

For Public Consultation
Volume-II

Annexures of Draft Environmental Impact Assessment Report
for

**Expansion of Waste to Energy Plant from 24 MW to 60 MW at Integrated
Municipal Solid Waste Management Facility (IMSWMF) at Sector 5,
Pocket N1, Bawana Industrial Area, Narela Bawana, District North West,
Delhi by M/s. Delhi MSW Solutions Ltd. (DMSWSL)**

(PROJECT OR ACTIVITY OF SCHEDULE 1(d), CATEGORY-A)

TOR issued: 29th June, 2022, File No. J-13012/01/2022-IA-I (T), Proposal no.
IA/DL/THE/271398/2022

Baseline study period: September to December 2019 and September to October 2022



Proponent

M/s. Delhi MSW Solutions Ltd. (DMSWSL)

Sector 5, Pocket N1, Behind Pragati Power Plant, Bawana Industrial Area,
Bawana, District North West, Delhi.

Consultant

Re Sustainability Solutions Private Limited

11B, Level 11, Galaxy by Aurobindo, Hitech City Rd, Gachibowli, Hyderabad, Telangana 500081
NABET Certificate No: NABET/EIA/1922/RA 0140 & Aug 28, 2019

January 2023

Annexure-1

Environmental Clearance

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

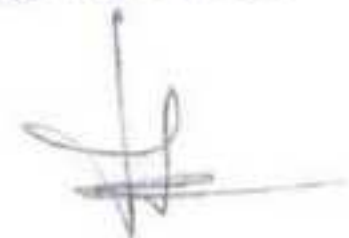
To
M/s Delhi MSW Solutions Ltd,
2E/25, 3rd Floor, Jhandewalan Extn,
New Delhi – 110 055.

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



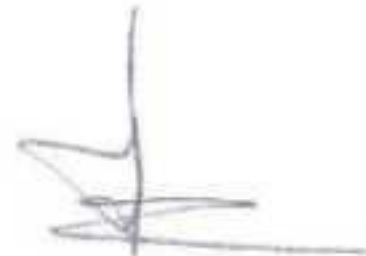
area is proposed to be designed primarily for effective control of pollution within the tolerant limit, and having tremendous sink capacity, can help contain & attenuate pollutant concentration in air, and thereby restore & revitalize the environment on a long term basis. The proposed project will help 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.



- (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.

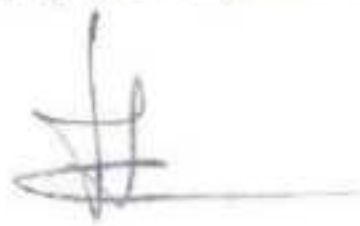
10. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control 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 Parishad/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.



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)

Annexure-2

Consent to Establish and Operate



Delhi Pollution Control Committee

4th & 5th Floor, ISBT Building, Kashmere Gate, Delhi - 110006.
Website : <http://dpcc.delhigovt.nic.in>

CONSENT ORDER

Despatch No. 456Date. 10/03/2016Certificate No. : **O-024885**Name of the Unit : **DELHI MUNICIPAL SOLID WASTE SOLUTIONS LTD**Address : **MCD WORK SHOP, NEAR POLICE STATION, DELHI-110009**Consent Order No : **DPCC/PLG/2016/36691**Date of Issue : **10-03-2016**

Product/Activity : **WASTE TO ENERGY PLANT (24 MW CAPACITY) BY PROCESSING OF MUNICIPAL SOLID WASTE AT SECTOR-5, POCKET N-1, BEHIND PRGATI POWER STATION, BAWANA INDUSTRIAL AREA, DELHI-110039.**

This Consent to Establish is hereby granted under section 21 of the Air (Prevention & Control of Pollution) Act, 1986 and under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 under **Orange** Category. This consent is subject to terms and conditions specified overleaf. The Unit has applied for Consent to Establish after starting the construction / Establishment / Starting the Operation and therefore this Consent to Establish is granted to fulfil the requirement under the Air & Water Acts however does not confer any right to the unit as compliant with the provisions of the aforementioned sections of the Air & Water Acts in the past period and does not absolve the unit for any action including prosecution under the said Air & Water Acts for past violations, if any.

M/c: N/A has done the analysis vide report dated N/A as follows:



Prescribed standards

NA

As per Annexur - 1.

Verified by : **ENVIRONMENTAL ENGINEER**

M. I. SIDDIQUI
Env. Engineer (CDC)
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

Issuing Authority : **SENIOR ENVIRONMENTAL ENGINEER**

B. L. CHAWLA
Sr. Env. Engineer (CDC)
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

Terms and Conditions

1. The Consent is **Activity specific** and based on the information provided in the consent application alongwith the documents/subsequent documents/ information submitted to Delhi Pollution Control Committee(DPCC). The Consent shall apply for fresh consent in case of any change in the activity/manufacturing process.
2. The Consentee shall display the Name of the unit alongwith its Address, name of the Proprietor /Director/ Partner 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.
3. The Consentee / unit shall have / take separate Electricity / Power Connection in its name and shall have / install separate meter in this regard.
4. The Consentee shall provide and maintain separate drainage system for collection of trade and sewage effluents. Terminal manholes shall be provided at the end of collection systems and shall be connected to the sewerage system / sewerage system of the area leading to Common Effluent Treatment Plant of the Industrial Area / Sewage Treatment Plant of the catchment area.
5. 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.
6. In case the unit is located in the Industrial area where Common Effluent Treatment Plant (CETP) has been provided, the Consentee shall make regular payment of its share for the operation and maintenance of CETP to the concerned CETP Society as per the Delhi Common Effluent Treatment Plant Act, 2008, as amended to date.
7. The Consentee shall ensure proper mechanization / control system for fugitive emissions generated from the various activities / processes of the unit and maintain good house keeping practices to avoid maintain clean and safe environment in and around the premises of the unit.
8. The Consentee shall comply with the noise standards laid down vide Gazette Notification of Ministry of Environment and Forests(MOE), 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 05.07.2002, as amended to date. Stack height for set(engine rating more than 0.8 MW) commissioned after 01.07.2003 shall be maximum of following: Minimum 6 meter above the building where generator set is installed (x) 30 meter (y) $240 \sqrt{Q}$ Total SO₂ 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: $H = h + 0.3 \sqrt{KVA}$ (x = Total height of stack in meter, h = height of the building, in meters where the Generator Set is installed, KVA = Total Generator capacity of the set in KVA).
9. The Consentee shall comply with the provisions of the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008, as amended to date, the Batteries (Management and Handling) Rules, 2001, as amended to date and the E-Waste (Management and Handling) Rules, 2011, the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989, as amended to date, whenever applicable, as Central Pollution Control Board (CPCB) and Delhi Pollution Control Committee(DPCC) as per details available on their websites.
10. The Consentee shall comply with the provisions of the Plastics Waste (Management and Handling) Rules, 2011, as amended to date, if applicable.
11. 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.
12. The Consentee engaged in the mfg. of plastic products and being accorded Consent to Expand (CTE) or Consent to Operate (CTO) (Renewal of consent shall provide hood and suction arrangement followed by duct raised at least 2 mtr above roof level and submit compliance report while applying for CTO (in cases of CTE) or submit an affidavit within six months in other cases).
13. In case of Plastic Reprocessing units, the Consentee shall characterize the process emissions by hood and suction arrangement with stack of 12 meter height OR 2 meter above rooftop of shed/ building whichever is more and emissions will conform to limits of Particulate Matter of 150 mg/NM³ and HCl max of 30 mg/NM³.
14. In case of Rubber Processing and Rubber Product Industry, the Consentee shall characterize the their fugitive emissions by providing hood and suction arrangement with stack of 12 meter height OR 2 meter above rooftop of shed/ building whichever is more and shall also comply with the prescribed standards / norms as mentioned in the Gazette Notification of MOEF G.S.R- 221(E) Dated 10.03.2011 (Emission standards mentioned in the said notification shall not be applicable to SSI units).
15. The Consentee shall promote the use of CFL and recovery of mercury from CFL lamps and should create a system of recycling of old bulbs for new to enable recovery of mercury after the bulbs are fused.
16. The Consentee shall not carry out any activity falling under the Prohibited Negative list of Industries (Annexure III of MRD -2002) which are prohibited in National Capital Territory of Delhi, as per Master Plan of Delhi.
17. Quantity of Effluent Discharge from the unit shall not exceed (i) Trade Effluent ___ MGD ___ litres/ Day (ii) Sewage / Domestic Effluent ___ MGD ___ litres/ Day.
18. The Consentee having installed Effluent Treatment Plant(ETP) shall properly operate and maintain the ETP to meet the prescribed standards as given in the Consent Order. Flow Meter/ water flow measuring devices shall be provided and maintained to measure the quantity of waste water generation and treatment by the unit. No bypass (Pipe / Drain) shall be provided. The treated effluent shall be used/recycled by the unit upto the maximum extent possible. Records /logbook shall be maintained for the operation of the ETP, waste water generated, treated and used/recycled and shall be produced during the inspection of DPCC official(s).
19. The Consentee having installed Effluent Control System(ECS) shall properly operate and maintain the ECS to meet the prescribed standards as given in the Consent Order. 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). The Consentee shall provide and maintain ports in the Stack(s) / Chimney(s) and facilities such as lockers, platform etc in good condition for monitoring of the emissions.
20. Capacity of the Diesel Generator Set (s) installed in the unit 500,500 KVA. The Consentee shall properly maintain the Acoustic Enclosure/ Acoustic Treated room for DG Set(s) in good condition and maintain the adequate stack height for DG Set(s) to meet the prescribed standards norms as mentioned above. The Consentee shall not operate the DG Set(s) till compliance of the prescribed norms/standards for DG Set(s).
21. The Consentee shall comply with the applicable provisions / Emissions given vide Gazette Notification of Department of Environment, Govt. of NCT of Delhi, dated 23-10-2012 including the directions that No person shall manufacture, import, store, use or transport any kind of plastic carry bags (including that of Poly Propylene, Non woven fabric type carry bags) in the whole of National Capital Territory of Delhi.
22. The Consentee shall submit application for renewal of the Consent, one month in advance of the expiry date of this Consent Order.
23. 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, which may include closure of the unit and prosecution for wrong declaration.
24. Consent of installation is valid upto 15.07.2018.

Notwithstanding anything contained in the consent 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, 1986, 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 order is issued at the Office Order No. F.No.DPCC/ (3)/7(2)/Admin-06/9996-1094 Dated 05.07.12 regarding processing of the consent cases.

ANNEXURE-1

General terms and conditions w.r.t. Consent to establish under Air & Water Act for waste to energy plant (24 MW) through waste processing facility at Integrated Municipal Solid Waste Management Facility site, Naraina-Banarua Road, Delhi-39 by M/s Delhi MSW Solutions Ltd., MCD Workshop, Near Police Station, Model Town Phase-I, Delhi-110009:-

1. The consentee shall install the Waste to Energy Plant (24 MW) through processing of waste Facility in accordance with the quality, procedure and standards outlined in various Schedules of Municipal Solid Waste Management and Handling Rules, 2000 and also the recommendations/guidelines/manuals prepared by the Central Pollution Control Board in this regard from time to time.
2. The consentee shall ensure that processing of municipal solid waste will be done as per the Reciprocating Gate Technology in the proposed waste to energy plant which will produce 24 MW power, as mentioned in the Environmental Clearance.
3. The consentee shall ensure that quantity of waste to be processed shall not exceed the quantity as mentioned in Consent to Establish application i.e. 3000 MT of Municipal Solid waste per day.
4. The consentee shall install the plant in compliance of the recommendations of the CPCB Expert Committee (copy enclosed) and any other suggestions issued by CPCB from time to time.
5. The consentee shall adhere to same methodology as mentioned in application for disposal of waste processing rejects (quantity and quality) strictly.
6. There shall be no sewage effluent discharge from the premises of unit.
7. There shall be no discharge of leachate from the Facility.
8. The consentee shall discharge the trade effluent (if any) from the various activities / treated leachates / process as is warranted with reference to effluent quality so as to achieve the quantity of the treated effluent to the following standards:-

(i)	pH	Between	5.5-9.0
(ii)	Suspended solids	Not to exceed	100 mg/l
(iii)	Oil & Grease	Not to exceed	10 mg/l
(iv)	BOD	Not to exceed	30 mg/l
(v)	COD	Not to exceed	250 mg/l
(vi)	Dissolved solids (inorganic)	Not to exceed	1000 mg/l
(vii)	Ammonical nitrogen (as N)	Not to exceed	50 mg/l
(viii)	Arsenic (as As)	Not to exceed	0.2 mg/l
(ix)	Mercury (as Hg)	Not to exceed	0.01 mg/l
(x)	Lead (as Pb)	Not to exceed	0.1 mg/l
(xi)	Cadmium (as Cd)	Not to exceed	2.0 mg/l
(xii)	Total Chromium (as Cr)	Not to exceed	2.0 mg/l
(xiii)	Copper (as Cu)	Not to exceed	1.0 mg/l
(xiv)	Zinc (as Zn)	Not to exceed	5.0 mg/l
(xv)	Nickel (as Ni)	Not to exceed	3.0 mg/l
(xvi)	Cyanide (as CN)	Not to exceed	0.2 mg/l
(xvii)	Chloride (as Cl)	Not to exceed	1000 mg/l
(xviii)	Fluoride (as F)	Not to exceed	2.0 mg/l
(xix)	Phenolic compounds (as C6H5OH)	Not to exceed	1.0 mg/l

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e/c Jb

9. The consentee shall make all efforts to minimize the effluent quantity and reuse/recycle the treated effluent within the premises.
10. The consentee shall install suitable air pollution control devices with the RDF plant to bring down the levels of fugitive emissions below the prescribed limit.
11. The consentee shall install adequate air pollution control devices with the power Plant to ensure the proper treatment of the flue gases generated and to ensure the Particulate Matter concentration in the flue gases shall not exceed the prescribed norms and the emission of dioxins / furans shall also be controlled. The stack attached to the Power Plant shall not be less than 30 mts from the ground level.
12. A) The consentee shall emit all the pollutants within the norms listed out below:-

Parameters	Concentration mg/Nm ³ at (12% CO ₂ Correction)
a) Particulate Matter	30
b) NO _x	350
c) HCl	50
d) SO ₂	100
e) CO	100
f) Cd	0.1
g) Pb	0.1
h) Hg	0.02
i) Hf	0.5
j) Total Dioxins/furans	0.1ng TEQ/Nm ³ *
k) Volatile organic compounds in ash	shall not be more than 0.01%.

*- Sampling duration shall be 8 Hrs and Monitoring values shall be reported at specific conditions specified for Common Hazardous Waste Incinerator under Environment(Protection) Rules, 1986 amended to date and approved by DPCC in its meeting held on 21.9.2011.

- B). Operating Standards: The combustion efficiency (CE) shall be at least 99.00 %. The CE is computed as follows

$$CE = \frac{\% CO_2}{\% CO_2 + \% CO} \times 100$$

13. Before operation of the plant, the Consentee shall must be ensured the following:

- Transportation does not lead to RSPM increase from road/ garbage.
 - There is adequate facility for handling and storage of atleast Flue Gas Treatment (FGT) residues till characteristics of the same including Toxicity Characteristic Leaching Procedure (TCLP) analysis are carried out with consequent commissioning of relevant disposal pathways including bottom ash within 20 days.
 - Installation of sensitive radioactive sensors fitted with alarm system to ensure consequence control of radioactivity at any point of time.
 - Facility for handling, storage/disposal of ETP sludge is provided.
 - Site safety & emergency plans as per various Industrial Laws.
 - Impact assessment report on proposed MSW fleet of vehicles and earmarked movement route and parking thereof.
- b. The consentee shall set up ambient air quality monitoring stations within and outside the plant premise at strategic locations in consultation with DPCC.

Contd.3..



14. The consentee shall ensure that online source emission data shall be cross checked with manual monitoring to validate the instrument result.

15. The consentee shall meet the following ambient air quality standards at the landfill site:

Parameters	Acceptable levels
(i) Sulphur dioxide	120 $\mu\text{g}/\text{m}^3$ (24 hours)
(ii) Suspended Particulate Matter	500 $\mu\text{g}/\text{m}^3$ (24 hours)
(iii) Methane	Not to exceed 25 per cent of the lower explosive limit (equivalent to 650 mg/m^3)
(iv) Ammonia daily average (Sample duration 24 hrs)	0.4 mg/m^3 (500 $\mu\text{g}/\text{m}^3$)
(v) Carbon monoxide	1 hour average : 2 mg/m^3 8 hour average : 1 mg/m^3

16. Consentee shall interlink its continuous monitoring system & results with the web site of Delhi Pollution Control Committee i.e www.dpec.delhigovt.nic.in.

17. The consentee shall select cost effective technologies for collection, processing disposal of wastes in such a manner that they are proven, sustainable and cost effective and suitable for the purpose for which they are needed. They should also stress on the measures to strengthen the institutional setup for this plant.

18. The consentee shall control the noise from the Diesel Generator Set(s) by providing an acoustic enclosure or by treating the room acoustically to achieve the norms laid down vide Gazette Notification of Ministry of Environment and Forest, Government of India. Adequate stack height shall also be provided with the D.G. Set. (Stack height of the D.G. Set (in meter) = Height of the Building (in meter) + $0.2\sqrt{\text{KVA}}$).

19. The consentee shall take adequate measures for control of noise levels, from its own sources within the premises in respect of noise, to less than 55 dB(A) Leq during day time and 45 dB(A) Leq during night time to meet the prescribed ambient noise standards. Day time is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

20. The consentee shall commence the ground water quality monitoring activity prior to the operation of facility and continue on long-term basis as per provisions of Act/Rules.

21. The consentee shall do the monitoring at least in different periods – pre monsoon (May), Monsoon (July-August) and post monsoon (November & January) periods. The monitoring data shall be submitted to Delhi Pollution Control Committee as well as to the Central Ground Water Board on annual basis for its official use.

22. 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.

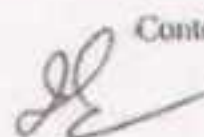
23. The consentee shall make adequate provisions or management/treatment of leachate so as to treat the leachate as per the standards specified in the Municipal Solid Waste (Management and Handling) Rules, 2000.

24. Consentee shall get the sludge/powder from the evaporation system of leachate treatment tested to know whether the said waste is hazardous and comply with the provisions of Hazardous Waste (Management, Handling & Transboundary) Rules.

25. 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.

26. The consentee shall make suitable provisions while establishing the plant that:

- Spraying of appropriate herbal sanitizer shall be adopted for odour control in addition to its vacuum suction and destroying in suction.
- The gas generated from Landfill facility shall be collected and disposed as per rules.

Contd. 4.,


- c) Proper shed shall be provided for the compost yard to prevent the rain water coming in contact with the waste in the yard.
 - d) Regular ambient air quality monitoring shall be carried out as per the notification of MoEF dated 16.01.2009.
 - e) The minimum width of the green belt all around the integrated waste facility shall be 9.0 meters with plant species that are significant and used for the pollution abatement.
27. The consentee shall set up separate environmental management cell for effective implementation of the stipulated environmental safeguard under the supervision of a Senior Executive.
 28. The consentee shall make adequate measures to minimize the overland surface water flow (especially during monsoon season) in and around the plant site.
 29. The site of the consentee is subject to review by Delhi Pollution Control Committee and the Central Ground Water Board after its construction.
 30. In case the facility falls within the approach funnel of runway and the aerial distance will be around 20 kilometers, the consentee shall ensure that necessary precautions shall be taken for prevention of bird menace in the said area.
 31. The applicant shall comply, in letter and spirit, all the conditions specified by Director General of Civil Aviation (DGCA), concerned officer of Air Force and Airports Authority of India while issuing NOC/permission to erect chimney and commissioning of the said plant under relevant Act/Rules.
 32. The consentee shall ensure that for the solid waste handling & management, there should be a facility of weighbridges at the processing and disposal sites.
 33. The consentee shall dispose the non-combustible waste and rejects at the engineered secured landfill site in an environmentally acceptable manner, as it affects the population residing nearby these sites.
 34. The consentee shall give the priority for the health monitoring of the sanitary and other workers engaged in the plant since handling of waste affects their health drastically. 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 equipments.
 35. The consentee shall ensure that no ground water extraction will be carried out for the proposed project.
 36. The consentee shall submit the ground water monitoring reports to Central Ground Water Board, State Unit Office, New Delhi on regular basis, at least once in a year for assessment.
 37. The consentee shall make suitable arrangement to ensure that the fly ash & the bottom ash from Boilers/ HAG generated after combustion in the boiler shall be utilized for manufacturing the building material.
 38. The consentee shall make suitable arrangement to ensure that the bottom ash from the Power Plant and HAG shall be disposed in proper manner so that it can't create environmental havoc.
 39. The consentee shall get the samples of fly ash as well as bottom ash tested to know the composition of the same.
 40. The consentee shall ensure that the solid waste generated (sand & silt) from the common monitoring Basin shall be disposed off at a landfill site.
 41. The consentee shall provide proper fencing /hedging with a gate is required.
 42. The consentee shall provide proper preventing and protective measures for the entry of stray animals and unauthorized person.

 Contd.5.

43. The consentee shall provide waste inspection facility to monitor wastes brought in for treatment, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipment.
44. The consentee shall provide approach and other internal roads for free movement of vehicle and other machinery exists at the Municipal Waste Processing Site.
45. The consentee shall provide proper diversion of storm water drains to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.
46. The consentee shall construct a non-permeable lining system at the base and walls of wastes storage area at Municipal Waste Processing Site 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 product and pesticides) minimum liner specification shall be a composite barrier having 0.5mm high density polyethylene (HDPE) geo-membrane, or equivalent, overlying 90 cm of soil (clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The day or amended soil barrier layer for temporary basis and the same shall be disposed at TSDF site subsequently, handed over to registered recycler whichever is applicable as per the provisions of the HWM Rules.
47. The consentee shall construct non-permeable lining system at the base of the walls at the waste storage area to prevent the run off water entering into any stream, river, lake and pond etc. and ensure the regular monitoring of base line data of ground water quality. The ground water quality within 50 meters of the periphery of the site shall be periodically monitored to ensure that the ground water is not contaminated beyond acceptable limit as determined.
48. The consentee shall carry out regular monitoring of ambient air least six times a year after the commissioning of the plant.
49. The consentee shall also adhere/comply with the conditions laid under Environmental Clearance of Ministry of Environment and Forests, Govt. of India.
50. The consentee shall comply with all the conditions and instructions provided in the general conditions of consent for effluent discharge under Water Act and Emission discharge under Air Act.
51. The consent is valid subject to the fulfillment of all the other statutory requirements in other Laws/ Acts/Rules as applicable.
52. The consentee shall apply fresh for revision/ 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 this office.
53. The consent is granted to aforesaid unit to ensure control of pollution from the Premises of the unit but not in violation of other laws and statutory provisions.
54. The consentee shall submit compliance report including adequacy reports of pollution control systems from the empanelled consultant along with application for Consent to Operate before commissioning the plant.
55. The applicant shall also comply with all the conditions laid down, by the Ministry of Environment and Forest, Govt. of India & the Central Pollution Control Board.
56. The consentee shall submit application for Consent to Operate under Air & Water Act along with requisite consent fee and documents 60 days before date of commissioning of the plant.
57. In case of failure to compile with any of the consent conditions stated as above the consent issued shall automatically stand revoked without any notice.



58. Notwithstanding anything contained in this letter the committee hereby reserved to it the right and powers under section 21 (6) of the Air (Prevention and Control of pollution) Act, 1981 as amended to date under section 27 (2) the Water (Prevention and Control of Pollution) Act, 1974 as amended to date to review anyone/ or all the conditions imposed here in above and to make such variations as deemed fit for the purpose of these acts by the committee.
59. Unit shall install Online Monitoring System before commissioning of the plant and link with DPCC & CPCB server.

This issues as per the decision of the Consent Committee in its meeting held on 13.10.2015.


Sr. Environment Engineer
B. L. CHAWLA
Sr. Env. Engineer (WMC-II)
Delhi Pollution Control Committee
8th & 9th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

To,

M/s Delhi MSW Solution Limited
MCD Workshop, Near Police Station,
Model Town Phase-I, Delhi-110009.

Copy to:

1. Member Secretary, CPCB, Parivesh Bhawan, East Arjun Nagar, Shahdara, Delhi-110032.
2. The CEO, Delhi Jal Board, Varunalya, Jhandewalan, New Delhi-110055.
3. The Commissioner, North Delhi Municipal Corporation, Civic Centre, Minto Road, New Delhi.
4. The Chief engineer, DEMS, North Delhi municipal Corporation, Civic Centre, Minto Road, New Delhi.
5. PS to Chairman, DPCC-for information of Chairman, DPCC please.
6. Master file, WMC-II.


Environment Engineer
M. I. SIDDIQUI
Env. Eng. (WMC-II)
Delhi Pollution Control Committee
8th & 9th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

o/c



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 Capacity)
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
Senior Environmental Engineer
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, New Delhi-110006

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.

13. 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 CO₂ 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

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) $14 (Q) 0.3 [Q - \text{Total SO}_2 \text{ emission from the plant in kg/hr and for other DG Set(s) (upto 0.8 MW)}]$

Stack height shall be as per the following formula

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

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 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.

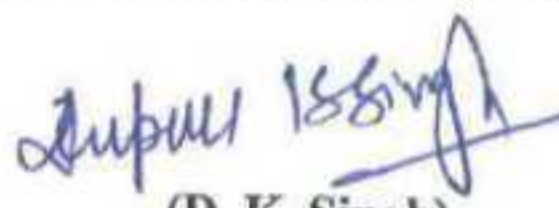
44. The Consentee shall inform Delhi Pollution Control Committee in advance for shutdown of the plant for maintenance or any other reasons thereof.
45. The Consentee shall submit the **Annual report in Form III** as prescribed under the Solid Waste Management, Rules, 2016 to the Local Body (concerned Municipal Corporation) and DPCC on or before the 30th day of April every year.
46. 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.
47. The Consentee shall submit Environment statement for each financial year ending 31st March in Form-V to DPCC.
48. 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, 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

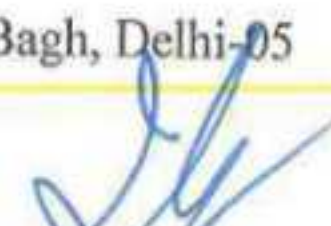
To,

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

DEEPAK KR. SINGH
Sr. Env. Engineer
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)

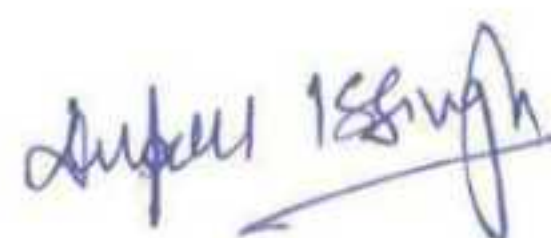
Asstt. Env. Engineer (WMC-II)

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

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

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

S. No.	Parameters	Emission Standards	
		(2)	(3)
1.	Particulates	30 mg/Nm ³	Standard refers to half hourly average value
2.	HCl	50 mg/Nm ³	Standard refers to half hourly average value
3.	SO ₂	100 mg/ Nm ³	Standard refers to half hourly average value
4.	CO	100 mg/Nm ³ 50 mg/Nm ³	Standard refers to half hourly average value Standard refers to daily average value
5.	Total Organic Carbon	20 mg/Nm ³	Standard refers to half hourly average value
6.	HF	0.5 mg/Nm ³	Standard refers to half hourly average value
7.	NO _x (NO and NO ₂ expressed as NO ₂)	350 mg/Nm ³	Standard refers to half hourly average value
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.			

**Standards for Treated Leachates to be met / complied by Municipal Solid Waste to
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 ₆ H ₅ OH) mg/l, max.	Not to Exceed	1.0



Delhi Pollution Control Committee

4th & 5th Floor, ISBT Building, Kashmere Gate, Delhi - 110006.
Website : <http://dpcc.delhigovt.nic.in>

CONSENT ORDER

Despatch No. 2411

Date. 22-2-17

Certificate No. : **O-027585**

Name of the Unit : **DELHI MUNICIPAL SOLID WASTE SOLUTIONS LTD**

Address : **MCD WORK SHOP, NEAR POLICE STATION, DELHI-110009**

Consent Order No : **DPCC/PLG/2017/39391**

Date of Issue : **20-02-2017**

Date of Expiry : **05-05-2021**

Product/Activity : **WASTE TO ENERGY PLANT (24 MW CAPACITY) BY PROCESSING OF MUNICIPAL SOLID WASTE AT SECTOR-5, POCKET N-1, BEHIND PRGATI POWER STATION, BAWANA INDUSTRIAL AREA, DELHI-110039.**

This Consent to **Operate** 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 **Orange** Category. This consent is subject to terms and conditions specified overleaf.

It's N/A has done the analysis vide report dated N/A as follows:

N/A

Prescribed standards

N/A

As per Annexure I & II enclosed.

Verified by : **ENVIRONMENTAL ENGINEER**

SURENDER SINGH
Environmental Engineer
Delhi Pollution Control Committee
Govt. of N.C.T. of Delhi
ISBT Bldg., Kashmere Gate, Delhi-06

Issuing Authority : **SENIOR ENVIRONMENTAL ENGINEER**

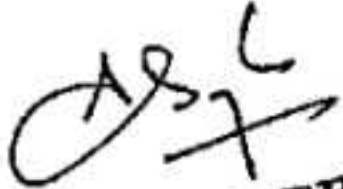
AJEETA DANGRA
Sr. Env. Engineer
Delhi Pollution Control Committee
4th & 5th Floor, ISBT Building,
Kashmere Gate, Delhi-110006

Annexure-I

Standards to be followed by Municipal Waste to Energy Units as per the meeting held on 29.07.2016 among CPCB, DPCC and Deptt. Of Environment, GNCTD

Parameter	Emission standard	
(1)	(2)	(3)
Particulates	30 mg/Nm ³	Standard refers to half hourly average value
HCl	50 mg/Nm ³	Standard refers to half hourly average value
SO ₂	100 mg/Nm	Standard refers to half hourly average value
CO	100 mg/Nm ³ 50 mg/Nm ³	Standard refers to half hourly average value Standard refers to daily average value
Total Organic Carbon	20 mg/Nm ³	Standard refers to half hourly average value
HF	0.5 mg/Nm ³	Standard refers to half hourly average value
NO _x (NO and NO ₂ expressed as NO ₂)	350 mg/Nm ³	Standard refers to half hourly average value
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.
Cd + Th + their compounds	0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Hg and its compounds	0.02 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Sb + As + 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.
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.		

Contd. 3.


SURENDER SINGH
 Environmental Engineer
 Delhi Pollution Control Committee
 Govt. of NCT of Delhi
 ISBT Bldg., Kashmere Gate, Delhi-06


AJEETA DAYAL AGRAWAL
 Sr. Env. Engineer
 Delhi Pollution Control Committee
 4th & 5th Floor, ISBT Building,
 Kashmere Gate, Delhi-110006

3.

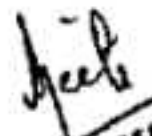
M/s Delhi MSW Solutions Ltd. (WTE)

Authorisation No: DPCC/SWM/Auth./WTE-3/2017

Annexure-II**Standards to be followed by Municipal Waste to Energy Units**

S. No.	Parameter		Standards
1.	Suspended solids, mg/l, max	Not to Exceed	100
2.	Oil and Grease	Not to Exceed	10
3.	Dissolved solids (inorganic) mg/l, max.	Not to Exceed	2100
4.	pH	Between	5.5-9
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 270 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 ₆ H ₅ OH) mg/l, max.	Not to Exceed	1.0


SURENDER SINGH
 Environmental Engineer
 Delhi Pollution Control Committee
 15th Floor, ISBT Bldg., Kirti Nagar, Delhi-06


AJETA DAYAL AGRAWAL
 Sr. Env. Engineer
 Delhi Pollution Control Committee
 4th & 5th Floor, ISBT Building,
 Kirti Nagar, Delhi-110006

Annexure-2a

Paper Statement of LG for Capacity Enhancement

Increase capacity of waste to energy plants: Lt Governor Anil Baijal to civic bodies

PTI | Sep 5, 2017, 11:16 PM IST



NEW DELHI: Delhi Lt Governor Anil Baijal today directed municipal corporations to increase the capacity of their existing waste to energy plants and the garbage at Ghazipur landfill site be cleared within two years beginning November. Chairing a meeting here, which was attended by Delhi Urban Development Minister Satyendar Jain, PWD's Principal Secretary Ashwani Kumar and commissioners of all the three civic bodies, the L-G said the waste would be used by the National Highways Authority of India (NHA) for construction of service roads.

At the meeting, East Delhi Municipal Corporation (EDMC) Commissioner apprised the L-G that presently, the civic body is collecting 4,650 metric tonnes of garbage per day, which consists of 2,600 metric tonnes of municipal solid waste (MSW), 1,400 metric tonnes of silt and 650

construction and demolition (C and D) waste.

"The L-G directed the EDMC to immediately take up expansion of the capacity of the existing waste to energy plant and in the first phase, and 650 MT of additional municipal solid waste would be dispatched there at the earliest," the Lt Governor's office said in a statement.

"For the remaining 650 MT of MSW, the SDMC was directed to get it processed at its Okhla waste to energy plant, within the prescribed environmental norms," it said.

It also stated that the North Delhi Municipal Corporation (NDMC) commissioner told the L-G that the civic body is collecting 3,900 MT MSW per day of which Narela-Bawana plant is utilising 2000 MT.

"The Lt Governor directed that for the remaining 1,900 MT MSW, the capacity of Narela-Bawana plant should be increased," the Lt Governor's office said.

Baijal said these steps would ensure that there is no further increase in mounds of garbage at Bhalswa and Ghazipur landfill sites.

The meeting was convened after a portion of the waste dump, estimated to be as high as a 15-storey building, collapsed on September 1, killing two persons.

Following the accident, Baijal had on Saturday imposed a ban on dumping of garbage at Ghazipur landfill site, and the waste meant for it was to be diverted to a temporary site in Ranikhera near the Delhi-Haryana border.

Welcome Back to THE TIMES OF INDIA

+

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- ☐ I agree to a single sign on for seamless experience across TIL sites*

AGREE

Annexure-3

Water Supply Agreement



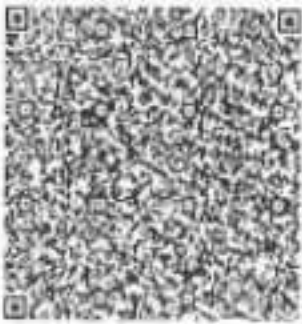
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e-Stamp

सत्यमेव जयते

Certificate No.	: IN-DL79958021950455T
Certificate Issued Date	: 28-May-2021 12:51 PM
Account Reference	: IMPACC (IV)/ dl807903/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DLDL80790358935269099642T
Purchased by	: DELHI MSW SOLUTIONS LIMITED
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: PRAGATI POWER CORPORATION LTD
Second Party	: DELHI MSW SOLUTIONS LIMITED
Stamp Duty Paid By	: PRAGATI POWER CORPORATION LTD
Stamp Duty Amount(Rs.)	: 100 (One Hundred only)



.....Please write or type below this line.....



Assessor

Assessor

Statutory Alert:

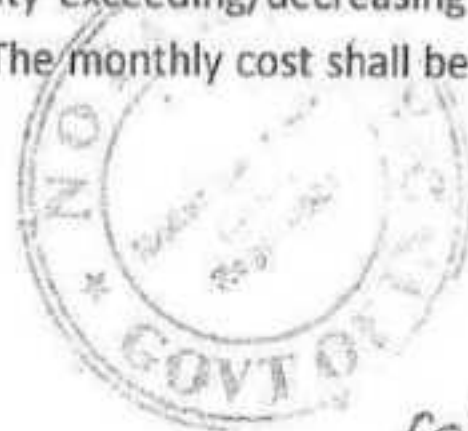
AGREEMENT

This agreement is made at Delhi on this 28 day of May, 2021 Between Pragati Power Corporation Ltd.(PPCL), a company incorporated under the companies Act 1956, having its registered office at HIMADRI Rajghat Power House, New Delhi, which is under the Govt. of NCT and through its General Manager (Technical), which expression shall unless repugnant to the context or meaning thereof and includes its successors and assign shall perform and execute this agreement on behalf of first party AND DELHI MSW SOLUTIONS LTD, a company incorporated in India under the Indian Companies Act 1956 and having its office at 13 floor, Ramky Towers, Ramky Grandiose, Gachibowli, Hyderabad, Telangana State (hereinafter referred to as DMSWSL) which expression shall unless excluded by or repugnant to the context thereof, include its successors and permitted assigns of the second party.

PPCL and DMSWSL are hereinafter individually referred to as the Party and collectively as the parties.

WHEREAS

- (a) The first party Pragati Power Corporation Ltd. (PPCL) is operating and maintaining the Pragati – III 1500 MW Gas based combined Cycle Power Plant at Bawana.
- (b) The said plant generates industrial waste water from the process which is collected in Central monitoring basin which is further discharged to BAWANA escape. This is hereafter called the "discharge water".
- (c) The second party i.e. M/s DMSWSL has developed and installed an integrated Municipal Solid Waste Processing and Disposal Facility which includes a 24 MW waste to energy plant and Engineered Sanitary Landfill Facility at Bawana industrial area, adjacent and abutting the above said Combined Cycle Power Plant.
- (d) The second party requires 350 KL per day of discharge water to meet its water requirement for running the waste to energy power plant. It has set up its own water treatment plant in its facility.
- (e) The second party has approached the first party to share its water infrastructure - both being neighbouring plants. In response, the party has proposed that second party may use the discharge water and arrived at a mutually agreed firm route plan for take-off of the said discharge water from premises of first party to the premises of second party.
- (f) That the second party shall maintain the pipe line already installed by them from CMB header to their plant to carry discharge water and shall bear the cost towards all maintenance of pipeline including valve/valves, Flow meter etc. The first party shall operate the valves inside its premises and the equipment required for supplying the discharge water.
- (g) The first party shall raise the bill of the water quantity as per the reading of flow meter on monthly basis. The first party shall supply the agreed quantity of 350 KLD i.e. as per the discharge water supplied during a month. The quantity exceeding/decreasing the above said quantity of 10500 KL shall be billed on pro rata basis. The monthly cost shall be Rs.1, 61,175.00 +applicable taxes for 10500KL of discharge water.



NOW, THEREFORE, IN CONSIDERATION OF THE ABOVE, THE PARTIES AGREE AS BELOW:-

1. Both the parties hereby agree to the above arrangement for discharge of water sharing.
2. This agreement signed today of 28 day May months 2021 and comes into effect from 01.11.2020 and will be in force till terminated by either party.
3. As per (i) above, the cost of rs. 1,61,175.00 (Rupees One Lac sixty One Thousand One hundred Seventy Five Only) plus taxes extra to be charged by 1st party as given above shall be borne by second party and escalation @10% per year to be considered and charged in the cost by the first party from the second party.
4. M/s. Delhi MSW Solution Ltd. Will make direct payment to PPCL on 10th of every month during the entire term of the agreement by cheque or draft or transfer to the designated account of PPCL after the receipt of bill of previous month from PPCL.
5. The tenure of this agreement commencing w.e.f. 01.11.2020 shall be initially for a period of 3 years; on the expiry of which the first party will review the performance of the second party and then if found fit shall further extend the tenure of this agreement for a period of another two years.
The first party shall have a right to terminate this contract in case of the second party committing any breach or default of any term of the contract.
6. Either party can terminate the agreement by giving 90 days notice in advance to the other party. The said notice period shall commence w.e.f. the date of receipt of the notice by the opposite party.
7. In the event of any dispute or difference arising out of OR in any way relating to, the same shall be referred to the sole Arbitration of a person appointed by the first party and the second party shall not be entitled to the raise objection on any such appointment on the ground that the sole Arbitrator is a servant employee of the first party. The proceeding and award shall be made by the arbitrator under the provisions of Arbitration and Conciliation Act 1996 and the rules framed there under and any amendment thereto from time to time shall apply.

IN WITNESS WHEREOF, both the parties have signed this agreement at New Delhi on this day, months and year, first above written in the presence of the following witnesses:-

Amulya



Belal

Shail

WITNESSES:-

(Nitesh Verma)

(Rajendra Kumar)

(Rajesh Dubey)

1.	2.
For and on behalf of Pragati Power Corporation Ltd.	For and on behalf of Delhi MSW Solutions Ltd.
Signature <u>Anne A...</u>	Signature <u>[Signature]</u>
Authorized Signatory	Authorized Signatory
Name <u>ANIT ANUJA</u>	Name <u>KRC Shekhar</u>



ATTESTED
NOTARY PUBLIC, DELHI
28 MAY 2021

Annexure-4

Baseline Analysis Reports

HYDERABAD WASTE MANAGEMENT PROJECT

[A Division of Re Sustainability Limited]



Sustainability

LABORATORY

CERTIFICATE NO. TC. 5067
ANALYSIS REPORT

Page 1 of 4

URL No- TC-506722000000463P

Name and address of the client:

To,
RE-SUSTAINABILITY SOLUTIONS PVT LTD.
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500081, India

Date of Report : 03.10.2022
Analysis Starting Date : 28.09.2022
Analysis Completion Date : 03.10.2022
Date of Sampling : 25.09.2022 to 26.09.2022
Sample Collected by : Re Sustainability Solutions Pvt. Ltd.,
Sample Received on : 28.09.2022
Sample Condition : Samples Received in P.P. Bottles
Sampling Procedure : NA
Sample Registration no : GW-220180/ (1-11)
Sample Description/Code : RSSPL- (ION.No.22-16)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. GW-220180/1: RSSPL/Delhi-WTE/Site
2. GW-220180/2: RSSPL/Delhi-WTE/Bawana
3. GW-220180/3: RSSPL/Delhi-WTE/Holambi Khurd
4. GW-220180/4: RSSPL/Delhi-WTE/Khera Kurd
5. GW-220180/5: RSSPL/Delhi-WTE/Barwala
6. GW-220180/6: RSSPL/Delhi-WTE/Ghoga
7. GW-220180/7: RSSPL/Delhi-WTE/Sultanpur
8. GW-220180/8: RSSPL/Delhi-WTE/Narela
9. GW-220180/9: RSSPL/Delhi-WTE/Zindpur
10. GW-220180/10: RSSPL/Delhi-WTE/Ferozpur
11. GW-220180/11: RSSPL/Delhi-WTE/B1


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

Hyderabad Waste Management Project
 [A Division of Re Sustainability Limited]
 Site Address:

TSDf at: Survey No. 684/I,
 Dundigal - Gandimaisamma Municipality,
 Medchal - Malkajgiri Dist. - 500 043,

Re Sustainability Limited
 [Formerly known as Ramky Enviro Engineers Limited]
 Registered Office:

Level 11B, Aurobindo Galaxy,
 Hyderabad Knowledge City,
 HITECH City Road, Hyderabad-500 081, India.
 CIN No. U74140TG1994PLC018833

Certificate REG No : 44 100 20392865 (ISO 9001 : 2015)
 Certificate REG No : 44 104 20392865 (ISO 14001 : 2015)
 Certificate REG No : 44 136 20392865 (ISO 45001 : 2018)

T: +91 93936 44222

E: mbd_hwmp@resustainability.com
 laboratoryhwmp@resustainability.com

resustainability.com



CERTIFICATE NO.TC-5067

Page 2 of 4

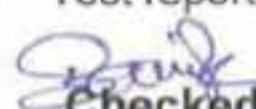
URL No: TC-506722000000463P

TEST RESULT GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results				
				220180/1	220180/2	220180/3	220180/4	220180/5
1.	pH @ 25°C	---	APHA 4500 H*B	7.9	7.8	8.0	7.9	7.6
2.	Total Dissolved Solids at 180 °C	mg/L	APHA 2540 C	680	1031	1150	1020	712
3.	Total Suspended Solids at 105 °C	mg/L	APHA 2540 D	<10	<10	<10	<10	<10
4.	Electrical Conductivity	µMho/cm	APHA 2510 B	1081	1680	1866	1710	1155
5.	Turbidity	NTU	APHA 2130 B	<0.1	<0.1	0.3	0.1	1.3
6.	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	245	340	393	372	265
7.	Chloride as Cl ⁻	mg/L	APHA 4500 Cl-B	98	201	244	152	184
8.	Sulphate as SO ₄ ⁻²	mg/L	APHA 4500 SO ₄ ⁻² D	71	141	210	160	36
9.	Nitrate as NO ₃	mg/L	APHA 4500 NO ₃ -B	34	22.2	11.1	43.3	5.6
10.	Phosphates as P	mg/L	APHA 4500 PO ₄ C	<1	<1	<1	<1	<1
11.	Total Hardness as CaCO ₃	mg/L	APHA 2340C	198	436	458	399	299
12.	Calcium as Ca	mg/L	APHA 3500 Ca B	44	80	99	83	75
13.	Magnesium as Mg	mg/L	APHA 3500-Mg B	22	56	50	46	26
14.	Sodium as Na	mg/L	APHA 3500 Na B	162	182	192	204	120
15.	Potassium as K	mg/L	APHA 3500 K B	10.1	14.4	22.2	28.4	18.4
16.	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2	<0.2	<0.2
17.	Fluoride as F ⁻	mg/L	APHA 4500 F-D	1.24	1.16	1.23	1.33	1.13
18.	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01	<0.01	<0.01
19.	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5	<0.5	<0.5
20.	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003	<0.003	<0.003
21.	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05	<0.05
22.	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05	<0.05
23.	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1	<0.1
24.	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05	<0.05

- Opinion and interpretation: Nil
- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager



CERTIFICATE NO.TC-5067

Page 3 of 4

URL No: TC-5067220000000463P

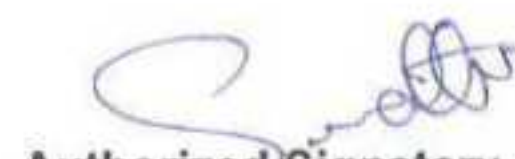
TEST RESULT GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results			
				220180/6	220180/7	220180/8	220180/9
1.	pH @ 25°C	---	APHA 4500 H*B	7.4	7.7	8.2	8.4
2.	Total Dissolved Solids at 180 °C	mg/L	APHA 2540 C	795	2162	2373	2040
3.	Total Suspended Solids at 105 °C	mg/L	APHA 2540 D	<10	<10	<10	<10
4.	Electrical Conductivity	µMho/cm	APHA 2510 B	1265	3630	3925	3504
5.	Turbidity	NTU	APHA 2130 B	0.1	0.1	0.2	0.3
6.	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	240	350	439	428
7.	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ B	250	685	560	605
8.	Sulphate as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	32.1	364	591	346
9.	Nitrate as NO ₃	mg/L	APHA 4500 NO ₃ -B	8.4	43.0	40.2	43.8
10.	Phosphates as P	mg/L	APHA 4500 PO ₄ C	<1	<1	<1	<1
11.	Total Hardness as CaCO ₃	mg/L	APHA 2340C	345	735	849	886
12.	Calcium as Ca	mg/L	APHA 3500 Ca B	84	135	188	186
13.	Magnesium as Mg	mg/L	APHA 3500 Mg B	32	95	91	101
14.	Sodium as Na	mg/L	APHA 3500 Na B	140	490	510	402
15.	Potassium as K	mg/L	APHA 3500 K B	5.2	38.1	28.2	21.6
16.	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2	<0.2
17.	Fluoride as F ⁻	mg/L	APHA 4500 F-D	1.21	1.62	1.79	1.58
18.	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01	<0.01
19.	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<<0.5	<0.5	<0.5
20.	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003	<0.003
21.	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
22.	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
23.	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1
24.	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05

- Opinion and interpretation: Nil
- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager



CERTIFICATE NO.TC-5067

Page 4 of 4

URL No: TC-506722000000463P

TEST RESULT GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results	
				220180/10	220180/11
1.	pH @ 25 °C	---	APHA 4500 H ⁺ B	7.9	7.7
2.	Total Dissolved Solids at 180 °C	mg/L	APHA 2540 C	1984	1061
3.	Total Suspended Solids at 105 °C	mg/L	APHA 2540 D	<10	<10
4.	Electrical Conductivity	μMho/cm	APHA 2510 B	3345	1708
5.	Turbidity	NTU	APHA 2130 B	0.2	<0.1
6.	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	392	345
7.	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ B	509	208
8.	Sulphate as SO ₄ ⁻²	mg/L	APHA 4500 SO ₄ ⁻² D	464	149
9.	Nitrate as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	26.8	19.8
10.	Phosphates as P	mg/L	APHA 4500 PO ₄ ⁻³ C	<1	<1
11.	Total Hardness as CaCO ₃	mg/L	APHA 2340C	723	447
12.	Calcium as Ca	mg/L	APHA 3500 Ca B	126	82
13.	Magnesium as Mg	mg/L	APHA 3500 Mg B	98	58
14.	Sodium as Na	mg/L	APHA 3500 Na B	410	180
15.	Potassium as K	mg/L	APHA 3500 K B	30.2	14.3
16.	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2
17.	Fluoride as F ⁻	mg/L	APHA 4500 F-D	1.2	1.16
18.	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01
19.	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5
20.	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003
21.	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05
22.	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05
23.	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1
24.	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05

- Opinion and interpretation: Nil
- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

HYDERABAD WASTE MANAGEMENT PROJECT

[A Division of Re Sustainability Limited]



Sustainability

LABORATORY



CERTIFICATE NO. TC. 5067
ANALYSIS REPORT

Page 1 of 3

Test Report No- TC-506722000000464P

Name and address of the client:

To,
RE-SUSTAINABILITY SOLUTIONS PVT LTD.
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500081, India

Date of Report : 03.10.2022
Analysis Starting Date : 28.09.2022
Analysis Completion Date : 03.10.2022
Date of Sampling : 25.09.2022 to 26.09.2022
Sample Collected by : Re Sustainability Solutions Pvt. Ltd.,
Sample Received on : 28.09.2022
Sample Condition : Samples Received in P.P. Bottles
Sampling Procedure : NA
Sample Registration no : SW-220181/(1-4)
Sample Description/Code : RSSPL- (ION.No.22-16)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. SW-220181/1: RSSPL/Delhi-WTE/Canal
2. SW-220181/2: RSSPL/Delhi-WTE/Bawana Pond
3. SW-220181/3: RSSPL/Delhi-WTE/Barwala Pond
4. SW-220181/4: RSSPL/Delhi-WTE/Johad Pond


Checked By
(C. Sateesh)
Dy. Manager


Authorized Signatory
(Y. Swathi)
Quality Manager

Hyderabad Waste Management Project

[A Division of Re Sustainability Limited]

Site Address:

TSDf at: Survey No. 684/1,
Dundigal - Gandimaisamma Municipality,
Medchal - Malkajgiri Dist. - 500 043,
Telangana, India

Re Sustainability Limited

(Formerly known as Ramky Enviro Engineers Limited)

Registered Office:

Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500 081, India,
CIN No. U74140TG1994PLC018833

Certificate REG No : 44 100 20392865 (ISO 9001 : 2015)

Certificate REG No : 44 104 20392865 (ISO 14001 : 2015)

Certificate REG No : 44 126 20392865 (ISO 45001 : 2018)

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E: mbd_hwmp@resustainability.com

laboratoryhwmp@resustainability.com

resustainability.com





CERTIFICATE NO.TC-5067

Page 2 of 3

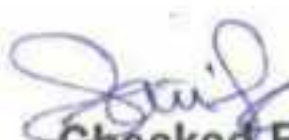
Test Report No: TC-506722000000464P

TEST RESULT SURFACE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results			
				220181/1	220181/2	220181/3	220181/4
1.	pH @ 25°C	---	APHA 4500 H ⁺ B	7.8	7.4	8.1	8.5
2.	Total Dissolved Solids at 180 °C	mg/L	APHA 2540 C	314	436	429	1145
3.	Total Suspended Solids at 105 °C	mg/L	APHA 2540 D	30	15	40	35
4.	Electrical Conductivity	µMho/cm	APHA 2510 B	486	693	681	1912
5.	Turbidity	NTU	APHA 2130 B	0.6	0.4	2.4	1.2
6.	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	91	88	148	296
7.	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ B	69	68	80	308
8.	Sulphate as SO ₄ ⁻²	mg/L	APHA 4500 SO ₄ ⁻² D	38.7	92	70	243
9.	Nitrate as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	1.4	7.5	4.2	4.7
10.	Phosphates as P	mg/L	APHA 4500 PO ₄ ⁻³ C	<1	1.2	<1	<1
11.	Total Hardness as CaCO ₃	mg/L	APHA 2340C	161	228	198	472
12.	Calcium as Ca	mg/L	APHA 3500 Ca B	39	67	56	108
13.	Magnesium as Mg	mg/L	APHA 3500-Mg B	15	14	14	48
14.	Sodium as Na	mg/L	APHA 3500 Na B	18	38	64	188
15.	Potassium as K	mg/L	APHA 3500 K B	5.1	5.8	5.2	9.6
16.	Iron as Fe	mg/L	APHA 3500 Fe B	0.34	0.41	0.34	0.25
17.	Fluoride as F ⁻	mg/L	APHA 4500 F-D	1.18	1.42	1.32	1.52
18.	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01	<0.01
19.	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5	<0.5
20.	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003	<0.003

- Opinion and interpretation: Nil
- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager



CERTIFICATE NO.TC-5067

Page 3 of 3

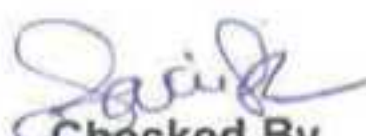
Test Report No: TC-506722000000464P

TEST RESULT SURFACE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results			
				220181/1	220181/2	220181/3	220181/4
21.	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
22.	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
23.	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
24.	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1
25.	DO	mg/L	APHA 4500 O C	4.6	2.4	2.1	1.5
26.	Chemical Oxygen Demand as COD	mg/L	APHA 5220 B	15.0	69.0	78.0	157
27.	Biological Oxygen Demand as BOD @ 3 days at 27°C	mg/L	IS 3025 Part-44	<4	27	33	70

- Opinion and interpretation: Nil
- Reports pertained only to the submitted sample
- Test reports shall not be reproduced except in full, without written approval of the laboratory


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

HYDERABAD WASTE MANAGEMENT PROJECT

[A Division of Re Sustainability Limited]



Sustainability

Page 1 of 3

LABORATORY



Test Report No- TC-506722000000465P

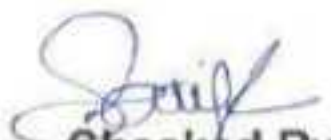
Name and address of the client:

To,
RE -SUSTAINABILITY SOLUTIONS PVT LTD.
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500081, India

Date of Report : 03.10.2022
Analysis Starting Date : 28.09.2022
Analysis Completion Date : 03.10.2022
Date of Sampling : 25.09.2022 & 26.09.2022
Sample Collected by : Re Sustainability Solutions Pvt. Ltd.,
Sample Received on : 28.09.2022
Sample Condition : Samples Received in Plastic Cover
Sampling Procedure : NA
Sample Registration no : SS-220182/(1-10)
Sample Description/Code : RSSPL- (ION.No.22-16)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. SS-220182/1: RSSPL/Delhi/Site
2. SS-220182/2: RSSPL/Delhi/Bawana
3. SS-220182/3: RSSPL/Delhi/Holanbi Khurd
4. SS-220182/4: RSSPL/Delhi/Khera Khurd
5. SS-220182/5: RSSPL/Delhi/Barwala
6. SS-220182/6: RSSPL/Delhi/Ghoga
7. SS-220182/7: RSSPL/Delhi/Narela
8. SS-220182/8: RSSPL/Delhi/Chandpur Khurd
9. SS-220182/9: RSSPL/Delhi/Zindpur
10. SS-220182/10: RSSPL/Delhi/S1


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

Hyderabad Waste Management Project

[A Division of Re Sustainability Limited]

Site Address:

TSDf at: Survey No. 684/1,
Dundigal - Gandimaisamma Municipality,
Medchal - Malkajgiri Dist. - 500 043,
Telangana, India,

Re Sustainability Limited

[Formerly known as Ranky Enviro Engineers Limited]

Registered Office:

Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500 081, India.
CIN No. U74140TG1994PLC018833

Certificate REG No.: 44 100 20392865 [ISO 9001 : 2015]

Certificate REG No.: 44 104 20392865 [ISO 14001 : 2015]

Certificate REG No.: 44 126 20392865 [ISO 45001 : 2018]

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CERTIFICATE NO.TC-5067

Page 2 of 3

Test Report No: TC-506722000000465P

TEST RESULT SOIL SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results				
				220182/1	220182/2	220182/3	220182/4	220182/5
1.	pH @ 25°C	---	IS:2720 (Part 26) 1987	7.8	8.1	8.3	7.8	7.9
2.	Electrical Conductivity	µMho/cm	IS:14767:2000	303	234	195	133	235
3.	Calcium as Ca	mg/kg	U.S Department of Agriculture, Natural resource conservation service, National Soil Survey Center:2007	554	298	536	270	347
4.	Magnesium as Mg	mg/kg		60	50	64	64	33
5.	Available Nitrogen	mg/kg		59.4	51.5	82.3	59.2	87.3
6.	Available Potassium	mg/kg		99	150	105	92	178
7.	Phosphorous as P	mg/kg		8.4	6.8	6.2	7.8	8.5
8.	Chloride as Cl-	mg/kg	APHA 4500 Cl-B	195	122	121	243	244
9.	Zinc as Zn	mg/kg	U.S Department of Agriculture, Natural resource conservation service, National Soil Survey Center:2007	117	46.7	78.1	35.9	55.7
10.	Manganese as Mn	mg/kg		326	539	294	199	228
11.	Copper as Cu	mg/kg		24.2	11.7	15.1	7.2	13.4
12.	Boron as B	mg/kg		10.7	12.2	16.8	8.8	20.2
13.	Lead as Pb	mg/kg		24.8	11.1	13.2	9.8	13.7
14.	Arsenic as As	mg/kg		<5	<5	<5	<5	<5
15.	Cadmium as Cd	mg/kg		0.79	<0.5	<0.5	<0.5	<0.5
16.	Total Chromium as Cr	mg/kg		86.9	47.9	42.1	33.6	37.8


 Checked By
 (C.Sateesh)
 Dy. Manager


 Authorized Signatory
 (Y.Swathi)
 Quality Manager



CERTIFICATE NO.TC-5067

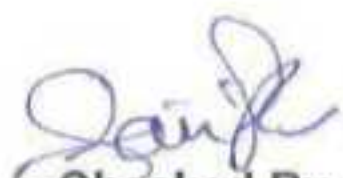
Test Report No- TC-506722000000465P

TEST RESULT SOIL SAMPLES

Page 3 of 3

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results				
				220182/6	220182/7	220182/8	220182/9	220182/10
1.	pH @ 25°C	---	IS:2720 (Part 26) 1987	7.7	8.2	8.1	8.3	7.4
2.	Electrical Conductivity	µMho/cm	IS:14767:2000	200	537	146	165	308
3.	Calcium as Ca	mg/kg	U.S Department of Agriculture, Natural resource conservation service, National Soil Survey Center:2007	466	378	221	299	563
4.	Magnesium as Mg	mg/kg		64	50	38	44	64
5.	Available Nitrogen	mg/kg		50.7	76.2	47.9	53.5	64.2
6.	Available Potassium	mg/kg		142	45.7	100	105	101
7.	Available Phosphorous as P	mg/kg		6.1	7.8	7.1	5.8	9.1
8.	Chloride as Cl-	mg/kg	APHA 4500 Cl-B	292	219	122	73	192
9.	Zinc as Zn	mg/kg	U.S Department of Agriculture, Natural resource conservation service, National Soil Survey Center:2007	51.3	55.3	50.8	35.8	112
10.	Manganese as Mn	mg/kg		296	286	236	186	322
11.	Copper as Cu	mg/kg		13.2	11.6	15.7	11.3	24.2
12.	Boron as B	mg/kg		28.4	32.3	12.2	20.4	11.5
13.	Lead as Pb	mg/kg		11.9	14.2	15.3	8.1	21.3
14.	Arsenic as As	mg/kg		<5	<5	<5	<5	<5
15.	Cadmium as Cd	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5
16.	Total Chromium as Cr	mg/kg		55.2	43.7	41.8	33.5	81.0


 Checked By
 (C.Sateesh)
 Dy. Manager

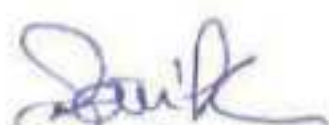

 Authorized Signatory
 (Y.Swathi)
 Quality Manager

Test Report No- TC-506722000000465P

TEST RESULT SOIL SAMPLES

Sl. No	Parameter	Unit	Method	Results				
				220182/1	220182/2	220182/3	220182/4	220182/5
1.	Color	-	-	Brown	Light brown	Light brown	Light brown	Light brown
2.	Texture	-	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
3.	Bulk Density	gm/cc	ASTM D 5067-90:1998	1.28	1.23	1.32	1.25	1.54
4.	Total Organic Carbon	%	-	0.50	0.79	0.49	0.40	0.26
5.	Sulphur as S	%	-	0.62	0.25	0.21	0.20	0.18

Sl. No	Parameter	Unit	Method	Results				
				220182/6	220182/7	220182/8	220182/9	220182/10
1.	Color	-	-	Reddish Brown	Dark Brown	Dark Brown	Dark Brown	Brown
2.	Texture	-	-	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam	Sandy Loam
3.	Bulk Density	gm/cc	ASTM D 5067-90:1998	1.22	1.34	1.46	1.24	1.27
4.	Organic Carbon	%	-	1.50	0.63	0.30	0.57	0.42
5.	Sulphur as S	mg/kg	-	0.57	0.52	0.42	0.65	0.63


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

TEST RESULT SURFACE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No	Parameter	Unit	Method	Results			
				220181/1	220181/2	220181/3	220181/4
1.	E.Coli	MPN/100 ml	APHA 9221 G	540	350	220	920
2.	Total Coli Form	MPN/100 ml	APHA 9221 B	>1600	>1600	920	1600


Checked By
(C.Sateesh)
Dy. Manager


Authorized Signatory
(Y.Swathi)
Quality Manager

ANALYSIS

HWMP/GF/LAB- 412



Sustainability

Pages 1 of 2

To,
Re Sustainability Solutions Pvt.Ltd,
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500081,
India

Date of Report : 28.10.2022
Analysis Starting Date : 28.09.2022
Analysis Completion Date : 28.10.2022
Date of Sampling : 27.09.2022 to 19.10.2022
Sample Collected by : Re Sustainability Solutions Pvt.Ltd.,
Sample Description : WTE-Delhi (Noise Sampling)

Locations:

- 1.N-1: RSSPL/ WTE/Delhi -Site
2. N-2: RSSPL/ WTE/Delhi-Bawana
3. N-3: RSSPL/ WTE/Delhi- Sanoth Mord
4. N-4: RSSPL/ WTE/Delhi- Holambi Khurd
5. N-5: RSSPL/ WTE/Delhi- Barwala
6. N-6: RSSPL/ WTE/Delhi- Khera khurd
7. N-7: RSSPL/ WTE/Delhi- Ghoga
8. N-8: RSSPL/ WTE/Delhi- Sultanpur Dabas
9. N-9: RSSPL/ WTE/Delhi- Narela



Table 3.11: Results of noise quality monitoring dB(A)

Code	Locations	Day		Night		Leq dB (A)	
		Min	Max	Min	Max	L _{day}	L _{night}
N1	Site	47.9	66.5	44.3	49.1	63.6	45.9
N2	Bawana (Residential)	47.1	57.6	43.1	47.6	54.1	44.3
	Bawana (Industrial)	58.9	73.6	50.8	57.1	68.2	54.6
	Bawana (Commercial)	52.8	69.1	46.1	52.1	63.5	48.2
N3	Sanoth Mord(Residential)	46.8	57.2	42.7	46.9	53.9	44.1
N4	Holambi Khurd (Commercial)	51.8	67.9	46.1	51.6	62.6	48.2
N5	Barwala (Commercial)	52.9	68.9	46.5	51.4	62.9	48.6
N6	Khera khurd (Commercial)	54.1	69.1	48.1	54.2	62.9	50.3
N7	Ghoga (Commercial)	52.2	68.7	47.6	53.1	63.5	49.3
N8	Sultanpur Dabas (Residential)	47.1	57.6	42.3	48.5	54.5	43.9
N9	Narela (Commercial)	53.5	70.5	48.1	55.1	63.8	50.3
Range						53.9 to 68.2	43.9 to 54.6

AAQ Standards in respect of Noise SO 123 (E) dt 14th Feb 2000

Area Code	Category of Area	Limits in dB(A) Leq	
		Day Time	Night Time
A	Industrial Area	75	70
B	Commercial Area	65	55
C	Residential Area	55	45
D	Silence Zone	50	40

Note: Day Time is recorded in between 6 a.m. and 10 p.m. Night time is recorded in between 10 p.m.to 6 a.m.

Authorized Signatory

Re Sustainability Solutions Pvt.Ltd,

ANALYSIS

HWMP/GF/LAB- 412



Pages 1 of 2

To,
Re Sustainability Solutions Pvt.Ltd,
Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
Hitech City Road, Hyderabad-500081,
India

Date of Report : 28.10.2022
Analysis Starting Date : 28.09.2022
Analysis Completion Date : 28.10.2022
Date of Sampling : 27.09.2022 to 23.10.2022
Sample Collected by : Re Sustainability Solutions Pvt.Ltd.,
Sample Description : WTE-Delhi (AAQ Sampling)

Locations:

1. AAQ-1: RSSPL/ WTE/Delhi -Site
2. AAQ-2: RSSPL/ WTE/Delhi-Bawana
3. AAQ-3: RSSPL/ WTE/Delhi- Holambi Khurd
4. AAQ-4: RSSPL/ WTE/Delhi- Khera khurd
5. AAQ-5: RSSPL/ WTE/Delhi- Barwala
6. AAQ-6: RSSPL/ WTE/Delhi- Ghoga
7. AAQ-7: RSSPL/ WTE/Delhi- Narela
8. AAQ-8: RSSPL/ WTE/Delhi- Chandpur Khurd

Annexure 3.1

AAQ Monitoring scheduled for 2 days a week for 4 weeks (one month) during study period

Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
PM10								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	75.6					110	118	
28.09.2022	80.3					125	158	
29.09.2022			145	175				
30.09.2022			156	158	164			
01.10.2022		183			166			82.3
02.10.2022		190						94.5
2 nd week								
03.10.2022		184	162	162				
04.10.2022		212	140	175				
05.10.2022	Dussehra							
06.10.2022	74.3					132	115	
07.10.2022	76.7					105	158	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	82.3				150			78.5
12.10.2022	81.2				152			81.2
13.10.2022		168	161	169				
14.10.2022		198	154	178				
15.10.2022						122	165	
16.10.2022						115	155	
4 th Week								
17.10.2022		212				118	128	
18.10.2022		188				108	170	
19.10.2022	84.5		148	176				
20.10.2022	76.5		158	178				
21.10.2022					158			91.5
22.10.2022					168			115
23.10.2022								
Min	74.3	168	140	158	150	105	115	78.5
Max	84.5	212	162	178	168	132	170	115

ANALYSIS

HWMP/GF/LAB- 412



Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
PM2.5								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	48.3					62.3	76.5	
28.09.2022	52.3					64.3	80.5	
29.09.2022			110	101				
30.09.2022			98.7	112	92.3			
01.10.2022		112			80.6			65.4
02.10.2022		118						50.4
2 nd week								
03.10.2022		104	88.7	120				
04.10.2022		120	80.4	118				
05.10.2022	Dussehra							
06.10.2022	50.2					66.7	84.3	
07.10.2022	52.2					74.3	85.4	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	48.4				78.3			49.8
12.10.2022	56.5				80.5			54.3
13.10.2022		125	75.7	110				
14.10.2022		128	96.5	115				
15.10.2022						70.6	78.7	
16.10.2022						68.8	82.2	
4 th Week								
17.10.2022		130				75.6	86.4	
18.10.2022		132				78.4	98.6	
19.10.2022	52.1		90.5	108				
20.10.2022	54.4		93.2	120				
21.10.2022					96.5			64.3
22.10.2022					104			72.1
23.10.2022								
Min	48.3	104	75.7	101	78.3	62.3	76.5	49.8
Max	56.5	132	110	120	104	78.4	98.6	72.1

HYDERABAD WASTE MANAGEMENT PROJECT

(A division of Ramky Enviro Engineers Ltd)

Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
So2								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	16.9					19.8	25.4	
28.09.2022	20.3					21.2	21.2	
29.09.2022			23.2	24.2				
30.09.2022			22.1	21.2	22.1			
01.10.2022		25.4			24.3			18.8
02.10.2022		23.4						20.3
2 nd week								
03.10.2022		24.4	21.6	22.3				
04.10.2022		26.7	23.4	21.8				
05.10.2022	Dussehra							
06.10.2022	19.2					23.2	23.4	
07.10.2022	18.8					21.8	24.3	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	21.2				25.3			20.4
12.10.2022	22.5				20.6			19.4
13.10.2022		21.4	20.8	22.4				
14.10.2022		28.1	21.5	23.6				
15.10.2022						20.5	22.1	
16.10.2022						22.6	25.8	
4 th Week								
17.10.2022		25.4				21.8	23.4	
18.10.2022		28.1				23.2	22.6	
19.10.2022	23.5		23.4	21.9				
20.10.2022	20.4		21.8	22.3				
21.10.2022					23.1			17.3
22.10.2022					22.7			19.5
23.10.2022								
Min	16.9	21.4	20.8	21.2	20.6	19.8	21.2	17.3
Max	23.5	28.1	23.4	24.2	25.3	23.2	25.4	20.4

ANALYSIS

HWMP/GF/LAB- 412



Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
Nox								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	30.1					28.7	31.2	
28.09.2022	26.5					30.2	30.4	
29.09.2022			32.1	31.2				
30.09.2022			30.2	33.2	31.2			
01.10.2022		33.2			33.4			25.6
02.10.2022		35.4						27.6
2 nd week								
03.10.2022		38.1	31.2	30.2				
04.10.2022		36.5	32.4	31.6				
05.10.2022								
Dussehra								
06.10.2022	28.7					31.2	33.2	
07.10.2022	27.8					28.4	34.3	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	28.9				31.7			24.8
12.10.2022	27.6				32.7			29.3
13.10.2022		34.2	30.5	29.7				
14.10.2022		33.2	28.8	30.2				
15.10.2022						30.1	33.8	
16.10.2022						32.1	34.8	
4 th Week								
17.10.2022		31.2				30.6	33.2	
18.10.2022		34.2				31.7	32.6	
19.10.2022	29.3		30.5	32.5				
20.10.2022	28.8		31.5	31.8				
21.10.2022					35.3			26.6
22.10.2022					34.2			25.5
23.10.2022								
Min	26.5	31.2	28.8	29.7	31.2	28.4	30.4	24.8
Max	30.1	38.1	32.4	33.2	35.3	32.1	34.8	29.3

HYDERABAD WASTE MANAGEMENT PROJECT

(A division of Ramky Enviro Engineers Ltd)

Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
O3								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	24.7					26.8	31.2	
28.09.2022	26.5					27.6	28.7	
29.09.2022			26.5	34.2				
30.09.2022			28.7	32.1	37.5			
01.10.2022		32.3			32.3			22.4
02.10.2022		34.5						23.8
2 nd week								
03.10.2022		36.7	30.2	31.2				
04.10.2022		34.4	33.2	27.6				
05.10.2022	Dussehra							
06.10.2022	28.7					29.3	30.4	
07.10.2022	29.9					30.4	29.5	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	23.8				31.3			20.6
12.10.2022	26.5				32.4			24.3
13.10.2022		38.7	28.8	30.5				
14.10.2022		40.3	31.2	32.3				
15.10.2022						29.3	28.8	
16.10.2022						27.5	30.5	
4 th Week								
17.10.2022		38.8				26.9	31.5	
18.10.2022		36.4				27.2	30.6	
19.10.2022	29.3		31.3	34.1				
20.10.2022	27.4		32.3	30.2				
21.10.2022					34.2			26.5
22.10.2022					33.5			24.8
23.10.2022								
Min	23.8	32.3	26.5	27.6	31.3	26.8	28.7	20.6
Max	29.9	40.3	33.2	34.2	37.5	30.4	31.5	26.5

ANALYSIS

HWMP/GF/LAB- 412



Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
NH ₃								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	38.3					26.5	29.3	
28.09.2022	39.5					28.7	27.5	
29.09.2022			30.2	36.2				
30.09.2022			29.3	31.2	33.2			
01.10.2022		41.8			34.8			29.4
02.10.2022		43.2						30.1
2 nd week								
03.10.2022		45.3	25.8	35.4				
04.10.2022		47.2	26.7	34.2				
05.10.2022	Dussehra							
06.10.2022	41.8					25.4	28.4	
07.10.2022	43.3					27.4	27.8	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	45.3				32.2			27.6
12.10.2022	44.2				34.1			28.2
13.10.2022		43.1	29.3	30.5				
14.10.2022		42.4	28.5	31.2				
15.10.2022						22.8	27.6	
16.10.2022						28.4	26.4	
4 th Week								
17.10.2022		44.2				30.8	28.8	
18.10.2022		42.5				27.8	29.3	
19.10.2022	41.6		30.4	34.5				
20.10.2022	45.4		28.8	35.5				
21.10.2022					33.6			29.8
22.10.2022					35.4			32.2
23.10.2022								
Min	38.3	41.8	25.8	30.5	32.2	22.8	26.4	27.6
Max	45.4	47.2	30.4	36.2	35.4	30.8	29.3	32.2

HYDERABAD WASTE MANAGEMENT PROJECT

(A division of Ramky Enviro Engineers Ltd)

Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
CO								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	810					1080	1145	
28.09.2022	850					1120	1045	
29.09.2022			1220	1025				
30.09.2022			1145	1124	1245			
01.10.2022		1345			1180			950
02.10.2022		1454						854
2 nd week								
03.10.2022		1300	1080	1284				
04.10.2022		1350	1110	1185				
05.10.2022	Dussehra							
06.10.2022	860					1110	980	
07.10.2022	820					1090	1220	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	825				1140			820
12.10.2022	850				1240			835
13.10.2022		1250	1125	1155				
14.10.2022		1482	1190	1220				
15.10.2022						1115	1120	
16.10.2022						1150	1050	
4 th Week								
17.10.2022		1385				1145	1155	
18.10.2022		1410				1175	1165	
19.10.2022	860		1195	1290				
20.10.2022	835		1210	1185				
21.10.2022					1320			850
22.10.2022					1345			955
23.10.2022								
Min	810	1250	1080	1025	1140	1080	980	820
Max	860	1482	1220	1290	1345	1175	1220	955

ANALYSIS

HWMP/GF/LAB- 412



Baseline data scheduled (27 th Sep 2022 to 22 nd Oct 2022)								
Beneze(C ₆ H ₆)								
Dates	Project site	Bawana	Holambi khurd	Khera kurd	Barwala	Ghoga	Narela	Chandpur khurd
1 st Week								
27.09.2022	0.40					0.48	0.55	
28.09.2022	0.42					0.52	0.48	
29.09.2022			0.66	0.54				
30.09.2022			0.56	0.58	0.57			
01.10.2022		0.65			0.58			0.42
02.10.2022		0.69						0.48
2 nd week								
03.10.2022		0.72	0.58	0.62				
04.10.2022		0.62	0.62	0.59				
05.10.2022								
Dussehra								
06.10.2022	0.45					0.55	0.56	
07.10.2022	0.52					0.58	0.46	
08.10.2022			Raining					
09.10.2022			Raining					
3 rd Week								
10.10.2022			Raining					
11.10.2022	0.39				0.55			0.38
12.10.2022	0.48				0.62			0.46
13.10.2022		0.68	0.65	0.61				
14.10.2022		0.72	0.68	0.62				
15.10.2022						0.56	0.56	
16.10.2022						0.54	0.49	
4 th Week								
17.10.2022		0.74				0.48	0.56	
18.10.2022		0.78				0.57	0.48	
19.10.2022	0.42		0.64	0.57				
20.10.2022	0.46		0.58	0.59				
21.10.2022					0.56			0.48
22.10.2022					0.64			0.50
23.10.2022								
Min	0.39	0.62	0.56	0.54	0.55	0.48	0.46	0.38
Max	0.52	0.78	0.68	0.62	0.64	0.58	0.56	0.50

Authorized Signatory

Re Sustainability Solutions Pvt.Ltd,

HYDERABAD WASTE MANAGEMENT PROJECT

(A division of Ramky Enviro Engineers Ltd)

Annexure-5

Training Records

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Oil Handling & Foam Trolley operation

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): SACHIN KUMAR

Signature: Sachinkumar

Date: 29/6/22

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	13020069	Jassi Ahmad	Servic	
2	13020079	Sashi Ranjan	"	
3	13020039	Pradeep bautha	"	
4	13020328	Jaukishem	"	
5	13020329	md. Zaher	"	
6	13020493	Ramesh Kumar	"	
7	13020066	md Sahbur	"	
8	13020081	Sumil Kumar	"	
9	13020252	Bijendra	"	
10	13020248	Manish Kumar	"	
11	13020203	Sandeep	STORE	
12	13020126	AJAY VERMA	STORE	
13	22009154	Aftab ALqm	S.Tech	
	22009118	Kuldeep		

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Health hazards

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): RAKESH

Signature: Rakh

Date: 23/6/22

	13020191	Sanyu tati	Hedar	संयुती तति
	13020186	Shivnath	11	शिवनाथ
	13020288	Sutish	1	सुतिश
		Deepak	"	
	13020332	Sagar	sup	सागर

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic:

Hot work safety

Type of training (please tick as appropriate):

- Class room ☒
- Practical ☐
- On Job ☒
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): RAKESH

Signature: *Reeth*

Date: 6/6/22

[illegible]

Corporate format

Safety Training Attendance Sheet

Training topic: Health

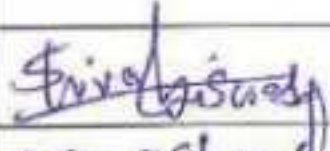
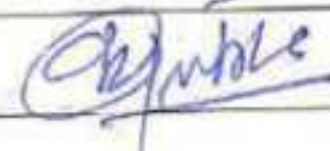
Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒

Trainer Name & Signature :

Location : Main Gate

Date: 23/06/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	91302056	Deepak Agarwal	security supervisor	
2	91402038	Goutam Hait	security supervisor	Goutam Hait
3	91402034	Mohit Kumar	security Guard	Mohit
4	91302050	Neeraj ①	security Guard	Neeraj
5	91302058	Nitesh Kumar	security Guard	Nitesh Kumar
6	91302068	Rakesh Bhatia	security Guard	Rakesh Bhatia
7	91302065	Deepak Singh	security Guard	
8	91302072	Amit Kumar Dwivedi	security Guard	
9	91402025	Vishal Singh	security Guard	Vishal Singh
10	91402028	Dasharath Prasad	security Guard	Dasharath
11	91402042	Deepak Raj Yadav	security Guard	
12	91402046	Shiva Biswas	security Guard	
13	91402040	Tarachand Bairwa	security Guard	Tarachand
14	91402045	Ghanshyam Singh	security Gun man	Ghanshyam Singh
15	91302066	Kaleem Ansari	security Gun men	Kaleem Ansari
16	91302060	D.P. Gupta	S.O	
17				
18				

Attendance format

Safety Training Attendance Sheet

Training topic: 1

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒

Trainer Name & Signature : Satendra Kumar

Location : boiler floor

Date: 30/1/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020109	Shankar	Operation	Shankar
2	14020110	Santosh	//	Santosh
3	22010826	Manoj Kumar	C&I	Manoj
4	14020191	Bipin Singh	IT class	Not in school
5	1402081	BHARAT	ENT 2	BHARAT
6	22009143	Pavitra Patel	operation	Patel
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Attendance format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Fire fighting

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): Rakesh

Signature:

Date: 28/6/22

[illegible]

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: House Keeping Working Area

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☒

Brief Description on the topic / module :

Trainer (Name):

Signature:

Date: 30/06/2022

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
	<u>Sonu</u> 46	<u>Sonu</u>	<u>Harper</u>	<u>श्रीक</u>
	122	<u>Manoj</u>	11	<u>Manoj</u>
	20	<u>Buna Singh</u>	11	<u>321</u>
	129	<u>Shakti Singh</u>	11	<u>Shakti Singh</u>
	22	<u>Rahul</u>	11	<u>राहुल</u>
	22009139	<u>Mm Pradeep Kumar</u>	<u>Electrician</u>	<u>Pradeep</u>
	14020041	<u>Nishu Kumar</u>	<u>Admin Sup</u>	<u>Nishu</u>

Corporate format

Safety Training Attendance Sheet

Training topic: Prevention & Precaution during monsoon season

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : SACHIN KUMAR

Location : Slagger Area

Date: 30/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	107	Anil	Rem feeder	31/1/21
2	72	Rajy	Slagger	21/06
3	140200130	Anand	housekip.m	31/1/21
4	14020084	Padam Singh	Slagger	31/1
5	14200126	Mohd ASIF	Slagger	ASIF
6	14020205	Ravi Ranjan	Electrical	31/1
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				

Attendance format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Work At Height

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): SACHIN KUMAR

Signature: Sachin Kumar

Date: 29/6/22

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
	14020073	SANTOSH	FIH	संतोष
	14020051	SACHIN KUMAR	SLH	S. KUMAR
	14020106	ANUJ		ANUJ
	14020085	Shankar Kumar	Lagger	Shankar
	14020016	Kolash	Hospin	कोलेश
	14020030	Anand Singh	Hoshing	31/1/22
	14020171	Dimesh Kumar	operation	Di
	22009143	Pavi Thor	operation	Pavi Thor
	14020053	Mithun	el /	Mithun
	22010826	Manoj KUMAR	CS	Manoj
	14020205	Ravi Rajar Singh	Electrical	Ravi
	14020198	Satish	"	Satish
	22009147	Rajeev Kumar	IST class	Rajeev
	22009182	Debabrata Panda	CS	Debabrata

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Electrical safety

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): SACHIN KUMAR

Signature: Sachinkumar

Date: 28/6/22

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
	17020198	Satish Pal	Electrical	Satish
	14020055	Mangal Das Verma	Slagger	Mangal Das
	22009182	Debabrata Pandey	Sn. Asst. Manager	NJP
	22009333	Arshant Pandey	Sn. Engg	Arshant
	22009110	Ashish Yadav	S/I	Ashish
	22009183	Mr. Ashif	B/O	Ashif
	14020085	Shankar Kumar	Slagger	Shankar Kumar
	140200105	Anurag Kumar	Recommender	Anurag Kumar
	140200106	Anurag	Recommender	Anurag
	22010826	Manoj Kumar	C&E	Manoj
	22009495	Rahul Kumar	P&IT	Rahul

Corporate format

Safety Training Attendance Sheet

Training topic: Fire Extinguisher operation & classes of fire

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature: SACHIN KUMAR

Location: Slagger area

Date: 28/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020069	Shivam	Mech	Shivam
2	14020199	Akhilak h	Mech	Akhilak h
3	14020197	Ajay Rana	Mech	Ajay
4	9452	Pisalat Khair	li	Pisalat
5	14020084	Radam Singh	Slagger	Radam
6	22009121	varun	mech	varun
7	14020076	Karnal	PGT	Karnal
8	14020062	MUKESH	FGT	MUKESH
9	14020085	Shufkar Kaur	Slagger	Shufkar Kaur
10	14020066	Babli Kaur	mech	Babli
11	14020067	Sankar	Mech	Sankar
12	22009451	Himanshu	Mech	Himanshu
13	14020014	Kamleshwar	Mech	Kamleshwar
14	14020080	Shubhi	atm	Shubhi
15				
16				
17				
18				

Attendance format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: *Fire Extinguisher operation & methods of extinguishing the fire*

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): *SACHIN KUMAR*

Signature: *Sachin Kumar*

Date: *27/6/22*

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1.	29	Alay	WTP	<i>Alay</i>
2.	14020088	Saddam Hussain	Helper	<i>Saddam</i>
3.	14020109	Shankar	Helper	<i>Shankar</i>
4.	14020048	Rajesh	Helper	<i>Rajesh</i>
5.	22009163	Pradeep Kumar	OP	<i>Pradeep</i>
6.	14020100	Srin	H.	<i>Srin</i>
7.	1402024	Atch		<i>Atch</i>
8.	22009137	Jai Kumar	WTP operator	<i>Jai Kumar</i>
9.	01402007	Rohit	CIVIL	<i>Rohit</i>

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Health Tips: 27th June (World Yoga Day)

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name):

Signature:

Date:

Jenveem KR
[Signature]
27/06/2022 / 11:45 AM.

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020156	Shankar Jee the	Sup	[Signature]
2	22009118	Kuldip Jho.	Sr Engg	[Signature]
3	14020085	Shankar Kumar	SD Engg	Shankar
4	0322	Chandran	Electrician	[Signature]
5	9162	Vijayshankar	Fitter	[Signature]
6	SI	SACHIN KUMAR	SLD Engg	S. KUMAR
7	22009134	Sandeep Kumar	SLI	[Signature]
8	22009175	Gajendra Kumar	Utility	[Signature]
9	22009105	Manish Kumar	W.T.F	Manish K
10	14020136	ANUS	Helpor	[Signature]
11	14020106	ANUS	Helpor	[Signature]
12	14020015	Vinod Ravi das	Helpor	[Signature]
13	14020130	Anand	Helpor	[Signature]
14	81402146	Ashish	mech	Ashish
15	81402021	Rajeev	mech	Rajeev
16	81402013	Sandeep	mech	Sandeep
17	81402004	mech	mech	[Signature]

Corporate format



DMSWSL –WTE and P&D

[illegible]

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic:

Electrical Safety.

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name):

Mr. Javeen K / Mr. Sourav

Signature:

[Signature]

Date:

26/06/2022

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020089	Arish Kumar	Housekeeping	Arish Kumar
2	14020067	Sankar	Mech.	Shankar
3	14020053	Mithun	Sealgers	
4	14020062	Mukesh	F.G.T	Mukesh
5	14020085	Sankar Kumar	Sealgers	Shankar
6	14020105	Annu Kumar	Pump Pick	Annu Kumar
7	14020076	Kamal	F.G.T	Kamal
8	22009142	Rahul Kumar	Boiler	Rahul Kumar
9	22 106	Anuj	Pump Pick	Anuj
10	22009355	Ranjit dubey	Boiler 1st	Ranjit
11	22009150	Sandeep Sharma	Boiler 2nd	Sandeep
12	22009139	Hardeep Kumar	Electr.	Hardeep
	22009118	Kuldip Kishor	Electr.	Kuldip

Corporate format

GENERAL TRAINING RECORD FOR HSE TRAININGS

Training topic: Fire Fighting & Hose Training

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐
- Read and understand ☐

Brief Description on the topic / module :

Trainer (Name): SACHIN KUMAR

Signature: Sachin Kumar

Date: 24/6/22

SL. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020120	NIPPO	Mech	<u>Nip</u>
2	14020061	Ravi Kumar	Mech	<u>Ravi</u>
3	81402031	POORUS KATH	"	<u>Poorus Kath</u>
4	81402081	Ajay	"	<u>Ajay</u>
5	81402069	Vinod	H	<u>Vinod</u>
6	14020201	Mangal Ram	"	<u>Mangal</u>
7	22009117	Amrit Maral	"	<u>Amrit Maral</u>
8	81402001	Sushel	H	<u>Sushel</u>
9	77	Ganesh	"	<u>Ganesh</u>
10	81402030	Pratik	"	
11	74	VIKESH	"	<u>VIKESH</u>
12	Ram Jivan			
	14020014	Ram Jivan	Mech	<u>Ram Jivan</u>

Corporate format

Safety Training Attendance Sheet

Training topic: Hotwork

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : SACHIN KUMAR

Location : 7-mtr Boiler

Date: 23/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009142	RAHUL KUMAR	OPERATION	Rahul
2	14020123	Mohu	C&I	Mohu
3	14020105	Annu Kumar	Helper	Annu Kumar
4	14020058	Ravi Kumar	Helper	Ravi
5	22010608	Akhilesh Kumar Singh	operation	A K Singh
6	81402133	RAHUL	CIVIL	RAHUL
7	81402130	Rahul	CIVIL	Rahul
8	81402002	Ram Bhadur	Maintenance	Ram Bhadur
9	81402012	Ram Atal	Maintenance	Ram Atal
10	81402018	Laxman	Civil	Laxman
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Attendance format

Safety Training Attendance Sheet

Training topic: General Safety

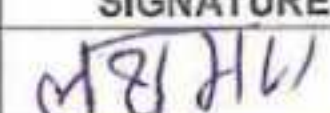
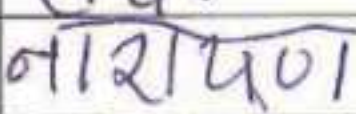
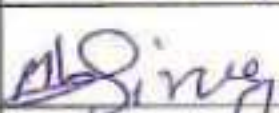
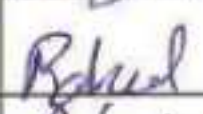
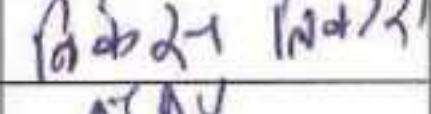
Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature: Govid Nihon 

Location: Near DM plant

Date: 22/06/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	81402018	Laxman	Civil (M)	
2	8281402015	Narayan	" "	
3	(3) 81402107	Md. Siraj	" "	
4	81402007	Rahul	" "	
5	81402074	B. Vikesh Tiwari	" "	
6	81402148	Ajay	" "	
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Attendance format

Safety Training Attendance Sheet	
Training topic: <u>Induction training.</u> Type of training (please tick as appropriate): • Class room ☐ • Practical ☐ • On Job ☐ Trainer Name & Signature: <u>Gauri Mishra. (Signature)</u> Location: <u>7 mtr office</u> Date: <u>22/6/2022</u>	

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	<u>new person</u>	<u>ABHINAV PAL</u>	<u>INSTRUMENT</u>	<u>(Signature)</u>
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Attendance format

Safety Training Attendance Sheet

Training topic: Machine guarding

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature :

Govind Nihoo, Ramanjha, Chandan .c.

Location :

DCS

Date:

21/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009158	Vinay Kumar	CXI	Vinay Kumar
2	22009154	AFTAB ALAM	CPI	Aftab Alam
3	14020124	Machu das	cti Helfer	Machu das
4	14020019	Durgesh	cti Helfer	Durgesh
5	22009119	Chandan Chandra	Elect.	Chandan
6	22009353	Raman Kumar	operation	Raman
7	14020208	Vishal Verma	operation	Vishal
8	22009184	Kapil Kumar	11	Kapil / km
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Attendance format

DELHI MSW SOLUTIONS LIMITED

Attendance Sheet of Tool Box Talk

DATE: 20/6/2022

TIME: 10:35 AM.

VENUE:

F&T area.

TBT TOPIC:

Fire Extinguisher usage.

CONDUCTED BY:

Gauri Nihar V.

S.N	E.P.NO	NAME OF PARTICIPANT	DESIGNATION	SIGNATURE
1	23009132	Ram Prakash	1st class	(R)
2	22009183	Mohd. Ashraf	2nd class	Amal C.
3	14020053	Mithun Kumar	Helper	MITHUN
4	14020084	Radam Singh	Helper	Rs Rd
5	14020051	Sachin Kumar	Helper	S.KUMAR
6	22009150	Sanjeev Kumar	2nd class	Sanjeev Kumar
7	14020156	Shankar Jee Jha	Supervisor	Shankar
8	22009154	Aftab Alam	Sr Inst Tech	Aftab Alam
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Name:

Gauri Nihar

Signature:

(Signature)

Safety Training Attendance Sheet

Training topic: First Aid Prevention

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Govind Nihar.

Location : Mechanical maintenance room.

Date: 19/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020014	Tram Sivan	Mech	Tram Sivan
2	22009161	Bablu	Mech.	Bablu
3	22009199	PRASHANT MISHRA	Mech	प्रशान्त मिश्रा
4	22009117	Amit Moread	Mech	Amit Moread
5	14020068	Surjeet	mech	सुरजित
6	81402032	SHIBA	Mech	शिवा
7	81402051	Ravindra	Mech	Ravindra
8	81402002	रावेंद्र	Mech	रावेंद्र
9	81402064	Vinod	Mech	Vinod
10	22009162	Vijayshankar	mech	विजयशंकर
11	14020049	Ajey	F/H	Ajey
12	14020066	Bablu	F/H	Bablu
13	81402081	Ajey	W	Ajey
14	81402004	हरि	F	हरि
15	81402021	Rajeev	Mech	Rajeev
16	81402031	Ravishankar	"	Ravishankar
17	81402005	Malikhan	"	Malikhan
18	81402030	Birjesh	"	Birjesh

Attendance format

Safety Training Attendance Sheet

Training topic: Chemical handling

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒

Trainer Name & Signature : Satendra Kumar

Location : DM Plant Area

Date: 18/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009175	Gabru	Utility	Gabru
2	22009105	Manish Kumar	W.T.P	Manish K
3	14020102	ATAY	W.T.P	Atay
4	14020122	Manoj	W.T.P	Manoj
5	14020089	Ashish	W.T.P	Ashish
6	14020125	Rajendra	WTE	Rajendra
7	14020029	Abhis	WTP	Abhis
8	14020128	Rajendra	Helpen	Rajendra
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Attendance format

Safety Training Attendance Sheet

Training topic: Fire Health Hazards

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒

Trainer Name & Signature :

Janveem Kar / [Signature]

Location : Boiler No.1 Area

Date: 17/06/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1			Operation	
2	22009543	Pavitra	[Handwritten bracket]	[Signature]
3	22009542	Pavul.		Rahul Kumar
4	14020107	Anil Kr		Ankur
5	14020126	Asif		ASIF
6	14020126			
7	14020084	Padams		Padams
8	14020054	Pawan	Helper	Pawan
9	14020053	Mithun		MITHUN
10	22009355	Rantee dubey	Operation	RK dubey
11	22009185	Manish Vishwakarma	C&I	manish
12	22009118	Rudra kumar	Electrical	[Signature]
13	22009114	SAURABH KUMAR	operation	[Signature]
14	22009815	Sunil Yadav	C&I	[Signature]
15	22000377	Chandan	Elect.	Chandan
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Attendance format

Safety Training Attendance Sheet

Training topic: Confined Space

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Satender Kumar

Location : Boiler floor Tmt

Date: 16/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009355	Ranteet Dubey	operation	R. Dubey
2	22009142	Rahul Kumar	operation	Rahul
3	14020103	Ram Shrest	Helper	R. Shrest
4	14020105	Anand Kumar	Helper	Anand Kumar
5	140260	Pooja Kumar	Helper	Pooja Kumar
6	140205	Arjun	Helper	Arjun
7	14020205	Ravi Ranjan	electrical	Ravi
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Attendance format

Safety Training Attendance Sheet

Training topic: Fire training

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Covid Nihoo .

Location : FGT area.

Date: 15/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020118	सिधा मदन		सिधा मदन
2	81402032	शिवल	"	शिवल
3	14020062	मुकेश		मुकेश
4	14020119	राम लाल राम		राम लाल राम
5	14020120	NIPPU	FLW	Nippu
6	14020116	Suraj		Suraj
7	14020061	Ravi Kumar	(F/M)	Ravi Kumar
8	14020199	Akhilak	mech	Akhilak
9	117	रिच		रिच
10	8130402037	Karban	OP	Karban
11	81402017	Sanjeev	OP	Sanjeev
12	81402104	रामपाल	OP	रामपाल
13	14020111	VIPIN	Electrical	Vipin
14	22009537	वैशाली साहू	F/M	वैशाली साहू
15	14020050	Abhishek	F.G.T.	Abhishek
16	14020197	Ajay Rana	Fitter	Ajay
17	81142022	सुजीत	W	सुजीत
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P.T.O.

Attendance format

P.T.O.

[illegible]

Attendance format

Safety Training Attendance Sheet

Training topic: Prevention during fire

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : SACHIN KUMAR

Location : FGT AREA

Date: 14/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020105	Anand Kumar	Helper	Anand Kumar
2	14020106	Anand	Helper	Anand
3	14020555	Mangal Das	Helper	Mangal Das
4	1402062	MUKESH	FGT	Mukesh
5	14020048	RAJESH	Helper	Rajesh
6	130	Anand	Helper	Anand
7	14020156	Shankar Jee Jha	Sup	Shankar
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Attendance format

Safety Training Attendance Sheet

Training topic: Work Place Safety

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Satendra Kumar

Location : Boiler floor 7mtr

Date: 13/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020085	Shankar Kumar	Slagger	Shankar
2	14020072	Rajesh Kumar	Slagger	Rajesh
3	140200107	Anil Kumar	Remedial	Anil
4	22009183	Asif Ali	B/O	Asif Ali
5	140200106	ANUJ	Remedial	Anuj
6	22010608	Akhilesh Kumar Singh	Operation	Ak Singh
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Attendance format

Safety Training Attendance Sheet

Training topic: Material handling

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Sachin Kumar

Location : Slag area

Date: 12/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020059	Vipul		Vipul
2	14020130	Anand Singh		Anand Singh
3	14020065	Gaffur		Gaffur
4	14020015	Vinod		Vinod
5	14020052	Parveen		Parveen
6	14020110	Santosh		Santosh
7	22009186	Palwani		Palwani
8	22009187	Himanshu		Himanshu
9	22009154	Attab Alam		Attab Alam
10	14020195	Angad Gupta		Angad Gupta
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Attendance format

Safety Training Attendance Sheet

Training topic: Fire Fighting

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☒

Trainer Name & Signature :

Parveen kr

Location : Salgar Area

Date: 11-6-2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020066	Babbar.	Mech	Babbar
2	14020049	Ajay.	"	Ajay
3	81402007	Rahul.	Civil	Rahul
4	81402081	Ajay.	Mech	Ajay
5	81402031	Parveen	"	Parveen
6	81402021	Rajeev	"	Rajeev
7	81402032	Shiva	"	Shiva
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Attendance format

Safety Training Attendance Sheet

Training topic: Working @ height & Heat Shock

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature :

Farveem / Mr. / Farveem

Location : B#1 Roof Top.

Date: 10-06-2022.

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1		M.D. Faiz Nuri	Civil	<u>Faiz</u>
2		Naveed	"	<u>Naveed Ali</u>
3		Safaruddin	"	<u>سافردین</u>
4		Hatim	"	<u>حاتم</u>
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Attendance format

Safety Training Attendance Sheet

Training topic: Hot Weather Condition

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Satender Kumar

Location : Boiler floor

Date: 9/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009143	Pavitrahl	operation	Pavitrahl
2	14020171	Dinesh Kumar	"	Dinesh
3	14020107	Anil Kumar	"	3-T-11M
4	14002059	Vipul	"	Vipul
5	14020110	Santosh Kumar	"	Santosh
6	14020122	Manoj	"	Manoj
7	14020127	Puneshwar	"	Puneshwar
8	14020112	Pankaj Kumar	"	Pankaj
9	14020063	Ashok Kumar	"	Ashok
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Attendance format

Safety Training Attendance Sheet

Training topic: *Induction training.*

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature: *Govind Nihari Vardapalli*

Location: *7 - mtr office.*

Date: *8/06/2022*

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1		<i>Ankur Singh.</i>	<i>Electrical</i>	<i>Ankur</i>
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Attendance format

Safety Training Attendance Sheet

Training topic: Prevention during fire

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : SACHIN KUMAR

Location : 24 mtr hopper PPCL side

Date: 7/6/22

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	22009159	Krishanvir	Mech	Krishanvir
2	011402005	Malikham	M	Malikham
3	14020094	Ravinder		Ravinder
4	14020045	Nitish Red	M.K	निशित
5	14020095	Dharmender	IC	धर्म
6	14020089	Ashish	H:K	Ashish
7	14020100	S21W	H:R	S21W
8	14020041	Vishnu	Syp.	
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Attendance format

Safety Training Attendance Sheet

Training topic: Electrical Safety

Type of training (please tick as appropriate):

- Class room ☐
- Practical ☐
- On Job ☐

Trainer Name & Signature : Ravi Ranjan & Pradeep Kumar

Location : Boiler floor

Date: 5/6/2022

S. No.	EMP ID	NAME	DEPARTMENT	SIGNATURE
1	14020171	Dinesh Kumar	operation	Di
2	22009183	Ashif Ali	11	Asaf Ali
3	14020103	Ram Sarfat	11	RTM 2226
4	14020058	Ravi	11	Ravi
5	14020110	Santosh	11	Santosh
6	14020205	Ravi Ranjan Singh	Electrical	Ravi
7	22009139	Mr. Pradeep Kumar	"	(Pradeep)
8	14020186	Shankar Jeetha	Sup	Shankar
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Attendance format

DELHI MSW SOLUTIONS LIMITED				
Attendance Sheet of Tool Box Talk				
DATE : 4/6/22			TIME :	
VENUE :		ACC. Area		
TBT TOPIC :		Workplace Safety		
CONDUCTED BY :		SACHIN KUMAR		
S N	E.P.NO	NAME OF PARTICIPANT	DESIGNATION	SIGNATURE
1	81402107	md. Siraj	MLCivil	md Siraj
2	81402018	Laxman	M civil	लक्ष्मण
3	81402015	Naran	M civil	नरान
4	81402062	Bisun Deo Poreo	Civil	Bisun Deo Poreo
5	114020121	SHRISH N	Housekeeping	SHRISH N
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Name : SACHIN KUMAR

Signature : SachinKumar

DELHI MSW SOLUTIONS LIMITED

Attendance Sheet of Tool Box Talk

DATE : 03-06-22

TIME : 9:30 AM

VENUE :

O-mtr Turbine Maintenance Room

TBT TOPIC :

General Safety

CONDUCTED BY :

S N	E.P.NO	NAME OF PARTICIPANT	DESIGNATION	SIGNATURE
1	22009496	Ashish Sharma	Fitter	
2	22009162	Vishay Sharma	Sr. Fitter	
3	22009161	Babla	Fitter	Babla
4	22009155	Lokesh Kumar	Welder	Lokesh Kumar
5	22009121	Varun	After helper	Varun
6	1402029	Mangre Ram	I.B.R welder	Mangre Ram
7	22009157	Sukheel Babu	Fitter	
8	81402021	Rajeev	H	Rajeev
9	81402032	SHIVA	H	Shiva
10	81402051	Ravindra	F/H	Ravindra
11	8140209	Sham	H	Sham
12	81402081	Ajay	n	Ajay
13	14020068	Sumit	F/H	Sumit
14	81402030	Briges	F/H	Briges
15	14020067	Shankar	F/H	Shankar
16	81402031	Pravesh Shekh	bt	Pravesh
17	14020014	Ram Giver	F/H	Ram Giver
18	14020049	Arun	F/H	Arun
19	22009499	Udit Singh	Fitter	Udit Singh
20	14020120	NIPPU. Kumar	f/h	Nipu
21	81402004	Mohesh	Fitter	Mohesh
22	81402003	Mohd. Sadeem	Sup	Mohd. Sadeem
23	22009160	Brigesh Godwani	Fitter	Brigesh
24	22009181	Randub Verma	Fitter	Rd
25				

Name : SACHIN KUMAR

Signature : Sachin Kumar

DELHI MSW SOLUTIONS LIMITED

Attendance Sheet of Tool Box Talk

DATE : 02/06/22

TIME : 8:45 AM

VENUE :

Switch yard

TBT TOPIC :

Work At height

CONDUCTED BY :

SACHIN KUMAR & RAKESH

S N	E.P.NO	NAME OF PARTICIPANT	DESIGNATION	SIGNATURE
1	81402018	Laxman	m. CIVIL	[Signature]
2	81402019	Lalchand	m. CIVIL	[Signature]
3	81402015	Narayan	"	[Signature]
4	22009121	Varun	filter helper	[Signature]
5	81402092	Rupender	CIVIL	Rupender
6	81402007	Rahul	"	Rahul
7	81402062	Prison Deepak	"	Prison Deepak
8	81402128	R Sham Sunder	"	Sham Sunder
9	81402130	Rahul	"	Rahul
10	14020120	NIPPU	f/	Thij
11	14020111	VIPIN	"	Vipin
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Name : SACHIN KUMAR

Signature : Sachin Kumar

DELHI-MSW SOLUTIONS LIMITED

Attendance Sheet of Tool Box Talk

DATE: 01/06/22

TIME: 8:20 PM

VENUE:

7-mtr Bailer

TBT TOPIC:

Workplace Safety

CONDUCTED BY:

Mr. Chandan (Electrical), Mr. Sachin Kumar

S N	E.P.NO	NAME OF PARTICIPANT	DESIGNATION	SIGNATURE
1	14020109	Shankar Kumar	Helper	Shankar
2	14020114	Inderal Sahni	Helper	Inderal
3	2201077	Chandan Kumar	Electrician	Chandan
4	22010608	Archiele B K Singh	operation	A.K. Singh
5	126	Mohd ASIF	operation	ASIF
6	14020056	Shankar	Helper	Shankar
7	15	Vinod Kumar	libuse Red	Vinod
8	22009183	ASHI PARI	Asule	Asule
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Name: SACHIN KUMAR

Signature: Sachin Kumar

Annexure-6

Photos of CSR Activities Undertaken

Photographs of CSR & IEC activities conducted in the surroundings of Delhi

World Environment Day Celebrations



Awareness program on Solid Waste Management in the communities



Capacity Building on Waste Management for Safai Karamchari's & informal waste collectors



Street plays to aware people about Solid Waste Management Rules-2016



Note book distribution to children



PPE Kit distribution



International Literacy Day



Women empowerment session on Health & Hygiene



Ration distribution under COVID relief response



By Speed Post/e-Mail



भारतसरकार
GOVERNMENT OF INDIA
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE
CHANGE
एकीकृत क्षेत्रीय कार्यालय, जयपुर / Integrated Regional Office,
Jaipur



ए-218 "अरण्यभवन", झालाना संस्थानिक क्षेत्र, जयपुर - ३०२००४ / A-218, "ARANYA BHAWAN"
Jhalana Institutional Area, Jaipur-302004
दूरभाष/Tel No: 0141-2713786, 2713778 Email: iro.jaipur-mefcc@gov.in

Dated: 18th July, 2022

To

The Additional Director/Scientist-'E',
Monitoring Cell, Ministry of Environment, Forest & Climate Change, 3rd Floor, Vayu Wing,
Indira Paryavaran Bhawan, Jor Bagh, New Delhi - 110003

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

Ref: Environmental Clearance issued vide letter no. 10-67/2009-IA.III, Dated
08/05/2012.

Sir,

In reference to the cited subject, it is bring to your kind notice that the aforesaid
project was Inspected/ Monitored by the undersigned on 12/07/2022 for the purpose of
issuing certified compliance report of the Environmental clearance issued vide letter no. 10-
67/2009-IA.III, Dated 08/05/2012.

2. Accordingly, a detailed monitoring report along with key observations is being attached
herewith for perusal and further appropriate action.

Sincerely,

(Mahesh Dutt Purohit)
Deputy Director (S)/Scientist-C

Copy to: -

1. Project Director, M/s Delhi MSW Solution Ltd, Sector 5, Pocket N1, Bawana
Industrial Area, Bawana, Delhi- 110039, for information please.

Annexure-7

Certified Copy of EC Compliance

**Ministry of Environment, Forest & Climate Change
Integrated Regional Office (IRO), Jaipur**

MONITORING REPORT

PART 1

DATA SHEET

1	Project Type: Industry River Valley/ Mining / Industry/Thermal/Nuclear/Other Specify	Industry (Waste to Energy Plant)
2	Name of the Project	Environmental Clearance for waste to energy plant at Integrated Solid Waste Management facility at Narela Bawana, by M/s Delhi MSW Solution Ltd.
3	Clearance letter(s)/OM No. and dated	Environmental Clearance issued vide letter no. 10-67/2009-IA.III, Dated 08/05/2012.
4	Locations	
	a. District b. State c. Location: Lat/Long	Northwest Delhi Delhi Sector 5, Pocket N1, Bawana Industrial Area, Bawana, Delhi 28°47'57.43"N Latitude 77°04'02.55"E Longitude
5	Address for correspondence	
	a. Address of concerned project chief engineer b. Address of executive project engineer/Manager	B Prasad Reddy Sector 5, Pocket N1, Bawana Industrial Area, Bawana, Delhi Bhaskar Boge Sector 5, Pocket N1, Bawana Industrial Area, Bawana, Delhi
6	Salient feature of the project	
	a. Of the project	The Municipal Solid Waste (MSW) from different locations in Delhi limits is delivered at the Solid Waste processing along with standalone 24 MW site located in Bawana Industrial Area. The MSW is processed by screening and segregating the waste; organic fraction is processed into compost through aerobic composting and the dry fraction into RDF. The rejects go to the sanitary landfilling, and leachate from the waste is being treated on the site using Mechanical Vapour Recompression (MVR). The RDF is being

		used generated electricity and to achieve conservation of land foot print.
	b. Of the EMP	The funds earmarked for environmental protection measures (Capital Cost Rs. 40.12 Crores and Recurring Cost of Rs.32.15 Lakhs per annum).
7	Breakup project area	
	a) Submergence forest area and non-forest area	No forest land involved
	b) Others	Government Land; earmarked for waste management activity.
8	Breakup of project affected population with enumeration of those losing houses/dwelling units only, agricultural land only, both dwelling units and agricultural land and landless labourers/artisans	Not applicable No R&R activities involved.
	a) SC.ST and Adivasi	
	b) Others	
9	Financial details (As reported by PP)	
	a) Project cost as originally planned and subsequent revised estimates and the years of price reference	Existing 24 MW WTE is Rs 399.41 Cr and to be expanded to 60 MW without any additional land requirement. Proposed capacity expansion module cost: Rs. 848 Crores.
	b) Allocations made for environmental management plans, with item wise and year wise breakup	Capital Cost: 40.12 Crores Recurring is 32.15 lakhs per annum.
	c) Benefit cost ration/internal rate of return and the years of assessment	As it is solid waste processing facility. No cost benefit system applicable. Conservation of land footprint is a major intangible gain for society at large
	d) Whether includes the cost of environmental management as shown in (b) above	Yes included
	e) Total expenditure on the Project so far	Rs 70 Cr. for as on today for the segregation plant and Rs 399.41 Cr. for the 24 MW RDF based WTE plant to be expanded to 60 MW with the cost of Rs. 848 Cr.
	f) Actual expenditure incurred on the environmental management plans so far	Environmental capital: 40.12 Crores. Recurring cost: 2.4 Crores.
10	Forest land requirement	

	a) The status of approval for a diversion of forest land for non-forestry use b) The status of compensatory afforestation, if any c) The status of clear felling d) Comments on the viability and sustainability of compensator afforestation programme in the light of actual field experience so far	NA
11.	The status of clear felling in non-forest area (such as submergence area of reservoir, approach road), if any, with quantitative information	NA
12.	Status of construction	
	a. Date of commencement b. Date of completion (actual and/or planned)	08.05.2012 20.02.2017
13	Reasons for the delay if the project	

PART - II

DESCRIPTIVE REPORT ON STATUS OF COMPLIANCE TO CONDITIONS OF ENVIRONMENTAL CLEARANCE ISSUED VIDE LETTER NO. 10-67/2009-IA.III, Dated 08/05/2012

Specific conditions		
S.no	Conditions	Compliances
(i)	"Consent for Establishment" shall be obtained from Pollution Control Board Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.	Complied. PP has obtained CTE from DPCC vide letter no. DPCC/PLG/2016/36691.
(ii)	Spraying of an appropriate herbal sanitizer shall be adopted for odour control in addition to it's the vacuum suction and destroying in furnace.	Complied. It was observed during the inspection that the spraying of herbal sanitizer (Citronella, pine oil and neem oil) is being done in the plant area and near furnace.
(iii)	Proper shed shall be provided for the compost yard to prevent the rain water coming in contact with the material in compost yard.	Complied. Shed has been provided to prevent the rain water coming in contact with the material in compost yard.
(iv)	The gas generated from the landfill facility shall be collected and disposed as per rule.	Complied. The passive venting system as per the Criteria for Ambient Air Quality Monitoring of Solid Waste Management Rules 2016 has been installed. Further, it was appraised by the unit representative that only inert/residual inert matter is being stored in the landfill so as to eliminate the possibility of Gas from the Landfill.
(v)	The Leachate from the facility shall be collected and treated to meet the prescribed standards before disposal.	Complied. The leachate generated have been collected and treated in leachate treatment plant in accordance to the provisions of Solid Waste Management Rules 2016. PP has submitted the monitoring reports from an accredited laboratory and parameters are within the prescribed standards. Impervious liners have been provided in the collection tanks.
(vi)	The proponent shall obtain necessary clearance from the	Complied. PP has submitted the copy of clearance from the Ground water Authority.

	Ground Water Authority for the use of ground water.	
(vii)	An Onsite Emergency Management Plan shall be prepared and implemented.	Complied. PP has submitted the Onsite Emergency plan to minimise control potential situation, personal injuries, Fire explosions, vehicle accidents, Natural calamities, and Process equipment's failures etc.
(viii)	Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.	Complied. PP has submitted the soil and ground water monitoring reports by an accredited laboratory.
(ix)	The minimum width of the green belt all around the plot shall be 9.0 m. Project proponent should develop green belt all the periphery of the site with plant species that are significant and used for the pollution abatement.	Being Complied. Decent efforts have been made for plantation within the project premises and development of green areas. Good plantation was observed along the boundary and along the pathways. The PP was also advised to submit a detailed report on proposed plantation planning, incorporating all the details of green area and area under plantation along with next 6 monthly compliance report.
(x)	Regular Ambient Air Quality Monitoring shall be carried out as per latest Notification of 16 th November, 2009.	Complied. PP has submitted the ambient air quality monitoring reports by an accredited laboratory.
(xi)	Use only low Sulphur diesel. No other oil be used.	Complied. BSVI fuel with 10 ppm Sulphur is using in the Plant vehicles.
(xii)	The proponent shall ensure that the project fulfils all the provisions of Solid Wastes (Management and handling) Rule, 2000 including collection Transportation design etc.	Being Complied. During the inspection it was observed that most of the provisions of SWM Rules, 2016 are being followed such as Collection, Transportation, Segregation, Processing & Disposal of waste, Composting and Leachate Treatment 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.	Complied. PP has separate environmental management cell under the control of senior executives, having qualified personnel.
(xiv)	Entire organic material shall be converted manure. Recyclable material likewise glass, steel, etc., shall be sold to recycler. Only inert	Being Complied. The Organic Material is being converted into Organic manure, the recyclables are being sent to appropriate recyclers and

	material which cannot be either composted or recycled shall be sent to land filling.	the inert material is being disposed in the secured landfill.
(xv)	The funds earmarked for environment management plan shall be included in the budget and this shall not be diverted for any other purpose.	Complied. As per the records maintained by the unit, an amount of Approx Rs. 40.00 Lacs is earmarked for Environment Management. Based on the overall compliance status of the unit, it appears that funds of environmental management are not diverted for any other purposes.
General conditions:		
1.	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.	Not applicable as the project is in operational phase. However, facilities such as toilet, canteen first aid etc are still being provided on site.
2.	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 purpose by furnishing full detail and action plan including action taken reports in respect of mitigation measures and other environmental protection activities.	Agreed for compliance by the unit.
3.	A six -Monthly monitoring report shall to be submitted by the project proponents to the Regional Office of this Ministry at Chandigarh regarding the implementation of the stipulated conditions.	Being Complied. Last six monthly compliance report has been submitted by the unit.
4.	Ministry of environment & Forests or any other competent authority may stipulate any additional conditions or modify the existing, if necessary, in the interest of environment and the same shall be complied with.	Agreed for compliance by the unit.
5.	The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with the satisfaction of the Ministry	Agreed for compliance by the unit.
6.	In the event of change in project profile or change in the implementation agency, a fresh reference shall be made to the	Agreed for compliance by the unit.

	Ministry of Environment and Forests.	
7.	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 land development work.	Agreed for compliance by the unit.
8.	A copy of the clearance letter shall be marked to concern Panchayat/local NGO, if any, from whom any suggestion/representation has been made received while processing the proposal.	Reported to be complied.
9.	State Pollution control Board shall display a copy of the clearance letter at the regional office. District Industries Centre and collectors Office/Tehisildars office for 30 days.	Pertains to DPCC.

Concluding Remarks:

The Project under reference named as "Environmental Clearance for waste to energy plant at Integrated Solid Waste Management facility at Narela Bawana, by M/s Delhi MSW Solution Ltd." is a waste to energy plant. The project was inspected/monitored on 12/07/2022 for the purpose of issuing Certified Compliance Report. Accordingly, monitoring of the conditions of environment clearance was done as narrated above.


(Er. Mahesh Dutt Purohit)
Deputy Director / Scientist 'C'

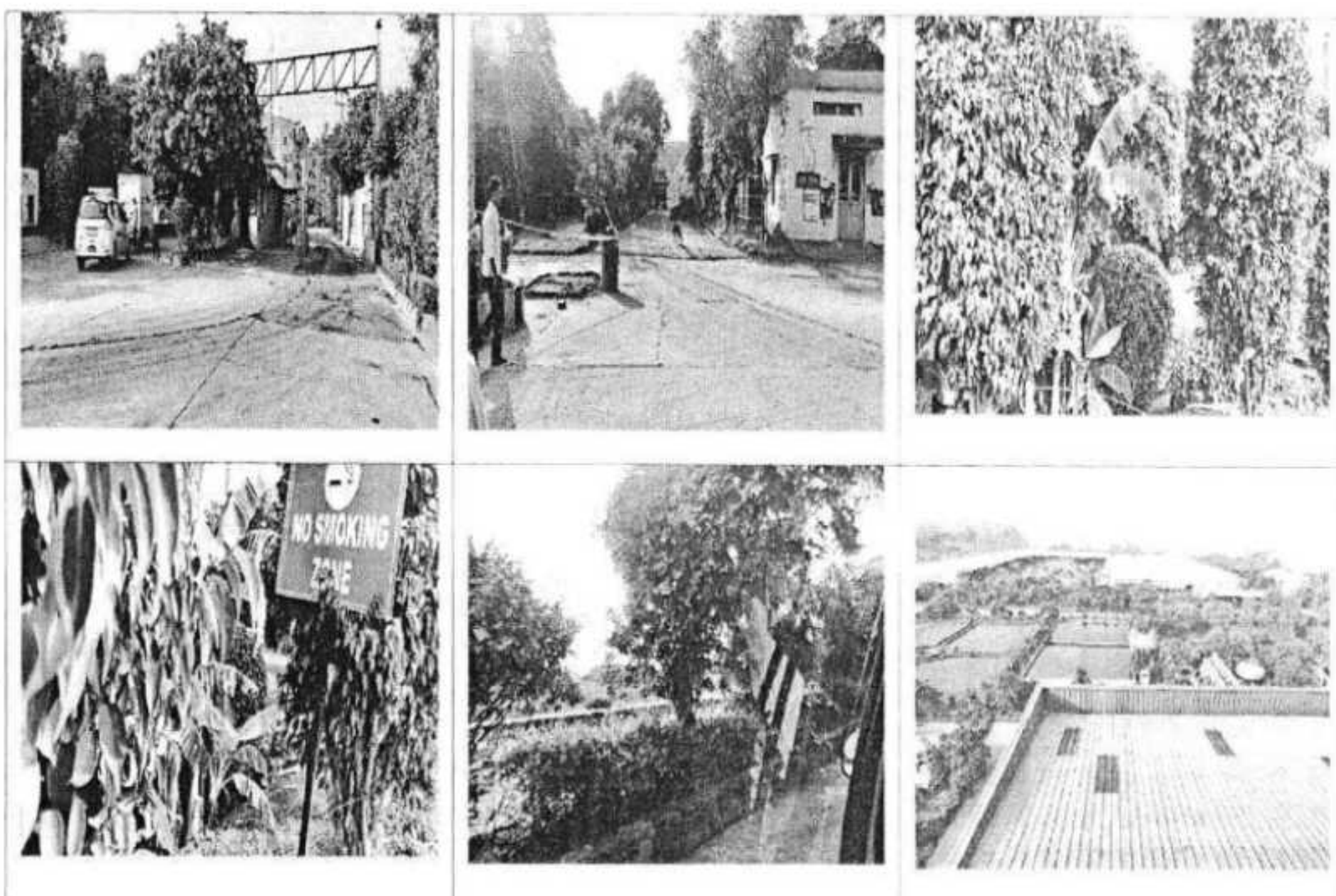


Photo 1 to 6: Plantation with the project premises

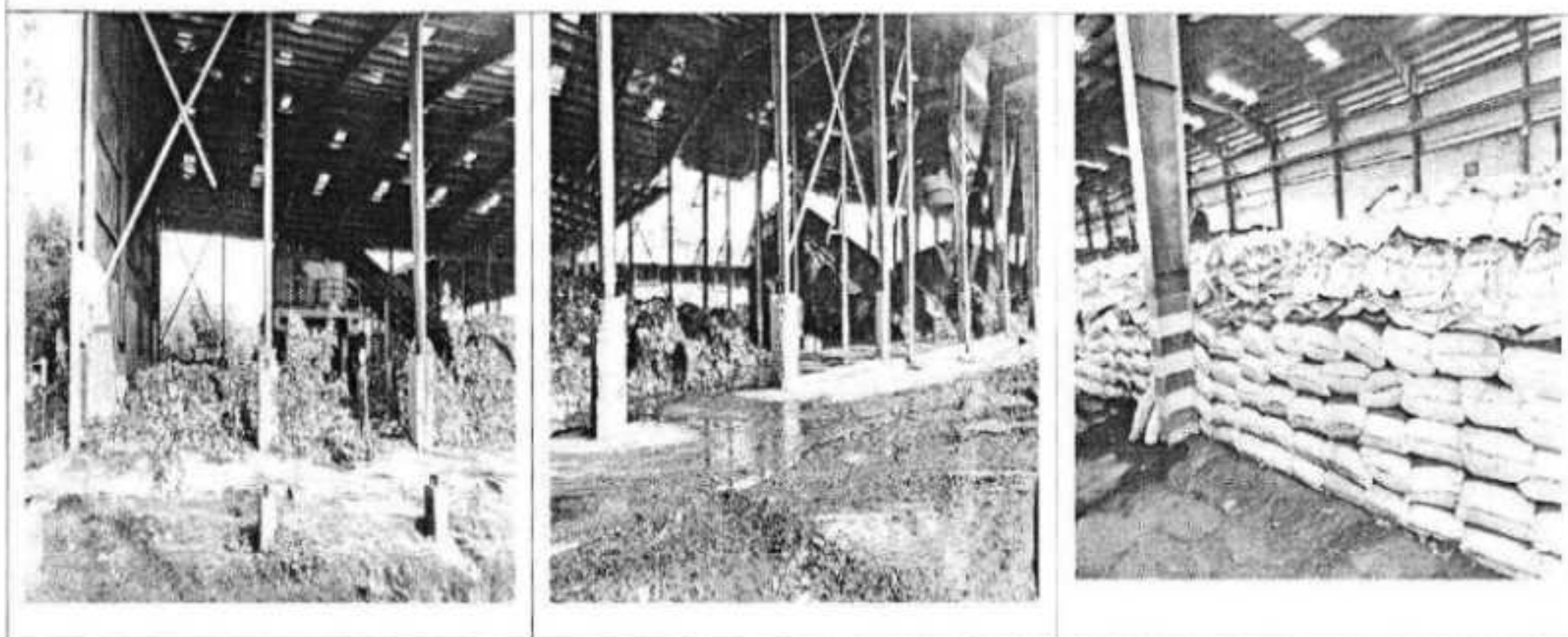


Photo 7 to 9 : Provisions of Closed Shed

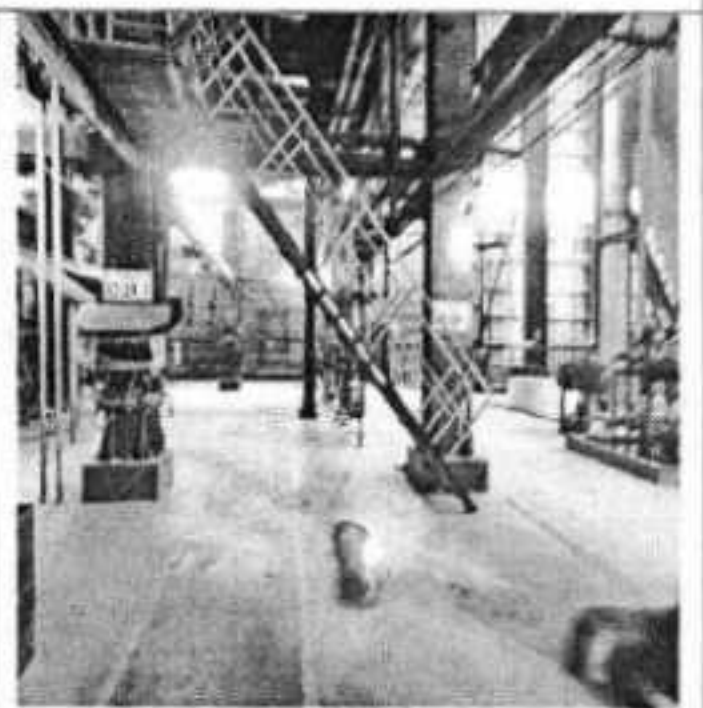
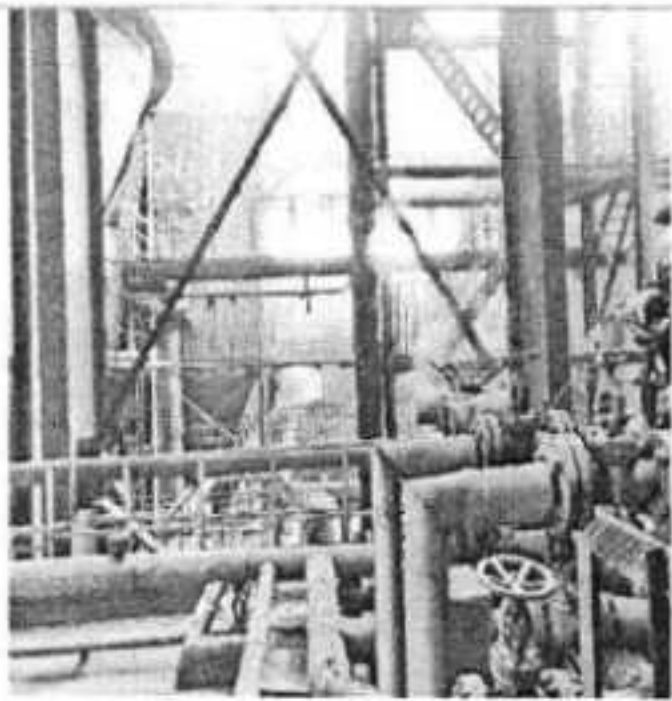
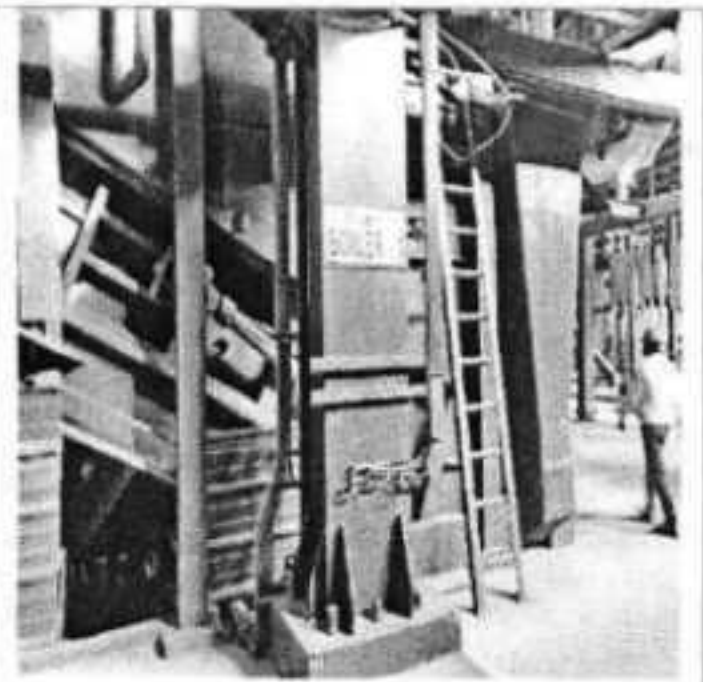
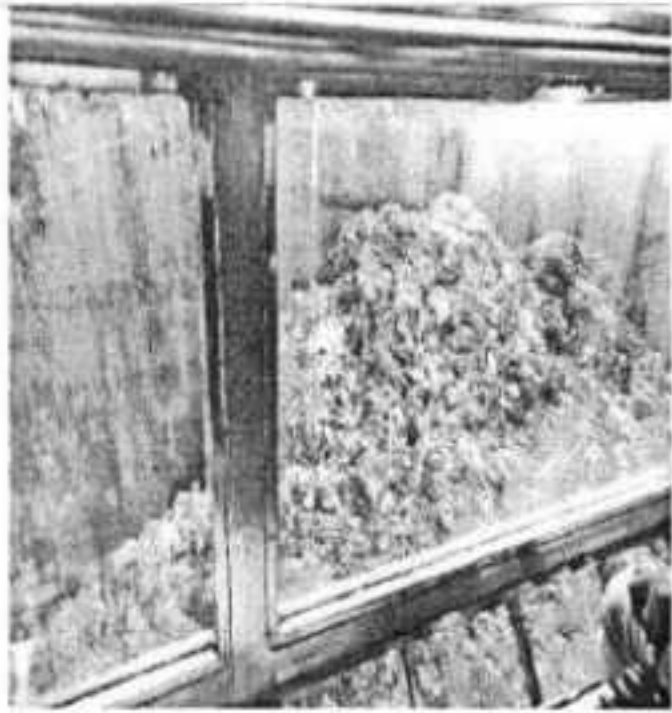


Photo 10 to 15: Boilers, Turbine and power generation section.

Annexure-8

Copy of Request Letter to DPCC for
certificate on CPA/SPA

DMSWSL
DELHI MSW SOLUTIONS LTD.

Ref: DMSWSL/WTE/22-23/Expa-1
Date: 18.11.2022

To,
Senior Environmental Engineer (WMC-II),
Delhi Pollution Control Committee,
Department of Environment, Govt. of NCT of Delhi,
5th Floor, ISBT Building, Kashmere Gate, Delhi 110006.

18/11/22
(ENQUIRY/COMPLAINT)
DELHI POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT
GOVT. OF NCT OF DELHI
4TH FLOOR, ISBT BUILDING,
KASHMERE GATE, DELHI-110006

Sub: Request for letter stating the project area is not falling under
Critically or Severely Polluted Areas.

Ref: TOR File No F No J-13012/01/2022-IA.I (T) dated 29th June, 2022

We have obtained Terms of Reference (TOR) for our proposed Waste to Energy Plant expansion from 24 MW to 60 MW of M/s.Delhi Municipal Solid Waste Solutions Ltd (DMSWSL), at Tehsil Narela, District North West (Delhi) vide MOEFCC letter No F No J-13012/01/2022-IA.I (T) dated 29th June, 2022. One of the TOR point no x read as "PP shall submit letter from State Pollution Control Board that the project area does not come under Critically or Severely Polluted Areas". Hence, we request your good selves to issue a letter stating that our proposed existing (proposed expansion) plant area is not falling under Critically or Severely Polluted Areas.

Thanking you

With regards,



For M/s.Delhi Municipal Solid Waste Solutions Ltd.

Encl: TOR letter dated 29th June 2022

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 : 07AADCD17B3F1ZS

Registered Office:

Level 11B, Aurobindo Galaxy,
Hyderabad Knowledge City,
HITECH City Road, Hyderabad-500081, India.

T: 8595908844
info@resustainability.com
resustainability.com

Annexure-9

Company's Vision Document

Vision document specifying prospective long-term plan of the project

Delhi MSW Solutions Limited (DMSWML), a subsidiary of Re Sustainability Limited (ReSL) and, a concessionaire for collection and transportation of MSW and its processing and disposal for Municipal Corporation of Delhi.

The trend of solid waste generation in Delhi has been rising for the last several years. The management of municipal solid waste (MSW) in Delhi is under the jurisdiction of the local bodies. The local bodies have categorized Delhi into 12 zones for solid waste management. In Delhi, the critical part of the waste is the municipal solid waste (MSW). Approximately 55% of the MSW generated in the city ends up in 3 Sanitary Landfill Sites (SLFs). The low SWM efficiency of Delhi is a result of low waste segregation and recycling (processing) efficiency. Considering the current trends of per capita waste generation, the total quantum of municipal solid waste (MSW) generated in the city is expected to increase substantially, from 12,350 TPD to 18,915 TPD by 2041.

An important obligatory of function of Municipal Corporation of Delhi is to provide sanitation services which includes management of waste generated in the areas under MCD jurisdiction.

MCD is collecting 11144 TPD for day and is managing in the following manner, 5259 TPD of MSW is being disposed by processing and Waste to Energy; 5885 TPD of MSW is being disposed in the existing landfills. DMSWSL has processing capacity of 4000 TPD with 2600 TPD of RDF generation. 24 MW with 1200 TPD of RDF plant is being operated, the remaining 1800 TPD of RDF will be processed from its expansion by installing another 36 MW Plant.

The existing Landfill site in the Delhi is exhausted its capacity and is overburdened. In this view Lieutenant Governor of Delhi has envisaged of expansion of existing WTE. The utilization of 1800 TPD RDF will be enable by installing 36 MW WTE plant. This plant will be implemented on PPP basis and will be designed for 30 years. Execution of such project would also enable MCD to comply the SWM rules, 2016. This project will adopt RDF based combustion technology and will be designed as per existing emission norms. Thus, this project would be complying with all applicable environmental norms.

Annexure-10

Water monitoring Reports

**DELHI MSW**

(A Ramky Group Venture)

Sector-5, Pocket N-I, Bawana Industrial Area
Behind Pragati Power Plant, Bawana,
New Delhi 110039

GSTIN : 07AADCD1783F1ZS

CIN : U90001TG2009PLC063708

Ref: DMSWSL/WTE/22-23/CTO&AUTH-01

Date: 29-07-2022

To,
Senior Environmental Engineer,
WMC-II,
Delhi Pollution Control Committee.
New Delhi - 110006

Dear Sir,

Sub: Submission of Annual Compliance report as per CTO &
Authorization conditions

We Delhi MSW Solutions Limited Waste to Energy Plant (24MW) here
with submitting the annual compliance report as per Consent to Order
& Authorization conditions for the period of April-2021 to March 2022.

This is for kind information and record please.

Thanking you,

You're sincerely

For Delhi MSW Solutions Limited (WTE)

Authorised signatory

Enclosures: Compliance report with its annexures.



**CTO Condition wise Annual Compliance report of Delhi MSW Solutions Ltd.
WASTE to ENERGY Plant (24 MW) for FY 21-22
Pocket N-1, Sector-5, Bawana Industrial area, Delhi-110039**

S.No	Condition	Compliance
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.	Noted
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.	Noted
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.	Noted
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.	Displayed and Complied
5.	The Consentee / unit shall have / take separate Electricity / Power Connection in its name and shall have / install separate meter in this regard.	Noted
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.	Complied NOC obtained from Delhi Jal Board.
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.	Noted and being complied 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,	Noted and Being Complied

	(ii) 2016, as amended to date. 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.	Complied
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.	Weighbridge established since inception of the plant and records are being maintained
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.	Complied Radioactive sensor system installed and operational
12.	The Consentee shall use only Approved Fuel as per the Notification of Delhi Pollution Control Committee Dated 29.06.2018.	Yes Using HSD BS VI fuel only
13.	The Consentee having installed Emission Control	ECS System installed

	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).	since inception of the plant with Semi dry system for flue gases treatment and Activated carbon injection for metals absorption followed by Bag filters for Particulates treatment.
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.	Complied
15.	The Consentee shall ensure that Waste to be incinerated shall not be chemically treated 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 CO2 concentration in tail gas shall not be more than 7%.	Noted and Complied & It's being complied entire tenure of project.
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.	Complied
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.	Complied
18.	The Consentee shall provide and maintain safe & easy accessible Ladders, Platforms, Ports and	Complied all necessary arrangements provided as

	other Facilities as per the CPCB guidelines, for conducting the monitoring of Emissions from the Stack.	per CPCB guidelines
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.	Complied
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.	Complied and being maintained
21.	The Consentee shall properly operate and maintain the existing Bottom Ash Processing Facility and utilize the processed products.	Complied Bottom ash processing facility operational
22.	The Consentee shall provide the facility for Fly Ash utilization & the same shall be used in brick manufacturing etc.	After Combustion >95% Bottom ash generated, for this established processing facility, for Fly ash 2-5 % will utilize it in TSDF as a catalyst.
23.	The Consentee shall manage the Odour as per guidelines of CPCB issued from time to time.	Complied odour control sanitizers are being Sprayed continuously in plant premises
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.	Noted and Complied
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.	Complied waste pit gasses sucking and utilizing as a Primary air in furnace.
26.	The Consentee shall properly operate & maintain the installed Online Continuous Emission Monitoring System (OCEMS) for	Complied CEMS connected DPCC/CPCB Servers.

	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	Complied and being maintained as per CPCB guidelines
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.	Complied
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.	Noted and being complied for ash specified parameters
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.	Complied and taking care of odour with proper measures

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.	Complied PPCL Plant CT Blow down water taking for WTE operations
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.	Complied and being maintained
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.	Complied being maintained as per CPCB guidelines
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 <u>Annexure -II</u> . 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	Upgraded LTP Low temperature evaporator with MVR Plant commissioned and operational Flow meters installed at Inlet and Outlet, Leachate treatment plant log books maintained. Treated leachate using in Waste to Energy operations.

	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.	Complied
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.	Complied
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 Reports shall be submitted to DPCC from any of the Approved Laboratories of DPCC / MoEF&CC / CPCB.	Complied and attached Stack emissions ,AAQ, Noise monitoring test results as Annexure-1
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	Noted and Being Complied

	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 SO₂ 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 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.	For D.G Set Retrofit Kit Purchase order issued to vendor will install and comply before Aug 15 th 2022.
40.	The Consentee shall not operate the DG Set / Gas	Complied

	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 6 AM and 10 PM and night time reckoned between 10 PM to 6 AM.	Complied
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.	Complied at TG acoustic enclosure provided
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.	Noted and being maintained
44.	The Consentee shall inform Delhi Pollution Control Committee in advance for shutdown of the plant for maintenance or any other reasons thereof.	Noted
45.	The Consentee shall submit the Annual report in Form III as prescribed under the Solid Waste Management, Rules, 2016 to the Local Body (concerned Municipal Corporation) and DPCC on or before the 30th day of April every year.	Complied submitted to Local Body (MCD) and DPCC also.
46.	The Consentee shall not carry out any activity falling under the Prohibited/	Noted

	Negative list of Industries (as mentioned in MPD - 2021) which are prohibited in National Capital Territory of Delhi, as per Master Plan of Delhi.	
47.	The Consentee shall submit Environment statement for each financial year ending 31st March in Form V to DPCC.	Noted and being complied
48.	The Consentee shall submit application for renewal of the Consent to Operate, two months in advance of the expiry date of this Consent Order.	Noted

Annexure1:**Stack Monitoring Results:**

S.No	Parameters	Units	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Standards
1	Particulate Matter (PM)	mg/Nm3	26.1	24.8	21.6	23.4	21.8	30
2	Sulphur Dioxide (SO2)	mg/Nm3	96.4	86	80	77.2	71.5	100
3	Oxides of Nitrogen (NO)	mg/Nm3	192.7	213.2	237.9	254.2	231.7	350
4	Hydrogen Chloride (HCL)	mg/Nm3	14.08	17.03	15.9	17.4	19.1	50
5	Carbon Monoxide (CO)	mg/Nm3	10	13.2	14.3	11.8	78.8	100
6	Hydrogen Fluoride(HF)	mg/Nm3	0.24	0.28	0.21	0.31	0.43	0.5
7	Total Organic Carbon (TOC)	mg/Nm3	4.6	6.5	5.3	5.8	4.6	20
8	Cadmium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	<0.001	0.05
9	Thorium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	<0.001	
10	Mercury (Hg)	mg/Nm3	<0.001	<0.001	<0.001	<0.001	<0.001	0.1
11	Antimony ,Arsenic, Chromium, Cobalt, Copper, manganese, Nickel, Vanadium,	mg/Nm3	0.055	0.044	0.035	0.044	0.337	0.5
12	Lead (Pb)	mg/Nm3	0.017	0.014	0.012	0.018	0.021	0.01
13	Total Dioxins and furans	ng TEQ/Nm3	0.0315	0.031	0.0346	0.0403	0.0476	0.1

Stack Monitoring Results:

S.No	Parameters	Units	Nov-21	Jan-22	Feb-22	Mar-22	Standards
1	Particulate Matter (PM)	mg/Nm3	23.4	19.7	23.1	26.7	30
2	Sulphur Dioxide (SO2)	mg/Nm3	67.8	72.3	60.1	74.2	100
3	Oxides of Nitrogen (NO)	mg/Nm3	246.5	272.1	266.5	283.1	350
4	Hydrogen Chloride (HCL)	mg/Nm3	22.4	24.1	18.7	16.9	50
5	Carbon Monoxide (CO)	mg/Nm3	82.7	91	92.5	95.7	100
6	Hydrogen Fluoride(HF)	mg/Nm3	0.37	0.42	0.31	0.25	0.5
7	Total Organic Carbon (TOC)	mg/Nm3	4	4.3	3.7	4.3	20
8	Cadmium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	0.05
9	Thorium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	
10	Mercury (Hg)	mg/Nm3	<0.001	<0.001	<0.001	<0.001	
11	Antimony ,Arsenic, Chromium, Cobalt, Copper, manganese, Nickel, Vanadium,	mg/Nm3	0.342	0.001	0.001	0.001	0.5
12	Lead (Pb)	mg/Nm3	0.02	0.03	0.019	0.014	0.1
13	Total Dioxins and furans	ng TEQ/Nm3	0.05	0.05	0.05	0.0303	0.1

Treated Leachate Outlet Quality Parameters

Leachate Outlet Quality Parameters	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Standard Limits
pH at 25 °C	8.56	8.64	7.92	7.7	7.8	7.71	5.5-9.0
Total Dissolved Solids	472	484	452	481	418	429	< 2100
Total Suspended Solids	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 100
Chloride as Cl	40	45	30	40	30	45	< 1000
Total Kjeldhal Nitrogen(TKN)	64	70	64	54	60	72	< 100
Ammonical Nitrogen	34	38	28	20	24	28	< 50
Cyanide as CN	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.2
Fluorides as F	0.4	0.3	0.4	0.32	0.4	0.32	< 2.0
Nitrites as N	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Phenols as C ₆ H ₅ OH	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	< 1.0
Arsenic as As	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.2
Nickel as Ni	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 3.0
Lead as Pb	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01	< 0.1
Zinc as Zn	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 5.0
Copper as Cu	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 3.0
Chromium as Cr	<0.01	<0.01	<0.01	<0.01	<0.01.	<0.01	< 2.0
Cadmium as Cd	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 2.0
Mercury as Hg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.01
Chemical Oxygen Demand(COD)	160	180	150	130	150	130	< 250
Biochemical Oxygen Demand (BOD) 3 days at 27oC	27	28	26	24	27	25	< 30

Treated Leachate Outlet Quality Parameters:

Leachate Outlet Quality Parameters	Dec-21	Jan-22	Feb-22	Mar-22	Standard Limits
pH at 25°C	7.92	7.7	7.9	8.09	5.5-9.0
Total Dissolved Solids	536	582	476	446	<2100
Total Suspended Solids	<2.0	<2.0	<2.0	<2.0	< 100
Chloride as Cl	40	50	40	30	< 1000
Total Kjeldhal Nitrogen(TKN)	85	90	74	62	< 100
Ammonical Nitrogen	30	26	22	18	< 50
Cyanide as CN	<0.001	<0.001	<0.001	<0.001	< 0.2
Fluorides as F	0.4	0.34	0.3	0.44	< 2.0
Nitrites as N	<0.01	<0.01	<0.01	<0.01	--
Phenols as C ₆ H ₅ OH	<0.10	<0.10	<0.10	<0.10	< 1.0
Arsenic as As	<0.005	<0.005	<0.005	<0.005	< 0.2
Nickel as Ni	<0.1	<0.1	<0.1	<0.1	< 3.0
Lead as Pb	<0.01	<0.01	<0.01	<0.01	< 0.1
Zinc as Zn	<0.02	<0.02	<0.02	<0.02	< 5.0
Copper as Cu	<0.05	<0.05	<0.05	<0.05	< 3.0
Chromium as Cr	<0.01	<0.01	<0.01	<0.01	< 2.0
Cadmium as Cd	<0.01	<0.01	<0.01	<0.01	< 2.0
Mercury as Hg	<0.001	<0.001	<0.001	<0.001	< 0.01
Chemical Oxygen Demand(COD)	110	100	90	110	< 250
Biochemical Oxygen Demand (BOD) 3 days at 27°C	25	25	23	27	< 30

AAQ Monitoring Results:

Location-1 Near Landfill Area:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 (µg/m3)	74	83	72	85	< 100
2	PM 2.5 (µg/m3)	40	45	35	45	< 60
3	SO2 (µg/m3)	8.8	9.2	8.6	9.6	< 80
4	CO (µg/m3)	372	354	820	914	< 2000
5	NH3 (µg/m3)	852	848	310	368	< 400
6	CH4 (µg/m3)	1.1	1.32	1.16	1.26	--

Location -2 Near WTE Temple:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 (µg/m3)	68	75	64	68	< 100
2	PM 2.5 (µg/m3)	35	38	32	36	< 60
3	SO2 (µg/m3)	9.6	8.1	7.5	8.1	< 80
4	CO (µg/m3)	315	332	754	735	< 2000
5	NH3 (µg/m3)	745	802	296	312	< 400
6	CH4 (µg/m3)	0.9	0.98	0.9	1.02	--

Location-3 Near Admin Building:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 (µg/m3)	68	62	69	60	< 100
2	PM 2.5 (µg/m3)	35	32	34	29	< 60
3	SO2 (µg/m3)	9	8.7	7.8	7.1	< 80
4	CO (µg/m3)	798	325	358	685	< 2000
5	NH3 (µg/m3)	356	712	728	312	< 400
6	CH4 (µg/m3)	1.14	0.8	0.9	0.86	--

Noise Monitoring Results:

Month	Near Admin Building		Near Landfill area	
	L Day	L Night	L Day	L Night
June-2021	53.9	42.8	56.3	45.4
July-2021	52.5	42	55.5	44
August-2021	54.8	41.5	53.6	43.6
September-2021	52.9	40.2	55.5	42.2
October-2021	52.3	40.1	55.9	41.6
November-2021	53.6	39.8	58.8	44.6
December-2021	53.1	40.9	57.9	42.7
January-2022	52.9	40.3	56.9	44.7
February-2022	53.6	42.8	58.6	43.4
March-2022	54.1	40.6	59.2	45.3

**Authorization Condition wise Annual Compliance report of
Delhi MSW Solutions Ltd. WASTE TO ENERGY Plant (24MW) for FY 21-22
Pocket N-1, Sector-5, Bawana Industrial area, Delhi-110039**

S.No	Condition	Compliance
1.	The Authorisation is granted for the Waste to Energy Plant & Associated Activities (1300 TPD and 24 MW Electricity Generation Capacity) by Processing of Municipal Solid Waste.	Noted
2.	The Operator of the Facility shall comply with the conditions prescribed by the Ministry of est 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.	Noted
3.	The Operator of the Facility 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.	Noted
4.	The Operator of the Facility 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.	Displayed and Complied
5.	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) 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	Noted and being complied

	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 / Reprocess or /Authorized Agencies for such wastes, authorized by MoEF&CC / Central Pollution Control Board / State Pollution Control Board/Committee/ DPCC.	
6.	The Operator of the Facility shall ensure that processing of Municipal Solid Waste is using RDF Combustion based Reciprocating Grate Technology.	Complied
7.	The Operator of the Facility 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.	Weighbridge established since inception of the plant and records are being maintained
8.	The Operator of the Facility 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.	
9.	The Operator of the Facility shall use only <u>Approved Fuel as per the Notification of Delhi Pollution Control Committee Dated 29.06.2018.</u>	Radioactive sensor installed
10.	The Operator of the Facility having installed Emission Control System (ECS) shall properly operate and maintain the ECS to meet the prescribed standards as given at <u>Annexure - I</u> . 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).	ECS System installed since inception of the plant with Semi dry system for flue gases treatment and Activated carbon injection for metals absorption followed by Bag filters for Particulates treatment.
11.	The Operator of the Facility 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	Complied

	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.	
12.	The Operator of the Facility 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 CO2 concentration in tail gas shall not be more than 7%.	Noted and Complied & It's being complied entire tenure of project.
13.	The Operator of the Facility 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.	Complied
14.	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.	Complied and being maintained as per CPCB guidelines
15.	The Operator of the Facility 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.	Complied all necessary arrangements provided as per CPCB guidelines
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.	Complied and being maintained
17.	The Operator of the Facility shall transport Fly	Complied and being

	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.	maintained
18.	The Operator of the Facility shall properly operate and maintain the existing Bottom Ash Processing Facility and utilize the processed products.	Complied Bottom ash processing facility operational.
19.	The Operator of the Facility shall provide the facility for Fly Ash utilization & the same shall be used in brick manufacturing etc.	After Combustion >95% Bottom ash generated, for this established processing facility, for Fly ash 2-5 % will utilize it in TSDF as a catalyst.
20.	The Operator of the Facility shall manage the Odour as per guidelines of CPCB issued from time to time.	Complied and being maintained
21.	The Operator of the Facility 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.	Complied
22.	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.	Complied waste pit gasses sucking and utilizing as a Primary air in furnace.
23.	The Operator of the Facility shall properly operate & maintain the installed Online Continuous Emission Monitoring System (OCEMS) for stack emissions for all parameters provided in the "Guidelines for <u>Continuous Emission Monitoring Systems</u> , 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 Operator of the Facility shall have functional CCTV cameras with linkage to the servers of DPCC & CPCB.	Complied CEMS connected DPCC/CPCB Servers.
24.	The Operator of the Facility shall properly	Complied and being

	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.	maintained as per CPCB guidelines
25.	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.	Noted and taken all precautions to prevent ground water contamination
26.	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 Operator of the Facility shall send the ash to the Treatment, Storage and Disposal Facility for Hazardous Waste at Bawana in Delhi.	Noted and being complied for ash specified parameters
27.	The Operator of the Facility 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.	Complied and being maintained
28.	The Operator of the Facility 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.	Complied and being maintained

29.	The Operator of the Facility 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.	Upgraded LTP Low temperature evaporator with MVR Plant commissioned and operational Flow meters installed at Inlet and Outlet, Leachate treatment plant log books maintained. Treated leachate using in Waste to Energy operations.
30.	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.	Complied
31.	The Operator of the Facility 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 Reports shall be submitted to DPCC from any of the Approved Laboratories of DPCC / MoEF&CC / CPCB:2 UM	Complied and attached Stack emissions ,AAQ, Noise monitoring test results as Annexure-1

32.	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	Noted and 35% area green belt developed in entire plant area and being maintained
33.	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.	Noted
34.	The Operator of the Facility shall submit the Annual report in Form III as prescribed under the Solid Waste Management, Rules, 2016 to the Local Body (concerned Municipal Corporation) and DPCC on or before the 30th day of April every year.	Complied for FY 21-22 form-3 submitted to Local Body & DPCC also.
35.	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.	Noted
36.	The Operator of the Facility shall submit Environment statement for each financial year ending 31st March in Form-V to DPCC.	Noted and being Complied
37.	The Operator of the Facility shall submit application for renewal of the Authorisation under solid Waste Management Rules, 2016, two months in advance of the expiry date of this Authorisation.	Noted.

Annexure1:**Stack Monitoring Results:**

S.No	Parameters	Units	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Standards
1	Particulate Matter (PM)	mg/Nm ³	26.1	24.8	21.6	23.4	21.8	30
2	Sulphur Dioxide (SO ₂)	mg/Nm ³	96.4	86	80	77.2	71.5	100
3	Oxides of Nitrogen (NO)	mg/Nm ³	192.7	213.2	237.9	254.2	231.7	350
4	Hydrogen Chloride (HCL)	mg/Nm ³	14.08	17.03	15.9	17.4	19.1	50
5	Carbon Monoxide (CO)	mg/Nm ³	10	13.2	14.3	11.8	78.8	100
6	Hydrogen Fluoride(HF)	mg/Nm ³	0.24	0.28	0.21	0.31	0.43	0.5
7	Total Organic Carbon (TOC)	mg/Nm ³	4.6	6.5	5.3	5.8	4.6	20
8	Cadmium	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	0.05
9	Thorium	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	
10	Mercury (Hg)	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	0.1
11	Antimony, Arsenic, Chromium, Cobalt, Copper, manganese, Nickel, Vanadium,	mg/Nm ³	0.055	0.044	0.035	0.044	0.337	0.5
12	Lead (Pb)	mg/Nm ³	0.017	0.014	0.012	0.018	0.021	0.01
13	Total Dioxins and furans	ng TEQ/Nm ³	0.0315	0.031	0.0346	0.0403	0.0476	0.1

Stack Monitoring Results:

S.No	Parameters	Units	Nov-21	Jan-22	Feb-22	Mar-22	Standards
1	Particulate Matter (PM)	mg/Nm3	23.4	19.7	23.1	26.7	30
2	Sulphur Dioxide (SO2)	mg/Nm3	67.8	72.3	60.1	74.2	100
3	Oxides of Nitrogen (NO)	mg/Nm3	246.5	272.1	266.5	283.1	350
4	Hydrogen Chloride (HCL)	mg/Nm3	22.4	24.1	18.7	16.9	50
5	Carbon Monoxide (CO)	mg/Nm3	82.7	91	92.5	95.7	100
6	Hydrogen Fluoride(HF)	mg/Nm3	0.37	0.42	0.31	0.25	0.5
7	Total Organic Carbon (TOC)	mg/Nm3	4	4.3	3.7	4.3	20
8	Cadmium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	0.05
9	Thorium	mg/Nm3	<0.001	<0.001	<0.001	<0.001	
10	Mercury (Hg)	mg/Nm3	<0.001	<0.001	<0.001	<0.001	
11	Antimony ,Arsenic, Chromium, Cobalt, Copper, manganese, Nickel, Vanadium,	mg/Nm3	0.342	0.001	0.001	0.001	0.5
12	Lead (Pb)	mg/Nm3	0.02	0.03	0.019	0.014	0.1
13	Total Dioxins and furans	ng TEQ/Nm3	0.05	0.05	0.05	0.0303	0.1

Treated Leachate Outlet Quality Parameters

Leachate Outlet Quality Parameters	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Standard Limits
pH at 25 °C	8.56	8.64	7.92	7.7	7.8	7.71	5.5-9.0
Total Dissolved Solids	472	484	452	481	418	429	< 2100
Total Suspended Solids	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 100
Chloride as Cl	40	45	30	40	30	45	< 1000
Total Kjeldhal Nitrogen(TKN)	64	70	64	54	60	72	< 100
Ammonical Nitrogen	34	38	28	20	24	28	< 50
Cyanide as CN	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.2
Fluorides as F	0.4	0.3	0.4	0.32	0.4	0.32	< 2.0
Nitrites as N	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Phenols as C ₆ H ₅ OH	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	< 1.0
Arsenic as As	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	< 0.2
Nickel as Ni	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 3.0
Lead as Pb	<0.10	<0.10	<0.01	<0.01	<0.01	<0.01	< 0.1
Zinc as Zn	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	< 5.0
Copper as Cu	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	< 3.0
Chromium as Cr	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 2.0
Cadmium as Cd	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	< 2.0
Mercury as Hg	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	< 0.01
Chemical Oxygen Demand(COD)	160	180	150	130	150	130	< 250
Biochemical Oxygen Demand (BOD) 3 days at 27oC	27	28	26	24	27	25	< 30

Treated Leachate Outlet Quality Parameters:

Leachate Outlet Quality Parameters	Dec-21	Jan-22	Feb-22	Mar-22	Standard Limits
pH at 25°C	7.92	7.7	7.9	8.09	5.5-9.0
Total Dissolved Solids	536	582	476	446	<2100
Total Suspended Solids	<2.0	<2.0	<2.0	<2.0	< 100
Chloride as Cl	40	50	40	30	< 1000
Total Kjeldhal Nitrogen(TKN)	85	90	74	62	< 100
Ammonical Nitrogen	30	26	22	18	< 50
Cyanide as CN	<0.001	<0.001	<0.001	<0.001	< 0.2
Fluorides as F	0.4	0.34	0.3	0.44	< 2.0
Nitrites as N	<0.01	<0.01	<0.01	<0.01	--
Phenols as C ₆ H ₅ OH	<0.10	<0.10	<0.10	<0.10	< 1.0
Arsenic as As	<0.005	<0.005	<0.005	<0.005	< 0.2
Nickel as Ni	<0.1	<0.1	<0.1	<0.1	< 3.0
Lead as Pb	<0.01	<0.01	<0.01	<0.01	< 0.1
Zinc as Zn	<0.02	<0.02	<0.02	<0.02	< 5.0
Copper as Cu	<0.05	<0.05	<0.05	<0.05	< 3.0
Chromium as Cr	<0.01	<0.01	<0.01	<0.01	< 2.0
Cadmium as Cd	<0.01	<0.01	<0.01	<0.01	< 2.0
Mercury as Hg	<0.001	<0.001	<0.001	<0.001	< 0.01
Chemical Oxygen Demand(COD)	110	100	90	110	< 250
Biochemical Oxygen Demand (BOD) 3 days at 27°C	25	25	23	27	< 30

AAQ Monitoring Results:

Location-1 Near Landfill Area:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 ($\mu\text{g}/\text{m}^3$)	74	83	72	85	< 100
2	PM 2.5 ($\mu\text{g}/\text{m}^3$)	40	45	35	45	< 60
3	SO ₂ ($\mu\text{g}/\text{m}^3$)	8.8	9.2	8.6	9.6	< 80
4	CO ($\mu\text{g}/\text{m}^3$)	372	354	820	914	< 2000
5	NH ₃ ($\mu\text{g}/\text{m}^3$)	852	848	310	368	< 400
6	CH ₄ ($\mu\text{g}/\text{m}^3$)	1.1	1.32	1.16	1.26	--

Location -2 Near WTE Temple:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 ($\mu\text{g}/\text{m}^3$)	68	75	64	68	< 100
2	PM 2.5 ($\mu\text{g}/\text{m}^3$)	35	38	32	36	< 60
3	SO ₂ ($\mu\text{g}/\text{m}^3$)	9.6	8.1	7.5	8.1	< 80
4	CO ($\mu\text{g}/\text{m}^3$)	315	332	754	735	< 2000
5	NH ₃ ($\mu\text{g}/\text{m}^3$)	745	802	296	312	< 400
6	CH ₄ ($\mu\text{g}/\text{m}^3$)	0.9	0.98	0.9	1.02	--

Location-3 Near Admin Building:

S.No	Parameter	Jun-21	Sep-21	Dec-21	Mar-21	NAAQM Standards
1	PM 10 ($\mu\text{g}/\text{m}^3$)	68	62	69	60	< 100
2	PM 2.5 ($\mu\text{g}/\text{m}^3$)	35	32	34	29	< 60
3	SO ₂ ($\mu\text{g}/\text{m}^3$)	9	8.7	7.8	7.1	< 80
4	CO ($\mu\text{g}/\text{m}^3$)	798	325	358	685	< 2000
5	NH ₃ ($\mu\text{g}/\text{m}^3$)	356	712	728	312	< 400
6	CH ₄ ($\mu\text{g}/\text{m}^3$)	1.14	0.8	0.9	0.86	--

Noise Monitoring Results:

Month	Near Admin Building		Near Landfill area	
	L Day	L Night	L Day	L Night
June-2021	53.9	42.8	56.3	45.4
July-2021	52.5	42	55.5	44
August-2021	54.8	41.5	53.6	43.6
September-2021	52.9	40.2	55.5	42.2
October-2021	52.3	40.1	55.9	41.6
November-2021	53.6	39.8	58.8	44.6
December-2021	53.1	40.9	57.9	42.7
January-2022	52.9	40.3	56.9	44.7
February-2022	53.6	42.8	58.6	43.4
March-2022	54.1	40.6	59.2	45.3

Annexure-11

Ambient Air Quality from CAAQMS

Annexure-11: Last one-year analysis and monitoring data at project site

Ambient Air Quality

S. No	Parameter	Near Landfill					Near WTE Temple					Near Admin Building				
		Sep-21	Dec-21	Mar-22	Jun-22	Aug-22	Sep-21	Dec-21	Mar-22	Jun-22	Aug-22	Sep-21	Dec-21	Mar-22	Jun-22	Aug-22
1	PM 10 ($\mu\text{g}/\text{m}^3$)	83	72	85	64	78	75	64	68	72	67	69	60	78	54	70
2	PM 2.5 ($\mu\text{g}/\text{m}^3$)	45	35	45	33	42	38	32	36	35	35	34	29	42	26	37
3	SO ₂ ($\mu\text{g}/\text{m}^3$)	9.2	8.6	9.6	8.6	9.8	8.1	7.5	8.1	10.1	8.2	7.8	7.1	8.6	8.1	9.6
4	CO ($\mu\text{g}/\text{m}^3$)	354	820	914	860	812	332	754	735	860	785	358	685	856	796	876
5	NH ₃ ($\mu\text{g}/\text{m}^3$)	848	310	368	320	298	802	296	312	308	272	728	312	339	250	288
6	CH ₄ (ppm)	1.32	1.16	1.26	1.1	0.94	0.98	0.9	1.02	0.94	0.82	0.9	0.86	1.1	1.62	1.26
7	Lead ($\mu\text{g}/\text{m}^3$)	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01
8	Ozone ($\mu\text{g}/\text{m}^3$)	NA	NA	NA	7.2	8.6	NA	NA	NA	5.3	7.8	NA	NA	NA	9.2	10.4
9	Arsenic ($\mu\text{g}/\text{m}^3$)	NA	NA	NA	<0.06	<0.06	NA	NA	NA	<0.06	<0.06	NA	NA	NA	<0.06	<0.06
10	Nickel (ng/m ³)	NA	NA	NA	<1.0	<1.0	NA	NA	NA	<1.0	<1.0	NA	NA	NA	<1.0	<1.0
11	Benzene ($\mu\text{g}/\text{m}^3$)	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01
12	Benzo[a]pyrene (ng/m ³)	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01	NA	NA	NA	<0.01	<0.01
13	Nitrogen Oxide ($\mu\text{g}/\text{m}^3$)	NA	NA	NA	12.4	10.6	NA	NA	NA	10.64	9.76	NA	NA	NA	15.3	12.4

Stack Emission

S. No	Parameters	Units	Sep-21	Oct-21	Nov-21	Jan-22	Feb-22	Mar-22	Jun-22	Jul-22	Sep-22
1	Particulate Matter (PM)	mg/Nm ³	23.4	21.8	23.4	19.7	23.1	26.7	25.4	22.7	21.4
2	Sulphur Dioxide (SO ₂)	mg/Nm ³	77.2	71.5	67.8	72.3	60.1	74.2	62.7	59.8	22.8
3	Oxides of Nitrogen (NO)	mg/Nm ³	254.2	231.7	246.5	272.1	266.5	283.1	268.4	193.2	219
4	Hydrogen Chloride (HCL)	mg/Nm ³	17.4	19.1	22.4	24.1	18.7	16.9	14.7	12.4	13.9
5	Carbon Monoxide (CO)	mg/Nm ³	11.8	78.8	82.7	91	92.5	95.7	67.5	58.1	36.8
6	Hydrogen Flouride (HF)	mg/Nm ³	0.31	0.43	0.37	0.42	0.31	0.25	0.18	0.24	0.27
7	Total Organic Carbon (TOC)	mg/Nm ³	5.8	4.6	4	4.3	3.7	4.3	5.6	5.2	7
8	Cadmium	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
9	Thorium	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
10	Mercury (Hg)	mg/Nm ³	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
11	Antimony, Arsenic, Chromium, Cobalt, Copper, manganese, Nickel, Vanadium,	mg/Nm ³	0.044	0.337	0.342	0.001	0.001	0.001	0.139	0.075	0.087
12	Lead (Pb)	mg/Nm ³	0.018	0.021	0.02	0.03	0.019	0.014	0.011	0.017	0.02
13	Total Dioxins and furans	ng TEQ/Nm ³	0.0403	0.0476	0.05	0.05	0.05	0.0303	0.0549	0.0446	0.0559

Annexure-12

List of Major Industries

List of Major Industries nearby

Bawana Industrial Layout Plan	
Category of Industry	%
Food Processing & Allied Product	2.29
Drug & Pharmaceutical	0.45
Electronic and Telecommunication	3.96
Textile & Apparels	6.33
Electrical Goods & Appliances	11.56
Auto Parts, Light Eng & Service Industries	24.34
Printing, Paper Products & Allied packaging	11.43
Plastic, Polymer	7.87
Rubber Based product	1.84
Leather goods	0.48
Coir & Jute product	0.1
Furniture, Fixture & Others	2.4
Petroleum Based product	7.34
Ceramic	0.11
Machinery & Machine tools	5.32
Chemical product	0.69
others	13.5

Source: <http://www.dsiidc.org/Industrial-Area-Bawana> (Vision 2021)

Annexure-13

MOU with TSDF



सत्यमेव जयते

INDIA NON JUDICIAL

Annexure-13

Government of National Capital Territory of Delhi

₹500

e-Stamp

Certificate No.	: IN-DL70888200710767T
Certificate Issued Date	: 29-Dec-2021 01:13 PM
Account Reference	: IMPACC (IV)/ dl793703/ DELHI/ DL-DLH
Unique Doc. Reference	: SUBIN-DL79370333341029329705T
Purchased by	: DELHI MSW SOLUTIONS LTD
Description of Document	: Article 5 General Agreement
Property Description	: Not Applicable
Consideration Price (Rs.)	: 0 (Zero)
First Party	: DELHI MSW SOLUTIONS LTD
Second Party	: MS TAMIL NADU WASTE MANAGEMENT LIMITED
Stamp Duty Paid By	: DELHI MSW SOLUTIONS LTD
Stamp Duty Amount(Rs.)	: 500 (Five Hundred only)



Please write or type below this line

IN-DL70888200710767T

Amal Nadda

Hitesh Kumar

Statutory Alert:

1. The authenticity of this Stamp certificate should be verified at 'www.sholestamp.com' or using e-Stamp Mobile App of Stock Holding Corporation of India.
2. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
3. The onus of checking the legitimacy is on the users of the certificate.
4. In case of any discrepancy please inform the Competent Authority.

THIS AGREEMENT is made at **Delhi** on this **28th** day of **December, 2021**, BY AND BETWEEN **Delhi MSW Solutions Ltd.**, having its registered office at **Sector 5, Bawana Industrial area, Delhi-110039** represented by its **B Prasad Reddy**, (hereinafter referred as "Generator / User" which expression shall unless repugnant to the subject or context include its administrators, successors and assigns) as Party No.1

AND

M/s. TAMIL NADU WASTE MANAGEMENT LIMITED (TNWML), Company registered under the Companies Act, 1956 and having its registered office at **Ramky Grandiose Floor 13th, Ramky Tower Complex Opp. To Rolling Hills Anjaiah Nagar, Gachibowli Hyderabad - 500032** represented by its **Project Head** - (hereinafter referred as "TNWML / Operator" which expression shall unless repugnant to the subject or context include its administrators, successors and assigns) as Party No.2

The Generator and Operator hereinafter individually referred as 'Party' and collectively as 'Parties'.

WHEREAS Operator is engaged in the business of Waste Management and presently operating Treatment Storage Disposal Facility for Hazardous Waste at various engineered waste management units under its control at various locations in India, as per the guidelines under the HOWM Rules 2016, SWM Rules 2016, & Guidelines thereunder and amendments thereof from time to time by MOEF & CC, CCPCB, SPCBs/PCCs & Other Regulatory Bodies and as per the authorization of SPCB.

WHEREAS the Generator being desirous of availing the services of collection, transport, treatment, storage and disposal of Hazardous & other Wastes generated at their premises approached Operator and the same has been accepted by Operator on the terms and conditions set out in this agreement read with the provisions of The Rules & Guidelines and supervision of SPCB.

NOW THEREFORE in consideration of the above-mentioned premises and the mutual promises contained herein, the Generator and Operator have agreed to enter into this agreement under the terms and conditions set forth hereinafter.

NOW IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions: In this Agreement, including in the recitals hereof, the following words, expressions and abbreviations shall have the following meanings, unless the context otherwise requires:

"Agreement" means this agreement including all attachments, annexures or Schedules annexed thereto.

"CPCB" means Central Pollution Control Board.

"Facility" means any establishment wherein the process incidental to the handling, collection, reception, treatment, storage, reuse, recycling, recovery, pre-processing, co-processing, utilization and disposal of hazardous, domestic hazardous and other wastes are carried out.

"HOWM" means the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.

"TSDF" means Treatment, Storage and Disposal Facility for Hazardous Waste by name **"TAMIL NADU WASTE MANAGEMENT LIMITED"** operated by TNWML and located at Adjacent to Waste to Energy Plant & Pragati Power Plant at Bawana in Delhi- 110039, pursuant to the Consent for Establishment No. DPCC/WMC-II/Bawana-TSDF/2020/4921-4929 dated 31st December 2020 under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974, under Section 21 of Air (Prevention and Control of Pollution) Act 1981.

"MoEFCC" means Ministry of Environment, Forests and Climate Change.

"MSDS" means Material Safety Data Sheet

"SOP" means Standard Operating Procedure

"**Rules**" means all types of rules as notified by the Ministry of Environment, Forest and Climate Change to treat the Hazardous waste and the Domestic Hazardous waste.

"**SPCB**" means State Pollution Control Board of the state in which the Facility is situated.

"**CPCB**" means Central Pollution Control Board

"**DPCC**" means Delhi Pollution Control Committee

"**AMF**" means Annual Membership Fees

"**MMCC**" means Minimum Monthly Commitment Charge

"**The Act**" means The Environment (Protection) Act, 1986.

"**Waste**" means hazardous waste/waste as defined under Sec 3(17) & 3(38) of Hazardous and other Waste (Management and Transboundary Movement) Rules, 2016 and Sec 3(17) of the Solid Waste Management Rules, 2016 & generated/collected in the premises of the Generator/User.

1.2 **Interpretation:** In this Agreement, unless the subject or context otherwise requires:

- A. Reference to the singular number shall include references to the plural number and vice-versa;
- B. References to a "person" shall include references to natural persons, partnership firms, companies, bodies corporate and associations, whether incorporated or not or any other organization or entity including any governmental or political sub-division, ministry, department or agency thereof;
- C. References to recitals, clauses and schedules / annexures are to recitals, clauses and schedules to this Agreement;
- D. Any reference herein to a statutory provision shall include such provision, as is in force for the time being and as from time to time, amended or re-enacted in so far as such amendment or re-enactment is capable of applying to any transactions covered by this Agreement.
- E. Clause headings used herein are only for ease of reference and shall not affect the interpretation of this Agreement.

1.3 The Schedules / Annexures shall form an integral part of this Agreement.

1.4 All capitalized terms used in this agreement which have not been specifically defined in this Agreement shall, unless inconsistent with the context have the meanings assigned to them under the Authorization Agreement.

2 SCOPE OF SERVICES

2.1 The scope of services to be provided by Operator under this agreement shall be analysis, collection, transportation, treatment, storage and disposal of Waste generated/collected at the premises of the Generator located at **Sector-5, Bawana Industrial area, Delhi.**

2.2 It is agreed between the Parties that TNWML (Operator) shall provide the above services to the Generator through the TSDF

2.3 Operator shall dispose the Waste as per the mandate of the CPCB/SPCB read with the provisions of The Rules.

3 GENERAL CONDITIONS

3.1 The Generator shall immediately upon execution of this agreement, become registered member of Operator by paying the annual membership fee & MMCC. The MMCC shall be



adjustable against user charges in the event either party decides to terminate this agreement. No financial charges are applicable on such MMCC.

- 3.2 Membership Certificate shall be issued to the Generator once agreement has been executed. The certificate shall be valid for a period of one year. Services under the contract shall be provided only if the Generator holds a valid Membership Certificate. At the time of re-issuance of Membership Certificate the Generator shall ensure that there are no dues towards Operator. In case of dues Membership Certificate shall not be issued.
- 3.3 The Generator shall provide to Operator, a sample of the Waste and inform the entire process details which lead to generation of such Waste, for the purpose of determining the Waste characteristics and to provide the comprehensive analysis report of the waste to decide about its final pathway of treatment, storage and disposal of the Waste. The Generator shall also provide the MSDS (Material Safety Data Sheet) wherever required.
- 3.4 The Generator has to provide the comprehensive analysis report from the CPCB empaneled NABL accredited lab or The Operator shall carry out the Comprehensive Analysis (CA) of the Waste in its laboratory at the cost of the Generator as per the parameters of HOWM Rules and CPCB guidelines. The comprehensive analysis report is must to be used by Operator to determine the disposal pathway based on the waste characteristics & as per MoEFCC, CPCB and the SPCB rules and guidelines issued from time to time. The disposal pathway shall be mutually agreed between the Generator & Operator and shall form basis for disposal/ user charges.
- 3.5 Upon receipt of information from the Generator, Operator shall plan and schedule for collection of the Waste from the Generator. The safety and the liability during the transportation is the responsibility of the Generator and the Transporter if done by the Generator. The safety and the liability during the transportation is the responsibility of the Operator and the Transporter if done by the Operator.
- 3.6 The Generator shall provide the details of Waste to Operator as mentioned below:
- i) Complete details of the Waste and its characteristics regarding presence of explosive / ignitable / corrosive / toxic / odorous compounds in the manifest provided to the transporter for safe transportation and disposal.
 - ii) Safety information as MSDS/ SOP (SOP as defined by CPCB) for handling & storage
 - iii) Marking of hazardous waste container in 'Form 08', 'waste transportation manifest' in Form no.10 and 'Term Card' in Form no. 09 for every Waste type as per HOWM Rules.
- 3.7 Operator shall analyse the Waste received through finger print analysis as per the parameters prescribed by the CPCB.
- 3.8 In the event there are any differences in the analysis results of comprehensive analysis and finger print analysis, the Generator may either accept the results of Operator or send their samples to a mutually agreed third party lab for analysis at their own cost. Any discrepancy in relation thereto may be informed to the Generator for the additional charges. These charges will be applicable if the treatment and disposal pathways changes.
- 3.9 The Operator shall seek a fresh comprehensive analysis report under one or more of the following circumstances:
- i) There is a change in the waste characteristics,
 - ii) There is a change in the manufacturing processes,
 - iii) There is a change in the product mix/raw material mix or
 - iv) A period of 1 year has lapsed since the submission of previous Comprehensive Waste Analysis
- 3.10 In the event of any false information or withholding information, all the liabilities, whether directly or indirectly arising there from, during transportation, handling, treatment & disposal shall be the responsibility of the Generator.



- 3.11 The Generator shall provide an advance declaration every year in the month of April assuring quantity of Waste they would be sending to Operator till next March 31, and declare Waste quantities on annual / monthly basis as per Hazardous Rules as per the declaration format .
- 3.12 The Waste supplied by the Generator shall not contain any kind of nuclear / radioactive or any other prohibited material.

4 USER CHARGES & TERMS OF PAYMENT:

- 4.1 The Generator shall pay monthly user charges to Operator for its services as agreed to between the parties based on the base rate/calculations provided in the contract & as per quotations submitted, which is based upon the declaration given by the Generator. In addition the Generator shall also be liable for payment of applicable taxes, levies etc., if any, on the user charges and transportation charges.
- 4.2 A flat escalation @ 7% shall be considered per annum after 1 year post achievement of COD, Date: (CTO issued by DPCC vide ...).
- 4.3 Operator shall send the monthly user charges invoice to the Generator on or before 5th of every succeeding month and the bill amount shall be payable by the Generator on or before 5th of the subsequent month. All payments shall be made by way of electronic payment, cheque and/or demand draft.
- 4.4 Any dues payable to the operator by the generator post 3 month adjustable advance will be considered as delayed payment. The delayed payments from the Generator shall be liable to pay interest at prevailing medium term prime lending rate of State Bank of India calculated for the duration of delay on the outstanding amount during the default period. In the event of any bill amount along with interest is due for more than three months, Operator reserves the right to refuse to extend its services to the Generator and even to terminate this agreement with immediate effect.

5 TERM OF AGREEMENT

This Agreement shall be valid for a period of 5 years effective from date of agreement, subject to annual renewal accordance with this agreement.

6 FORCE MAJEURE

Notwithstanding anything else contained herein, neither Party hereto shall be liable for damages or to have this agreement terminated for any delay or default in the performance of such Party hereunder if such delay or default in performance derives from conditions beyond the reasonable control of such Party, including but not limited to, acts of god, strikes, fires, floods, extreme drought, shortage of supply, riots, work stoppages, embargoes, governmental actions or damage to the plant or facility or any cause unavoidable or beyond the control of either party including any arbitrary ruling by the Government prohibiting the handling of the Waste or continuing domestic or international problems such as wars or insurrections.

7 INDEMNITY

The Generator does hereby indemnify, keep indemnified and hold harmless the Operator, its representatives, nominees and officers (including without limitation reimbursement of any loss suffered by the Operator and / or its officers, directors, employees, agents or affiliates and their legal costs), awards, damages, losses and / or expenses, either pecuniary or non-pecuniary in nature, arising directly or indirectly, whether during collection or transportation or treatment or storage or disposal, as a result of:

- a) the Waste supplied by or collected from the Generator has any mismatch of information on Trem Card or MSDS provided or mismatch from Comprehensive Analysis done; and any non-disclosure or wrong disclosure of any information as to the characteristic of waste, or
- b) any civil or criminal proceedings or liability under any law for any unlawful dumping of untreated wastes by the Generator either at the project site of the Operator or anywhere else, or



- c) any violation or non-compliance by the Generator of the provisions of the Rules, Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 including any modifications, amendments made thereto and any new acts and rules legislated and promulgated governing the activity under this Agreement during the term of this Agreement or any extension thereof, or
- d) any act/ omission of the Generator including its Personnel in relation with the Services and/ or terms of this Agreement, or
- e) any unauthorized access to the Confidential Information.

8 EVENTS OF DEFAULT

The following shall constitute Generator's events of default:

- a. If the Generator fails / refuses to pay its bills / dues for the user charges payable under this Agreement.
- b. If the Generator fails / refuses to pay within the time stipulated the advance amounts and deposits etc. called upon to do so by the Operator.
- c. If the Waste supplied by the Generator contains any radioactive or prohibited material.
- d. If the Generator commits gross violation of the terms of this agreement.
- e. If the Generator fails to comply with all applicable laws to perform its obligation under this Agreement.

The following shall constitute Operator's events of default:

- a. If the Operator fails / refuses to accept the waste at least once within three months' time (sub clause (iii) of A of Clause Article 9 of the concession agreement signed between DSIIDC and TNWML .
- b. If the Operator commits gross violation of the terms of this agreement.
- c. If the Operator fails to comply with all applicable laws to perform its obligation under this Agreement.

9 TERMINATION

- 9.1 Either party shall have the right to terminate this Agreement in the event of violation of any of the terms and conditions as agreed upon in this agreement or otherwise, upon giving 30 days written notice to the other party.
- 9.2 Either Party may terminate this Agreement, if the other Party becomes insolvent or files or has filed against it a petition in bankruptcy ("Cause"), to the extent permitted by law. Such termination will be effective at the end of a Thirty (30) day written notice period if the Cause remains uncured.

10 ENTIRE AGREEMENT

This Agreement shall be deemed to represent the entire Agreement between the parties hereto regarding the subject matter hereof and shall supersede, cancel and replace any and all prior agreements or arrangements, if any, in this behalf, by and between the parties hereto.

11 RELATIONSHIP OF THE PARTIES

Nothing contained herein shall be deemed to constitute a partnership, joint venture or agency by and between the parties hereto.



12 VARIATIONS

This Agreement may be modified or amended only by writing, duly executed by or on behalf of the parties hereto.

13 SEVERABILITY

In the event that any provisions of this Agreement is held to be illegal, invalid or unenforceable under any present or future laws of the Republic of India such provisions shall be deemed terminable and the remaining parts & provisions of this Agreement shall remain in full force & effect.

14 NOTICES

- 14.1 Any notice, request, demand or other communication given or made under or in connection with the matters contemplated by this Agreement shall be in writing and shall be delivered personally or sent by registered post acknowledgement due or by facsimile or by courier:

In case of **GENERATOR** to:

Attn:

In case of **OPERATOR** to:

Attn: Project Head - TNWML

And shall be deemed to have been duly given or made as follows:-

- (a) if personally delivered, upon delivery at the address of the relevant Party;
 - (b) if sent by registered post-acknowledgement due seven (7) days after the posting;
 - (c) if sent by facsimile upon receipt of confirmation by sender, from the receiver, that the facsimile has been received;
 - (d) if sent by courier four (4) days after the date of dispatch.
- 14.2 A Party may notify the other Party of a change to its name, relevant addressee or address number for the purposes of Clause 14.1 as provided herein.

15 SURVIVAL

Notwithstanding any contained in this Agreement, the provisions of clause 7 and 8 of this Agreement shall survive for 5 years after termination or completion of term of this agreement whichever is later.

16 DISPUTE RESOLUTION

In the event of any dispute, controversy, difference, disagreement or claim arising out of or in connection with or in relation to this Agreement, including any questions as to its existence, validity, interpretation, implementation or termination, the Parties hereto shall endeavor to resolve the same in an amicable manner in consonance with the intention of this Agreement. Dispute redressal committee shall be formulated with the following members:

- a) Chief Engineer DSIIDC - Chairman
- b) Superintendent Engineer (Environment) DSIIDC - Member Secretary
- c) Representative of DPCC - Member
- d) President/ General Secretary of the concerned industrial association of the Area - Member

If however, after lapse of Fifteen (15) days therefrom, the Parties are unable or otherwise fail to resolve such dispute, controversy, difference, disagreement or claim, through discussion or amicable settlement as above, then the said dispute, controversy, difference, disagreement or claim shall be referred to and finally settled through arbitration by sole arbitrator as per the rules of Arbitration and Conciliation Act, 1996 and as amended thereof. The award of



arbitration shall be final and binding. The seat of arbitration shall be at Delhi and the arbitration proceedings and all documentation shall be in English language. No Party shall make public the contents of arbitration without the prior written consent of the other Party. The arbitration proceedings shall be concluded within in Six (6) months from the date of reference of dispute to arbitration by a Party to this Agreement.

17 APPLICABLE LAW & JURISDICTION

This Agreement shall be governed in accordance with the laws of India. Operator and the Generator mutually agree that the courts of competent jurisdiction at Delhi shall have the exclusive jurisdiction over all the disputes arising out of this Agreement.

18 COMPLIANCE WITH LAW

Each Party warrants that it shall comply with all national, state and local laws, regulations, rules, and ordinances governing the activities described generally in this Agreement, including but without limitation, all types of rules and guidelines as notified by the Ministry of Environment, Forest and Climate Change and Central Pollution Control Board respectively to treat the Hazardous waste and the Domestic Hazardous waste, relevant Guidelines and its amendments thereof as published by CPCB.

19 ANTI BRIBERY

19.1. The Operator and Generator hereby confirm that no benefit, either in cash or kind has been provided by either of them to the other or to any officer or employee, or any relative/ associate of any officer or employee of Operator or Generator or of any of their associate institutions/companies in order to enter into this Agreement;

19.2. The Operator and Generator hereby give an undertaking that neither the Operator nor the Generator shall provide any benefit, either in cash or kind to any officer/employee/relative/associate of any officer or employee of Operator or Generator as reward or consideration either for entering into this Agreement or other matter relating to this Agreement

20 CONFIDENTIALITY

The existence and all terms and conditions of this Agreement are confidential to the Generator and Operator, and shall not be disclosed to any third party without the other Party's prior written consent, save and except to their respective officers, employees or as required by law on a need to know basis. The confidentiality obligation under this Agreement shall exist during the term of this Agreement and for a period of three (3) years from the expiry of this Agreement.

21 LIMITATION OF LIABILITY

In no event Operator shall be liable for any incidental, punitive, indirect, special or consequential damages, losses, costs, expenses and liabilities (including, but not limited to, loss of profits, expenses of operation, down time, damages to property)

22 NONWAIVER AND BINDING EFFECT

The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of its rights hereunder shall not be construed as a waiver of any such rights, but the same shall continue in full force and effect.

23 NON-ASSIGNMENT

Neither Party may assign any of its rights or duties under this Agreement except with written consent of the other Party, which consent will not unreasonably be withheld provided, however, that, without such consent Operator may make such assignment (i) to a continuing wholly-owned subsidiary of Operator or of a corporation or other entity which controls Operator, (ii) in connection with a corporate merger or the sale of all or substantially all the assets of Operator. No assignment of this Agreement shall relieve the assigning Party of its obligations under this Agreement.

24 INTERPRETATION



Both Parties acknowledge that they have had the opportunity to seek the advice of legal counsel as they have considered necessary in connection with this Agreement. This Agreement shall be deemed to have been negotiated, drafted, edited and reviewed by the Parties together, and therefore, no provision arising directly or indirectly herefrom shall be construed against any Party as being drafted by said Party.

IN WITNESS WHEREOF, the Parties hereto have signed this Agreement on the day, month and year first above written.

For Name of Generator



Name:
Designation:

For TamilNadu Waste Management Ltd



Name:
Designation:

In the Presence of

Name:
Designation:

Name:
Designation:

In the Presence of

Name:
Designation:

Name:
Designation:

ANNEXURE A
(Compulsory)

Treatment Storage & Disposal Facility for Hazardous Waste

1. USER CHARGES:

The GENERATOR shall pay User Charges as per applicable base rate provided below & the final quotation submitted by the Operator based on the waste characteristics as per Comprehensive Analysis Report (Assessment year 2021-22).

a) Direct Landfill Charges: Per MT

Direct Disposal into Landfill: Rs.1,395/

b) Landfill After Treatment Charges: Per MT

Treatment & Disposal into Landfill: Rs 2,936/

c) Incineration Charges: per MT

Incineration & Disposal into Landfill: Rs 17,991/

- 2. A flat escalation @ 7% in user fees shall be considered per annum for the calculation of user fees and the same shall be revised accordingly every year w.e.f.**

3. TRANSPORTATION CHARGES:

- a.) Transportation cost for collection of waste from industries within 20 km from TSDF is included in the user charges
- b.) Transportation cost for collection of hazardous waste beyond 20 km, additional cost in addition to disposal charges will be calculated using following formula- $(D^2 \cdot P \cdot X) / (A \cdot C)$
Waste

Transport Charges: T KM

Where:

D: Additional distance travelled by the vehicle beyond 20 km

P: Price of Diesel will be the price on first day of every month

X: Quantity of Hazardous waste collected & transported from individual industry

A: Distance travelled by a vehicle (Km) in one liter

C: Carrying capacity of the vehicle

4. POST CLOSURE AND EMERGENCY MAINTENANCE CHARGES

An amount equal to 10% of the user charges payable will be charged additional by the Operator to the Generator for payment into a special account designated as "Post Closure and Emergency Maintenance Account". The account will be in the name of Delhi State Industrial and Infrastructure Development Corporation Ltd. (DSIIDC) and will be operated by DSIIDC for post closure monitoring and emergency operations.

5. Annual Membership Fees (Compulsory)

S. No	Annual Turnover/capital Investment	Fees
1	Below 25 lakh	Rs. 2,000
2	25 lakh to 1 crore	Rs. 3,000
3	1 crore and above	Rs. 5,000

6. Minimum Monthly Commitment Charge (MMCC) (Compulsory)

The Generator as per the "Monthly Waste Generation as declared in the annual form submitted to DPCC or Actual waste generation whichever is higher will be considered in the Slab" has to pay the advance MMCC to the Operator in the following manner:

- At the time of signing the Membership Agreement an advance of 3 month MMCC calculated based on the tipping fee calculated against the 'Monthly Waste Generation as declared in the annual form submitted to DPCC or Actual waste generation whichever is higher'. MMCC is the minimum charges to be paid by the generator to the operator for the month.
- The Generator is required to maintain the advance MMCC in case of any shortfall.
- This MMCC shall be reviewed every 3 months.

Note:

- The amount is nonrefundable and is adjustable against waste supply in the event members desire to withdraw membership or as per Clause in the Agreement.
- Services shall be provided only after payment of AMC & MMCC.
- This amount shall be adjusted against every month User Charges invoices or in a period of one financial year.
- In the event, for whatsoever reason, if the GENERATOR is unable to utilize the facility services for a particular month/period

The Generator is expected to pay these charges based on the optional services and deviation in case of any desired and/or implied fit for disposal as per CPCB/PCB/Any other Statutory Body norms.

Annexure B

1) PARAMETERS TO BE ANALYZED FOR COMPREHENSIVE ANALYSIS OF WASTE (either by the generator from CPCB approved lab or by the operator at the cost of Generator, as mutually agreed :

- ☐ Physical State: (Liquid/ Slurry/ Sludge/ Semi-solid/Solid: Inorganic, Organic, Metallic)
- ☐ Different Phases: (in cases of Solid / Slurries / Sludge) contained in aqueous liquids/solutions
- ☐ Colour and Texture
- ☐ Specific Gravity
- ☐ Viscosity
- ☐ Calorific Value
- ☐ Flash Point
- ☐ % Moisture content (Loss on ignition at 105oC)
- ☐ % Organic Content (Loss on ignition at 550oC)
- ☐ Paint Filter Liquid Test (PFLT)
- ☐ PH
- ☐ Sulphur (elemental)
- ☐ 24 hour Leaching Procedure
- ☐ Reactive Cyanide (PPM)
- ☐ Total Cyanide
- ☐ Reactive Sulphide (ppm)
- ☐ Sulphur elemental
- ☐ Concentration of individual inorganics (Metals), both total and leachable, specific parameters to be determined based on source of waste
- ☐ Oil and Grease
- ☐ Extractable Organics
- ☐ % Carbon, % Nitrogen, % Sulphur, % Hydrogen
- ☐ Concentration of Individual Organics
- ☐ TCLP for identified parameters
- ☐ .

2) PARAMETERS TO BE ANALYZED FOR FINGER PRINT ANALYSIS (No Charge):

- ☐ Physical State of the WASTE
- ☐ Identification of different phases of WASTE

- ☐ Colour and Texture
- ☐ Specific Gravity
- ☐ Viscosity
- ☐ Flash Point
- ☐ % Moisture content (Loss on ignition at 105°C)
- ☐ % Organic Content (Loss on ignition at 550°C)
- ☐ Paint Filter Liquid Test (PFLT)
- ☐ Liquid Release test
- ☐ pH
- ☐ Reactive Cyanide (PPM)
- ☐ Reactive Sulphide (ppm)

Annexure C

TAXES / LEVIES: All Government / Municipal / Panchayat Taxes / Duties/ Levies/ Octroi / Tolls etc, as applicable from time to time, shall be payable as applicable, by the Generator.

❖ Terms & Conditions:

- This membership is valid as long as the Generator is in good standing with the Operator and has continued valid authorization from SPCB.
- The MMCC is nonrefundable and adjustable deposit.
- This TSDF shall accept only hazardous wastes as defined in the agreement for disposal and shall not accept radioactive wastes.
- Acceptance of wastes is dependent on the fulfillment of regulatory and statutory guidelines for operations of TSDF issued from time to time.

Annexure D

DECLARATION

We _____, hereby declare that based on our industry production and our annual projections we shall be disposing the following Hazardous Waste types to the TSDF. (Addl sheets could be used for multiple waste types)

- The Avg. Yearly generation of Hazardous Waste is expected as follows.

1. Avg. _____ MT per year of _____ type of Hazardous WASTE
2. Avg. _____ MT per year of _____ type of Hazardous WASTE
3. Avg. _____ MT per year of _____ type of Hazardous WASTE

- Avg. monthly generation of Hazardous Waste is expected as follows.

1. Avg. _____ MT per year of _____ type of Hazardous WASTE
2. Avg. _____ MT per year of _____ type of Hazardous WASTE
3. Avg. _____ MT per year of _____ type of Hazardous WASTE



- The Total accumulated/stored/buried in pits Hazardous Waste is approximately as follows:

1. Avg. _____ MT per year of _____ type of Hazardous WASTE

2. Avg. _____ MT per year of _____ type of Hazardous WASTE

3. Avg. _____ MT per year of _____ type of Hazardous WASTE



FOR

Authorized Signatory

The Generator, the Second Part.

Witness: Name: _____ Sign: _____
 Company/Occupation: _____
 Designation: _____

Witness: Name: _____ Sign: _____
 Company/Occupation: _____
 Designation: _____

Annexure-14

Socio-Economic Survey Report



Delhi Municipal Solid Waste Solutions Ltd (DMSWSL)

Socio-Economic Baseline Study for Proposed Expansion of Delhi Municipal Solid Waste Solutions Ltd (DMSWSL) at, Tehsil-Narela, District North West (Delhi)

OCTOBER 2022



**Re Sustainability Solutions
Private Ltd**

www.resustainability.com

Delhi Municipal Solid Waste Solutions Ltd (DMSWL)

Socio-Economic Baseline Study for Proposed Expansion of Waste to Energy Plant from 24 MW to 60 MW at Tehsil-Narela, District North West (Delhi)

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DECLARATION BY EXPERTS CONTRIBUTING TO THIS REPORT

"I, hereby, certify that I was a part of the EIA team in the following capacity that developed this Report".

FUNCTIONAL AREA EXPERTS

Quality Control		
Name of Publication.:	Socio-Economic Baseline Study for Proposed Expansion of Waste To Energy Plant from 24 MW to 60 MW at Tehsil-Narela, District North West (Delhi)	
Prepared by:	Mr. Anil Kumar Vishwakarma	
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1 PROJECT BACKGROUND

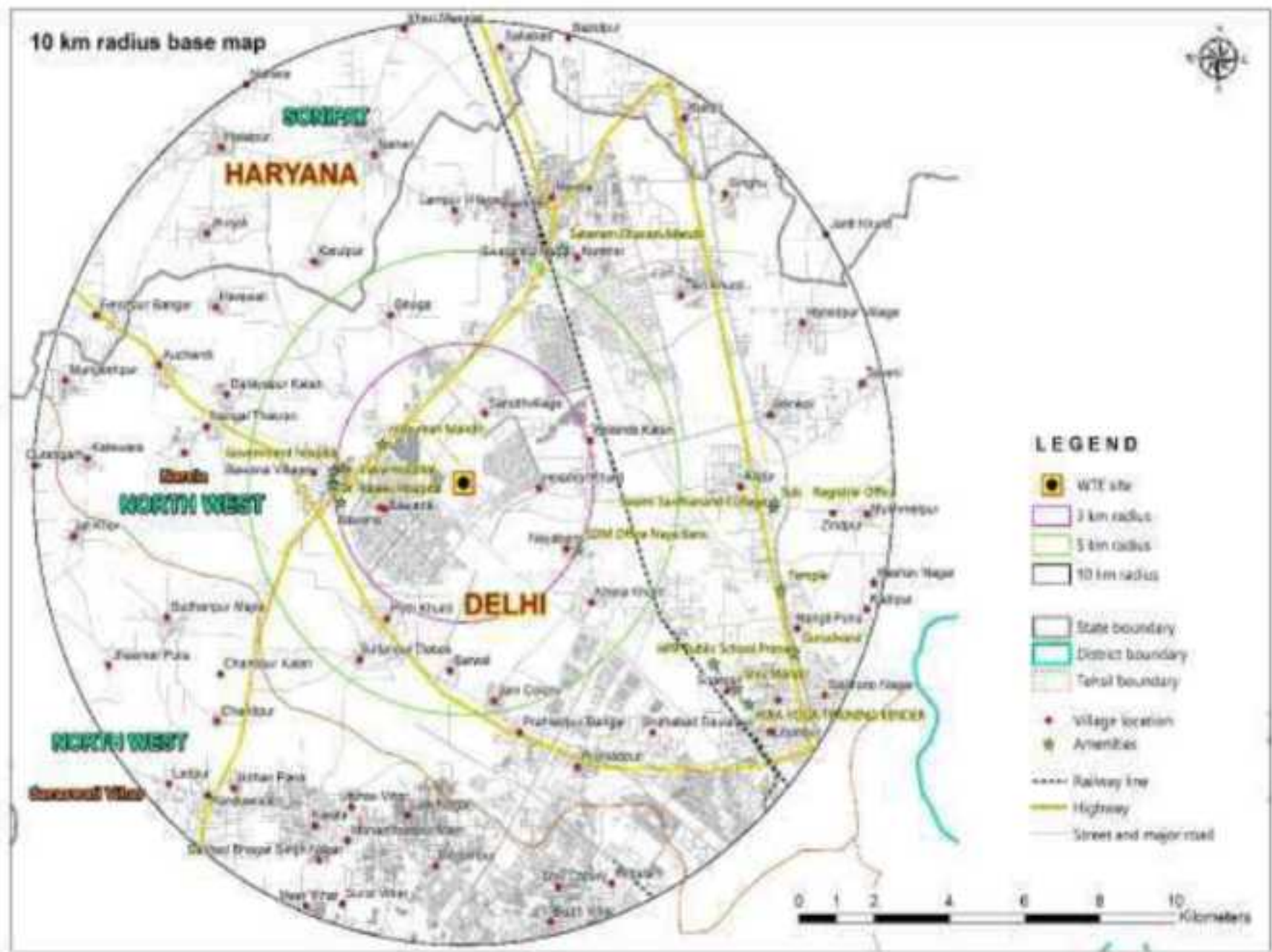
M/s. Delhi Municipal Solid Waste Solutions Ltd (DMSWSL) has developed the 24 MW RDF Standalone Project with the integrated MSW Management Facility (IMSWF) at the notified site by Municipal Corporation of Delhi for which EC was obtained for the same from MOEFCC with capacity of minimum 36 MW with the MSW Processing capacity of 3000 TPD wide EC vide no. F.No.- 67/2009-IA. IIIdt. 8th May 2012. Now DWSWSL proposed to expand this standalone WTE plant from 24 MW to 60 MW by installing one more 36 MW Waste to Energy Plant adjacent to the existing WTE plant.

DWSWSL have installed 24 MW Waste to Energy power plant and operating successfully after obtaining CFE and CFO from Delhi Pollution Control Committee (DPCC). The project falls under category 'A' since Bawana Reserved Forest falls within 2.5 km radius of site, Shri Krishna Sultanpur Reserved Forest within 4.5 km radius of site, and Haryana State Boundary is within 5-10 km radius of the site. The Proposed Standalone plant is 36 MW which is more the 15MW of schedule 1(d) of the EIA notification 2006 and its amendment. Thus, the proposed capacity categorized as Category A under Thermal Power Plants 1(d).

Around 250 people will get direct employment by the proposed project and around 100 people will get indirect employment. Total 350 numbers employment to be generated due to proposed expansion.

Total estimated cost of the proposed project shall be Rs. 848 Crores.

Figure 1-1: Village/Habitation Map (Study Area)



2 APPROACH & METHODOLOGY

The approach and methodology adopted for the socio-economic assessment includes desktop review and documentation pertaining to the project influence zone, government publications and legislations, qualitative and quantitative fieldwork data collection. Socio-economic fieldwork comprises of undertaking a standardized community consultation focusing on population, household composition, education levels, general health status, livelihood strategies, employment, income level, and holding focus group discussions considering the origins and movements of the local population and social concerns/issues in relation to the proposed project.

The core study area has been considered up to five kilometers (i.e. 0-3 Km Direct Impact Area and 3-5 Km Indirect Impact Area) from the project site boundary whereas from 5-10 kilometers (Cumulative Impact Area) has been considered as the buffer zone. The Stakeholders consultation was arranged in all the villages/habitation/Colonies of Direct Impact Area of the Core Zone i.e. 0-3 Km from proposed project. The site visit for this project was conducted on 31.10.2022 to 1.12.2022 by Mr. Anil Kumar Vishwakarma (QCI-NABET Approved FAE SE) to capture the socio-economic status of the study area. By adopting this method, the social experts were able to understand the trends regarding population, stratification gender/age wise, literacy rate, source of income/livelihood, vulnerable communities etc.

The qualitative data were collected from certain representative individuals or cross section of the different community residing in the locality. The tool used for the baseline survey was the socio-economic survey was FGDs that would elicit data on the household, living conditions, issues relating to health, access to potable water, sanitation, education, employment and issues relating to daily wage laborers. The data on these indicators are essential to get the holistic approach for the socio-economic study of the population. Qualitative study was undertaken to gain contextual understanding of the social environment with deeper meaning of observed daily practices. Quality control measures were put in place to monitor the data collection process with regular checking of household surveys. The data was captured offsite into an MS Office database, analyzed, and then used to describe and interpret the socio-economic and cultural environment for the project affected areas.

Figure 2-1: Social Survey



Stakeholders Consultation at Sanoth Village



Conducting FGDs at Narela Village



Meeting with the Anganwadi Ghoga Village



Interaction with School Teachers at Bawana

Source: Primary Social Survey (October-November-2022)

3 BASELINE SOCIO-ECONOMIC ENVIRONMENT

The habitations/places/medical/public structures near the proposed project site are as follows: -

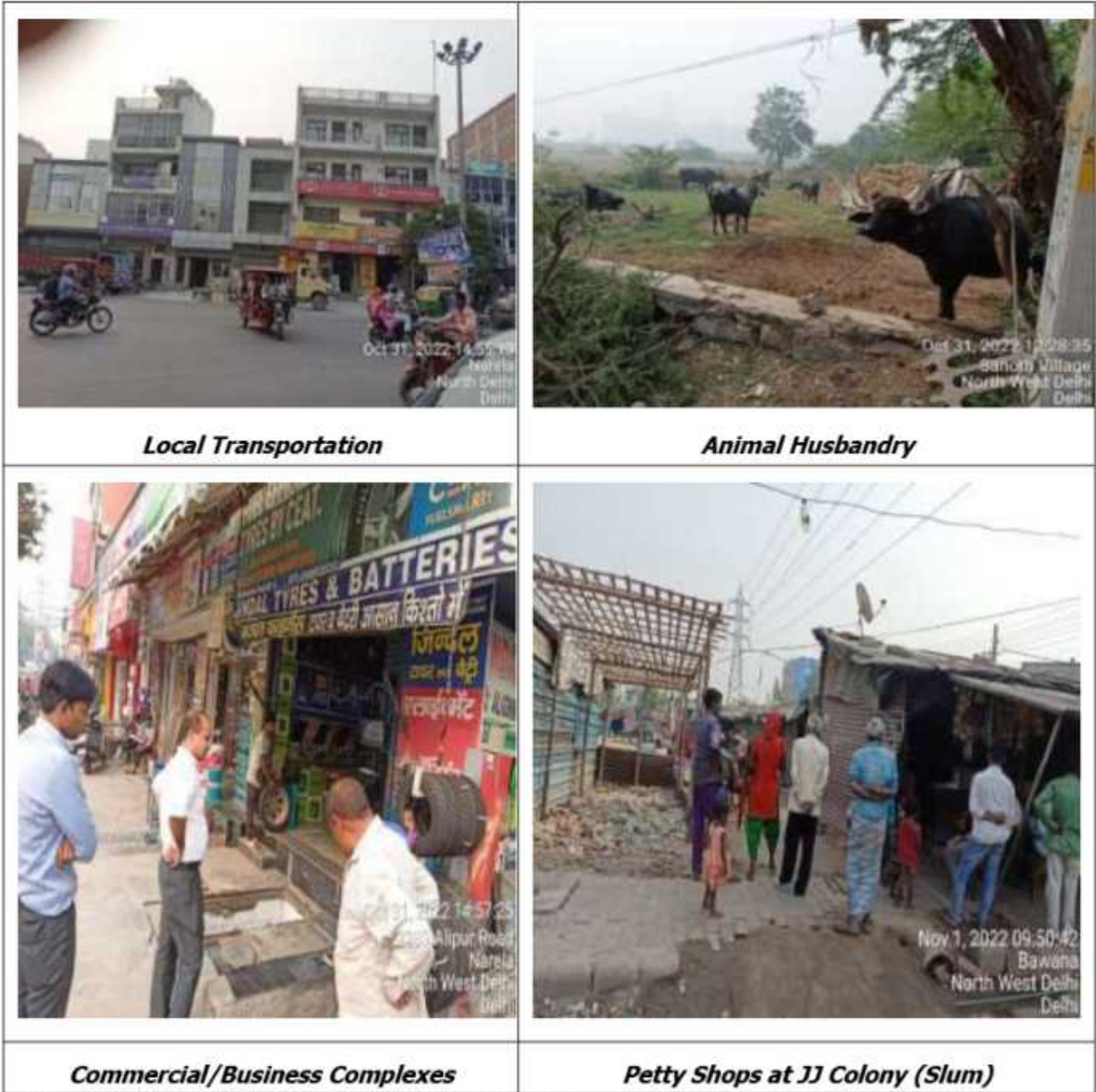
Table 3-1: Habitations/Public Structures Distance and Direction from Proposed Project Site

Sl. No.	Habitation/Public Structure/Archaeological or Historical site	Direction	Distance
1	Sanoth Village	NE	1.31 Km
2	RP Public School, Sanoth	NE	1.68 Km
3	JJ Colony (Slum), Bawana	NW	1.51 Km
4	Hanuman Temple, Bawana	NW	1.72 Km
5	Kali Temple, Bawana	NW	1.66 Km
6	Sarvodaya Vidyalaya, Sanoth	N	2.10 Km
7	Dr. Rajiv Hospital, Bawana	W	2.78 Km
8	Indira Hospital, Bawana	W	2.52 Km
9	Government Boys Senior Secondary School, Bawana	W	2.48 Km
10	Govt. Co-education Sr. Secondary School, Holambi Khurd	E	2.99 Km
11	Mann Convent School, Holambi Khurd	ESE	2.69 Km
12	Government Hospital, Bawana	W	3.00 Km
13	Aditi Mahavidyalaya, Bawana	W	2.71 Km
14	SDM Office, Bawana	SW	2.73 Km
15	Badkhalsa Historical Museum	NE	14.63 Km

Note: Direction and distance are with reference to the proposed project site boundary.

The access to the proposed project is through Narela/Bawana Industrial Area (Notified Area). The housing societies in the close proximity of the proposed plant area are DDA Mass Housing-1, Metro Vihar, DDA Flats (Narela), JJ Colony & CRPF Camps (Bawana). The Bawana (CT) is divided into different colonies/slum/flats which is thickly over populated. The work force from different states who are working in the Bawana and Narela Industrial Estate get themselves accommodated in rented houses of Bawana/Sanoth village. These areas are full of migratory laborer's and thus creating extra burden on the available resources meant for the local residential people.

Figure 3-1: Primary Social Survey in Study Area



Source: Primary Social Survey (October-November-2022)

3.1 Social Profile

The study area falls under two districts i.e., North West (Delhi) and Sonapat (Haryana). It is Narela & Saraswati Vihar tehsil of North West (Delhi) and Sonapat & Kharkhoda tehsil of Sonapat district. There are 56 villages/habitation falling under the study area of the proposed project.

3.1.1 Population Distribution

According to the study area map, it is believed that total 56 villages/habitation/cluster of colonies falls within the proposed project. The habitation which is coming in the direct impact of the core area (i.e. 0-3 Km) are Sanoth, Holambi Khurd, Holambi Kalan, Iradat Nagar alias Naya Bans and Bawana (CT). The population of the direct impact zone is 1,30,225 with households of 23,906.

The villages/habitation which is coming in the indirect impact of the core zone area (i.e. 3-5 Km) are Shahpur Garhi, Ghoga, Sultanpur Dabas, Bhor Garh (CT), Khera Khurd (CT), Barwala (CT) and Pooth Khurd (CT). The population of the indirect impact zone of the core area is 48,931 with households of 9,396.

Table 3-2: Demographic Status of the Study Area

Sl. No.	Impact Zone	District	Tehsil/Taluka	Village/Habitation	Household (2011)	Total Population (2011)	Total Male		Total Female		Sex Ratio	Population (SC)		Male (SC)	Female (SC)
							No.	%	No.	%		No.	%	No.	No.
1	DIRECT IMPACT (0-3 km)	North West (Delhi)	Narela	Holambi Khurd	1596	7,630	4209	55.16	3421	44.84	813	1677	21.98	909	768
2				Holambi Kalan	8157	42,392	22933	54.10	19459	45.90	849	12761	30.10	6854	5907
3				Sanath	696	3,800	2043	53.76	1757	46.24	860	1513	39.82	802	711
4				Bawana (CT)	12961	73,680	40258	54.64	33422	45.36	830	9813	13.32	5343	4470
5				Iradat Nagar alias Naya Bens	496	2,723	1463	53.73	1260	46.27	861	692	25.41	372	320
Sub Total					23906	130225	70906	54.45	59319	45.55	837	26456	20.32	14280	12176
1	INDIRECT IMPACT (3-5 km)	North West (Delhi)	Narela	Shah Pur Garhi	624	2,642	1601	60.60	1041	39.40	650	198	7.49	110	88
2				Ghoga	677	3,884	2091	53.84	1793	46.16	857	758	19.52	417	341
3				Sultan Pur Dabas	799	4,399	2330	52.97	2069	47.03	888	1384	31.46	722	662
4				Bhor Garh (CT)	1765	8,627	4815	55.81	3812	44.19	792	1236	14.33	669	567
5				Khara Khurd (CT)	1753	9,777	5177	52.95	4600	47.05	889	2965	30.33	1580	1385
6				Barwala (CT)	1748	8,948	4783	53.45	4165	46.55	871	2013	22.50	1060	953
7				Pooth Khurd (CT)	2030	10,654	5741	53.89	4913	46.11	856	2204	20.69	1156	1048
Sub Total					9396	48931	26538	54.24	22393	45.76	844	10758	21.99	5714	5044
1	CUMULATIVE IMPACT (5-10 km)	North West (Delhi)	Narela	Lam Pur	474	2,653	1405	52.96	1248	47.04	888	643	24.24	344	299
2				Mamoor Pur	3808	18,937	10237	54.06	8700	45.94	850	3399	17.95	1812	1587

EXPANSION OF WASTE TO ENERGY PLANT FROM 24 MW TO 60
MW AT TEHSIL NARELA, DISTRICT NORTH WEST (DELHI)

M/S. DELHI MUNICIPAL SOLID WASTE SOLUTIONS LTD (DMSWSL)

SOCIO-ECONOMIC

Sl. No.	Impact Zone	District	Tehsil/Taluka	Village/Habitation	Household (2011)	Total Population (2011)	Total Male		Total Female		Sex Ratio	Population (SC)		Male (SC)	Female (SC)
							No.	%	No.	%		No.	%	No.	No.
3				Singhu	950	4,564	2564	56.18	2000	43.82	780	911	19.96	510	401
4				Singhola	482	2,418	1321	54.63	1097	45.37	830	489	20.22	253	236
5				Hamid Pur	644	3,469	1849	53.30	1620	46.70	876	784	22.60	405	379
6				Kham Pur	358	1,983	1035	52.19	948	47.81	916	636	32.07	328	308
7				Ochandi	838	4,687	2546	54.32	2141	45.68	841	1227	26.18	650	577
8				Mungesh Pur	673	3,398	1891	55.65	1507	44.35	797	551	16.22	286	265
9				Katewara	641	3,493	1873	53.62	1620	46.38	865	535	15.32	289	246
10				Bazid Pur Thakran	783	4,456	2412	54.13	2044	45.87	847	1722	38.64	929	793
11				Nangal Thakran	722	4,202	2264	53.88	1938	46.12	856	1322	31.46	715	607
12				Zind Pur	576	2,753	1513	54.96	1240	45.04	820	475	17.25	262	213
13				Nangli Poona	819	3,840	2150	55.99	1690	44.01	786	912	23.75	486	426
14				Kankar Khara	25	116	63	54.31	53	45.69	841	0	0.00	0	0
15				Banknar (CT)	2683	14788	8042	54.38	6746	45.62	839	4100	27.73	2196	1904
16				Tikri Khurd (CT)	2768	13772	7635	55.44	6137	44.56	804	4067	29.53	2225	1842
17				Bankauli (CT)	1104	5339	2953	55.31	2386	44.69	808	827	15.49	439	388
18				Ali Pur (CT)	3984	20332	11217	55.17	9115	44.83	813	2867	14.10	1518	1349
19				Mukhmel Pur (CT)	910	4931	2649	53.72	2282	46.28	861	2128	43.16	1116	1012

Sl. No.	Impact Zone	District	Tehsil/Taluka	Village/Habitation	Household (2011)	Total Population (2011)	Total Male		Total Female		Sex Ratio	Population (SC)		Male (SC)	Female (SC)
							No.	%	No.	%		No.	%	No.	No.
20				Libas Pur (CT)	8799	44375	24059	54.22	20316	45.78	844	5062	11.41	2716	2346
21				Khera Kalan (CT)	1539	8252	4397	53.28	3855	46.72	877	1807	21.90	932	875
22				Sahibabad Daulat Pur (CT)	11720	54773	30402	55.51	24371	44.49	802	18364	33.53	10199	8165
23				Pehlad Pur Bangar (CT)	4628	22968	12612	54.91	10356	45.09	821	4313	18.78	2305	2008
24				Darya Pur Kalan (CT)	1143	6310	3342	52.96	2968	47.04	888	1443	22.87	760	683
25			Saraswati Vihar	Jat Khor	357	2046	1092	53.37	954	46.63	874	350	17.11	186	164
26				Salah Pur Majra	370	2127	1138	53.50	989	46.50	869	429	20.17	223	206
27				Budhan Pur	324	1709	888	51.96	821	48.04	925	401	23.46	215	186
28				Chand Pur	325	1813	964	53.17	849	46.83	881	493	27.19	251	242
29				Lad Pur (CT)	991	5,529	2971	53.73	2558	46.27	861	1170	21.16	623	547
30				Kanjhawala (CT)	1991	10,331	5529	53.52	4802	46.48	869	1509	14.61	812	697
31				Mubarak Pur Dabas (CT)	2228	12,043	6441	53.48	5602	46.52	870	2162	17.95	1147	1015
32				Mohammad Pur Majri (CT)	3463	17,462	9305	53.29	8157	46.71	877	2490	14.26	1327	1163
33				Karala (CT)	6870	35,730	19085	53.41	16645	46.59	872	5701	15.96	2954	2747
34				Begum Pur (CT)	10446	53,682	29039	54.09	24643	45.91	849	9531	17.75	5067	4464
35				Pooth Kalan (CT)	19516	96,002	51063	53.19	44939	46.81	880	19275	20.08	10204	9071
36		South West	South West	Munirpur	56	337	179	53.12	158	46.88	883	0	0.00	0	0

Sl. No.	Impact Zone	District	Tehsil/Taluka	Village/Habitation	Household (2011)	Total Population (2011)	Total Male		Total Female		Sex Ratio	Population (SC)		Male (SC)	Female (SC)
							No.	%	No.	%		No.	%	No.	No.
37				Dheki	1	8	8	100.00	0	0.00	0	0	0.00	0	0
38				Halalpur	891	4650	2531	54.43	2119	45.57	837	1003	21.57	518	485
39				Nahri	1572	8170	4439	54.33	3731	45.67	841	1316	16.11	709	607
40				Kundli (CT)	5001	21633	12035	55.63	9598	44.37	798	5009	23.15	2701	2308
41			Kharak hoda	Katlupur	372	2102	1123	53.43	979	46.57	872	241	11.47	131	110
42				Jhinjauli	423	2040	1115	54.66	925	45.34	830	363	17.79	178	185
43				Jatsula	426	2197	1199	54.57	998	45.43	832	499	22.71	268	231
44				Ferozepur Bangar	617	3047	1639	53.79	1408	46.21	859	793	26.03	415	378
Sub Total					1,07,311	5,39,467	2,92,214	54.17	2,47,253	45.83	846	111319	20.63	59604	51715
Grand Total					1,40,613	7,18,623	3,89,658	54.22	3,28,965	45.78	844	148533	20.67	79598	68935

Source: Primary Census Abstract 2011

Note: According to Census 2011 & Primary Social Survey-2022, the Scheduled Tribe is unavailable in the study area of the proposed project.

The above table shows that the total population within the study area is 7,18,623 with total households of 1,40,613 according to census data 2011. The male population is 3,89,658 (54% approx.) and the female population is 3,28,965 (46% approx.). In the Direct Impact Zone (0-3 Km) the total population is 1,30,225 with total households of 23,906. The male population is 70,906 (54% approx.) and the female population is 59,319 (46% approx.). The sex ratio of the Direct Impact Zone (0-3 Km) study area is 837 while for the complete study area the sex ratio is 844.

The total number of households covered under the Indirect Impact Zone of the study area are 9,396 with population of 48,931. The sex ratio of this zone is registered as 844. The total population in the cumulative impact zone of the buffer area are 5,39,496 with households of 1,07,311 and the sex ratio is 846.

From the above table it can be inferred that total Scheduled Caste population in the study area is 1,48,533 (21% approx.) of the total population whereas the Scheduled Tribes population is almost negligible. In the direct impact zone of the core area the Scheduled Caste Population is 26,456 (20% approx.) of the total population in direct impact zone of the study area. The sex ratio is 837 in direct impact zone while in the indirect impact zone of the core area the sex ratio is 844. The Scheduled Caste population in the cumulative impact zone is 1,11,319 (21% approx.).

3.1.2 Educational Facility

There are sufficient number of government/private run educational institutions in the study area. The MCD Primary Schools & Sarvodaya Vidyalaya is available in almost all the villages or residential colonies of the study area. The Narela and Bawana(CT) is the nearest destination of the villagers for education or professional degrees like engineering, medical, law and other courses. For further specialized courses the students are moving to Delhi University, Jamia Milia University, Guru Govind Singh University, Dr. BR Ambedkar University, AIIMS, IIT, DTU etc.

The prominent educational institutions in the study area are Dhakaur Devi Convent School, The Mann School & Aditi Maha Vidayalya. The literacy rate of the study area is given in the table below.

Table 3-3: Literacy rate within the study area

Sl. No.	Impact Zone	District	Tehsil/Taluka	Village/Habitation	Total Population (2011)	Literate Population	Male Literate		Female Literate	
							No.	%	No.	%
1	DIRECT IMPACT (0-3 km)	North West (Delhi)	Narela	Holambi Khurd	7,630	4922	3018	61.32	1904	38.68
2				Holambi Kalan	42,392	24503	15014	61.27	9489	38.73
3				Sanoth	3,800	2778	1611	57.99	1167	42.01
4				Bawana (CT)	73,680	44079	26602	60.35	17477	39.65
5				Iradat Nagar alias Naya Bans	2,723	2075	1181	56.92	894	43.08
Sub Total					130225	78357	47426	60.53	30931	39.47
1	INDIRECT IMPACT (3-5 KM)	North West (Delhi)	Narela	Shah Pur Garhi	2,642	1857	1233	66.40	624	33.60
2				Ghoga	3,884	2861	1684	58.86	1177	41.14
3				Sultan Pur Dabas	4,399	3206	1845	57.55	1361	42.45
4				Bhor Garh (CT)	8,627	5870	3526	60.07	2344	39.93
5				Khera Khurd (CT)	9,777	7477	4266	57.05	3211	42.95
6				Barwala (CT)	8,948	6616	3798	57.41	2818	42.59
7				Pooth Khurd (CT)	10,654	7629	4426	58.02	3203	41.98
Sub Total					48931	35516	20778	58.50	14738	41.50
1	CUMULATIVE IMPACT (5-10 KM)	North West (Delhi)	Narela	Lam Pur	2,653	1944	1121	57.66	823	42.34
2				Mamoor Pur	18,937	13337	7687	57.64	5650	42.36
3				Singhu	4,564	3242	1987	61.29	1255	38.71
4				Singhola	2,418	1841	1085	58.94	756	41.06
5				Hamid Pur	3,469	2502	1437	57.43	1065	42.57
6				Kham Pur	1,983	1516	857	56.53	659	43.47
7				Ochandi	4,687	3574	2092	58.53	1482	41.47
8				Mungesh Pur	3,398	2562	1510	58.94	1052	41.06

9				Katewara	3,493	2715	1543	56.83	1172	43.17			
10				Bazid Pur Thakran	4,456	3425	1984	57.93	1441	42.07			
11				Nangal Thakran	4,202	3131	1821	58.16	1310	41.84			
12				Zind Pur	2,753	1991	1199	60.22	792	39.78			
13				Nangli Poona	3,840	2757	1665	60.39	1092	39.61			
14				Kankar Khera	116	74	45	60.81	29	39.19			
15				Bankner (CT)	14788	10360	6085	58.74	4275	41.26			
16				Tikri Khurd (CT)	13772	8967	5590	62.34	3377	37.66			
17				Bankauli (CT)	5339	3890	2321	59.67	1569	40.33			
18				Ali Pur (CT)	20332	15285	9005	58.91	6280	41.09			
19				Mukhmel Pur (CT)	4931	3684	2127	57.74	1557	42.26			
20				Libas Pur (CT)	44375	32473	18864	58.09	13609	41.91			
21				Khera Kalan (CT)	8252	6261	3595	57.42	2666	42.58			
22				Sahibabad Daulat Pur (CT)	54773	34004	21287	62.60	12717	37.40			
23				Pehlad Pur Bangar (CT)	22968	15236	9107	59.77	6129	40.23			
24				Darya Pur Kalan (CT)	6310	4584	2634	57.46	1950	42.54			
25				Saraswati Vihar	Jat Khor	2046	1540	886	57.53	654	42.47		
26					Salah Pur Majra	2127	1615	948	58.70	667	41.30		
27					Budhan Pur	1709	1313	740	56.36	573	43.64		
28					Chand Pur	1813	1365	773	56.63	592	43.37		
29					Lad Pur (CT)	5,529	4305	2453	56.98	1852	43.02		
30					Kanjhawala (CT)	10,331	7434	4317	58.07	3117	41.93		
31					Mubarak Pur Dabas (CT)	12,043	8420	4899	58.18	3521	41.82		
32					Mohammad Pur Majri (CT)	17,462	13076	7369	56.36	5707	43.64		
33					Karala (CT)	35,730	26860	15325	57.06	11535	42.94		
34					Begum Pur (CT)	53,682	37244	22052	59.21	15192	40.79		
35					Pooth Kalan (CT)	96,002	72228	40696	56.34	31532	43.66		
36				Sonipat	Sonipat	Munirpur	337	257	147	57.20	110	42.80	
37						Dheki	8	8	8	100.00	0	0.00	
38						Halalpur	4650	3335	1978	59.31	1357	40.69	
39						Nahri	8170	5946	3530	59.37	2416	40.63	
40						Kundli(CT)	21633	14297	8757	61.25	5540	38.75	
41					Kharkhoda	Katlupur	2102	1624	949	58.44	675	41.56	
42						Jhinjauli	2040	1475	875	59.32	600	40.68	
43						Jataula	2197	1588	940	59.19	648	40.81	
44						Ferozepur Bangar	3047	2134	1238	58.01	896	41.99	
Sub Total					5,39,467	30664	18422	60.08	12242	39.92			
Grand Total					7,18,623	144537	86626	59.93	57911	40.07			

Source: Primary Census Abstract 2011

The literacy rate of the study area quite low as 20% according to census 2011. The males have higher literacy rate than the females which is 60 to 40 ratio approximately. In the direct impact zone of the core area the literacy rate is almost 60% of the population of that area. In the indirect

impact are of the core zone the literacy population rate is approximately 73%. In the Buffer zone or Cumulative Impact area the literacy rate has sharply fallen to 6% approximately.

3.1.3 Health Facilities

The medical facilities are limited in whole of the study area. The nearest hospital/dispensary facilities are available at Bawana/Narela. The prominent diseases which occur frequently are fever, typhoid, malaria, dengue, asthma, TB, Cancer etc.

The villagers/residential colonies avail the facility of Ambulance in case of any emergency, which is provided by state government/private trust. The ASHA workers use to visit on regular basis in PHC/UHC of the study area. For major type of disease and illness they prefer to visit government/private hospitals like District Government Hospital, AIIMS, Safdarjung Hospitals, Ganaga Ram Hospitals, Apollo Hospitals, Fortis Hospitals where sufficient numbers of multiple specialty facilities are available.

3.1.4 Drinking Water Facilities

The requirement of drinking water of maximum population of the study area are met by municipalities through tap or self-bored private tube-well, handpump, borewell. The overhead tanks are provided by the village panchayat in few of villages. During primary survey in villages, it is found that few handpumps installed in the close proximity of industrial area are not fit for drinking purpose.

3.2 Economic Profile

3.2.1 Agriculture

Due to rapid urbanization and industrialization in Narela/Bawana town, the agriculture/cultivation profession is almost at extinct level. Few of the selected farmers are doing the cultivation of the cash crops like Cauli-flower, Spinach, Radish, Mustard, Carrot, Potatoes etc. where they use to sell in the nearby town to earn their livelihood.

Figure 3-2: Agricultural in Study Area

 Nov 1, 2022 11:22:22 Holambi Khurd North Delhi Delhi	 Oct 31, 2022 12:22:05 Sonath Village North Delhi Delhi
Cultivation of Cauli-flower at Holambi Khurd	Farming of Mustard at Sonath Village

Source: Primary Social Survey (October-November-2022)

3.2.2 Industries/Factories

Narela is famous for being an Industrial area of the North West Delhi. The Narela Industrial area started developing in the early 1980s. The major industries of the study area are AK Auto Industry, Atlas Cycle Industries Limited, Micron Industries, Rajesh Food Industries, Shakti Cable, Sky Polymer Industries, Neha Cable Industries, Mark Cable Company, Sun World Industries Private Limited, OK Masala Company etc.

The other available SMEs in Borgarh/Bawana Industrial areas of the study area are Sanmati Industries, Rawat Industries, Sterlite-Sanmati Industries, Ankit Plastic, PK Polyking industries, Electrostar Cables, Pragati Power Corporation Ltd, Comtech Digitronics, GAIL, Tirupati Toys, LRD Foods Private Ltd, Sooraj Camper and Water Jugs, Sapan Engineering Works, Salasar Industries, Radha Krishna Polymers, Jeevan Dhara PVC Pipes Fitting, Shreeji Industries, Mayur Industries, Mayur Industries etc.

The renowned manufacturing companies of the Bawana Industrial Area are Micro Mould India, Neetu Plastics Private Limited, Vishal Enterprises, Gujaral Polish and Lubricants Private Ltd, Kiyomi Herbals Private Limited, Orient Auto Industries, Nice Dust Control Industries.

3.2.3 Employment Status

The occupational status has been shown in the table below.

Table 3-4: Occupational Status in Study Area

Distance	Study Area Occupational Status % 2011															
	Study Area Population		Working Population		Main Workers (>180 Days)		Cultivators		Agricultural Labourers		Household Workers		Marginal Workers (<180 Days)		Others	
	Total	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Direct Impact (0-3 Km)	130225	41403	32	37826	29.0	634	0.5	854	0.7	936	1	3577	2.7	35402	27.2	
Indirect Impact (3-5 Km)	48931	14914	30	11767	24.0	898	1.8	676	1.4	329	1	978	2.0	12033	24.6	
Cummulative Impact (5-10 Km)	539467	167314	31	12650	2.3	1730	0.3	1045	0.2	349	0	2853	0.5	142644	26.4	
Grand Total/Average%	718623	223631	31	62243	8.7	3262	0.5	2575	0.4	1614	0	7408	1.0	190079	26.5	

Source: Primary Census Abstract, 2011

According to the above table it can be inferred that the working population of the study area is around 31% of the total study area population. Around 9% of the working population are Main workers who are engaged for more than 180 days in a year. The population of about 0.5% of the working population are cultivators followed by approximately 0.4% agricultural labourers. The household workers are almost negligible in the study area.

From the above table it could be understood that there are about 41403 (32% approx.) working population (0-3 Km) in the direct impact area of the core zone while 48931 (30% approx.) is in the Indirect Impact area (3-5 Km). In the Cumulative area or Buzzer Zone the household workers, agricultural labourer and Cultivators are at the extinct level.

The industries in Bawana/Narela Industrial Estate are largely dependent on semi-skilled or unskilled labourer. The process of production is based on the hierarchical organization of workers at a firm. During interaction with the stakeholders, it revealed that there is difference of wages between male and female workers. The female workers were mostly hired as helpers. The average wages for the helpers were Rs. 5,000/- to 6,000/- per month for 8-10 hours work in a day while for male the rate is Rs. 6,000/- to 7,500/- per month. The skilled workers would work for 10-12 hours a day and earn around Rs. 10,000-15,000/- per month. However, the skilled male workers working at a footwear unit in the Narela Industrial Estate for eight hours is getting Rs. 275-300, while a female worker.

According to the Labour Department Notification of the Government of NCT Delhi, dated December 7, 2020 the workers are entitled for the minimum daily wage for an industrial worker per day is Rs. 596 for unskilled workers, while it is Rs. 657 for semi-skilled and Rs. 723 skilled workers, working above the ground. The minimum wages for No-matriculantes are Rs. 657, matriculantes but not graduate are getting Rs. 723 and for graduates or above is Rs. 786 per day.

3.2.4 Means of Communication & Transportation Facilities

The villages/habitation of the study area have ample number of communication facilities in form of post office and mobile towers. The main post office of the study area is located at Bawana (CT) & Narela. However, people now also own android mobile phones, which has become a necessity, for quick and easy communication.

The means of transportation facilities with in the study area are electric/CNG autorickshaw, private/government buses, metro rail etc. The large number of the population uses their own vehicle like car, motorcycle, Jeep or pick up van etc. for transportation purpose.

3.2.5 Availability of Power Supply

The Tata Power Delhi Distribution Ltd supplies power to all the households & commercial complexes of the study area. The electricity supply disruption is negligible in the study area. The subsidy/free electricity is also provided by the state government to the residential of Delhi up to certain limit depending upon its consumption and purpose.

Figure 3-3: Infrastruture in Study Area

	
Electricity Supply by Tata Power	Banking Facilities at Holambi Khurd

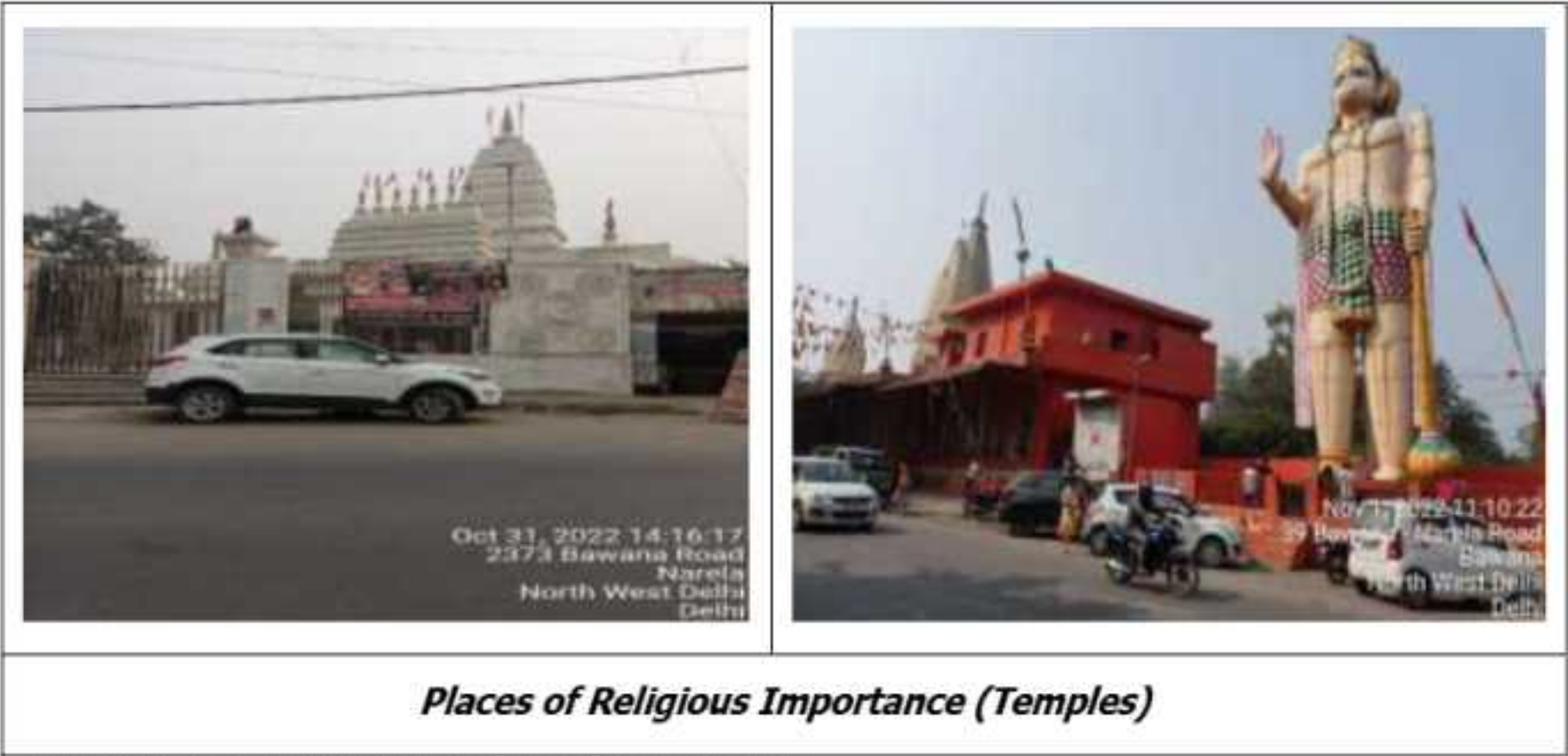
Source: Primary Social Survey (October-November-2022)

3.3 Cultural Profile

3.3.1 Archeological or Historical Sites/Places of Religious Importance

There is presence of one of the historical sites named **Badkhalsa Memorial Museum** outside the study. It is belief that Bhai Jeevan Singh Jaita ji stayed overnight, when he was going from Delhi to Anadpur Sahib, while carrying Sheesh (head) of Guru Teg Bahadur Sahib Ji. The museum has many pictures showing various historical events of Sikhism.” Besides this there are few other Common Property Resources in the core area like Hanuman Mandir, Kali Mata Mandir, Ram Mandir, Sheetala Mata Mandir, Ramlila Ground (Sanoth), Pili Shiv Mandir which is of great importance to local people.

Figure 3-4: Religious Places in Study Area



Source: Primary Social Survey (October-November-2022)

4 ANTICIPATED SOCIAL ISSUES AND MITIGATION MEASURES

4.1 IMPACT ASSESSMENT

The table below presents a summary of the socio-economic potential environmental impacts/risks from the proposed Project with the recommended impact management and monitoring actions in place (i.e. post-mitigation)

4.2 IMPACT ASSESSMENT METHODOLOGY

Scoring the Impact Severity / Consequence

This table covers impacts focusing on the study area being undertaken by Re Sustainability Solutions Private Ltd Socio-Economic Expert (Anil Kumar Vishwakarma) after conducting site visit on 31.10.2022 to 1.11.2022.

Table 4-1: Overall Impact Scoring System due to the Proposed Project

Category	Potential impact/risk	Significance of impact	Category	Potential impact/risk	Significance of impact
Pre-Construction Phase					
It is not anticipated that there are any potential environmental impacts/risks resulting from the proposed Project during the pre-construction phase.					
Construction Phase					
Air quality and socio-economic.	Dust and fine particulates affecting ambient air quality.	Low	Soils, land capability and land use.	Soil erosion.	Low
MHI risks.	Serious injury and or fatality.	Low	Visual.	Loss of open space.	Moderate
Visual.	Visual impact of construction activities.	Moderate	Noise and socio-economic.	Increase in baseline ambient noise levels at sensitive receptors.	Low
Archaeological remains and Cultural Sites	Damage to and/or destruction of sub- surface heritage resources.	Low	Socio-economic.	Creation of a number of local employment opportunities.	Moderate
Socio-economic.	Investment into the local economy through purchase of goods and services.	Moderate	Socio-economic.	Increased traffic volumes and congestion.	Low

Socio-economic.	Increased risk of accidents with pedestrians and/or other vehicles, resulting in serious injury or death.	Low	Socio-economic.	Social tension, and possibly violence.	Low
Operational Phase					
Air quality and socio-economic.	Fugitive VOC emissions.	Low	Soils, land capability and land use.	Soil contamination.	Low
MHI risk and socio-economic.	Risk to individuals (employees and members of the public) as a result of a fire or an explosion.	Moderate	MHI risk and socio-economic	Risk to society as a result of a fire or an explosion	Moderate
Visual.	Visual intrusion of the storage tanks.	Moderate	Visual.	Lighting at night.	Low
Noise and socio-economic.	Increase in baseline ambient noise levels at sensitive receptors.	Low	Traffic and socio-economic.	Increase in construction vehicle on the existing road.	Low
Traffic and socio-economic.	Increase in traffic on the approach road leading to project site.	Low	Socio-economic.	Creation of a number of local employment opportunities.	Moderate
Socio-economic.	Investment into the local economy through purchase of goods and services.	Moderate	Socio-economic.	Creation of future clean and Green Environment in the project surrounding areas.	Moderate
Socio-economic.	Increased risk of accidents with pedestrians and/or other vehicles, resulting in serious injury or death	Low			
Closure Phase					

Air quality and socio-economic.	Dust and fine particulates affecting ambient air quality.	Low	Soils, land capability and land use.	Soil erosion.	Low
MHI risks.	Serious injury and/or fatality.	Low	Visual.	Visual intrusion of demolition activities.	Low
Visual.	Creation of green open space.	High	Socio-economic.	Creation of a number of local employment opportunities.	Moderate
Socio-economic.	Loss of permanent employment opportunities.	Moderate			
Post-Closure Phase					
Provided that the recommended impact management actions have been implemented properly, it is unlikely that there will be any significant residual impacts which require mitigation post-closure.					

4.3 Mitigation Measures/Impact Management

Socio-economic impacts faced by the community living within the study area, cumulative impacts include environmental degradation, poor urban environmental quality, deteriorating air quality, health risks, land use conflicts, infrastructures limitation to economic growth, traffic congestion etc. The mitigation measures are reflected in the **Table 5-2**.

Table 4-2: Impact Management

Category	Potential Impact/Risks	Mitigation Measures/Impact Management
Socio-economic	Dust and fine particulates affecting ambient air quality.	- Fine materials transported must be covered with tarpaulins or equivalent materials. - As and when required sprinkling of water to be carried out. - Cleared areas must be dampened periodically to avoid creation of excessive dust. - Demolition/Construction site to be screened by using wooden supports and shaded clothes to avoid blow of fine particles with wind. - Limit speed of construction vehicles to maximum 20 km/hrs. while onsite.
Socio-economic	Noise	- Construction Vehicles are to be fitted with standard silencers prior to the commencement of construction activities. - Vehicles are to be kept in good working condition to minimize the noise nuisance to the residential people/neighbors. - Construction workers must be made aware that they do not make excessive noise (shouting or hooting). - Construction Vehicles must not be permitted to use residential roads. - Construction activities must be restricted to the day time only (i.e. 6:00 AM to 6:00 PM). - Access routes for construction Vehicles to project site must be identified and agreed by all parties/stakeholders.
Socio-economic	Traffic congestion and increased risk of accidents with pedestrians	- Heavy Vehicles (Crane, Hydra, Excavator, Water Tanker etc.) must not be permitted to use residential roads. - Dumper must not be permitted to cause an obstruction to the free flow of traffic by illegally stopping or parking on roads/pavements.
Socio-economic	Risk to individuals or society from fire or explosion.	- Develop and implement an Onsite Emergency Plan in consultation with relevant authorities. - Undertake a detailed review for three months after commissioning of the facility to confirm that

		the operation meets all the required health, safety and environmental requirements. - Strictly enforce permit system and compliance with the procedures and controls. - Internal roads must be well maintained with clearly visible direction and signage board (i.e. speed limits).
Socio-economic	Local Procurement Opportunities	Identify goods and services that can be procured locally.
Socio-economic	Employment opportunities	Identify jobs that could potentially be undertaken by people from the local community and set targets for local employment in consultation with the local employment exchange.

Based on the socio-economic survey and stakeholders' consultation the following social concerns have been identified with respect to the general condition of the nearby residential colonies/villages of study area. The suggestive mitigation measures have been reflected in the undermentioned table.

Table 4-3: Issues Raised by Respondents of Core Zone

Social Component	Issues raised/Problems	Mitigation/Enhancement Measures by the Project Proponent
Health and Hygiene	- The medical/health facilities are limited in the study area. - Odour smell due to blow of wind in adverse direction. - Assistance to Physically handicapped/challenged group.	Regular environmental monitoring shall be carried out by the reputed Compliance Agency through project proponent. Latest mechanized equipment will be installed to control the Air Pollution. Mobile Toilet facility will be provided by the project proponent's contractor during construction phase. Medical & health checkup camps at regular intervals will be arranged for nearby habitation in consultation with the local civic authorities. Tri-cycle distribution will be carried out by the project proponent to the physically challenged group.
Drinking Water	- Provision of Safe Drinking Water. - Drinking water supply PVC tap & pipeline are broken up by monkeys.	RO Plant will be installed for supply of drinking water in primary schools in phase wise through CSR.
Education	There is rapid increase in the number of students for attainment of primary	The project proponent will take under the CSR Scheme in

	education from migratory laborer/economically weaker section. ii. Distribution of school uniforms and educational aids to the students belonging to the weaker section is required.	phase wise manner.
Sanitation & Drainage System	i. The drainage system is overall taken care by Municipal Corporation of Delhi up to satisfactory level. ii. The common toilets in few primary schools of study area needs improvement/renovation.	The development and construction of sanitary toilets will be carried out under community Development Program in consultation with local civic bodies.
Employment	i. Employment generation programs for the local population is required.	Skill development program will be organized by the project proponent at regular interval and accordingly the local population will be given preference in the job opportunities based on their competency and qualification.
Construction/Renovation	i. Construction/upgradation of the internal village/colonies' road is required. ii. Renovation of Anganwadi and Primary School buildings is required.	As part of Community Development Program the project proponent may consider under the CSR Scheme under section 135 of the Companies Act 2013.

Source: Community Consultation-2022

The above table through primary survey and community consultation reveals that major issues in the study area are requirement of potable drinking at schools, maintenance of existing common toilets in primary schools, maintenance/upgradation of village roads, absence of gutter lines in unorganized habitation/labor colonies, unemployment etc.

4.4 CSR/CER Budgetary Provision

The cost of the proposed project is Rs. 848 crores. The 1% of the total cost is earmarked for ESMP including Community Development Programme that comes to be Rs. 8 Crores 48 Lakhs. The amount will be spent on various activities and needs of the study area villages relating to health, education, potable water, infrastructure development etc. over the span of five years from the commencement of the proposed project.

Table 4-4: Budgetary allocation on various activities for 5 years

Sl. No.	Proposed Activity	Year wise allocation of Fund (INR)					
		2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	Total Amount

1	Distribution of study materials and school uniforms in schools of study area.	0.45	0.50	0.54	0.60	0.66	3
2	Medical/health camps in villages and distribution of tri-cycles amongst the physically challenged people.	0.45	0.50	0.54	0.60	0.66	3
3	Installation of RO plant for providing safe drinking water for children in Schools	0.25	0.83	0.91	1.00	1.10	5
4	Renovation of Anganwadi/school building	0.85	0.94	1.03	1.13	1.24	5
5	Refurbishment of internal village road	0.75	0.28	0.30	0.33	0.37	2
Total Amount per Year		2.75	3.03	3.33	3.66	4.03	17
Total provision for 5 years - Rupees Seventeen Lakhs (17 Lakhs)							

Source: Primary Social Survey (October-November-2022)

The fund allocated is subject to priority of need of the study area villages/habitation. The requirements were assessed on the basis of primary social survey of the study area. The various programme's proper implementation will be monitored time to time by a competent authority appointed by the project proponent.

5 CONCLUSION

The project proponent is well conversant with the compliance of the provisions of the existing labour laws and ensure the interest of employees and local residential in the surrounding areas of the proposed project. The project proponent will organize a physical examination of its employees on yearly basis and take part in the local social welfare activities like environmental protection, education, cultural program, organize health checkup camps, assist in poverty alleviation and provide job opportunities to the local residential colonies/villages of the study area through Community Development Program/CSR.

The converting of waste to energy through WTE plant, substantially reduces the amount of waste entering landfills and degrading the living environment.

Annexure 1: Letter from Stakeholders-Sanoth, Holambi Kalan, Bawana & Narela



School ID : 1310004 Phone : 011-27791344

SARVODAYA VIDYALAYA

SANNOTH, DELHI-110040



Ref. No. Sv Sannoth /2022/2010 Dated 31.10.22

Project Manager
Delhi Municipal Solid Waste Solutions Ltd.
13th Floor, Ramky Grandiose
Ramky Towers, Gachibowli
Hyderabad (Telangana)

Sub: Requirement of items from CSR Funds

Sir

With reference to the requirement of various items from CSR Funds, the following things are required for the benefit of students

1. Smart TV with Sound System (2)
2. 1 Mike System + 4 mikes (3)
3. Comp. System with printer (heavy duty) (6)
4. Oven (1)
5. Printing Machine
6. Stationary
 - a. Registers 3000
 - b. Copies 1500
 - c. Sketch pen 1500 sets (thick)
 - d. Blue pen Pkts 100
 - e. School bags 1500

	School ID : 1310004 Phone : 011-27791344 SARVODAYA VIDYALAYA SANNOTH, DELHI-110040	 
Ref. No.	SV Sannoth/2022/2010	Dated 31.10.22
	f. Water Colours	100
	g. Fevicol	50
7	A 4 Size Rims	20 boxes
Regards.  31.10.22 HOS/DDO/Vice Principal Govt. Sarvodaya Vidyalaya Sannoth, Delhi-110040		



नगर निगम प्राथमिक बाल विद्यालय

नरेला कॉलोनी-II, दिल्ली-110040

क्रमांक.....

दिनांक 31/10/2022

Project Manager

Delhi Municipal Solid Waste Solution LTD.

13th Floor, Ramky Grandiose

Ramky Towers, Gachibowli,

Hyderabad (Telangana)

Subj: Request For Support From CSR Funds

Sir,

With reference to requirement of various items from CSR Funds, the following things are required for the benefit of students

1. Smart Boards for all classes - (05)
2. R.O - (01)
3. Benches For Students (Desks) (Small-50 Big-50)
4. UNIFORMS, shoes for students - For 200 Students
5. Library so Tables, benches,
6. Oven - 01
7. Mike System -
8. Play ground repairing (renovation)

PRINCIPAL 31/10/2022
M.C. Pri. Boys School
Narela, Colony, Delhi-40

School Code : 1310030

27700747



GOVT. CO-ED. SR. SEC. SCHOOL

HOLAMBI KALAN, DELHI-110082

Ref. No.

Dated. 11/11/2022

To
The M/s Delhi Municipal Solid Waste Solutions Limited
13th floor, Ranky Grandiose
Ranky Towers, Gachibowli
Hyderabad, Telangana
Subj: - Requirement of items from CSR funds

R/s, with respect, request you to supply
following items from CSR funds

1. R.O. system for school.
2. 04 water coolers from drinking water
3. computer system with printers
4. Public address system
5. smart TV and Educational systems.

11/11/2022
Vice Principal
Govt. Co-ed Sr. Sec. School
Holambi Kalan, Delhi-110082

School Code : 1310414



GOVT. GIRLS SR. SEC. SCHOOL

J. J. Colony, Bawana, Delhi-110039

Ref. No. GR/SSJ/JJZ/BWN/660

Dated 11/11/2022

The Project Manager
Delhi Municipal Solid Waste Solutions Ltd
13th Floor, Railway Grandiose
Ramky Towers, Gachibowli
Hyderabad (Telangana)

Sub: Requirement of items from CSR Funds.
Sir

With reference to the requirement of various items from
CSR Funds, the following things are required for the

1. Desk - 100 Nos.
2. Fans - 50 Nos
3. LED Lights - 20 Nos
4. Yoga mats - 08 Nos
5. Drums - 01 No.
6. Drum sticks - 02 Nos
7. Throw Balls - 04 Nos
8. Hand Balls - 04 Nos
9. Net Ball - 05 Nos
10. Musical Instruments Pen Drive - 01, Sound box/ Speaker - 01,
Mike (wireless) - 02,
11. Uniform cloth - For 1800 students
12. Black shoes - " 1800 "
13. Black Sweaters " 1800 "

V. Praveen Hos/000
Govt. Girls Sr. Sec. School
J.J. Colony No. 1, Bawana
Delhi-110039
School ID-1310414

Annexure 2: Focus Group Discussions

Focus Group Discussion	
(a) Date: <u>31/10/2022</u>	(b) Time: <u>12:50 PM</u>
(c) District: <u>NORTH WEST (DELHI)</u>	(d) Sub-district: <u>NARELA</u>
(e) Panchayat: <u>M.C.D. NORTH WEST (A)</u>	(f) Village: <u>NORTH WEST (A)</u>
(g) Current Major Issues:	
1. <u>Loss of existing cultural ethnic due rapid industrialization in the area.</u> 2. <u>Breaking problem to nearby habitation due to presence of MSW</u> 3. <u>Dump site.</u> 4. 5. 6. 7. 8.	
(h) Potential Impact by the Project	
Positive Impact	Negative Impact
1. <u>Employment opportunities for localities.</u>	1. <u>Odour/Foul smell from existing plant due to Prevailing wind/monsoon</u>
2. <u>Infrastructure development takes place at rapid scale.</u>	2. <u>Increase in migratory labourers.</u>
3.	3. <u>Seepage of ^{collected} leachate in ground water.</u>
4.	4.
5.	5.
6.	6.

RE-SUSTAINABILITY SOLUTIONS PVT LTD


 HOS/DDO/Vice Principal
 Govt. Sarvodaya Vidyalaya
 Surinath, Delhi-110044

(i) Name of the Participants:-

Sl. No.	Name	Contact Number	Signature/Thumb Impression
1.	Sandeep Kumar	9996111717	[Signature]
2.	MANOJ YADAV	8010555703	[Signature]
3.	PANKAJ	9416204591	[Signature]
4.	Virender Singh	925861834	[Signature]
5.	Krishan Kumar Verma	9953806406	[Signature]
6.	Rajesh Kumar	9811498588	[Signature]
7.	Yogesh Kumar	8744050061	[Signature]
8.	Surajbhan	8053139820	[Signature]
9.	Manoj Kumar	9416549291	[Signature]
10.	Sandeep Kumar	8950956955	[Signature]
11.	Parveen Kumar	9717787707	[Signature]
12.	Surish Kumar	9466515915	[Signature]
13.	Shalinder Kumar	7988335598	[Signature]
14.	Anil Kumar	8059738059	[Signature]
15.	Anil Kumar	9015823099	[Signature]
16.	Jagmohan	7015958031	[Signature]
17.	Naveen	9812466068	[Signature]

Name of Leader Respondent:-Mr./Mrs. Subhashini Rana Mobile Number: 9717699072

Address: SU (Sarvodaya Vidyalaya) Sanoli

[Signature]
31.10.22
HDS/DDQ/Vice Principal
Signature or Thumb Impression of
Leader Respondent
Sanoli, Dist:-110040

[Signature]
ANIL KUMAR VISHWANATHAN
Signature of the Investigator
9722649840

Focus Group Discussion

(a) Date: 31/10/2022

(b) Time: 3:35 PM

(c) District: North west Delhi

(d) Sub-district: Narela

(e) Panchayat: M.C.D

(f) Village: Narela (CT)

(g) Current Major Issues:

- (1) In school, maximum number is from labour class of Industrial area.
- (2) School Uniform is required for children, as during Corona they have not been provided with school uniforms from Govt.
- (3) School playground requires renovation.

(h) Potential Impact by the Project

Positive Impact	Negative Impact
1. There will be increase in job opportunities.	1. Bad smell from existing MSW dump site to nearby habitation.
2. Business development will also take place in surrounding areas.	2. Increase in migratory labourers
3.	3.
4.	4.
5.	5.
6.	6.

PRINCIPAL 31/10/2022
M.C. Panchayat, Boys School
Narela, Delhi-40

RE-SUSTAINABILITY SOLUTIONS PVT LTD

(i) Name of the Participants:-

Sl. No.	Name	Contact Number	Signature/Thumb Impression
1.	Virender Singh	8130547782	
2.	Karambir Singh	9253101000	Karambir
3.	Devender Singh	9466419192	Devender Singh
4.	Shashi Kant	8930791900	
5.	Rakesh	946636431	d.1
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			

Name of Leader Respondent: Mr. Virender Singh Mobile Number: 8130547782
Address: Nagar Nigam Prathmik Bal Vidyalaya, Narela Colony-II
Delhi

Signature or Thumb Impression of
Leader Respondent


PRINCIPAL 31/10/2022
M.C. Piy. Boys School
Narela, Colony, Delhi-40


ANIL KUMAR VOHRA
9722649840
Signature of the Investigator

RE-SUSTAINABILITY SOLUTIONS PVT LTD



Re Sustainability Solutions Private Ltd

www.resustainability.com

