MT)	In (TPD)	Total (MT)	In (TPD)	Total (MT)	In (TPD)	Name of [illegible]	Qty. (in MT)	Name of Dumpsite	Qty. (in MT)	Qty. (in TPD)
1.	WTE at Okhla (1950 TPD Capacity)	19750	39.4	62855	121.2	72605	200.6	2643	7.23	-	-	Okhla	70754	193.7
2.	WTE at Timarpur (2000 TPD Capacity)	10677	29.2	31708	223.3	92385	252.4	72578	198.5	-	-	Okhla	19807	54.1
3.	WTE at Ghazipur (1700 TPD Capacity)	1791	4.90	81435	222.5	83226	227.4	0	0	-	0	Ghazipur	83226	227.4
4.	WTE at Narela (1200 TPD Capacity)	4930	13.47	106883	292	111813	305.5	62011	170.9	Narela	49802	-	-	133.6
	Total	241481	76.97	332681	908.11	360139	985.9	138137	377.43	-	49802	-	123787	608.4

Therefore, it is submitted that Narela Bawana site being operated by DMSWL is fully compliant with SWM rules and in no way can be treated as a dump site with mounds of waste creeping afresh like that of Balaswa or Okhla or Ghazipur and that too basing upon inaccurate and motivated press reports. An appropriate rebuttal to establish the factual scenario is to be emphasized by MCD in its submission before Hon'ble NGT. Further, DMSWL is not concerned with the Singhola site, which is alleged to be a dump site as per the media reports and MCD may respond as deemed fit with respect to Singhola site.

In this regard, detailed information to enable MCD to craft its appropriate response is detailed below, in consonance with various discussions between officers of MCD and DMSWL executives.

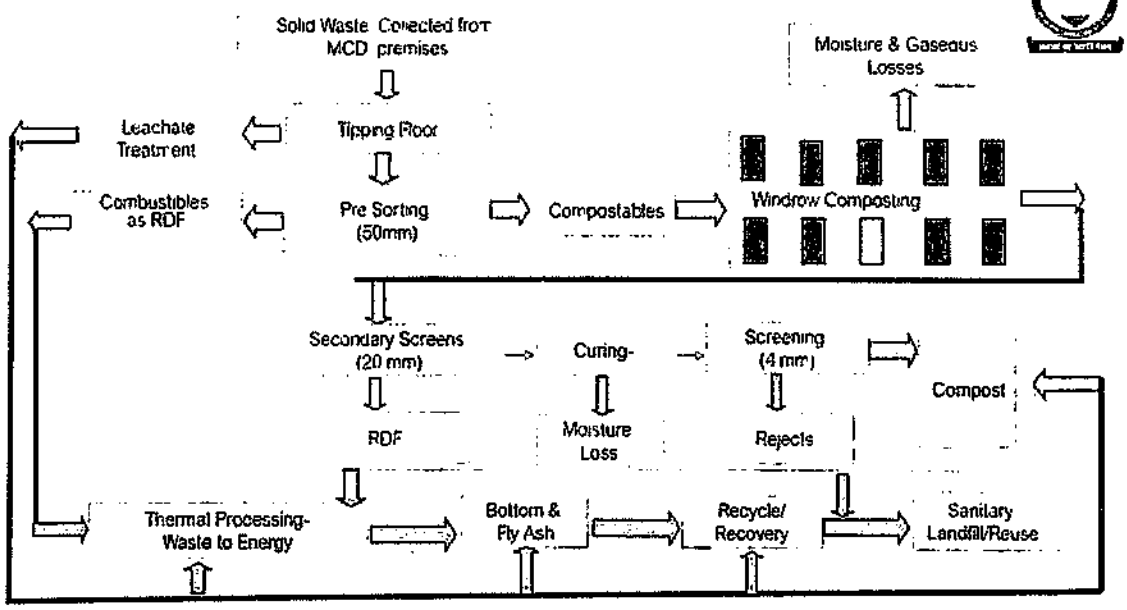
Nature of Intake

DMSWL project is integrated with the collection & transportation of waste from select zones of MCD as per provisions of the said CA and therefore collects & transports waste which is often mixed waste because of the lack of prevailing practices. However, it is emphasized that source segregation is also being practiced, thanks to the joint efforts of DMSWL and MCD in creating awareness among citizens and recycling of usable waste is increasing. Secondary Collection & Transport Points (SCTPs) are set up in key areas with built in provisions for enhanced recycling from the waste so collected.

The concessionaire operates within five distinct zones of Delhi as per CA i.e Civil Line, Keshav Puram, Rohini, part of Narela, part of City SP. Each of these zones has unique waste characteristics. On an average, approximately 2400 metric tons of waste being generated daily from all these zones.

113

Process



It is submitted that Mixed waste is being segregated using a process flow as depicted herein below at Narela Bawana P&D facility.

Apart from the cited zones, DMSWL used to collect & transport waste – predominantly plastic waste from the Industrial cluster of DSIDC under orders of EPCA . However, the same is discontinued at the behest of MCD. Similarly, waste from the market mandi of Azadpur also used to be collected & transported by DMSWL and the same has also been discontinued at the behest of MCD.

A summary of waste receipt is provided herein for your kind reference-

Financial Year	NDMC	Bhalswa	APMC	Bawana Infra	P.N.C DSIIDC
2011-2012	2,05,180				
2012-2013	4,28,178				
2013-2014	4,20,003				
2014-2015	5,16,841				
2015-2016	6,61,227				
2016-2017	7,06,456				
2017-2018	7,20,116		14,716		826
2018-2019	6,78,124		49,695	22112	17173
2019-2020	7,34,872		49,220	25574	13002
2020-2021	7,54,547	1,92,945	43,882	21915	11539
2021-2022	8,35,819	1,77,427	42,094	21767	11285
2022-2023	8,50,248		44,931	21615	9747
2023-2024	8,52,260				
2024-2025	8,21,154				
Total NDMC Receipt in MT	91,85,025	3,70,372	2,44,539	1,12,981	63,572
Total Intake	99,76,489 MT				

114

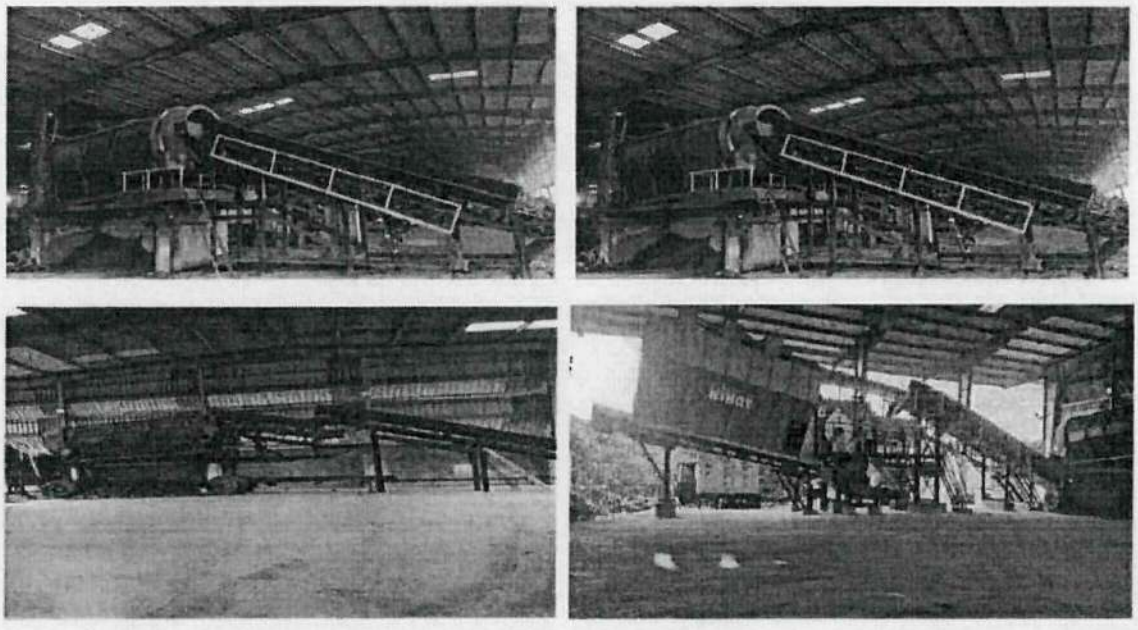
Treatment facilities including capacity of WtE plant and its capacity utilization with the details of electricity production

Since inception of project, the Concessionaire has processed 99.76 Lakh MT of MSW from the project area, including waste from other generators such as APMC (Agricultural Produce Market Committee), Bhalswa, Bawana Infra and P.N.C DSIIDC.

Processing facilities

The unit has installed and operating elaborate processing of MSW comprising of 13 no's of mechanically driven trommels and 4 no's of ballistic separators with magnetic separators, and 1 no. Wind Shifter (air classification for producing higher quality RDF) and carrying out segregation of MSW into recyclable, biodegradable and refused-derived fuel (RDF) fraction and inert. The processing plant can process more than 4000 Tons per day of mixed waste and has also got Environment Clearance from Ministry of Environment & Forests, Govt of India for such treatment capacity, though it is presently collecting and transporting up to 2400 Tons per day of MSW only.

Photographs of the Trommels, Ballistics and Wind sifter installed at P&D



Plant capacity of WtE plant and its capacity utilization with the details of electricity production:-

The WtE plant capacity and details of electricity production is stated below:-

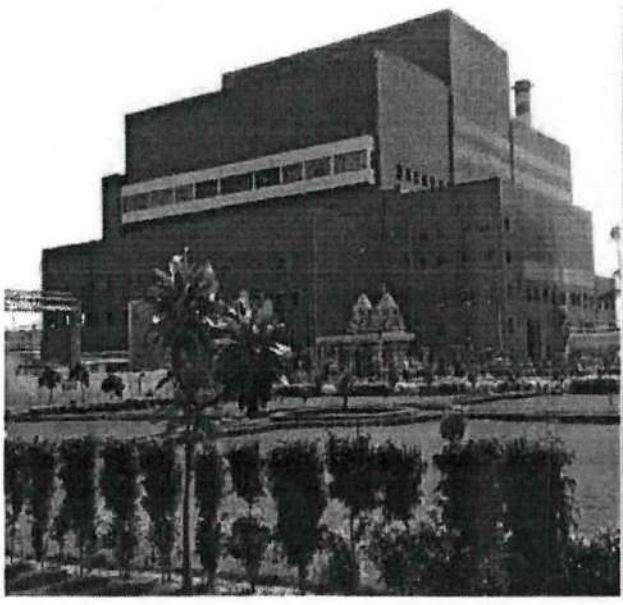
DMSWSL- WtE plant capacity	
WtE Generator Capacity	24 MW

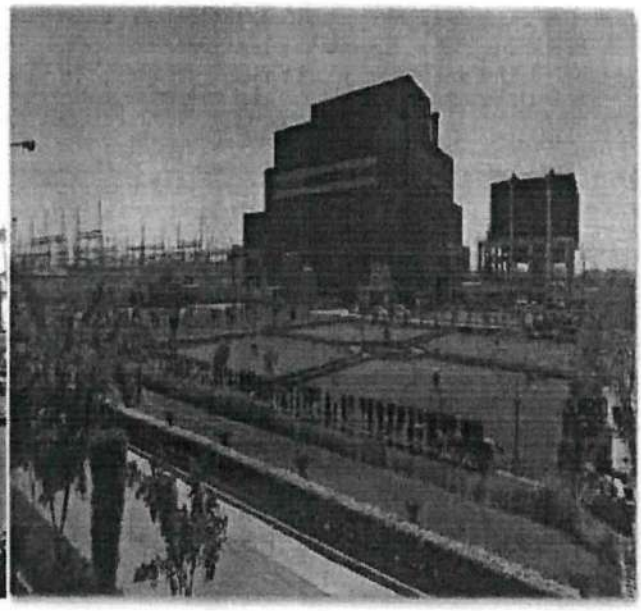
115

A summary of electricity generation is provided herein for your kind reference-

Details of Electricity Production-WtE plant									
Financial Year	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-jun'25
Gross Generation (Lakh Units)	1,071	1,359	1,456	1,596	1,633	1,636	1,718	1,531	422
Plant availability	91%	98%	92%	99%	99.8%	94%	99%	99%	99%
PLF (%)	51%	65%	69%	76%	78%	78%	82%	73%	81%

The RDF is used as fuel for the Waste to Energy plant and the capacity of the WTE plant is to consume a minimum nominal capacity of 1300 Tons per day of RDF with a built-in provision for using up to 15% more than the nominal capacity to account for seasonal variation and sustained energy recovery.





Compliance with emission norms and other supporting materials

The details of the emission norms and third-party certification as submitted to Delhi Pollution Control Committee (DPCC) by way of DMSWL letter DMSWSL/WTE/DPCC/WMC-II/25-26/03 dated 10.6.2025 is annexed herewith as Annexure-1. Needless to mention that the data goes to show the compliance as achieved by DMSWL consistently with the norms of emissions etc.

Biodegradable (Wet) waste treatment facilities

DMSWL is the only Plant in the state of Delhi which is operating the composting plant through its dedicated composting facilities with windrow platform etc. under covered shed. There is no other SWM facility in the state of Delhi manufacturing city compost on the scale as DMSWL does.

Concessionaire also would like to submit that "Compositing facility" is an integral part of treatment facility. Sorted Compost is transferred to the Windrow platform. This mechanism stabilizes the organic solid waste through aerobic decomposition.

The Concessionaire hereby encloses the certified Compost production and sale data of last 15 years.

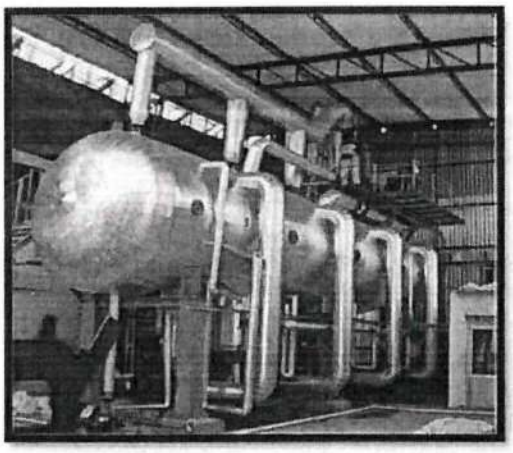
Sr. No.	Financial Year	Compost Production (MT)	Compost Sale (MT)
1	FY-2011-2012	2,501	0
2	FY- 2012-2013	23,338	8,107
3	FY- 2013-2014	22,597	7,484
4	FY- 2014-2015	27,748	7,837
5	FY- 2015-2016	28,996	9,427
6	FY- 2016-2017	18,380	6,381
7	FY- 2017-2018	24,665	16,198
8	FY- 2018-2019	21,798	16,800
9	FY- 2019-2020	19,486	15,574
10	FY- 2020-2021	19,708	26,184
11	FY- 2021-2022	25,511	22,134
12	FY- 2022-2023	24,195	21,288
13	FY- 2023-2024	21,611	20,861
14	FY- 2024-2025	20,446	14,443
15	FY- 2025-2026	5,959	3640
	Compost given to farmers till date		40,000
	Compost consumed in Green Belt		55,000
	Compost stored in plant		15,573
	Total	**3,06,939**	**3,06,939**

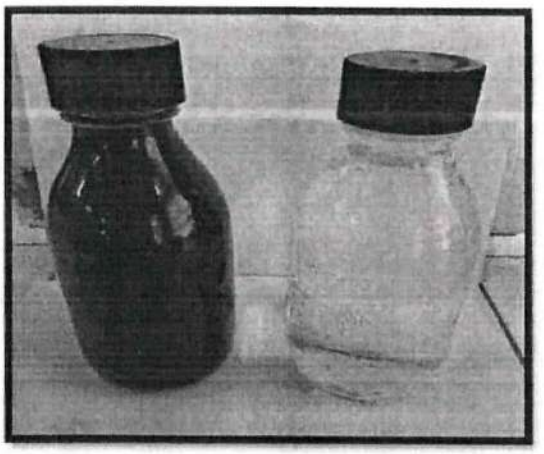
Leachate Treatment Facility

MVRE based Leachate treatment plant has been operational at our Bawana site since 2021. The total leachate treated and recycled is as under.

Description	UOM	FY-21-22	FY-22-23	FY-23-24	FY-24-25
Leachate Treated	KL	65,193	68,019	64,771	64,871
Treated Condensate reused	KL	61,477	64,754	62,051	62,341

117





Furthermore, it is to be noted that the input for the Bawana P&D is met by utilizing the treated effluent from the adjacent Pragati Power Plant and as such our plant does not use any ground water & fresh water for its processing purposes.

Valid CTO and authorizations with respect the facility

We have attached the various approvals and CTO for your reference.

- DPCC approval dt: 06.10.2021 to operate WTE plant, its associated activities and disposal of waste with validity up to 04.05.2026. (The approval certificate is appended as **Annexure-2**.)
- Environment clearance dated 8.05.2012. (The approval certificate is appended as **Annexure-3**.)
- CTO dt: 06.10.2021, with validity up to 04.05.2026 (The approval certificate is appended as **Annexure-4**.)

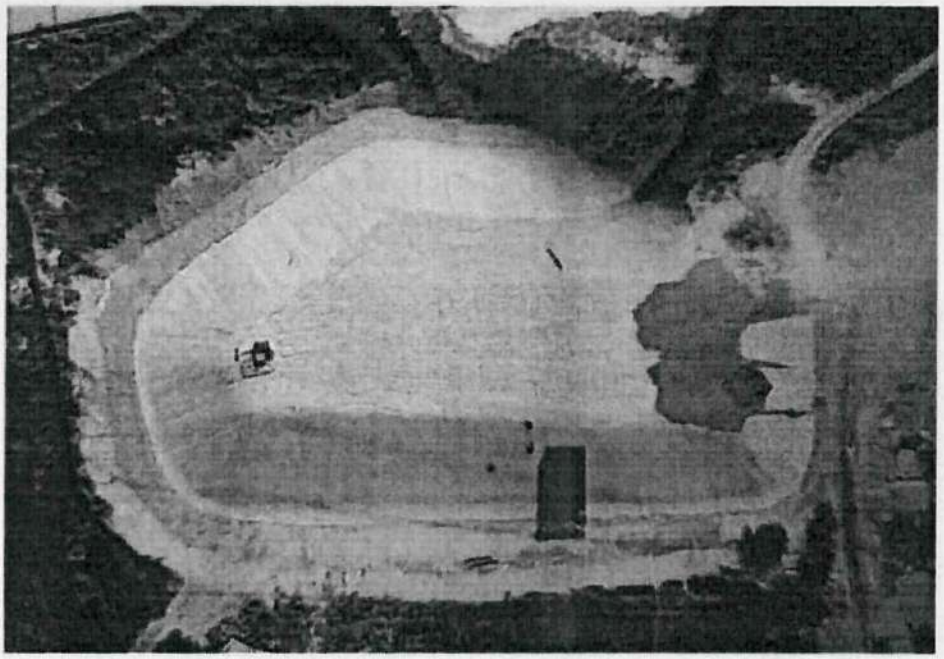
Details on operational area of WtE plant, composting plant and landfill so constructed:-

Engineered Sanitary Landfill

It is humbly reiterated that Bawana site is the only compliant Sanitary landfill under operation within SWM framework in the state of Delhi and it is unfortunate that the press reports are inaccurately portraying a misgiving that there are new mounds of waste as like Balaswa or okhla or ghazipur which are dump sites as opposed to organized SLF like the one at Bawana- a fact recognized by Hon'ble NGT in 2016 itself.

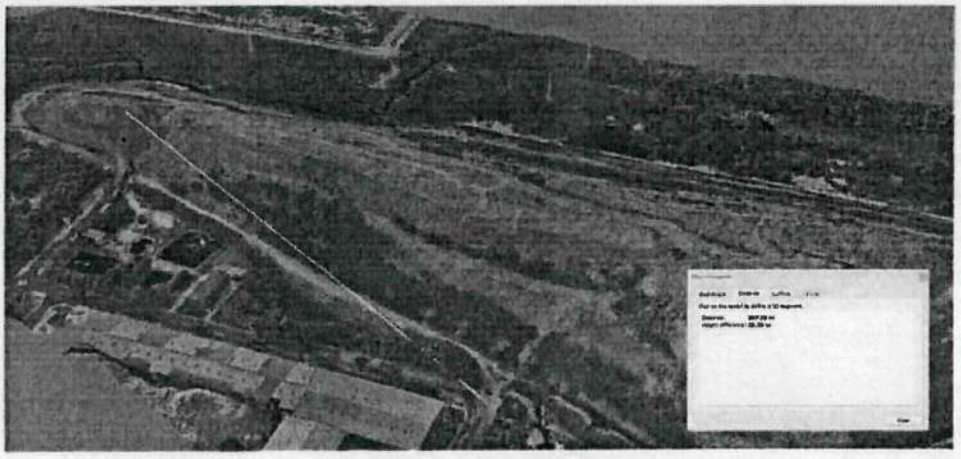
118

The following picture demonstrates that the Bawana site is a compliant SLF and not a dump site

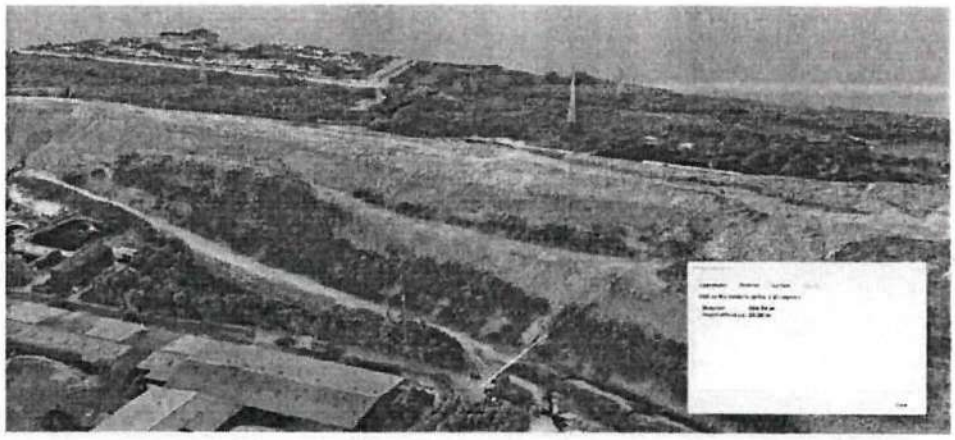


The Engineered Sanitary landfill operations are compliant with the SWM framework and organized sanitary landfilling is undertaken as opposed to the wrongly portrayed mounds of waste picture where waste dumped at Singhola and elsewhere was shown as that the site at Bawana giving a wrong presentation to the readers of such press reports.

The aerial view of the organized sanitary landfilling is demonstrated by following pictures.



119

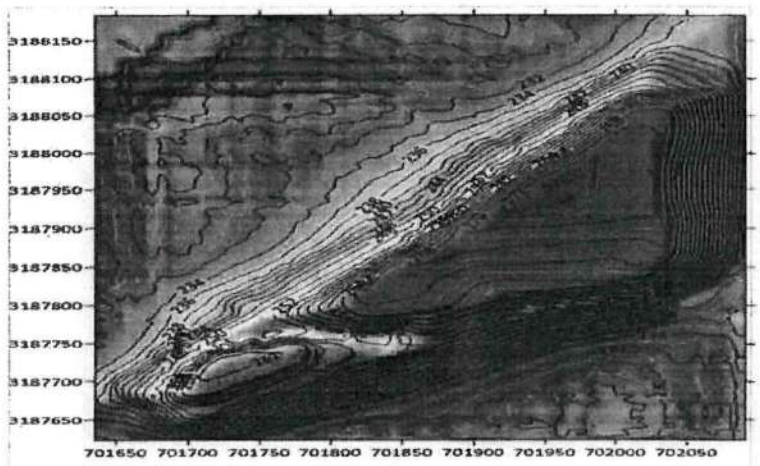


The detailed land utilization of the Bawana facility is provided below

Narela Bawana- 100 Acre -Details		
S. No.	Description	Area in Acres
1	Non usable area due to presence of High-tension line	6
2	Compost processing area	8.12
3	W2E and allied infra	8.03
4	Landfill Area	34.25
5	Other infra and future expansions	10.6
6	Green Belt area	33
		100

SLF Current Volume and height

It is submitted that current volume of SLF is 26.8Lm^3 and the base area is around 96517m^2. The current height is varying between ~22.3m to ~35.0m. The Concession Agreement has stipulated that the final closure top cover area shall be at least 30% of the base area.



120

Limitations imposed by MCD in disposal of ash on Round the Clock basis

Unlike the other WTE plants of Delhi which disposes of the ash to the adjoining dumps on round the clock basis, DMSWL is crippled by a recent limitation imposed by MCD restricting the evacuation of Ash from WTE to SLF on around the clock basis. As a result, there is a variation in the height of the SLF between 22 to 35 meters. It is therefore requested to accord long overdue approval for the disposal of the ash on to the landfill on par with the practice followed in respect of the other WTE Plants.

It is respectfully submitted that the landfill operations conform to the standard operating practice for a size of this landfill and midterm height course correction/partial capping in phased manner as new cells are added is a continuous exercise , while ensuring the stability of the landfill all the time .

DMSWL assures and undertakes to correct the landfill height to comply with the provisions of CA namely to ensure the top cover area to be at least 30% of the base area and also undertake partial capping of the completed cells and merge with the operating cell in a contiguous manner in a phased time line of 6 months from now and solicits the lifting of the embargo imposed by MCD on the night time disposal of the ash which is generated on Round the clock basis.

The Plan of Action of DMSWL to undertake the height correction and partial capping of the SLF and final capping will be submitted to MCD along with timelines in due course.

In view of above, we trust that the information provided herein comprehensively addresses the matter and enables MCD to file its appropriate response basis above factual submission.

This letter is issued Without Prejudice to and reserving our rights under the Contract and/or law.

Yours faithfully,
For Delhi MSW Solutions Ltd.

Delhi MSW Solutions Ltd.

Authorized Signatory

Enclosures-

1. Annexure-1- Emission norms and third-party certification
2. Annexure-2- DPCC Approval dated 06.10.2021
3. Annexure-3- EC Approval dated 08.05.2012
4. Annexure-4- CTO Approval up to 04.05.2026

CC-

1. Addl. Commissioner (DEMS)
2. E-in-C-II
3. CE(Projects) DEMS
4. SE(DEMS)HQ
5. M/s Innovest waste management

ANNEXURE-I

307

121

DMSS

DELHI MSW SOLUTIONS LTD.

Date: 10.06.2025
Ref: DMSWSL/WTE/DPCC/WMC-II/25-26/03

To
Shri Sanjay Vatts
Environmental Engineer, Delhi Pollution Control Committee (DPCC),
Department of Environment, Govt. Of NCT of Delhi
B-block, 3rd floor, Delhi IT park, Shastri Park, Delh-110053

@ 13/06/25
(ENQUIRY COUNTER)
DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT
GOVT. OF NCT OF DELHI
4TH FLOOR, ISBT BUILDING,
KASHMERE GATE, DELHI-110006

Sub: Submission of Annexure-II as per your letter reference below

Ref: F.no. DPCC/WMC/-II/SWM/2024/09 dated 28.05.2025

Resected sir

We wish to place the following for your kind attention.

At the outset, in regard to the above, M/s. DPCC and M/s CPCB have already been carrying out quarter inspections earlier, these quarterly inspections has been useful. cited subject we wish to inform you that NGT, CPCB and DPCC for the initiative to assess the impact of emissions from WTEs operations across and hope this exercise will be useful in presenting the truthful presentation of the issue such that the best interest of SWM in the country and balancing the fears or to dispel any fears /suspicions on the account of emissions. In this regard, the accurate and unambiguous sampling, testing and error free analysis is an essential pre requisite. Our WTE plant at Bawana is equipped with robust controls some of which are in imbibed in design stage itself complying with global engineering practices.

Temperature of combustion

Not less than 950^0 C for 2 sec is being strictly enforced in the furnace that to ensure the destruction of any formation of the dioxins & furans also known as PCDDs/PCDFs. The record is shared with DPCC every time it is called for.

Quenching of flue gas

The flue gas path is such that the combustion product gas is quenched in the fastest possible time and bring down the temperature below 250^{0}C to alleviate the reformation of dioxins & furans.

Chemical Treatment

The flue gas is treated with milk of lime in the spray reactors to neutralize the acidic emissions and also activated carbon is injected into the flue gas to adsorb any organic constituents capture the metallic and adsorption of the including dioxins & furans if any. The residues are disposed to Sanitary Landfill (SLF)/Engineered Landfill (ELF)

Delhi MSW Solutions Limited
(A Subsidiary of Re Sustainability Limited)
Site Address:
Sector-5, Pocket N-1, Bawana Industrial Area,
Behind Pragati Power Plant, Bawana,
New Delhi - 110039, India.
CIN: U90001TG2009PLC063708
GSTIN: 07AADCD1783F1ZS

Registered Office:
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
Hitech City Road, Hyderabad-500081, India.

T: 8595908844
info@resustainability.com
resustainability.com

122

DELHI MSW SOLUTIONS LTD.

CEMS integrated with CPCB Portal

We have installed continuous emission monitoring system and connected to CPCB portal and we continuously transmit the emission data. The mandatory compliance is scrupulously followed. In addition we also conduct grab sampling and analysis of stack emissions as per reference method on a regular basis to validate the operations and controls.

Leachate Treatment

200 KLD of Mechanical vapour recompression at Low Temperature evaporation (MVRELTE) based first of its kind India for Leachate treatment was installed and being operated. The treated leachate is being used in various WTE operations like Air Pollution Control Devise (APC) and as raw water for DM water preparation in Water treatment Plant of WTE.

Bottom ash recycling Plant

300 TPD of bottom ash recycling plant was installed and being operated. This is also first of kind in India. The bottom ash is making in to construction material aggregates.

Our voluntary compliance

We at DMSWL, have been conscious of the need for transparent data on emissions and undertook a continuous every month stack emission monitoring on monthly basis by an accredited third party testing agencies analysis by Vimta Labs Ltd and SGS Ltd, the latest being 30th April 2025. We are pleased to enclose the tabulated format of the test results of the third party analysis over the last 22 months and the reports thereof along with NGT order format namely Annexure-II.

It is submitted that our voluntary compliance of undertaking such monthly analysis by trusted third party accredited agencies is demonstrating our commitment & adherence to the compliance with prescribed values so as to obviate any misrepresentation or an error of sampling or error of analysis in the light of the solid two years track record of compliance to rule out any even miner deviations.

We also wish to submit that we are also ready to undertake any joint sampling any time if warranted. We request you to take our submission on record.

Thanking You

Yours sincerely

Mr. B Prasad Reddy
Project Head – DMSWL

DELHI MSW SOLUTIONS LIMITED BAWANA DELHI-39

Encloses: Annexure-II along with the stack monitoring reports

Delhi MSW Solutions Limited
(A Subsidiary of Re Sustainability Limited)
Site Address:
Sector-5, Pocket N-1, Bawana Industrial Area,
Behind Pragati Power Plant, Bawana,
New Delhi - 110039, India.
CIN : U90001TG2009PLC063708
GSTIN : 07AADCD1783F1ZS

Registered Office:
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
Hitech City Road, Hyderabad-500081, India.

T: 8595908844
info@resustainability.com
resustainability.com

Annexure-II Information related to WtE Plants									
Name of SPCB/PCC: Delhi Pollution Control Committee –DPCC									
S No.	Name of WtE Plant and Address	CTE/CTO/ Authorization Validity	Capacity of WtE(TPD) and Technology used and product formation(gas/ power/heat)	Average calorific value of waste received at WtE facility(Kcal/Kg)	Average bottom ash/fly ash generation (&) and handling and disposal methods	Whether WtE plant monitored in last 5 years (yes/no if Yes, please provide date of monitoring)	Parameters monitored as specified in schedule-II of SWM Rules, 2016	Parameters found noncomplying the norms	Details of actions (EC imposed, show cause / closure issued, non-renewal of authorization or any other action taken for non-compliance)
1.	M/s. Delhi MSW Solutions Ltd. Sector-5, Behind Pragati Power plant, Bawana, Delhi-110039 (24 MW WtE)	Consent Order F.no. DPCC/WMC-II/ 2019/ 7690-7692/ Dated: 06.10.2021, Validity up to 04.05.2026	Capacity of WtE : 24 MW & 1300 TPD and RDF Based Power plant. Technology: Reciprocating Grate Technology Type of APC: Semi dry Flue gas System Fuel used : RDF (segregated combustible fraction)	1500 Kcal/kg to <1500 - 1800Kcal/kg NCV at WTE	Average Ash <20% and Ash material is disposed as secured landfill method.	Plant was commissioned in January 2017 and since commissioning of the plant, the company is monitoring the Stack emissions by engaging a third party accredited agency on monthly bases voluntarily since last two years. Earlier the company was doing it on regular bases, all the third party reports are enclosed along with a compilation are enclosed as Annexure-1	Yes	As per the third party analysis there is found any noncomplying the norms. Hence, Stack emissions parameters are in compliance with SWM Rules 2016 and DPCC prescribed Standards.	-

124

Summary of Stack Monitoring Reports-

Annexure-1

S. No	Parameters	Units	Standard s	Jun-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	May-23	Jun-23	Jul-23	Aug-23
1	Particulate Matter (PM)	mg/Nm3	30 Max	22.7	21.4	19.8	22.3	18.7	16.5	18.4	19.5	19.2	18.7	18.2
2	Sulphur Dioxide (SO2)	mg/Nm3	100 Max	59.8	22.8	31.3	53.2	64.7	57	43.6	40.85	39.76	31.27	36.4
3	Oxides of Nitrogen (NO)	mg/Nm3	350 Max	193.2	219	207.5	266.5	145.5	209.5	199.7	240.4	247.4	334.46	247.46
4	Hydrogen Chloride (HCL)	mg/Nm3	50 Max	12.4	13.9	15.4	17.9	14.8	2.1	2.8	2.4	2.2	3.8	2.8
5	Carbon Monoxide (CO)	mg/Nm3	100 Max	58.1	36.8	78.7	30.2	48.75	33.8	38.2	39.68	38.62	30.43	35
6	Hydrogen Flouride (HF)	mg/Nm3	0.5 Max	0.24	0.27	0.21	0.32	0.29	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
7	Total Organic Carbon (TOC)	mg/Nm3	20 Max	5.1	7	5.7	6.3	5.4	3.0	3.5	3.3	3.1	3.6	3.6
8	Cd+Th+ their compounds	mg/Nm3	0.05 Max	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
9	Hg+ its compounds	mg/Nm3	0.02 Max	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10	Sb+As+Pb+Cr+Co +Cu+Mn+Ni+V+ their compounds	mg/Nm3	0.5 Max	0.092	0.107	0.148	0.126	0.099	0.363	0.177	0.423	0.353	0.284	0.383
11	Total Dioxins and furans	Ng TEQ/Nm3	0.1 Max	0.0446	0.0559	0.0473	0.0518	0.0424	0.0302	0.0328	0.0217	0.020	0.0226	0.0321
12	Specific Parameter Lead (Pb)	mg/Nm3	0.1 Max	0.017	0.020	0.028	0.019	0.023	0.02	<0.001	0.04	0.03	0.03	0.02

125

S. No	Parameters	Units	Standards	Sep-23	Oct-23	Nov-23	Dec-23	Feb-24	Mar-24	Aug-24	Nov-24	Jan-25	Mar-25	Apr-25
1	Particulate Matter (PM)	mg/Nm3	30 Max	0.0	22.3	8.3	17.9	19.5	21.5	22.5	24.8	20.5	22.5	23
2	Sulphur Dioxide (SO2)	mg/Nm3	100 Max	27.69	92.4	87.0	78.9	89	72.48	9.0	10.0	8.0	31.0	37.0
3	Oxides of Nitrogen (NO)	mg/Nm3	350 Max	141.19	165.54	233.28	18.5	206.5	217	205	210	209	152.2	160
4	Hydrogen Chloride (HCL)	mg/Nm3	50 Max	3.2	3.5	5.3	6.4	7.2	7	7.3	7.0	6	6.4	6.0
5	Carbon Monoxide (CO)	mg/Nm3	100 Max	35.88	32.18	84.7	80.4	55	12.54	42.3	20.0	27	30.0	38.0
6	Hydrogen Flouride (HF)	mg/Nm3	0.5 Max	<0.1	<0.1	<0.1	<0.2	<0.3	<0.1	0.1	0.1	0.1	0.1	0.1
7	Total Organic Carbon (TOC)	mg/Nm3	20 Max	3.9	3.8	3.6	4.6	5.9	7.1	4.5	4.9	3.8	3.5	3.0
8	Cd+Th+ their compounds	mg/Nm3	0.05 Max	<0.002	<0.002	<0.002	<0.002	<0.004	<0.002	0.004	0.004	0.004	0.004	0.004
9	Hg+ its compounds	mg/Nm3	0.02 Max	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	0.002	0.002
10	Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V + their compounds	mg/Nm3	0.5 Max	0.344	0.344	0.315	0.266	0.205	0.141	0.154	0.002	0.163	0.173	0.144
11	Total Dioxins and furans	ng TEQ/Nm3	0.1 Max	0.0302	0.0319	0.0322	0.0457	0.0400	0.0966	0.0034	0.0385	0.0425	0.0534	0.058
12	Specific Parameter Lead (Pb)	mg/Nm3	0.1 Max	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001

126 ANNEXURE-I

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI
5th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-110006
visit us at : http://dpcc.delhigovt.nic.in

FORM-II

AUTHORISATION UNDER THE SOLID WASTE MANAGEMENT RULES, 2016

File No. DPCC/WMC-II /2019/ 7693-7695 **Dated : 06.10.2021**

Authorisation No. : DPCC/SWM/Auth./ WTE-2/2021

To,

M/s Delhi Municipal Solid Waste Solutions Limited,
Sector-5, Behind Pragati Power Plant,
Bawana, Delhi-110039

Ref : Your Application Dated 24.06.2021.

Delhi Pollution Control Committee (DPCC) after examining the proposal hereby authorises **M/s Delhi Municipal Solid Waste Solutions Limited** having administrative office at **Sector-5, Behind Pragati Power Plant, Bawana, Delhi-110039** to operate Waste to Energy Plant (1300 TPD and 24 MW Capacity) and associated activities by Processing Municipal Solid at Sector-5, Behind Pragati Power Plant, Bawana, Delhi-110039 on the basis of application and documents submitted.

The Authorisation is hereby granted under the Solid Waste Management Rules, 2016, to operate Waste to Energy Plant (1300 TPD and 24 MW Capacity) and associated activities for processing, recycling, treatment and disposal of solid waste with validity up to **04.05.2026.**

The Authorisation is subject to the terms and conditions stated below and such conditions as may be otherwise specified in these rules and standards laid down in Schedules I & II under these rules.

The Delhi Pollution Control Committee (DPCC) may, at any time, revoke any of the conditions applicable under the authorisation and shall communicate the same in writing.

Any violation of the provision of the Solid Waste Management Rules, 2016, will attract the penal provision of the Environment (Protection) Act, 1986 (29 of 1986).

This issues in view of the Office Order F.No. DPCC/IT/EODB/2015/627-641 Dated 12.04.2016 & subsequent orders issued in this regard and as per the approval of Chairman, Delhi Pollution Control Committee.

Date : 06.10.2021
Place: Delhi

(D. K. Singh)
Sr. Env. Engineer & I/c WMC II
DEEPAK KR. SINGH
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,

Enclosure : Terms and Conditions of Authorization under the Solid Waste Management Rules, 2016.

127

F. No. 10-67/2009-IA.III
Government of India
Ministry of Environment & Forests
(IA-III Division)

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi - 110 003,

Dated: 8th May, 2012

To
M/s Delhi MSW Solutions Ltd,
2E/25, 3rd Floor, Jhandewalan Extn,
New Delhi – 110 055.

Subject: Environmental Clearance for waste to energy plant at Integrated Solid Waste Management facility at Narela Bawana, Delhi by M/s Delhi MSW Solution Ltd - Reg.

***

This has reference to your letter No.DMSWS/DEL/MSW-WtE/2011-12/01 dated 30.09.2011 seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the Environment Impact Assessment Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form-1, EIA, EMP, and the additional clarifications furnished in response to the observations of the Expert Appraisal Committee constituted by the competent authority in its meetings held on 17th - 18th October, 2011.

2 It is interalia, noted that M/s Delhi MSW Solution Ltd. has established 4000 TPD Integrated Municipal Solid Waste Management Facility at Narela Bawana, notified Site, The Environmental Clearance was issued vide Letter F.No-67/2009- IA.III, dated 25th October,2010, for Composting, RDF & SLF. The proposed project 'Waste to Energy Plant' is also to be located with in the same plot where the Integrated Solid Waste Management Facility is developed. It is aimed to strengthen the IMSWMF, encompassing energy recovery in addition to existing process through establishment of a Min 36 MW Power Plant having MSW processing capacity up to 3000 TPD for the WtE Plant.

3 The total project area is 40.47 Ha out of which WtE plant area designated is 5.82 Ha. The total cost of the project is estimated to be Rs 378 Crores. The technology proposed to be employed is 'Reciprocating grate Technology' as recommended by MNRE. The power plant constitutes of Boilers, Steam Turbine Generators, with power generation capacity of Min36 MW. The in house consumption will be 15 % of the generated power. Air Cooled condensers are to be used in lieu of WCC and the ash to be sent to the Captive Landfill is less than 20 % of Input Waste. A site specific Environment Management Plan has been developed to ensure that the project is implemented in an environmentally sustainable manner. Air Pollution Control system will consist of Flue Gas Treatment System which includes Adsorption of acidic components and filtration of dust particles through bag filters. The captive landfill will act as a safe long term disposal of wastes, both from health & environmental view point. Leachate generated from the WtE Plant will be treated in the Effluent Treatment Plant and other waste water will be used for ash quenching. A green belt

area is proposed to be designed primarily for effective control of pollution within the tolerant limit, and having tremendous sink capacity, can help contain & attenuate pollutant concentration in air, and thereby restore & revitalize the environment on a long term basis. The proposed project will help in the disposal of waste in an environmentally safe manner and a more productive utilization of waste in form of RDF & electricity, thus adding to clean & renewable energy, safeguarding the already depleting fossil fuels. The residue reaching the captive Landfill too will be reduced, hence conserving land. The proposed project is to obtain EC for the Waste to Energy plant to generate Min 36 MW power from the municipal waste.

4 The TOR was finalized during the meeting held on 17th - 19th August, 2011. The committee recommended to exempt the public hearing as it was earlier conducted as per provisions of Environmental Impact Assessment Notification, 2006 for Integrated Solid Waste Management facilities project and the proposed waste to energy project is to be located within the site allotted by DDA.

5. The Expert Appraisal Committee, after due consideration of the relevant documents submitted by the project proponent and additional clarifications furnished in response to its observations, have recommended for the grant of Environmental Clearance for the project. Accordingly, the Ministry hereby accords necessary Environment Clearance for the above project as per the provisions of Environment Impact Assessment Notification, 2006 and its subsequent amendments, subject to strict compliance of the terms and conditions as follows:

6. **SPECIFIC CONDITIONS :**

(i) "Consent for Establishment" shall be obtained from State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.

(ii) Spraying of an appropriate herbal sanitizer shall be adopted for odour control in addition to its the vacuum suction and destroying in furnace.

(iii) Proper shed shall be provided for the compost yard to prevent the rain water coming in contact with the material in the compost yard.

(iv) The gas generated from the Landfill facility shall be collected and disposed as per rules.

(v) The Leachate from the facility shall be collected and treated to meet the prescribed standards before disposal.

(vi) The proponent shall obtain necessary clearance from the Ground Water Authority for the use of ground water.

(vii) An On Site Emergency Management Plan shall be prepared and implemented.

(viii) Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.

129

(ix) The minimum width of the green belt all around the plot shall be 9.0 m. Project proponent should develop green belt all along the periphery of the site with plant species that are significant and used for the pollution abatement.

(x) Regular ambient air quality monitoring shall be carried out as per latest Notification of 16th November, 2009.

(xi) Use only low sulphur diesel. No other oil shall be used.

(xii) The proponent shall ensure that the project fulfills all the provisions of Solid Wastes (Management and Handling) Rules, 2000 including collection and transportation design etc.

(xiii) The project proponent shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguards under the supervision of a Senior Executive.

(xiv) Entire organic material shall be converted into manure. Recyclable material likewise glass, steel, etc., shall be sold to recycler. Only inert material which cannot be either composted or recycled shall be sent to land filling.

(xv) The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purposes.

7. **GENERAL CONDITIONS** :

(i) Adequate provision for infrastructure facilities including water supply fuel and sanitation must be ensured for construction workers during the construction phase of the project to avoid any damage to the environment.

(iii) Full support shall be extended to the officers of this Ministry/Regional Office at Chandigarh by the project proponent during inspection of the project for monitoring purposes by furnishing full details and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.

(iv) A six-Monthly monitoring report shall need to be submitted by the project proponents to the Regional Office of this Ministry at Chandigarh regarding the implementation of the stipulated conditions.

(v) Ministry of Environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.

(vi) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry.

(vii) In the event of a change in project profile or change in the implementation agency, a fresh reference shall be made to the Ministry of Environment and Forests.

(viii) The project proponents shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of land development work.

(ix) A copy of the clearance letter shall be marked to concerned Panchayat/local NGO, if any, from whom any suggestion/ representation has been made received while processing the proposal.

(x) State Pollution Control Board shall display a copy of the clearance letter at the Regional Office, District Industries Centre and Collector's Office/Tehsildar's office for 30 days.

8. These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification 1994, including the amendments and rules made thereafter.

9. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.

10. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the Ministry of Environment and Forests at http://www.envfor.nic.in. The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the Regional office of this Ministry at Chandigarh.

11. Environmental clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.

12. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.

13. The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

14. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.

131

15 The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

(Lalit Kapur)
Director (IA-III)

Copy to:

1. The Secretary, Department of Environment ,Government of National Capital Territory of Delhi, - Room No. C-602, level-6, C-Wing, Delhi Secretariat, IP Estate New Delhi-02.
2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi -- 110 032.
3. The Conservator of Forests (C), Ministry of Env. and Forests, Regional Office(NZ) Bays No. 24-25, Sector 31 A, Dakshin Marg, Chandigarh-160030,Tel. : 0172-2600061
4. The Member Secretary, Delhi Pollution Control Committee, 4th Floor, I.S.B.T. Building, Kashmere Gate, Delhi-110006
5. Director (EI), Ministry of Environment and Forests.
6. Guard File.
7. Monitoring File.

(Lalit Kapur)
Director (IA-III)

182 ANNEXURE

DELHI POLLUTION CONTROL COMMITTEE
DEPARTMENT OF ENVIRONMENT, GOVT. OF NCT OF DELHI
5th FLOOR, ISBT BUILDING, KASHMERE GATE, DELHI-110006
visit us at : http://dpcc.delhigovt.nic.in

F. No. DPCC/WMC-II /2019/ 7690 - 7692 **Dated : 06.10.2021**

CONSENT ORDER

[Waste to Energy Plant & Associated Activities]

Name of the Unit : **M/s Delhi Municipal Solid Waste Solutions Limited**

Address : Sector - 5, Behind Pragati Power Plant, Bawana, Delhi - 110039

Consent Order No : DPCC / WMC II / 2021 /

Date of Issue : **06.10.2021** **Date of Expiry : 04.05.2026**

Product/Activity : **Waste to Energy Plant (1300 TPD and 24 MW Capacit by Processing of Municipal Solid Waste**

This **Consent to Operate (Renewal)** is hereby granted under section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 under **Red** Category. This Consent is subject to Terms and Conditions including prescribed standards enclosed herewith for compliance.

Assistant Environmental Engineer
(Verified by)

M.I. Siddiqui
Asstt. Environmental Engineer
Delhi Pollution Control Committee
5th Floor ISBT Building
Kashmere Gate Delhi-110006

Senior Environmental Engineer
(Issuing Authority)

DEEPAK KR. SINGH
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

Enclosure: Terms and Conditions of Consent to Operate (Renewal)

ANNEXURE-A (Colly) 133

Photo dated 10/10/2025

SINGHOLA SILT DUMP SITE AFTER BIOMINING

AE

JE(SLF/B)

320

Photo dated 10/10/2025

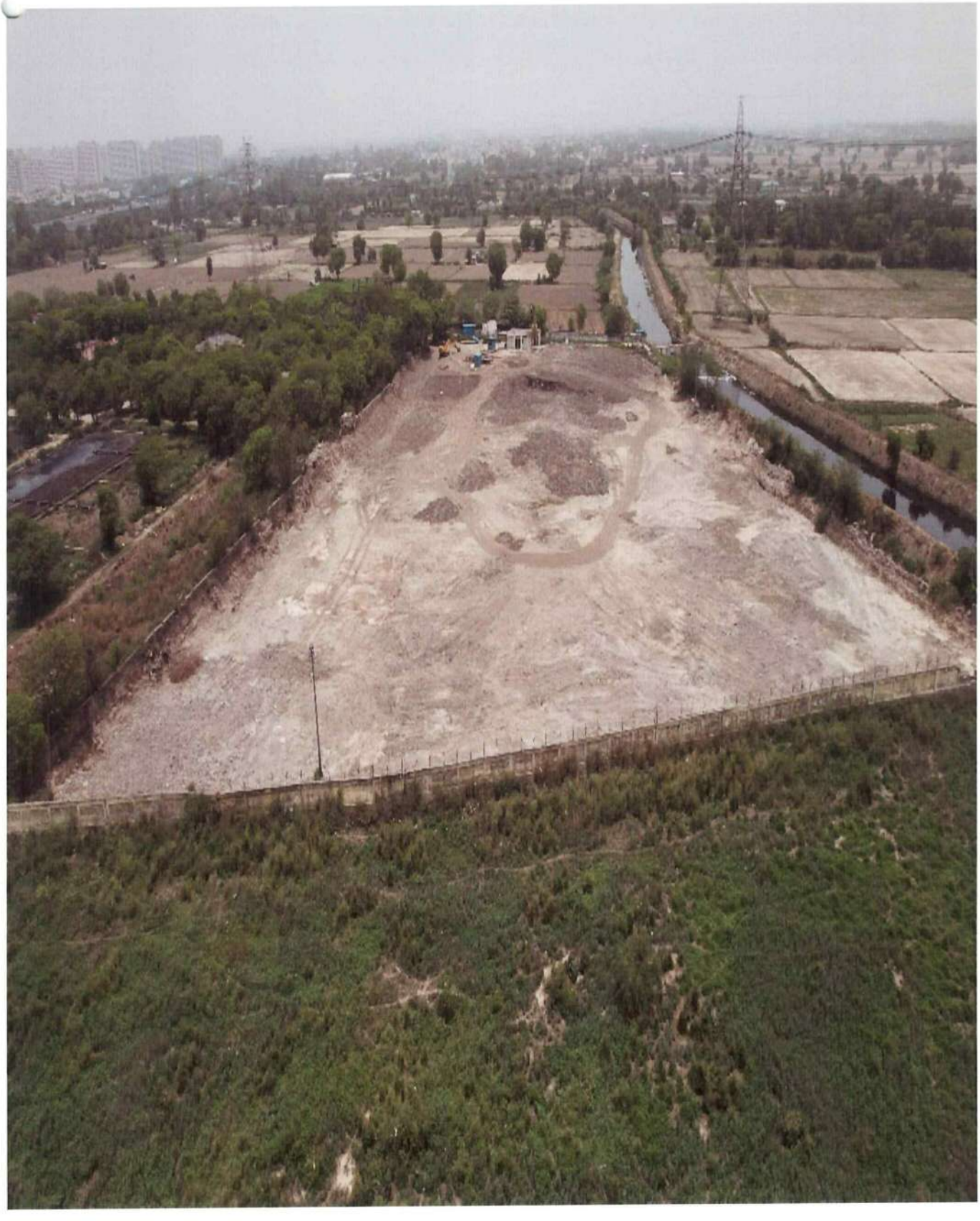
134

SINGHOLA SILT DUMP SITE AFTER BIOMINING

JE(S)LF(B)

Photo dated 31/5/2025

135 321



SINGHOLA SILT DUMP SITE DRONE PHOTO AFTER BIOMINING

AE

JE (SLF/B)

322

Photo dated 31/5/2025

136

SINGHOLA SILT DUMP SITE DRONE PHOTO AFTER BIOMINING

AE

JE(SLF I B)