

**BEFORE THE HON'BLE NATIONAL GREEN  
TRIBUNAL  
SOUTHERN ZONE BENCH, CHENNAI  
IN  
O.A. NO. 93 of 2025 (SZ)**

**IN THE MATTER OF:**

Pyaranagar Welfare and Development  
Association, Telangana and Ors.

**...APPLICANTS**

**VERSUS**

Greater Hyderabad Municipal  
Corporation & Ors.

**...RESPONDENTS**

**INDEX**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Page Nos.</b>
1.	Reply on behalf of M/s. Hyderabad Integrated MSW Ltd./ Respondent No. 3 along with affidavit	1-16
2.	<b>ANNEXURE R-1</b> A copy of the Concession Agreement, dated 21.02.2009, executed between Greater Hyderabad Municipal Corporation and M/s. Ramky Enviro Engineers Limited	17-181
3.	<b>ANNEXURE R-2</b> A copy of the Novation Agreement, dated 01.02.2012, executed between Greater Hyderabad Municipal Corporation, Ramky Enviro Engineers Limited and Hyderabad Integrated MSW Limited	182-184
4.	<b>ANNEXURE R-3</b> A copy of the GHMC's letter to HIMS, dated 14.06.2018	185

5. **ANNEXURE R-4**  
A copy of the GHMC's letter to HIMSW, dated 17.05.2022 186-188
6. **ANNEXURE R-5**  
A copy of the License Agreement dated 17.11.2022 executed between GHMC and the Answering Respondent 189-194
7. **ANNEXURE R-6**  
A copy of the letter dated 29.11.2022 issued by GHMC to the Answering Respondent 195
8. **ANNEXURE R-7**  
A copy of the consent order for establishment dated 06.02.2023 196-203
9. **ANNEXURE R-8**  
A copy of the letter dated 20.02.2023 issued by the Answering Respondent to GHMC 204-205
10. **ANNEXURE R-9**  
A copy of the notice dated 06.08.2025 issued by Forest Department, Govt. of Telangana to the Answering Respondent 206-207
11. **ANNEXURE R-10**  
A copy of the letter dated 12.08.2025 issued by the Answering Respondent to Forest Range Officer, Sangareddy, Forest Department, Government of Telangana 208-209
12. **ANNEXURE R-11**  
A copy of the Forest Department, Govt. of Telangana's show cause notice dated 13.08.2025 issued to Zavni Constructions Private Limited 210-211

13. **ANNEXURE R-12**  
A copy of reply dated 19.08.2025 212  
issued by Zavni Constructions Private  
Limited
14. **ANNEXURE R-13 (COLLY.)**  
A copy of the letter dated 20.08.2025 213-214  
issued by Forest Department, Govt. of  
Telangana's to Zavni Constructions  
Private Limited, along with the  
generated challan
15. **ANNEXURE R-14**  
A copy of the cheque issued by to 215  
Zavni Constructions Private Limited,  
dated 21.08.2025, in favour of the  
Forest Department, Govt. of Telangana

**Through**



**MATRUGUPTA MISHRA/SWAGATIKA SAHOO/  
SUDHA REDDY/ SONAKSHI/  
NIPUN DAVE/ AKANKSHA V. INGOLE/  
VANSHIKA SARAF/KUSHAGRA KUNDAN/NAMAN PODDAR  
ADVOCATES FOR M/S. HYDERABAD INTEGRATED  
MSW LIMITED/RESPONDENT NO. 3**

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**PLACE: NEW DELHI  
DATE: 15.11.2025**

**BEFORE THE HON'BLE NATIONAL GREEN  
TRIBUNAL  
SOUTHERN ZONE BENCH, CHENNAI  
IN  
O.A. NO. 93 of 2025 (SZ)**

**IN THE MATTER OF:**

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Greater Hyderabad Municipal  
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**...RESPONDENTS**

**REPLY ON BEHALF OF M/S. HYDERABAD  
INTEGRATED MSW LTD./RESPONDENT NO. 3 IN THE  
CAPTIONED MATTER**

**MOST RESPECTFULLY SHOWETH:**

1. That the present application has been filed by the Applicants challenging the construction and establishment of an Integrated Municipal Solid Waste Processing facility ("Facility") in the Nallavally Reserve Forest in Pyaranagar Village, Sangareddy District, Telangana. The Applicants further challenge the laying down of approach road and felling of trees for the construction of the said facility through the reserve forest area. The Applicants have further alleged that the said construction has been undertaken without conducting an Environmental Impact Assessment, holding public meetings/conducting stakeholder consultation, obtaining requisite clearances and approvals and following the due process of law, *inter alia*.

2. That this Hon'ble Tribunal vide order dated 02.09.2025 directed M/s Hyderabad Integrated MSW Ltd. (hereinafter referred to as "Respondent No. 3/Answering Respondent") to file its reply to the captioned application and listed the matter for final hearing. Accordingly, in furtherance of the said direction, the Answering Respondent is filing the instant Reply.
3. At the outset, it is submitted that although no specific or direct allegations have been made against the Answering Respondent in the present Application, however, the Answering Respondent is filing the present reply to place the relevant facts and record its *bona fides*. Nothing in this application may be deemed to have been accepted or admitted by the Answering Respondent for want of a specific denial or on the ground of non-traverse, save any averments which has been expressly admitted hereinafter.
4. That the Answering Respondent is a Special Purpose Company ("SPC") of M/s. Re Sustainability Ltd (RESL) (formerly known as M/s. Ramky Enviro Engineers Limited/REEL), a company incorporated under the Companies Act, 1956, having its registered office at Level 11B, Aurobindo Galaxy, Hyderabad Knowledge City, Hitech City Road, , Hyderabad, Telangana, India - 500081. The Answering Respondent was incorporated for Integrated Municipal Solid Waste Management ("IMSWS") for the city of Hyderabad. RESL is one of Asia's leading providers of comprehensive environment

management services and is a pioneer in the field of environmental engineering activities including but not limited to Municipal Solid Waste management (MSW) services, services in collection, transportation, processing and subsequent disposal of MSW with extreme care and adherence to the various rules and regulations provided for environmental conservation. RESL is India's foremost environmental company, which is evident from the following:

- i. Established India's First Municipal Solid Waste Management Facility;
  - ii. Managing Asia's Largest MSW processing Facility (Hyderabad and New Delhi);
  - iii. Established India's first Hazardous Waste Management Facility;
  - iv. Largest operator in MSW, IWM, Bio Medical Waste Management;
  - v. Established India's First Bio-Medical Waste Management Facility;
  - vi. Established India's Largest Waste to Energy Facility.
5. That REEL (now RESL) and Greater Hyderabad Municipal Corporation (hereinafter referred to as the "GHMC/Respondent No. 1") entered into a Concession Agreement date 21.02.2009 ("CA"), for establishing a

mechanism for development of the IMSWM system in Hyderabad. The CA was executed for establishment of a suitable and scientific mechanism to manage the collection, transportation, processing and disposal of MSW generated in the city of Hyderabad.

A copy of the Concession Agreement, dated 21.02.2009, executed between Greater Hyderabad Municipal Corporation and M/s. Ramky Enviro Engineers Limited is annexed hereto and marked as **ANNEXURE R - 1**.

6. Article 5.26 of the CA, empowers the Concessionaire, i.e., REEL, to incorporate a SPC as a limited liability company under the Companies Act, 1956, which entity shall undertake and perform the obligations and exercise the rights of the Concessionaire under the CA, upon receipt of permission from Respondent No. 1. Upon creation of such SPC, it shall be treated as a permitted assign of the Concessionaire and shall be bound to adhere all the terms and conditions of the CA.
7. That in exercise of its power under Article 5.26 of the CA, the Answering Respondent was incorporated on 23.04.2009, as a limited liability company under the Companies Act, 1956 to undertake and perform all its obligations and exercise the rights of the Concessionaire under the CA.
8. That a Novation Agreement dated 01.02.2012 was executed between GHMC, Answering Respondent, and REEL.

Under the said agreement, GHMC agreed that the Answering Respondent shall duly discharge all the duties, obligations and responsibilities of the REEL under the CA. The relevant extracts of the Novation Agreement are provided herein below:

“2. M/s. REEL has promoted and incorporated a SPC "Hyderabad Integrated MSW Limited" on 23.04.2009 as a limited liability company under the Companies Act, 1956 in terms of clause 5.26 of the CA to undertake and perform all its obligations and exercise the rights of the Concessionaire under the CA.

3. M/s. REEL hereby undertake to hold at least 51% (fifty one percent) of the paid-up capital of the SPC throughout the Concession Period.

4. M/s. REEL undertakes to hold itself principally responsible for all the duties and obligations under the CA throughout the concession period though the same is assigned in favour of the SPC.

5. GHCM agreed that the SPC is a permitted Assign who shall do and cause to be done the implementation of CA duly discharging all the duties, obligations and responsibilities of M/s. REEL, and claiming the rights reserved for the Concessionaire.

6. The Novation Agreement is only to facilitate the principal to execute the CA through its associate/assigns. It is not a contract for substitution of M/s. REEL with the assign and discharge the from its obligations.”

A copy of the Novation Agreement, dated 01.02.2012, executed between Greater Hyderabad Municipal Corporation, Ramky Enviro Engineers Limited and Hyderabad Integrated MSW Limited is annexed hereto and marked as **ANNEXURE R - 2**.

9. That the scope of work of the CA is being entirely carried out by the Answering respondent since the execution of the abovementioned Novation Agreement.
  
10. That on 14.06.2018, GHMC informed the Answering Respondent that the Hon'ble NGT has given directions to establish Treatment disposal facility centres in all corners of the city so as to reduce the burden on Jawaharnagar centre and in lieu of the same, GHMC identified certain lands and found the Ac 152-00Gts land at Pyranagar (v), Gummadidala (M) [erstwhile Jinnaram (M)] Medak (D) as suitable for the purpose during the inspection. Since the said site required a direct access from the Narsapur main road through the forest land, the Answering Respondent was requested to conduct the DGPS and other necessary survey along with preparation of necessary formats and a conceptual plan for establishment of T&D facility including possible WTE plant on an immediate basis so as to acquire the required land parcel from Forest department to plan for a direct access to the site from Narsapur main road.

A copy of the GHMC's letter to HIMSW, dated 14.06.2018, is annexed hereto and marked as **ANNEXURE R - 3**.

11. That GHMC, vide letter dated 17.05.2022, informed the Answering Respondent that 152 acres of land at Pyranagar (V), Sangareddy (D) is under advance possession of GHMC for establishing the alternate Solid Waste

processing facility to the existing MSW Treatment & Disposal facility at Jawaharnagar and that Ministry of Environment, Forest and Climate Change/Respondent No. 12 herein has accorded in-principle approval (Stage-I) under Section 2 of Forest (Conservation) Act, 1980 for diversion of 0.6228 ha of forest land for laying the approach road, at Nallavelly(V), Nallavelly RF, Sangareddy (D). The Answering Respondent was further directed to commence the construction of the treatment and disposal facility including waste to energy plant, if required, in the above said Government land of 152 Acres, as per the applicable rules and the terms & conditions of CA. The Answering Respondent was also requested to lay the approach road in the above said forest land of 0.6228 Ha.

A copy of the GHMC's letter to HIMSW, dated 17.05.2022, is annexed hereto and marked as **ANNEXURE R - 4**.

12. That on 17.11.2022, a License Agreement was executed between GHMC and the Answering Respondent for licensing the premises/site namely, Integrated Municipal Solid Waste Processing and Disposal Facility located at Nallavally Village, Pyaranagar, for the purposes of development of the Facility. Under Clause 3 of the License Agreement, GHMC warranted that the site together with necessary right of way/ way-leaves has been acquired through due process of law and belongs to and vests in GHMC. Clause 3 of the License Agreement is

reproduced herewith for the ready reference of this Hon'ble Tribunal:

“3. Peaceful Possession:

GHMC hereby warrants that:

a. The Site together with the necessary right of way/way-leaves has been acquired through the due process of law and belongs to and is vested in GHMC and that GHMC has full powers to hold, dispose of and deal with the same; consistent and interlaid with the provisions of this Agreement and that the Concessionaire shall, in respect of the Site, have no liability regarding any compensation payment on account of land acquisition or rehabilitation/ resettlement of any Persons affected thereby as warranted in the Concession Agreement.

b. The Concessionaire shall, subject to complying with the terms and conditions of the Concession Agreement, remain in peaceful possession and enjoyment of the whole Site during the Term of Concession and in the event the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Site or any part thereof or in the event of any enforcement action including any attachment, distraint, appointment of receiver or liquidator being initiated by and Persons claiming to have any interest in/charge on the site or any part thereof, GHMC shall as called upon by the Concessionaire, defend such claims and proceedings at its costs and also keep the Concessionaire indemnified against any consequential loss or damages which the Concessionaire may suffer, on account of any such right, title, interest or charge.”

A copy of the License Agreement dated 17.11.2022 executed between GHMC and the Answering Respondent, is annexed hereto and marked as **ANNEXURE R - 5**.

13. That vide letter dated 29.11.2022, GHMC issued an authorization letter to the Answering Respondent for setting up Municipal Solid Waste Processing and Disposal Facility at Pyranagar under the IMSWM project of Respondent No. 1. The said letter further stated that the

Answering Respondent shall hand over the Facility to GHMC.

A copy of the letter dated 29.11.2022 issued by GHMC to the Answering Respondent, is annexed hereto and marked as **ANNEXURE R - 6**.

14. That on 06.02.2023, Telangana State Pollution Control Board (TSPCB)/Respondent No. 10 issued a Consent For Establishment to set up Integrated Municipal Solid Waste Processing facility comprising of Power Plant, Compost Plant, Bio Methanization and RDF etc., to the Answering Respondent.

A copy of the consent order for establishment dated 06.02.2023, is annexed hereto and marked as **ANNEXURE R - 7**.

15. That on 20.02.2023, the Answering Respondent replied to GHMC's letter dated 17.05.2022, stating that a detailed survey was conducted and a land measuring 120.12 acres in lieu of 152 acres was identified. The Answering respondent also informed GHMC that the land coordinates were marked only on the map and the same was submitted to the State Pollution Control Board (Respondent No. 10), which was subsequently approved, however, the land identified is not assigned a survey number, which can lead to potential future titular dispute. Hence, the Answering Respondent requested GHMC to write to the concerned revenue officials to arrange a survey and panchnama, for

identifying the extent of land for physically and officially handing it over to start the development activities.

A copy of the letter dated 20.02.2023 issued by the Answering Respondent to GHMC is annexed hereto and marked as **ANNEXURE R-8**.

16. That on 06.08.2025, the Forest Department, Govt. of Telangana issued a show cause notice to the Answering Respondent for clearance of tress in the Pyaranagar Village which is a government land and attracts the vigours of the Telangana (Protection Tress and Timber in Public Premises) Rules, 1989.

A copy of the notice dated 06.08.2025 issued by Forest Department, Govt. of Telangana to the Answering Respondent is annexed hereto and marked as **ANNEXURE R-9**.

17. That on 12.08.2025, the Answering Respondent issued a response to the show cause notice dated 06.08.2025 issued by the Forest Range Officer, Sangareddy, Forest Department, Government of Telangana denying the allegations of clearance of trees. The Answering Respondent clarified that it is the executing agency and Concessionaire for GHMC under the CA and the land and project/Facility ownership remains solely with Respondent No. 1 and the state government. The Answering Respondent also informed that they have not initiated any activity independently or without explicit authorization

from relevant authority and gave reference of GHMC's letter dated 17.05.2022 vide which permission was given to begin construction of the treatment and disposal facility at Pyaranagar and to lay down approach road through designated forest land, subject to the conditions outlined in the letter's annexure. The Answering Respondent informed that subsequent to the directions by GHMC, the Answering Respondent, being the Concessionaire, engaged a contractor, namely, Zavni Constructions Private Limited (hereinafter referred to as the "Contractor") to carry out the work on the site and that any deviation from the permitted activities are the responsibility of the Contractor. It was also informed that the Answering Respondent had immediately stopped all the construction activities, in compliance with the stay order dated 12.02.2025, extended through order dated 17.09.2025 passed by the Hon'ble High Court of Telangana at Hyderabad in Writ Petition No. 3917 of 2025. Accordingly, the Answering Respondent requested the Forest Officer to not initiate any actions against them, for the aforesaid reasons.

A copy of the letter dated 12.08.2025 issued by the Answering Respondent to Forest Range Officer, Sangareddy, Forest Department, Government of Telangana, is annexed hereto and marked as **ANNEXURE R - 10**.

18. That on 13.08.2025, Forest Department, Govt. of Telangana served a show cause notice to the Contractor for clearing the tree growth in the Government Land proposed

for Municipal Solid Waste Management Project in Pyaranagar village, Gummadidala Mandal adjacent to the Nallavally Reserve Forest. The notice further made reference to the show cause notice earlier issued to the Answering Respondent on 12.08.2025, in lieu of which it was informed that the Answering Respondent has engaged the Contractor to carry out the work and that any deviation from the permitted activities is the responsibility of the Contractor.

A copy of the Forest Department, Govt. of Telangana's show cause notice dated 13.08.2025 issued to Zavni Constructions Private Limited, is annexed hereto and marked as **ANNEXURE R - 11**.

19. That on 19.08.2025, the Contractor issued a reply to the show cause notice dated 13.08.2025 submitting that removal of trees was not done intentionally and that it will comply and also pay the compounding fee as directed in the notice.

A copy of reply dated 19.08.2025 issued by Zavni Constructions Private Limited is annexed hereto and marked as **ANNEXURE R - 12**.

20. That on 20.08.2025, Forest Department, Govt. of Telangana issued a letter to the contractor, Zavni Constructions Private Limited imposing a total penalty of Rs. 31,09,306/- (Rupees Thirty-One Lakhs Nine Thousand

Three Hundred and six only) and requested the Contractor to remit the said penalty amount.

A copy of the letter dated 20.08.2025 issued by Forest Department, Govt. of Telangana's to Zavni Constructions Private Limited, along with the generated challan is annexed hereto and marked as **ANNEXURE R-13 (COLLY)**.

21. That on 21.08.2025, the Contractor issued a cheque in favour of Forest Department, Govt. of Telangana, bearing the amount of Rs. 31,09,306/- (Rupees Thirty-One Lakhs Nine Thousand Three Hundred and six only) towards the imposition of penalty.

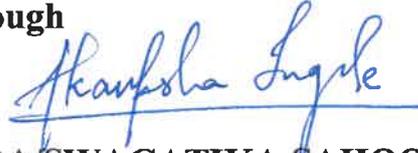
A copy of the cheque issued by to Zavni Constructions Private Limited, dated 21.08.2025, in favour of the Forest Department, Govt. of Telangana is annexed hereto and marked as **ANNEXURE R - 14**.

22. In light of the aforesaid, it is most respectfully submitted that, the Answering Respondent has not undertaken any activity of tree felling or clearing within the designated forest area and has at all times acted in good faith and under *bona fide* belief that all requisite permissions and approvals for use of land, including any forest clearances, were duly obtained by GHMC. The Answering Respondent reiterates that it has complied with all applicable laws within its scope, including, obtaining Consent for Establishment (CFE) from TSPCB/Respondent No. 10; ensuring

operational compliance with Solid Waste Management Rules, 2016 and operating strictly under the supervision and instructions of GHMC. It is further stated that as per the directions by the Hon'ble High Court of Telangana, Hyderabad in order dated 12.02.2025 and 17.09.2025 passed by the Hon'ble High Court of Telangana at Hyderabad in Writ Petition No. 3917 of 2025 and this Hon'ble Tribunal vide order dated 02.05.2025, all construction activities at the site have been stayed, and the Answering Respondent has strictly complied with the said directions.

23. Accordingly, it is respectfully prayed that the present application be decided and disposed off in light of the above facts.

Through



**MATRUGUPTA MISHRA/SWAGATIKA SAHOO/  
SUDHA REDDY/ SONAKSHI/  
NIPUN DAVE/ AKANKSHA V. INGOLE/  
VANSHIKA SARAF/KUSHAGRA KUNDAN/NAMAN PODDAR  
ADVOCATES FOR M/S. HYDERABAD INTEGRATED  
MSW LIMITED/RESPONDENT NO. 3**

**M/S RITAM LEGAL,  
ADVOCATES & ADVISORY,  
M-15, FIRST FLOOR  
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NEW DELHI – 110049  
Tel: (+91) 011-43552390-91  
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**PLACE: HYDERABAD  
DATE: 12.11.2025**

**BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE BENCH AT CHENNAI**

**O.A. NO. 93 OF 2025**

**IN THE MATTER OF:**

Pyaranagar Welfare and Development  
Association & Ors

**...APPLICANT**

**VERSUS**

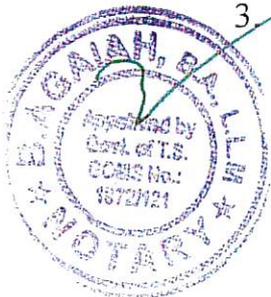
Greater Hyderabad Municipal  
Corporation & Ors.

**...RESPONDENTS**

**AFFIDAVIT**

I, Rajanala Rama Mohan Rao, S/o Veera Raghavaiah, aged about 65 years, R/o Plot No. 295, Road No. 5, Meenakshi Estates, Jeedimetla, K.V. Rangareddy, Telangana-500067 presently at Hyderabad, Telangana, working as Senior Advisor to CEO, at M/s. Hyderabad Integrated MSW Ltd., do hereby solemnly affirm and state as follows: -

1. That I am the authorized representative of the Respondent No.3 in the above-mentioned matter. I have been dealing with the matters relating to the above-mentioned case and I am conversant with the facts of the case.
2. I have read the Accompanying reply and I say that its contents are true to my knowledge and belief and based on records which are believed to be true and correct.
3. The annexure filed along with the Reply are true copies of their respective originals.



For HYDERABAD INTEGRATED MSW LTD.

**...DEPONENT Authorised Signatory**

**VERIFICATION:**

Verified on this the 12<sup>th</sup> day of November, 2025 at Hyderabad that the contents of the above affidavit are true and correct to the best of my knowledge and belief and no part of it is false and nothing material has been concealed therefrom.

For HYDERABAD INTEGRATED MSW LTD.



*[Handwritten Signature]*  
Authorised Signatory  
...DEPONENT



ATTESTED  
*B. Agaian*  
B. AGAIAN, B.A., LL.M.  
ADVOCATE / NOTARY  
Indra Reddy Aikya Colony,  
Miyapur, R.R. Dist. G.O.M.S. No. 1972/04  
My Commission Expires on 15-11-2024

12 NOV 2025

# Concession Agreement

Between



**Greater Hyderabad Municipal Corporation**

( acting through its authorized officer on this behalf)

And



Towards sustainable growth

**Ramky Enviro Engineers Ltd, Hyderabad**

For

**Integrated Municipal Solid Waste Management  
Project for the city of Hyderabad**

Andhra Pradesh

ARTICLE	CONTENTS	PAGE
<b>1</b>	<b>DEFINITIONS AND INTERPRETATION</b>	<b>4</b>
1.1	Definitions	4
1.2	Interpretation	13
<b>2</b>	<b>THE CONCESSION</b>	<b>14</b>
2.1	Scope of the Prject	14
2.2	Grant of Concession	16
2.3	Rights Associated with the Grants of Concession	16
2.4	Use of Suitable Technology	18
2.5	Use of Supplementary Fuel for Power Plant	18
2.6	Sale and Marketing of Products from Processing MSW	18
2.7	Concession Period	19
2.8	Renewal of Concession	19
2.9	Acceptance of Concession	19
2.10	Exclusivity of the Concession	19
<b>3</b>	<b>PROJECT SITE</b>	<b>20</b>
3.1	Vesting of Site with Concessionaire	20
3.2	Rights, Title and Use of the Site	20
3.3	Peaceful Possession	21
3.4	Applicable Approvals	21
<b>4</b>	<b>INDEPENDENT ENGINEER</b>	<b>22</b>
4.1	Procedure for Appointment & Scope of Independent Engineer	22
4.2	Payments to Independent Engineer	23
4.3	Replacement of the Independent Engineer	23
<b>5</b>	<b>CONCESSIONAIRE'S OBLIGATIONS</b>	<b>24</b>
5.1	Performance Bank Guarantee	24
5.2	Project Development fee	24
5.3	Financing Arrangements	24
5.4	Project Implementation: Construction of Project Facilities	26
5.5	Project Implementation: Operation and Maintenance	28
5.6	Insurance	30
5.7	Application of Insurance Proceeds	30
5.8	No Breach of Insurance Obligation	31
5.9	Environmental Clearance	31
5.10	Land Use	31
5.11	Primary Collection of MSW	32
5.12	Street Storage of MSW at Seconodary Collection Points	32



5.13	Transportation of Waste	32
5.14	Processing of Waste	33
5.15	Landfill Site	33
5.16	Post Closure Activities	34
5.17	Reclamation of Alternative Reuse of Existing Dump Sites	34
5.18	Measurement of MSW	34
5.19	Maintenance of Records & Operations Plan	35
5.20	Disposal of Hazardous Hazard	36
5.21	Sale/Distribution of Compost /Manure /Energy and Other Recyclables	36
5.22	Penalty for O&M Breach	37
5.23	Drawings	37
5.24	Repair and Maintenance work of the Plant	39
5.25	Additional Obligations of Concessionaires	39
5.26	Assignment of Concession to Special Purpose Company (SPC)	41
<b>6</b>	<b>GHMC's OBLIGATIONS</b>	<b>42</b>
6.1	Specific Obligations	42
6.2	General Obligations	44
6.3	No GHMC Taxes on Project Facilities	44
6.4	Covenant of Non-Interference by GHMC	44
<b>7</b>	<b>TIPPING FEE</b>	<b>45</b>
7.1	Tipping Fee	45
7.2	Mechanism of Payment during Term of Concession	47
<b>8</b>	<b>FORCE MAJEURE</b>	<b>48</b>
8.1	Non-Political Event	48
8.2	Indirect Political Event	49
8.3	Political Event	49
8.4	Duty to Report Force Majeure Event	50
8.5	Effect of Force Majeure Event on the Concession	50
8.6	Allocation of costs arising out of Force Majeure	51
8.7	Termination Notice for Force Majeure Event	52
8.8	Termination Payment for Force Majeure Event	52
8.9	Dispute Resolution	53
8.10	Excuse from Performance of Obligations	53
8.11	Change in Law	53



**SPECIAL COMMISSIONER**

**GREATER HYDERABAD MUNICIPAL CORPORATION**



<b>9</b>	<b>EVENTS OF DEFAULT &amp; TERMINATION</b>	<b>54</b>
9.1	Events of Default	54
9.2	Termination due to Event of Default	56
9.3	Rights of GHMC on Termination	59
9.4	Accrued Rights of Parties	60
<b>10</b>	<b>HANDOVER OF PROJECT FACILITIES</b>	<b>61</b>
10.1	Ownership during the term of Concession	61
10.2	Concessionaire's Obligations	61
10.3	GHMC's Obligations	62
<b>11</b>	<b>DISPUTE RESOLUTION</b>	<b>63</b>
11.1	Amicable Resolution	63
11.2	Arbitration	63
11.3	Performance During Dispute	64
<b>12</b>	<b>REPRESENTATIONS &amp; WARRANTIES</b>	<b>63</b>
12.1	Representations & Warranties of the Concessionaire	63
12.2	Representations & Warranties of GHMC	66
12.3	Obligation to Notify Change	66
<b>13</b>	<b>MISCELLANEOUS</b>	<b>67</b>
13.1	Assignments & Charges	67
13.2	Interest & Right of Set off	67
13.3	Governing Law & Jurisdiction	68
13.4	Waiver	68
13.5	Survival	68
13.6	Amendments	68
13.7	Notice	69
13.8	Severability	69
13.9	No Partnership	70
13.10	Language	70
13.11	Exclusion of Implied Warranties etc.	70
13.12	Counterparts	70
	<b>SCHEDULES</b>	
1	Details of Project Site	72
2	Construction Requirements	73
3	Operation and Maintenance Requirements	89
4	Performance Standards and Penalties	123
5	Performance Security	141
6	Scope of Work of Independent Engineer	146
7	Operational Plan	152

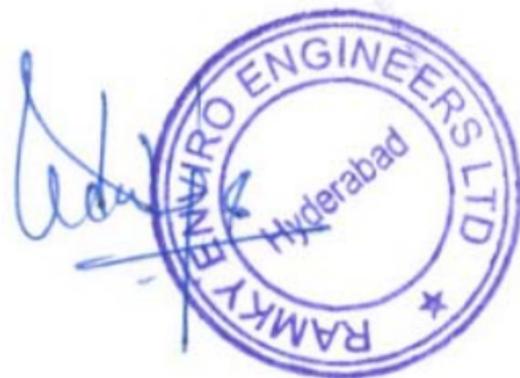


**ARTICLE****CONTENTS****21****PAGE**

8	List of Existing Assets	153
9	Copy of Agreements made between GHMC and Power Projects for Supply of MSW	154-168



**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**





ఆంధ్రప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

S 453460

*K. Rama Chandravathi*

Sl. No.: 74641 Date.: 08/10/2008. Rs.: 100/-  
 Sold To : T. Jeevan Kumar  
 S/o. : T. Mark R/o. Hyd.  
 To Whom: N/S. Ramky Enviro Engineers Ltd.

**K. RAMA CHANDRAVATHI**  
 STAMP VENDOR (L. No:27/99, RL.No. 16/2008),  
 6-3-387, Beside Banjara Durbar Hotel, Panjagutta  
 HYDERABAD - 500 082. Phone. No. 23351799

### CONCESSION AGREEMENT

THIS AGREEMENT made this 21<sup>st</sup> day of February, Two Thousand and Nine at Hyderabad, Andhra Pradesh, India.

#### BETWEEN

**Greater Hyderabad Municipal Corporation**, established under the Hyderabad Municipal Corporation Act, 1956. and having its registered office at Tank Bund, Hyderabad, acting through the Commissioner (hereinafter referred to as "**GHMC**", which expression shall, unless repugnant to the context or meaning thereof, mean and include its successors and assigns) of the ONE PART  
**AND**

**Ramky Enviro Engineers Limited**, a Company incorporated under the Companies Act, 1956 and having its registered office at Ramky House, Opposite Necklace Road Railway Station, Rajbhavan Road, Somajiguda, Hyderabad – 500082 (hereinafter referred to as "**Concessionaire**", which expression shall, unless repugnant to the context or meaning thereof, mean and include its associate/ group companies, successors and permitted assigns) of the OTHER PART

GHMC and Concessionaire are hereinafter referred to individually as the "**Party**" and collectively as the "**Parties**"

*[Signature]*  
 Greater Hyderabad Municipal Corporation  
 Commissioner & Special Officer,  
 Greater Hyderabad Municipal Corporation

*[Signature]*  
 Ramky Enviro Engineers Limited





ఆంధ్రప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

S 453461

*Joseph Chandravathi*

Sl. No. 14642 Date: 08/10/2008. Rs.: 100/-

Sold To : T Jeevan Kumar

S/o. : T. Mark R/o. Hyd.

To Whom : M/S. Ramky Enviro Engineers Ltd.

**K. RAMA CHANDRAVATHI**

STAMP VENDOR (L. No:27/99, RL.No. 16/2008),

6-3-387, Beside Banjara Durbar Hotel, Panjagutta

HYDERABAD - 500 082. Phone. No. 23351799

**WHEREAS,**

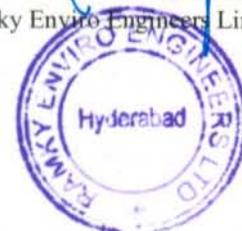
- GHMC is responsible for providing municipal and allied civic services, which include the collection, transportation, processing and disposal of Municipal Solid Waste (MSW) generated in the city. GHMC currently disposes the collected MSW in an unscientific manner of disposal.
- The Ministry of Environment and Forests (MoEF) under the aegis of Government of India (GoI), has formulated the Municipal Solid Waste (MSW) Rules 2000 ("MSW Rules"), which makes it mandatory for every civic body to implement a scientific solid waste management system through which MSW is duly processed and only waste that are not suitable either for recycling or for processing are disposed in an engineered sanitary landfill.
- GHMC is desirous of establishing a suitable mechanism to manage the collection, transportation, processing and disposal of MSW generated from the GHMC area by utilizing the scientific advancements in the field with a view to meet environment regulations and to improve public health & hygiene.
- With a vision to improve MSW management in the city of Hyderabad, GHMC is in the process of submission of DPR for obtaining grants under "Jawaharlal Nehru Urban

*[Signature]*  
Greater Hyderabad Municipal Corporation

Commissioner & Special Officer,  
Greater Hyderabad Municipal Corporation

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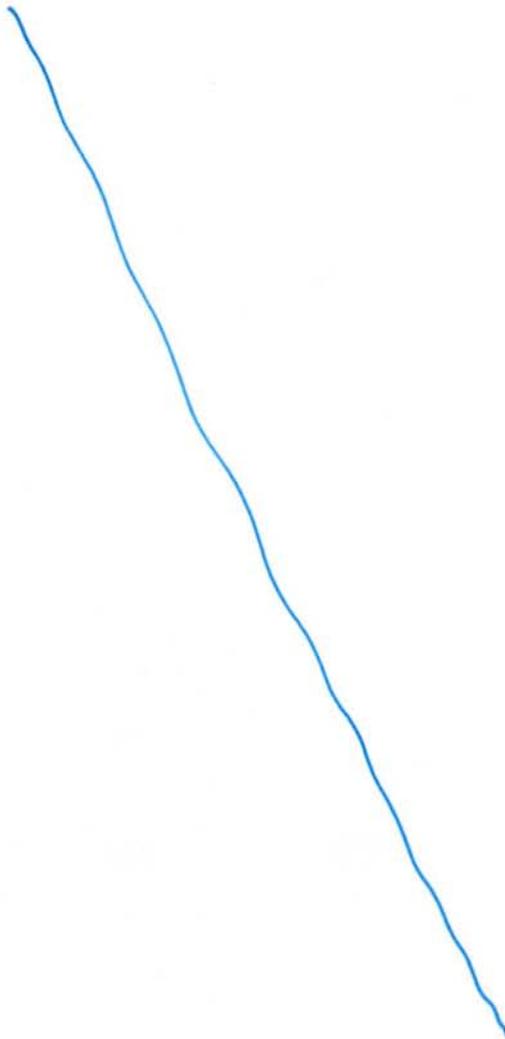
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Ramky Enviro Engineers Limited



Renewal Mission (JNNURM)" a program under the Ministry of Urban Development, Government of India.

**24**

- E. The objective of GHMC is to develop and implement a viable & environmentally sustainable integrated MSW management system in Hyderabad (defined as the "Project"). GHMC desires that its MSW management system shall be a 'model system' for the Country, which would scientifically collect, transport, process and dispose the MSW, have maximum recycling recovery, and create public awareness and participation through a Public Private Partnership (PPP) format.
- F. To achieve these objectives, GHMC has transparently procured and selected the Concessionaire.
- G. GHMC and Concessionaire hereto are required to enter into Concession Agreement being these presents to record the terms, conditions and covenants of the Concession.



Greater Hyderabad Municipal Corporation  
Commissioner & Special Officer,  
Greater Hyderabad Municipal Corporation

3

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## ARTICLE 1 DEFINITIONS AND INTERPRETATION

### 1.1. Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively ascribed to them hereunder:

“**Acceptance of Concession**” shall have the meaning ascribed thereto in **Clause 2.9**.

“**Access Road**” means the motorable approach road (minimum of 30 ft. wide) for the access to the site as detailed out in the **Schedule 2**.

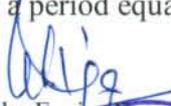
“**Additional Cost**” shall mean the additional capital expenditure and/or the additional operating costs or both as the case may be, which the Concessionaire would be required to incur as a result of Change in Law.

“**Adjusted Equity**” means the Equity funded in Indian Rupees and adjusted on the first day of the current month (the “Reference Date”), in the manner set forth below, to reflect the change in its value on account of depreciation and variations in WPI, and for any Reference Date occurring:

- a. On or before COD-T&D, the Adjusted Equity shall be a sum equal to the Equity funded in Indian Rupees and expended on the Project, revised to the extent of one half of the variation in WPI occurring between the first day of the month of Appointed Date and the Reference Date;
- b. From COD-T&D and until the 4<sup>th</sup> (fourth) anniversary thereof, an amount equal to the Adjusted Equity as on COD shall be deemed to be the base (the “Base Adjusted Equity”) and the Adjusted Equity hereunder shall be a sum equal to the Base Adjusted Equity, revised at the commencement of each month following COD to the extent of variation in WPI occurring between COD and the Reference Date; and
- c. After the 4<sup>th</sup> (fourth) anniversary of COD-T&D, the Adjusted Equity hereunder shall be a sum equal to the Base Adjusted Equity, reduced by 0.15% (zero point one five per cent) thereof at the commencement of each month following the 4<sup>th</sup> (fourth) anniversary of COD-T&D and the amount so arrived at shall be revised to the extent of variation in WPI occurring between COD-T&D and the Reference Date;  
For the avoidance of doubt, the Adjusted Equity shall, in the event of Termination, be computed as on the Reference Date immediately preceding the Transfer Date provided that no reduction in the Adjusted Equity shall be made for a period equal to the

  
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4

  
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duration, if any, for which the Concession Period is extended, but the revision on account of WPI shall continue to be made

“**Affected Party**” shall mean the party claiming to be affected by a force Majeure Event in accordance with the **Article 8**.

“**Agreement**” means this agreement between GHMC and Concessionaire, including its schedules and annexure and includes any amendments and hereto in accordance with the provisions hereof.

“**Applicable Approvals**” means all the authorizations, licenses, clearances, permits, no-objections, sanctions and consents as required by applicable Laws, to be procured by either GHMC or the Concessionaire in connection with the implementation of the Project.

“**Applicable Law**” shall mean all laws, Acts, ordinances, rules, regulations, notification & guidelines in force and effect, including MSW Rules, as of the date hereof and which may be promulgated or brought into force and effect hereinafter in India including judgments, decrees, injunctions, writs or orders of any court of record, as may be in force and effect during the period of subsistence of this agreement and applicable to the Project.

“**Appointed Date**” shall mean the date of this Agreement.

“**Arbitration Act**” shall mean the Arbitration and conciliation Act, 1996 of India and shall include any amendment to or any re-enactment thereof as in force from time to time.

“**Associates**” shall mean any company(ies) which is (are) controlled by the Concessionaire. For the purpose of this definition, the term “control” means the power to direct the management or policies of such entity, directly or indirectly, through the ownership of shares or other securities, by contract or otherwise, provided that the direct or indirect ownership of fifty one percent (51%) or more of its voting share capital is deemed to constitute control of such entity, and “controlled” shall be constructed accordingly.

“**Change in Law**” shall have the meaning ascribed thereto in **Article 8.11**.

“**Commercial Operation Date**” or “**COD**” means the date notified by Concessionaire as the date on which the Plant is ready to commence commercial operations after successfully completing the testing. The COD shall be for two parts:

- a. COD – C&T: For the collection and transportation system. This date shall be the date 180 days from the date of this Agreement; and

  
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5

  
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- b. COD – T&D: For the Treatment & Disposal facility at Jawaharnagar. This date shall be the date 2 (two) years from the date of this Agreement.

“**Composting**” shall mean a controlled process involving microbial decomposition of organic matter.

“**Concession**” means collectively all the rights granted by GHMC to the Concessionaire under this Agreement with respect to designing, developing, implementing, constructing, operating and maintaining the Project for collection, transportation, processing and disposal of the Municipal Solid Waste generated from within the MSW supply area and reclamation & reuse of existing dumpsites, subject to all the terms, conditions, covenants and obligations of this Agreement.

“**Construction Requirements**” shall mean collectively the waste processing facility construction requirements and the landfill facility construction requirements in line with minimum specifications given in Project Information Memorandum (PIM) of the RfP document.

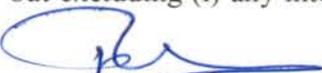
“**Construction Works**” shall mean all works and things required to be constructed by the Concessionaire, pursuant to the construction requirements and O&M Requirements.

“**Contractor**” shall mean any person with whom Concessionaire has entered into/may enter into any material contract in relation with the construction works and O&M Requirements.

“**Daily Weight Sheet**” shall have the meaning given to the term in **Clause 5.18(a)**.

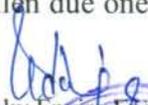
“**Debt Due**” means the aggregate of the following sums expressed in Indian Rupees or in the currency of debt, as the case may be, outstanding and payable to the Senior Lenders under the Financing Documents:

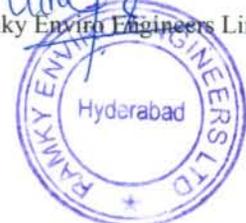
- a. The principal amount of the debt provided by the Senior Lenders under the Financing Documents for financing the Project (the “principal”) which is outstanding as on the Termination Date but excluding any part of the principal that had fallen due for repayment one year prior to the Termination Date unless such repayment had been rescheduled with the prior consent of GHMC; and
- b. All accrued interest (calculated at a rate of 2% above the prevailing medium term lending rate per annum for loans with 1 (one) year maturity as fixed from time to time by the State Bank of India), financing fees and charges payable on or in respect of the debt referred to in sub-clause (a) above upto the date preceding the Termination Date but excluding (i) any interest, fees or charges that had fallen due one year prior to the

  
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6

  
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Termination Date, and (ii) penal interest or charges, payable under the Financing Documents to any Senior Lender.

“DPR” shall mean Detailed Project Report of solid waste management component prepared under JNNURM scheme of GOI.

“Effective Date” means the date of signing of this Agreement.

“Emergency” shall mean conditions or situation that is likely to endanger the safety of the individuals on or about the Project Facilities or which poses an immediate threat of material damage to any of the Project Facilities.

“Encumbrances” means any encumbrance such as mortgage, charge, pledge, lien, hypothecation, security interest or other obligations and shall also include physical encumbrances, including utilities both under and above the ground and encroachments on the site.

“Event of Default” shall have the meaning ascribed thereto in Article 9.1.

“Excluded Waste” means waste material of the nature that the Project Facilities are not designed or authorized to receive, manage, process and dispose which includes Hazardous Waste and Bio-medical Waste.

“Financial Year” shall mean the period commencing from April 1 of any given year to March 31 of the subsequent year.

“Financing Documents” or “Financing Agreements” means the agreements executed by the Concessionaire in respect of financial assistance to be provided by the Senior Lenders by way of loans, guarantees, subscription to non-convertible debentures, bonds, and other debt instruments, security agreements, and other documents relating to the financing (including refinancing) of the Project.

“Force Majeure” or Force Majeure Event” shall mean an act, event condition or occurrence as specified in Article 8.

“GHMC Area” is the area officially delineated by the Government of Andhra Pradesh as part of Greater Hyderabad Municipal Corporation.

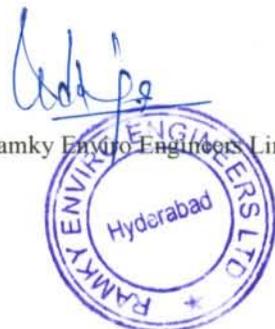
“GOAP” shall mean the Government of Andhra Pradesh.



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7



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“GOI” shall mean the Government of India.

“**Good Industry Practice**” means the practices, methods, techniques, designs, standards, skills, diligence, efficiency, reliability and prudence, which are generally and reasonably expected from a reasonably skilled and experienced operator engaged in the same type of undertaking as envisaged under this Agreement and which would be expected to result in the performance of its obligations by the Concessionaire in accordance with this Agreement, Applicable Law, and Applicable Approvals, in a reliable, safe, economical, and efficient manner.

“**Government Agency**” shall mean Gol, GoAP, GHMC or any State Government or governmental department, commission, board, body, bureau, agency, authority, instrumentality, court or other judicial or administrative body, central, state or local, having jurisdiction over Concessionaire, the Site/Project Facilities or any portion thereof, for the performance of all or any of the services or obligations of Concessionaire under or pursuant to this Agreement.

“**Hand Over of Project Facilities**” shall have the meaning ascribed thereto in **Article 10**.

“**Hazardous Waste**” shall have the meaning as defined under the Hazardous Wastes (Management and Handling) Rules, 1989 and as amended thereto.

“**Implementation Period**” shall mean the period from the Effective Date to COD.

“**Independent Engineer**” shall be a third party, which is either a company, corporation, partnership, joint venture, trust, unincorporated organization, government body or any other legal entity as may be nominated who shall be the nodal person for supervision and monitoring of compliance by Concessionaire with respect to the Construction Requirements and O&M Requirements, more particularly to undertake, perform, carry out the duties, responsibilities, services and activities set forth in the bid documents consisting of this Agreement and the RFP.

“**Land filling**” means the disposal of the Residual Inert Matter and Rejected Wastes at the Landfill Site in accordance with the terms of this Agreement.

“**Landfill Site**” means the existing landfill site for disposal of solid waste located at Jawaharnagar, Hyderabad, the location of which is indicated in the map in Schedule 1, and any other alternate or additional landfill site notified by GHMC as being available for disposal of MSW pursuant to this Agreement.



Greater Hyderabad Municipal Corporation

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8



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**“MSW” or “Municipal Solid Waste”** means solid waste generated by households, public services, agricultural activities, commercial establishments and industries and shall include Solid Waste, and Organic Waste, but shall not include the Excluded Wastes.

**“MSW Rules”** means the Municipal Solid Waste (Management and Handling) Rules, 2000 framed by the Government of India under the Environment (Protection) Act, 1986 (Act 29 of 1986) and includes any statutory Amendments/ modifications thereto for re-enactments thereof, for the time being in force.

**“Material Adverse Effect”** means a material adverse effect on (a) the ability of either Party to exercise any of the rights to perform / discharge any of its duties / obligations under and in accordance with the provisions of this Agreement and / or (b) the legality, validity, binding nature or enforceability of this Agreement.

**“Material Breach”** shall mean a breach by either Party of any of its obligations under this Agreement which has or is likely to have a Material Adverse Effect on the Project and which such Party shall have failed to cure.

**“O&M Requirements”** shall mean the requirements as to operation and maintenance of the Project Facilities set forth in **Schedule 3**.

**“Organic Waste”** means such type of Waste that can be degraded by microorganisms, but shall not include Excluded Wastes.

**“Parties”** shall mean the parties to this Agreement and **“Party”** shall mean either of them, as the context may admit or require.

**“Performance Security”** shall mean the guarantee for performance of its obligations to be furnished by Concessionaire in accordance with **Article 5.1**.

**“Person”** shall mean (unless otherwise specified or required by the context), any individual, company, corporation, partnership, joint venture, trust, unincorporated organization, government or government body or any other legal entity.

**“Plant”** shall mean the apparatus and machinery for carrying on the activities required for the Project, fixed or movable, but excluding consumables and premises.

**“Post Closure Activities”** shall mean the activities to be undertaken by Concessionaire after closure of landfill site.



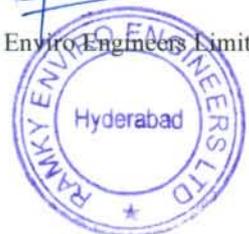
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9



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**“Power Plant”** means a power generation plant that will generate electricity by using the MSW/ RDF and / or Supplementary Fuel, as the case may be.

**“Preliminary Notice”** means the notice of intended Termination by the Party entitled to terminate this Agreement to the other Party setting out, inter alia, the underlying Event of Default.

**“Project”** means the project for enabling collection, transportation, processing and disposal of MSW and reclamation/ alternative use of existing dump sites and for that purpose to design, develop, finance, construct, operate and maintain the Plant, under and in accordance with the terms and provisions of this Agreement.

**“Project Completion Schedule”** means the progressive Project Milestones set forth in Clause 5.4 (m) for completion of the Project on or before COD – T&D;

**“Project Facilities”** means, as the context may require, either all or one or more of the following: (i) collection (ii) transportation, inclusive of transfer stations (iii) the Site (iv) the individual facilities comprising the Plant, namely the Compost Plant, RDF Plant, the Inert Management Facilities, (if Concessionaire decides to develop the same) and the Power Plant, and (v) the landfill and (vi) Reclamation works for alternative use of existing dump sites.

**“RDF”** means the solid fuel in the form of fluff or pellets/ briquettes that is produced by drying and separation of combustible fractions from the MSW meeting the requirements of the boiler to generate electricity through the turbine that will be part of the Power Plant.

**“RDF Plant”** means the Facility that will be constructed, operated and maintained as part of the Plant, for producing RDF from the MSW.

**“RFP”** shall mean Request for Proposal document issued by GHMC.

**“Readiness Certificate”** shall mean the certificate issued by Independent Engineer certifying, *inter-alia*, that Concessionaire has constructed all the facilities so as to enable receipt of Municipal Solid Waste Processing and Land filling, and the Concessionaire has obtained all approval necessary to receive the Municipal Solid Waste supplied by GHMC.

**“Residual Inert Matter”** means the waste matter obtained after processing of the MSW by each of the relevant Project Facilities.

**“Rupees or Rs”** refers to the lawful currency of the republic of India.



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10



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“**SPCB**” Shall mean State Pollution Control Board: specifically, Andhra Pradesh Pollution Control Board.

“**Senior Lender**” means the financial institutions, banks, multilateral lending agencies, trusts, funds and agents or trustees of debenture holders, including their successors and assignees, who have agreed to guarantee or provide finance to the Concessionaire under any of the Financing Agreements for meeting all or any part of the project cost and who hold parri passu charge on the assets, rights, title and interests of the Concessionaire.

“**Site**” means the land admeasuring about 320 Acres located at Jawahar Nagar, Hyderabad more particularly described in **Schedule 1**. The term ‘Site’ shall also include existing dump sites at located at Fathullaguda, Shamshiguda, and Gandhamguda, existing transfer stations sites located at Lower Tank Bund, Yousufguda, and Imliban and any new sites identified for development of transfer stations and treatment and disposal facilities that are subsequently handed over to the Concessionaire for the Project.

“**Successful Bidder**” shall mean the party selected by GHMC, through a competitive bidding process for implementing the Project as per Scope of Works defined in **Article 2.1**.

“**Supplementary Fuel**” shall mean any fuel as a supplement to the MSW to enrich the RDF and/or to directly support the operation of power plant.

“**Tax**” Shall mean and includes all taxes, fees, cess, levies that may be payable by the Concessionaire under Applicable Laws(s).

“**Term**” means the time period of 25 years from the date of COD - T&D and extendable thereafter on mutual agreement between the successful bidder and GHMC. Post closure period of the landfill is for 15 years after the expiry of the active landfill period i.e. 25 years.

“**Termination**” Shall mean early termination of this Agreement pursuant to Termination Notice or otherwise in accordance with the provisions of this Agreement but shall not, unless the context otherwise requires, include expiry of this Agreement due to efflux of time in the normal course.

“**Termination Date**” shall mean the date specified in the Termination Notice as the date on which Termination occurs / comes into effect.

“**Termination Notice**” Shall mean the notice of termination by either Party to the other Party, in accordance with the applicable provisions of this Agreement.

  
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**GREATER HYDERABAD MUNICIPAL CORPORATION**

  
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“**Termination Payment**” means the payments payable pursuant to **Article 9.2(f)** of this Agreement.

“**Tests**” shall mean the tests to be carried out in accordance with the Construction Requirements or the O&M Requirements and generally conform to the nature of construction & operation as per standard practice.

“**Tipping Fee**” shall mean the amounts payable by GHMC to Concessionaire, as set out in Article 7.

“**Vacant Possession**” means delivery to Concessionaire of possession of the lands constituting the Project sites free from all Encumbrances and the grant of all easement rights and all other rights appurtenant thereto.

“**Waste generators**” shall mean all residential, commercial establishments, institutions and other sources located within GHMC area and as defined in MSW Rules, 2000.

“**Weighbridge**” means the electronic weighbridge capable of performing the operations specified in **Article 5.18**.

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## 1.2 Interpretation

- a. The words, phrases and expressions defined hereinabove in **Clause 1.1** or defined elsewhere by description in this Agreement, together with their respective grammatical variations and cognate expressions shall carry the respective meaning assigned to them in the said **Clause 1.1** or in this Agreement and shall be interpreted accordingly. Expressions which have not been defined in this Agreement shall carry the respective meaning assigned to them in their ordinary applicability read in context with the manner of their usage in this Agreement or in their respective technical sense, as the case may be;
- b. All words singular shall be deemed to connote their respective plurals and vice-versa, unless the context suggests otherwise;
- c. The words “include” and “including” are to be construed without limitation;
- d. The heading of the clauses in this Agreement are merely for purposes of convenience and shall have no bearing on the interpretation of this Agreement;
- e. The schedules and annexures of this Agreement form an integral part of this Agreement and shall be in full force and effect as though they were expressly set out in the body of this Agreement.
- f. Any reference to any period commencing “from” a specified day or date and “till” or “until” a specified day or date shall include both such days or dates.



Greater Hyderabad Municipal Corporation

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13



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## ARTICLE 2 THE CONCESSION

### 2.1 Scope of the Project

The scope of the Project (the “Scope of the Project”) shall mean and include, during the Term of the Concession Period.

- a. **Primary & Secondary Collection:** To ensure waste collection from Waste Generators within GHMC Area, including primary and secondary collection, and transportation of waste upto transfer stations. Initially, the two zones for which the Concessionaire, shall be vested with this right and responsibility shall be the East Zone and West Zone of GHMC. The Concessionaire shall submit project implementation plan and the timelines for the remaining zones. The Independent Engineer shall assess the implementation in East and West zones to ascertain adherence to the performance standards as set out in Schedule 4. GHMC shall assess and review the same and subject to satisfactory performance by the Concessionaire, permit the Concessionaire to continue the services in East and West zones and extend the services to other zones in a phased manner, on the same terms and conditions as contained in this tender.
- b. **Transportation of MSW:** MSW generated in the GHMC Area and the silt collected from the street sweeping activity would be brought in at the transfer stations being operated and maintained by the Concessionaire and Concessionaire shall be required to transport the waste generated and the silt to the designated waste processing and disposal site(s). While, in the East and West Zones, the Concessionaire shall be responsible for transportation of the waste collected from the generators to the transfer stations, in the balance zones the transportation of the waste collected from the generators to the transfer stations or secondary collection points shall be carried out by GHMC till the time balance zones are handed over to the Concessionaire. For purposes of clarity, if certain zones (where GHMC is carrying out primary collection services) do not have transfer stations, GHMC shall transport the waste collected from the generators to the nearest transfer station or processing and disposal facility being operated and maintained by the Concessionaire.
- c. Providing bin-less waste collection system in GHMC in a phased manner as specified in this Agreement: To identify the location of secondary collection



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

14

Ramky Enviro Engineers Limited



points and to ensure storage of waste from Waste Generators by providing suitable storage system at such locations.

- d. **Upgrading, Operation & Maintenance and Management of Existing Transfer Stations:** located at Lower Tank Bund, Yousufguda, and Imliban.
- e. **Development of New Transfer Stations:** at existing disposal sites and other location in accordance with GHMC: Tentatively, these are proposed at Fathullaguda, Shamshiguda, Gandhamguda, Serilingampally and Kapra.
- f. **Recycle and Reuse of Wastes.**
- g. **Processing & Treatment of MSW:** To process MSW as per MSW Rules and other applicable regulations and to transport and dispose the Residual Inert Matter at the Landfill Site.
- h. **Development, Operation, Maintenance, and Management of integrated processing and disposal facility at Jawaharnagar:** Subsequently it is proposed to develop new facilities at Choutuppal (Nalgonda District), and Lakdaram (village) Patancheru Mandal (Medak District) and any others as identified by GHMC during the course of time.
- i. **Reclamation and Alternative Use of Existing Dump Sites:** at Jawaharnagar, Fathullaguda, Shamshiguda, and Gandhamguda.
- j. Fulfill all the obligations & requirements on behalf of GHMC as per the MOUs/ agreements signed by GHMC with the other developers operating waste processing and disposal facilities as indicated in the **Schedule 9**.
- k. **Information, Education, & Communication (IEC)** campaigns with the public and all stakeholders in GHMC Area to inculcate good MSW management practices, including recycling, and segregation.
- l. Interfacing with existing organized and unorganized waste-collection and management systems to ensure that there is a smooth and harmonious working of the systems.

The scope of the Project shall also include any and all other activities that are ancillary to the above mentioned scope of the Project

  
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15

  
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## 2.2 Grant of Concession

Subject to and in accordance with the terms and conditions set out in this Agreement, GHMC hereby irrevocably grants to Concessionaire exclusive right and authority, during the Term, to investigate, study, design, engineer, procure, finance (to the remaining extent after accounting for available Grants), construct, operate and maintain the Project Facilities and to exercise and/ or enjoy the rights, powers, benefits, privileges, authorizations and entitlements granted under this Agreement including:

- a. Collection of waste from Waste Generators within GHMC Area.
- b. Transportation of waste from secondary collection points to transfer stations and thereafter to the MSW processing facilities.
- c. To develop the sanitary Landfill Site during the Term of the project.
- d. To transport and dispose the Residual Inert Matter at the Landfill Site.
- e. To receive all the fiscal incentives and benefits accruing in respect of or on account of the Project including Certified Emission Reductions (CERs) under Clean Development Mechanism (CDM), and also benefits from sale of by products / recyclables.
- f. The present system permits collection and appropriation of Rs 25 from the individual households towards the service charge, excluding slum dwellers and households below poverty line and from commercial establishments as per the Guidelines issued by the Commissioner and Director of Municipal Administration and Urban Development Department vide letter no DO ROC . No 11299/2005/H2/2 dated 15-6-2005 . Concessionaire shall be permitted to collect this amount in the areas where the Concessionaire takes the responsibility of primary collection and necessary authorizations shall be issued by GHMC in this regard. However, amounts to be collected shall be in accordance with the amounts specified in the guidelines issued by the Commissioner, GHMC and Director of Municipal Administration, GoAP. Any upward revision of service charge, shall be done only with the prior approval of GHMC.

## 2.3 Rights Associated with the Grant of Concession

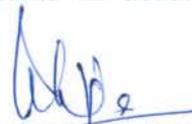
Without prejudice to the generality of foregoing, the Concession hereby granted to Concessionaire shall include without being limited to the following and shall entitle Concessionaire, without requiring any further authorization or authority from GHMC to enjoy, the following rights, privileges and benefits in accordance with the provisions of this Agreement and Applicable Laws:



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16



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- a. To design, engineer, finance, procure, construct, install, commission, operate and maintain each of the Project Facilities either itself or through such Person as may be selected by it;
- b. Upon commissioning of a Project facility, to manage, operate and maintain the same either itself or through such Person as may be selected by it, provided that the ultimate obligation and responsibility for the performance of this agreement shall continue to vest with the Concessionaire;
- c. To transfer the Project Facilities to GHMC at the end of the Term or on Termination, in accordance with the provisions of this Agreement;
- d. To borrow or raise money or funding required for the due implementation of the Project and mortgage, charge or create lien or encumbrance on the whole or part of the Project Facilities except the Site and immovable property created for Plant, and Landfill Site;
- e. To use, appropriate, process MSW at the Plant and dispose the Residual Inert Matter as per provisions of this Agreement and Applicable Law.
- f. To store, use appropriate, market and sell or dispose all the components/ products of the MSW, including but not limited to recyclables, electricity, methane, RDF, compost, Residual Inert Matter and to further retain and appropriate any revenues generated from the sale of such products/ by-products.
- g. To obtain the utilities required for enabling the construction of the Project Facilities, without any additional cost or charges, other than the applicable user charges for the utilities.
- h. Exclusively hold, possess, and control the Site, in accordance with the terms of the Concession Agreement for the purposes of the due implementation of this Project.
- i. To appropriate, possess and control and to further, at its sole discretion, utilize, renovate, modify, replace or demolish, free of any cost or charges or any liability for payment of compensation in respect thereof, all the buildings and structures and infrastructure that may be existing with reference to MSW management in the GHMC Area as of the date of this Agreement;
- j. To receive all the fiscal incentives and benefits accruing in respect of or on account of the Project including Carbon Credits/ Certified Emission Reduction (CERs) under Clean Development Mechanism (CDM).
- k. To sell power generated from the power plant to any buyer in accordance with Applicable Law.
- l. To utilize the existing infrastructure like dumper bins, vehicles, transfer stations, etc., on an 'as is where is' basis.



Greater Hyderabad Municipal Corporation

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**GREATER HYDERABAD MUNICIPAL CORPORATION**

17



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- m. To adopt the existing system and upgrade, modernize and make user-friendly over a period of time.

## 2.4 Use of Suitable Technology

GHMC desires that its SWM management system shall be a 'model system' for the Country, which would scientifically collect, transport, process and dispose off MSW, have maximum recycling and recovery, and create public awareness and participation. Without prejudice to the generality of the foregoing, Concessionaire shall have the right to develop the Project Facilities using such technology that it considers suitable and commercially viable for the purposes of implementing the Project, in accordance with terms of this Agreement and Applicable Law. It is acknowledged that it is the intention of Concessionaire to use the technology associated with the concept of an integrated waste processing plant, a process diagram of which is provided in **Schedule 7**, and that Concessionaire shall have the right to modify, adapt, upgrade or change the technology, from time to time, based on actual operations of the Plant and requirements of the Project.

## 2.5 Use of Supplementary Fuel for Power Plant

The Parties hereby agree that Concessionaire shall have the right to use, at such times as it may deem fit and at its own costs, any fuel as a supplement ("Supplementary Fuel") to the MSW to enrich the MSW/RDF and/or to directly support the operation of Power Plant.

## 2.6 Sale and Marketing of Products from Processing MSW

GHMC hereby confirms that Concessionaire shall be free to sell or otherwise dispose of any components of MSW and products derived or produced from the Plant as a consequence of undertaking the processing of the MSW including compost or electricity or RDF or fluff or gas or sludge or residual treated water or any other products or by-products, other material recovered or produced from MSW, without any interference or requirement of any additional reporting, clearance or approval in this regard from GHMC. Concessionaire shall have the right to sell or otherwise dispose such products, at such price and to such persons and using such marketing and selling arrangements as it may deem appropriate.



Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION**

18


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## 2.7 Concession Period

The Concession is granted to Concessionaire for a period of 25 years from the date of COD - T&D and extendable thereafter on mutual agreement between the Concessionaire and GHMC. Provided that in the event of Termination, the Concession Period shall end with the Termination Date. Concessionaire has certain post-closure obligations for the Landfill, which it shall continue to fulfill for 15 years after the expiry of the active landfill period of 25 years.

## 2.8 Renewal of Concession

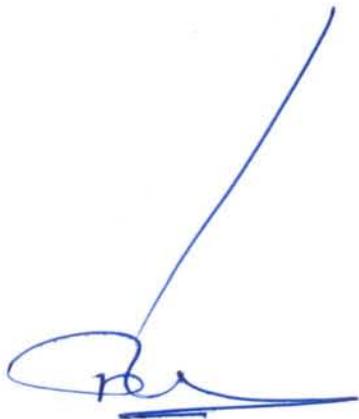
GHMC may agree to renew or extend the Concession after the expiry of the initial Term, for another period of twenty to twenty five years or such other period as may be mutually agreed to and on such terms and conditions as mutually agreed upon.

## 2.9 Acceptance of Concession

In consideration of the rights, privileges and benefits concurred upon Concessionaire, and other good and valuable consideration expressed herein, Concessionaire hereby accepts the Concession and agrees and undertakes to perform/ discharge all of its obligations in accordance with the provisions hereof.

## 2.10 Exclusivity of the Concession

The Concessionaire shall be the sole and exclusive person entitled to undertake the Project in the GHMC Area, and GHMC agrees that no agreement or arrangement permitting such activities by any other party shall be entered into by GHMC directly or indirectly during the Concession Period. Provided however, that the existing MoUs/ agreements of GHMC, as enclosed in schedule 7, vis-à-vis waste disposal shall continue to subsist.

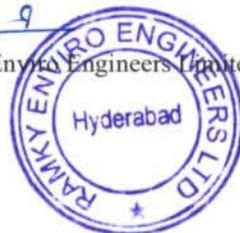


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**GREATER HYDERABAD MUNICIPAL CORPORATION**



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### ARTICLE 3 PROJECT SITE

#### 3.1 Vesting of Site with Concessionaire

GHMC shall license the Site to Concessionaire at a nominal license fee of Rs.1000/- (Rupees one thousand only) per annum for the Term. The license fee shall remain fixed for the entire Term and shall not be subject to any escalation. Furthermore, Concessionaire shall have the full right to regulate the entry into and use of the Site. GHMC hereby agrees that the land constituting the Site shall be vested with Concessionaire under a license, for the purposes of the development of the Project Facilities for enabling GHMC to discharge its functions of management, treatment, processing and disposal of MSW.

The Concessionaire shall submit details with respect to land requirement for development of processing and disposal facilities in the Implementation Plan . Upon finalization of the same, GHMC shall, within 24 (twenty four) months from the date of finalization of the Implementation Plan, handover to the Concessionaire on as-is-where-is basis, possession of the Site(s) for development of integrate processing an disposal facility at Lakdaram (village), Patancheru Mandal (Medak District) or any other sites as identified by GHMC, for the purpose of implementing the Project.

#### 3.2 Rights, Title and Use of the Site

- a. The Concessionaire shall have the right to the use of the Site in accordance with the provisions of this Agreement and for this purpose; it may regulate the entry into and use of the same by third Parties.
- b. The Concessionaire shall not part with or create any Encumbrance on the whole or any part of the Site save and except with the written consent of GHMC.
- c. The Concessionaire shall not, without the prior written approval of GHMC, use the Project Facilities for any purpose other than for the purpose of the Project and purpose incidental or ancillary thereto.
- d. The Concessionaire shall allow access to and use of the Site for laying/ installing/ maintaining telegraph lines, electric lines or for such other public purposes as GHMC may specify. Provided that such access or use shall not result in a Material Adverse Effect and that GHMC shall, in the event of any physical damage/ shifting of the Project Facilities on account thereof, ensure that the Project Facilities are promptly restored at cost and expense of GHMC.

Greater Hyderabad Municipal Corporation

20

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- e. GHMC will permit the Concessionaire to use the space available at the project facilities for display of advertisements duly following the advertising policy of GHMC.

### 3.3 Peaceful Possession

GHMC hereby warrants that:

- a. The Site together with the necessary right of way/way-leaves has been acquired through the due process of law and belongs to and is vested in GHMC and that GHMC has full powers to hold, dispose of and deal with the same; consistent and interlaid with the provisions of this Agreement and that the Concessionaire shall, in respect of the Site, have no liability regarding any compensation payment on account of land acquisition or rehabilitation/ resettlement of any Persons affected thereby.
- b. The Concessionaire shall, subject to complying with the terms and conditions of this Agreement, remain in peaceful possession and enjoyment of the whole Site during the Term and in the event the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Site or any part thereof or in the event of any enforcement action including any attachment, distraint, appointment of receiver or liquidator being initiated by any Person claiming to have any interest in/charge on the Site or any part thereof GHMC shall as called upon by the Concessionaire, defend such claims and proceedings at its costs and also keep the Concessionaire indemnified against any consequential loss or damages which the Concessionaire may suffer, on account of any such right, title, interest or charge.
- c. The Concessionaire is entitled to use all the existing project facilities of GHMC including permanent structures, vehicles, garbage stations, transfer stations, bins etc and maintain the same during the Term.

### 3.4 Applicable Approvals

The Concessionaire shall obtain and maintain the Applicable Approvals in such sequence as is consistent with the requirements of the Project. GHMC shall provide all necessary co-operation/ assistance for obtaining the permission. The Concessionaire shall be responsible to be in compliance with the terms and conditions subject to which Applicable Approvals have been issued.



Greater Hyderabad Municipal Corporation

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## ARTICLE 4 INDEPENDENT ENGINEER

### 4.1 Procedure for Appointment & Scope of Independent Engineer

Independent Engineer shall be a third party agency, appointed within 6 (six) months of this Agreement. The broad scope of nature of work of the Independent Engineer is set out in **Schedule 6**, but shall be refined after discussions between the GHMC and the Concessionaire.

GHMC shall invite expressions of interest from consulting engineering firms or bodies corporate and thereupon shortlist 5 (five) qualified firms in accordance with pre-determined criteria. GHMC shall convey the aforesaid list of firms to the Concessionaire for scrutiny and comments, if any. The Concessionaire shall be entitled to scrutinise the relevant records of GHMC to ascertain whether the selection of firms has been undertaken in accordance with the prescribed procedure and it shall send its comments, if any, to GHMC within 15 (fifteen) days of receiving the aforesaid list of firms. Upon receipt of such comments, if any, GHMC shall, after considering all relevant factors, finalise and constitute a panel of 5 (five) firms and convey its decision to the Concessionaire. GHMC shall select one firm as Independent Engineer from the above list, based on a transparent competitive bid process and a Quality and Cost based approach shall be adopted for the same.

The Independent Engineer shall be appointed for the Concession Period. The initial term of the Independent Engineer shall extend upto 3 (three) years. On expiry of the aforesaid period, GHMC may in its discretion renew the appointment, or appoint another firm from a fresh panel to be the Independent Engineer for a term of 3 (three) years, and such procedure shall be repeated after expiry of each appointment.

### 4.2 Payments to Independent Engineer

GHMC shall pay the Independent Engineer all fees, costs, charges and expenses payable to the Independent Engineer in accordance with the terms of its appointment (collectively "the Remuneration"). However, GHMC and Concessionaire shall share this expense equally on a 50:50 basis. GHMC shall recover the pro-rated costs from amounts payable to the Concessionaire.



Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION**

22



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### 4.3 Replacement of the Independent Engineer

- a. GHMC may, in its discretion, terminate the appointment of the Independent Engineer at any time, but only after appointment of another Independent Engineer in accordance with Clause 4.1.
- b. If the Concessionaire has reason to believe that the Independent Engineer is not discharging its duties and functions in a fair, efficient and diligent manner, it may make a written representation to GHMC and seek termination of the appointment of the Independent Engineer. Upon receipt of such representation, GHMC shall hold a tripartite meeting with the Concessionaire and Independent Engineer for an amicable resolution of the Dispute, and if any difference or disagreement between GHMC and the Concessionaire remains unresolved, the Dispute shall be settled in accordance with the provisions of the Dispute Resolution set out in Article 11. In the event that the appointment of the Independent Engineer is terminated hereunder, GHMC shall appoint forthwith another Independent Engineer in accordance with Clause 4.1.

Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION**

23

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## ARTICLE 5 CONCESSIONAIRE'S OBLIGATIONS

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, the Concessionaire shall have the following obligations:

### 5.1 Performance Bank Guarantee (PBG)

- a. The Successful Bidder shall, for due and punctual performance of its obligations hereunder relating to the Project, delivery to GHMC, a bank guarantee from a scheduled bank in the form as set out in **Schedule 5**, ("Performance Security") for a sum of Rs. 18,00,00,000 / - (Rupees Eighteen Crores only). The PBG has to be furnished by the Successful Bidder as per terms of the bid documents (along with acceptance of Letter of Intent) and the PBG has to be valid for a period of 120 days over and above the date of COD – T&D.
- b. The renewal of the PBG as and when required is to be done by the Concessionaire at least one month before the date of expiry of the existing PBG, failing which, GHMC would be entitled to revoke the PBG. Provided that if the Agreement is terminated due to any event other than a Concessionaire Event of Default, the PBG, if subsisting as on the Termination date shall, subject to GHMC's right to receive amounts at prevailing time, if any, due from Concessionaire under this Agreement, be duly discharged and released to Concessionaire within 30 days from the Termination Date.

### 5.2 Project Development Fee

The Concessionaire shall, simultaneous with the execution of this Agreement, pay to GHMC a non-adjustable, non-refundable project development charge of Rs. 3,00,00,000/ - (Rupees Three Crores only) by way of demand draft in favour of Commissioner, Greater Hyderabad Municipal Corporation payable at Hyderabad.

### 5.3 Financing Arrangements

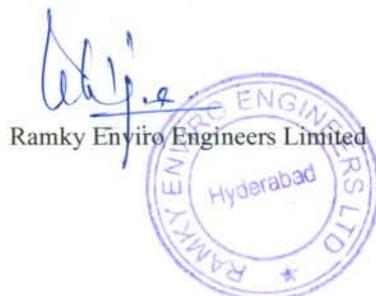
- a. The Concessionaire shall at its cost; expenses and risk make such financing arrangements as would, be necessary to implement the Project and to meet all of its obligations under this Agreement, in a timely manner.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

24



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- b. The Concessionaire shall, at its own costs endeavor to obtain the carbon credits for the project by adopting the greenhouse gas mitigation measures conforming with the specifications suggested and shall also carry out all such activities including preparation of design report under clean development mechanism. The Concessionaire shall enjoy the entire benefits of such carbon credits, accruing to the project during the Term. Further, any grants, subsidies etc., as may be applicable and sanctioned to the Project by any governmental agencies; NGOs etc., shall be availed by Concessionaire with the prior approval of GHMC.
- d. The project is eligible for grants under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) scheme of GoI. The grants for this project under this scheme are yet to be approved by GoI. The Concessionaire is entitled to receive the Grant under JNNURM scheme as may be approved for eligible components of this Integrated MSW Management project. The eligible Project cost under the JNNURM scheme as per the DPR prepared by GHMC is about Rs 500 Crores. It is to be noted that only 35% of the approved project cost will be funded by JNNURM, and 15% share by GoAP, and the same will be made available to the Concessaionaire. However, the Concessionaire has to make necessary arrangements for balance funds. Provided that the release of funds under JNNURM scheme is subject to Concessionaire following the DPR prepared under JNNURM and developing project components in accordance to the approved DPR. In case there is a change initiated by the Concessionaire, for whatever reason, leading to a decrease in disbursement under JNNURM, the Concessionaire shall be responsible for making necessary funding arrangements to the extent of such shortfall. The Concessionaire has to make best efforts, along with GHMC, to obtain the grants under JNNURM.

In the event the grants are not obtained under the JnNURM scheme GHMC would be responsible for providing equivalent grants contributing to 50% (35% of JnNURM + 15% of GoAP) of the eligible project cost.

Regarding disbursement of Grants by GHMC, upon receipt of Grants from JNNURM, the Grants shall be disbursed to the Concessionaire on a pro-rata basis in relation to the total cost incurred by the Concessionaire till such time for development of Project Facilities, and shall be duly certified by the Independent Engineer,. In the event of occurrence of a Concessionaire Event of Default, disbursement of Grant shall be suspended till such Concessionaire Event of Default has been cured by the Concessionaire.

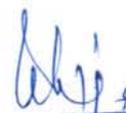


Greater Hyderabad Municipal Corporation

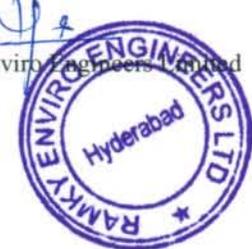
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25



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#### 5.4 Project Implementation : Construction of Project Facilities

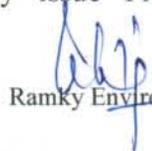
- a. Unless otherwise permitted by GHMC, no Construction Works shall begin until the Independent Engineer is in place and has assumed charge.
- b. The Concessionaire shall adhere to the Construction Requirements and the Project Completion Schedule and achieve COD on or before the dates specified in this Agreement.
- c. The Concessionaire shall adhere to all the Construction Requirements as per **Schedule 2** and shall adhere to the standards / guidelines for construction as per BIS, MSW Rules 2000 and other applicable standards / guidelines.
- d. The Concessionaire may undertake Construction Works by itself or through a Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Concessionaire shall solely responsible to meet the Construction Requirements.
- e. The Concessionaire shall, before commencement of construction of Project Facilities;
  - i. Have requisite organization and designate and appoint suitable officers/representatives as it may deem appropriate to supervise the Project, to interact with the Independent Engineer/ GHMC and to be responsible for all necessary exchange of information required pursuant to this Agreement;
  - ii. Construct, provide, and maintain a reasonably furnished site office accommodation for the Independent Engineer, at the Project Site.
- f. For the purposes of determining that Construction Works are being undertaken in accordance with the requirements, the Concessionaire shall with due diligence carry out all necessary and periodical Tests with advance intimation to the Independent Engineer who either in person or through his representative may choose to be present during the conduct of such tests. The Concessionaire shall maintain proper record of such Tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results and keep the Independent Engineer informed.
- g. All Tests shall be conducted in accordance with Construction Requirements. If the Tests are successful and the Project Facilities can be safely and reliably opened for operation, the Independent Engineer shall issue Readiness Certificate.
- h. Notwithstanding that certain works or things forming part of Construction Works are not complete, if following Tests, the Independent Engineer determines that the Project Facilities can be safely and reliably opened for operations, the Independent Engineer may issue Provisional Readiness



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

26




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Certificate to the Concessionaire. The Provisional Readiness Certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Engineer and the Concessionaire ("Punch List"). All Punch List items shall be completed by the Concessionaire within such time as may be determined by the Independent Engineer, not exceeding 90 (ninety) days of the date of issue of the Provisional Readiness Certificate. Upon satisfactory completion of all Punch List items, the Independent Engineer shall promptly and in any case within 15 days thereof, issue Readiness Certificate.

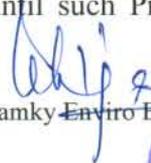
- i. If the Concessionaire fails to complete the Punch List items within the said period of 90 days, GHMC may, without prejudice to any other rights or remedy available to it under this Agreement, have such items completed at the risk and costs of the Concessionaire. The cost incurred by GHMC in completing the Punch List items, as certified by the Independent Engineer, shall be reimbursed by the Concessionaire to GHMC within 7 days from the date of receipt of a claim in respect thereof from GHMC. Thereupon, Independent Engineer may issue Readiness certificate.
- j. The Independent Engineer, may, by written notice, require the Concessionaire to suspend forthwith the whole or any part of the Construction Works, if in its reasonable opinion the same is being carried on in a manner that is not in conformity with the Construction Requirements, in case the same is not responded to within 7 (seven) days of such notice.
- k. The Project shall be deemed to be complete and ready to receive Municipal Solid Waste only when the Provisional Readiness Certificate or the Readiness Certificate is issued by the Independent Engineer in accordance with the provisions hereof.
- l. The processing and Disposal facility shall be deemed to be complete and ready to receive Municipal Solid waste only when the Readiness Certificate is issued by the Independent Engineer in accordance with the provisions thereof. Provided if COD is delayed beyond 90 days after the Scheduled COD – T&D, GHMC shall, subject to the provisions of **Article 9**, be entitled to terminate this Agreement and to appropriate the Performance Security.
- m. The Concessionaire shall construct the Project Facilities in accordance with the Project Completion Schedule set out in the table ("Table") below. In the event that the Concessionaire fails to complete any of the activities / milestones ("Project Milestones") within a period of 60 (sixty) days from the date set forth for such Project Milestone ("Scheduled Project Milestone Date") in the Table, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the GHMC, it shall pay damages ("Damages") to GHMC in a sum calculated at the rate of 0.1% (zero point one per cent) of the amount of Performance Security for delay of each day until such Project Milestone is



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

27



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achieved; provided further that in the event COD – T&D is achieved on or before 2 years from the date of this Agreement, the Damages paid under this Clause shall be refunded by GHMC to the Concessionaire, but without any interest thereon. For the avoidance of doubt, it is agreed that recovery of Damages under this Clause shall be without prejudice to the rights of GHMC under this Agreement, including the right of Termination thereof.

Project Milestone	Description of Milestones	Scheduled Project Completion Date (Days from Effective Date)
I	<ol style="list-style-type: none"> <li>1. Procurement of all the vehicles, equipment, machinery and implements in accordance with the Implementation Plan for providing collection and transportation services.</li> <li>2. Completed upgradation of the existing transfer stations located at Lower Tank Bund, Yousufguda, and Imliban and construction of new Transfer Stations in the Zones where Site(s) has been handed over by GHMC</li> </ol>	160 days
II	<ol style="list-style-type: none"> <li>1. Obtained all Applicable Permits for the Project including licenses, consents, exemptions, permissions and approvals from the government agencies concerned necessary or desirable for development of the Project Facility at Jawaharnagar and as required under Applicable Law. .</li> </ol>	180 days
III	<ol style="list-style-type: none"> <li>1. Completed provision of all the utilities such as water, power, internal roads, boundary wall, lighting facility, storm water drain and rain water harvesting at Jawaharnagar.</li> </ol>	365 days
IV	<ol style="list-style-type: none"> <li>1. Installed the plant and machinery including installation of electrical, mechanical and instrumentation facilities / utilities for the integrated processing at Jawaharnagar.</li> <li>2. Completed construction of landfill cell in all aspects to meet the landfilling requirements of atleast 1 (one) year of operations at Jawaharnagar.</li> <li>3. Completion of construction works for collection, storage and treatment of leachate.</li> </ol>	630 days

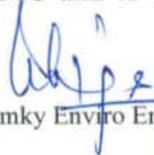
### 5.5 Project Implementation: Operation and Maintenance

- The Concessionaire shall operate and maintain the Project Facilities in accordance with the O&M Requirements.
- The Concessionaire may undertake operations and maintenance of the Project Facilities by itself or through a Contractor possessing requisite technical, financial and managerial expertise / capability; but in either case, the Concessionaire shall remain solely responsible to meet the O&M Requirements.
- The Concessionaire shall, for Operations and Maintenance;
  - Have requisite organisation and designate and appoint suitable officers/ representatives as it may deem appropriate to supervise the Project, to deal with the Independent Engineer/ GHMC and to be responsible for

  
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28

  
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- all necessary exchange of information required pursuant to this Agreement;
- ii. Construct, provide and maintain a reasonably furnished site office accommodation for the Independent Engineer, at the Project Site;
- d. For the purposes of determining that the Construction Works and Project Facilities are being maintained in accordance with the Construction Requirements and O&M Requirements, the Concessionaire shall with due diligence carry out all necessary and periodical Tests in accordance with the instructions and under the supervision of the Independent Engineer. The Concessionaire shall maintain proper record of such Tests and the remedial measures taken to cure the defects or deficiencies, if any, indicated by the Test results.
  - e. Conduct all Tests to ascertain compliance with Construction Requirements and O&M Requirements.
  - f. Suspend forthwith the whole or any part of the Construction Works upon receiving a written notice from the Independent Engineer, who may require the Concessionaire to suspend the activities in whole or part if in the reasonable opinion of the Independent Engineer, the operations are being carried on in a manner that is not in conformity with the O&M Requirements.
  - g. In the event the Concessionaire has failed to operate and maintain the Project in accordance with the O&M Requirements, and such failure has not been remedied despite a notice to that effect issued by the Independent Engineer or GHMC (“Notice to Remedy”), GHMC may, without prejudice to any of its other rights/remedies under this Agreement, be entitled to operate and maintain the Project or cause to repair and maintain the Project Facilities, under the supervision of Independent Engineer, at the risk and cost of the Concessionaire. The Concessionaire shall reimburse all costs incurred by GHMC on account of such operation and maintenance or repair and maintenance, and as certified by Independent Engineer, within 7 days of receipt of GHMC’s claim therefore.
  - h. The Concessionaire shall be deemed to be in material breach of O&M Requirements if the Independent Engineer acting reasonably and in accordance with the provisions of this Agreement, has determined that due to breach of its obligations by the Concessionaire:
    - i. There has been failure/undue delay in carrying out scheduled/planned maintenance or the scheduled/planned maintenance has not been carried out in accordance with the O&M Requirements;



- ii. The maintenance of the Project Facilities or any part thereof has deteriorated to a level which is below the acceptance level prescribed by the O&M Requirements;
- iii. There has been a serious or persistent let up in adhering to the O&M Requirements and thereby the Project Facilities or any part thereof is not safe for operations;
- iv. There has been persistent breach of O&M Requirements. For avoidance of doubt, persistent breach shall mean :
  - Any breach of O&M Requirements by the Concessionaire which has not been remedied by the Concessionaire despite a Notice to Remedy in respect thereof issued by the Independent Engineer/GHMC;
  - Recurrence of a breach by the Concessionaire, during the pendency of Notice to Remedy by the Independent Engineer/GHMC requiring the Concessionaire to remedy a breach, and
  - Repeated occurrence of a breach notwithstanding that earlier breaches have been remedied pursuant to Notice to Remedy or otherwise.

Upon occurrence of a material breach of O&M Requirements, GHMC shall, without prejudice to and notwithstanding any other consequences provided therefore under this Agreement, be entitled to terminate this Agreement.

## 5.6 Insurance

The Concessionaire shall at its cost and expense, purchase and maintain by due reinstatement or otherwise, during the Concession Period all insurances in respect of the Project Facilities in accordance with the Good Industry Practices. The Concessionaire shall maintain a register of entry in order of premiums paid towards the Project Facilities and proof of payments made shall be submitted to GHMC whenever requested for.

## 5.7 Application of Insurance Proceeds

Subject to the provisions of the Financing Documents and unless otherwise provided herein, the proceeds of all insurance policies received shall be promptly applied by Concessionaire towards repair, renovation, restoration or re-instatement of the Project



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

30



Ramky Environmental Engineers Limited  
Hyderabad

Facilities or any part thereof which may have been damaged or destroyed. The Concessionaire shall designate GHMC as the beneficiary for the assets under ownership of GHMC as per **Clause 10.1** and may designate the Senior Lenders as the beneficiaries for the assets under the Concessionaire ownership as per **Clause 10.1** or assign the insurance policies in their favor as security for the financial assistance provided by them to the Project. The Concessionaire shall carry such repair, renovation, restoration or re-instatement to the extent possible in such manner that the Project Facilities after such repair, renovation, restoration or re-instatement to the extent possible in the same condition as it were prior to such damage or destruction, normal wear and tear excepted.

### 5.8 No Breach of Insurance Obligation

If during the Term, any risk which has been previously insured becomes un-insurable due to the fact that the insurers have ceased to insure such a risk and therefore insurance cannot be maintained / re-instated in respect of such risk, Concessionaire shall not be in breach of its obligations regarding insurance under this Agreement.

### 5.9 Environmental Clearance

The Concessionaire shall, at all times, ensure that all aspects of the Project Facilities and processes employed in the construction, operation and maintenance thereof shall conform with the laws pertaining to environment, health and safety aspects including rules such as MSW Rules, policies and guidelines related thereto. The Concessionaire shall obtain and maintain from time to time all necessary clearances from the Pollution Control Board or any other similarly empowered Government Agency and for this purpose shall carry out the necessary environmental impact assessment studies and implement appropriate environment management plans in respect of the Project Facilities.

### 5.10 Land Use

The Concessionaire shall ensure optimum utilization of the Site and land available and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities, unless otherwise permitted under this agreement. For avoidance of doubt, any land given by GHMC to the Concessionaire for this project shall not be used for development of residential or commercial facilities or premises for rent, lease or similar purpose.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

31



Ramky Enviro Engineers Limited



### 5.11 Primary Collection of MSW

The Concessionaire shall be responsible for collection of MSW from all Waste Generators for door-to-door collection of MSW initially in the East and West zones of GHMC, which may be subsequently extended as specified in **Clause 2.1(a)**.

### 5.12 Street Storage of MSW at Secondary Collection Points

Concessionaire shall be responsible for providing desired number of road-side containers at secondary collection points to ensure segregated storage biodegradable (dry and wet), non-biodegradable, and toxic waste and achieve bin less system over a period of time as specified in **Schedule 3**. While this activity pertains to the East and West zone, it shall be subsequently extended as specified in **Clause 2.1(a)**.

Concessionaire shall adhere to operational standards for operation and maintenance of Secondary Collection Points. Concessionaire shall not be responsible for street sweeping and management of construction & demolition waste.

### 5.13 Transportation of Waste (Routing)

Concessionaire shall be solely responsible for transportation of waste to the Project Site in line with the guidelines for transportation of MSW, and Applicable Law. Concessionaire shall adhere to operational standards for operation and maintenance of the transportation system, as per guidelines and as well as applicable regulations indicated in **Schedule 3**.

Concessionaire shall ensure that all vehicles used for transportation of waste shall be fitted with automatic position identification systems using appropriate technology, which can enable the automatic tracking and recording of vehicle identification and movement data. This data shall be made available to the Independent Engineer.

Concessionaire shall supply MSW to other developers as per schedule on behalf of GHMC as per the MOUs signed by GHMC with the other developers operating waste processing and disposal facilities as indicated in the **Schedule 9**. In an event of failure on part of other developers to accept MSW being supplied, the Concessionaire shall be responsible for treatment and disposal of such MSW.

## 5.14 Processing of Waste

Without prejudice to the generality of the foregoing, Concessionaire shall have the right to develop the Project Facilities using such technology that it considers suitable and commercially viable for the purposes of implementing the Project, in accordance with terms of this Agreement and Applicable Law. It is acknowledged that it is the intention of Concessionaire to use the technology associated with the concept of an integrated waste processing plant, a process diagram of which is provided in **Schedule 7** and that Concessionaire shall have the right to modify, adapt, upgrade or change the Technology, from time to time, based on actual operations of the Plant and requirements of the Project.

## 5.15 Landfill Site

The Concessionaire shall carry out land filling, including carrying out of relevant tests, in accordance with O & M requirements. Concessionaire shall weigh the landfill waste prior to disposal of the same in the land fill facility. If during the term of the agreement, the available site is expected to fall short of the land fill requirements, then, the Concessionaire shall duly inform GHMC of the additional land requirement for Land fill at least two (2) year prior to the exhaustion of existing Land fill and GHMC shall handover additional land to the Concessionaire within 18 (eighteen) months of such intimation. Under such scenario Concessionaire shall close the exhausted land fill site in accordance with the applicable Rules/Laws formulated by appropriate authorities including but not limited to MSW Rules 2000.

Without prejudice to the generality of the foregoing, Concessionaire shall have the right to develop the Project Facilities using such Technology that it considers suitable and commercially viable for the purposes of implementing the Project, in accordance with terms of this Agreement. It is acknowledged that it is the intention of Concessionaire to use the Technology associated with the concept of an integrated waste processing plant, a process diagram of which is provided in **Schedule 7** and that Concessionaire shall have the right to modify, adapt, upgrade or change the Technology, from time to time, based on actual operations of the Plant and requirements of the Project.



### 5.16 Post Closure Activities

The Concessionaire shall maintain the capped and closed portion of the landfill as per the technical requirements and standards, and Applicable Law.

### 5.17 Reclamation and Alternative Reuse of Existing Dump Sites

The Concessionaire shall be responsible for reclamation and alternative use of the existing three dump Sites located at Fatullaguda disposal site, Shamshiguda disposal site, and Gandham guda disposal site in accordance to the specifications given in the annexed schedules. For avoidance of doubt, any land given by GHMC to the Concessionaire for this project shall not be used for development of residential or commercial facilities or premises for rent, lease or similar purpose. However, Concessionaire can utilize the land reclaimed from the existing dumpsites for development of parking facilities.

The Concessionaire shall, upon closure of the existing waste dumped by GHMC at the existing dump sites at Jawaharnagar, Fathullaguda, Shamshiguda, and Gandhamguda prepare a Base Line Report setting out the quality standards for ground and surface water, air and soil. The Base Line Report shall be prepared in adherence to the manual issued by Central Public Health & Environmental Engineering Organization (CPHEEO) and as per Applicable Laws. The Concessionaire shall ensure that there is no deterioration in the parameters set out in the Base Line Report. In an event of any legal proceedings on account of contamination with respect to parameters set out in the Base Line Report, GHMC shall as called upon by the Concessionaire, defend such claims and proceedings at its costs. In an event of any further deterioration in the parameters vis-à-vis those set out in the Base Line Report, the Concessionaire shall be responsible to defend such claims and proceedings at its costs.

### 5.18 Measurement of MSW

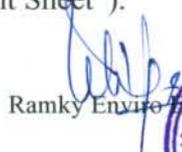
- a. For measurement of MSW, a Weighbridge will be constructed at each transfer station and the Site by Concessionaire. The Weighbridge shall have an electronic display unit and suitable technology, duly calibrated, having the maximum possible accuracy, to carry out the following operations:
  - i. Weigh the trucks to determine the weight of the consignment,
  - ii. Generate and maintain an electronic data base for each consignment during the day, as stated in sub-clause (i) above (such print out is hereinafter referred to as “Daily Weight Sheet”).



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

34




Ramky Enviro Engineers Limited  
Hyderabad

- iii. Provision of CCTV cameras shall be arranged at Weighbridge
- b. The Weighbridges shall be constructed, operated and maintained by Concessionaire.
- c. Each consignment to the transfer station and the Site shall be screened and weighed at the Weighbridge. Similarly, each consignment arriving at a treatment and disposal facility operated by other agencies on agreement with GHMC, shall be weighed and recorded at the respective facility. Concessionaire shall also keep a record of weight and volume of each empty delivery truck, in order to determine the density of the consignment.
- d. GHMC shall have the option to depute a responsible person from GHMC (“GHMC Representative”) to monitor the operations of the Weighbridges.
- e. The Weighbridges shall be monitored and inspected regularly to ensure due calibration and accuracy and any errors shall be rectified immediately.
- f. The Daily Weight Sheet shall be final and binding on the Parties.
- g. In the event the Weighbridge is not operational, the weight of the MSW delivered at the Site during such time shall be measured by an appropriate alternate arrangement established by Concessionaire and agreed to by GHMC, to weigh the MSW being delivered.

#### 5.19 Maintenance of Records & Operations Plan

The Concessionaire shall maintain records of the quantum (measured in tons) of waste reaching the transfer stations, Site, and other facilities under agreements with GHMC. The record shall comprise waste processed, rejects disposed to the Landfill Facility, daily counter checked by the Independent Engineer or his representative and provide monthly, quarterly and annual reports of the same to the Independent Engineer and GHMC along with any other sought by Independent Engineer/GHMC.

Concessionaire shall within 30 days of the appointment (“Effective Date”) also submit an operations plan to the Independent Engineer and to GHMC, in conformity with the guidelines indicated in **Schedule 3** (“Operations Plan”).

Within 15 days of receipt of Operations Plan from Concessionaire, the Independent Engineer shall review the Operations Plan also keeping in view the comments of GHMC, if any. The Independent Engineer should provide its observations/comments on the Operations Plan to Concessionaire within such specified period of 15 days, Concessionaire shall after discussions, finalise the Operations Plan after taking due considerations of comments/observations from the Independent Engineer. If Independent Engineer does not provide its comments within 15 days, Concessionaire



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

35

Ramky Enviro Engineers Limited



shall be entitled to go ahead with the proposed Operations Plan. Notwithstanding any review or failure to review the operations plan by the Independent Engineer or GHMC, Concessionaire shall be solely responsible for the adequacy of the Operations Plan and the conformity thereof with the guidelines for O & M Requirements, and the Concessionaire shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.

## 5.20 Disposal of Hazardous Waste

GHMC and Concessionaire hereby agree that at times, some hazardous waste may get mixed with MSW and as Concessionaires is not authorized to process/dispose of hazardous waste in the project, such hazardous waste shall be separated out from MSW and shall be handed over to GHMC for appropriate disposal/storage. Concessionaire shall inform GHMC of having found any such hazardous waste and it shall be GHMC' responsibility to collect and transport such hazardous waste from the site, within 24 hours of such information by Concessionaire. However, small quantities of domestic hazardous waste, which is unidentifiable/ inseparable, may be disposed of in the Landfill.

## 5.21 Sale/Distribution of Compost /Manure /Energy and Other Recyclables

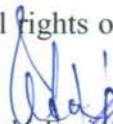
- a. The Concessionaire may adopt such processes and methods as it considers necessary or expedient for processing of MSW at the Project Facilities, subject to meet in the construction requirements and O & M requirements.
- b. The Concessionaire shall be free to sell or otherwise dispose of the recyclables, compost or organic manure, energy (Power) and other material recovered prior to or after processing the MSW, at such price and to such persons and using such marketing and selling arrangements and strategies as it may deem appropriate.
- c. The Concessionaire is free to choose the processing technologies/options in line with MSW Rules 2000 and is entitled to receive the revenues so generated through the products produced out of such processing like Compost, recyclables, energy/power, RDF, biogas, Carbon credits, metals etc and is entitled to have its own marketing tie up for the same.
- d. The Concessionaire is entitled to receive all the revenue that may be generated through Advertising using the movable, fixed assets of the Project including those transferred from GHMC, subject to the advertising policy of GHMC and Applicable Law.
- e. The existing three dumping sites shall be taken up for remediation, reclamation and alternative use by the Concessionaire, and all rights on such facilities will



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

36




Ramky Enviro Engineers Limited

be to the account of the Concessionaire, subject to Article 3 and Clause 5.10 of this Agreement.

## 5.22 Penalty for O&M Breach

The Concessionaire recognizes that the services under this Agreement constitute a public health issue and concerns the wellbeing and quality of life of the citizens. Accordingly, the Concessionaire shall perform the services with diligence and promptness, attend to customer complaints, and generally manage the MSW system of GHMC as a model for the Country. To ensure due performance and guard against performance breaches, **Schedule 4** sets out certain penalties for non-compliance to the O&M Requirements of this Agreement. GHMC shall start levying the penalties only after 6 (six) months from COD – C&T.

## 5.23 Drawings

### a. Preparation of Drawings

- i. The Concessionaire may, subject to the Construction Requirements, adopt with or without modifications the drawings made available by GHMC, if any, or adopt its own drawings. Provided that the Concessionaire shall in any event be solely responsible for the adequacy of the drawings.
- ii. If the Concessionaire proposes any modifications to the drawings made available by GHMC, if any, or submits alternate drawings or drawings in respect of any item for which no drawings are made available by GHMC, the same shall be subject to review by the Independent Engineer as hereinafter provided in **Clause (b)**.

### b. Review of Drawings

- i. The Concessionaire shall promptly and in such sequence as is consistent with the Construction Requirements, submit a copy of each of the drawings to the Independent Engineer and GHMC.
- ii. By forwarding the drawings to the Independent Engineer and GHMC pursuant to the preceding Clause (i), the Concessionaire shall be deemed to have represented that it has verified and determined that the drawings forwarded are in conformity with the Construction Requirements.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

37



Ramky Enviro Engineers Limited



- iii. Within 15 days of receipt of the drawings, Independent Engineer shall review the same taking into account, *inter-alia*, comments of GHMC, if any, thereon, and convey its comments/observations to the Concessionaire on the conformity of drawings with Construction Requirements. If the comments/observations of the Independent Engineer indicate that the drawings are not in conformity with the Construction Requirements, such drawings shall be revised by the Concessionaire to the extent necessary and resubmitted to Independent Engineer for further review. The Independent Engineer shall give its observations and comments, if any, within 15 (fifteen) days of receipt of such revised drawings, which shall be taken into account by the Concessionaire while finalising the drawings.
- iv. If, within the period stipulated in the preceding Clause (iii), the Independent Engineer does not respond to the drawings submitted to it by the Concessionaire the Concessionaire shall be entitled to proceed with the Project on the basis of such drawings submitted by it to the Independent Engineer, and intimate the same to GHMC. The same should be highlighted in the periodic reporting by the Concessionaire.
- v. Notwithstanding any review or failure to review by or the comments / observations of the Independent Engineer or GHMC, the Concessionaire shall be solely responsible for the adequacy of the drawings and their conformity with the Construction Requirements, and shall not be relieved or absolved in any manner whatsoever of any of its obligations hereunder.
- vi. The Concessionaire shall be responsible for delays in meeting the Construction Requirements caused by reason of any drawings not being in conformity with the Construction Requirements, and shall not be entitled to seek any relief in that regard from GHMC.
- vii. The Concessionaire shall in consultation with the Independent Engineer finalise an implementation schedule for the Project in accordance with the Construction Requirements as set out in **Schedule 2**.
- viii. Within 90 (ninety) days of issue of Readiness Certificate or Provisional Readiness Certificate, as the case may be, the Concessionaire shall furnish to GHMC three copies of "as built" drawings of the Construction Works which have been completed as on COD, in a manner as set out in Construction Requirements.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

38



Ramky Environmental Engineers Limited



## 5.24 Repair and Maintenance work of the Plant

Concessionaire shall have the right to suspend processing of MSW, if required, for undertaking maintenance or repair of any of the project facilities. Concessionaire shall however inform GHMC at least 1 week in advance of any planned repair or maintenance work of any of the project facilities that may result in the suspension of operations of the plant or a reduction in the capacity of the plant to process the MSW provided however, know such information would be required in the event of any unplanned repair or maintenance caused by any Emergency or any accident or any such unforeseeable event.

During such periods, Collection and Transportation of MSW shall be carried out as usual by Concessionaire and MSW may be temporarily stored at the site to be processed later.

## 5.25 Additional Obligations of Concessionaires

In addition to and without prejudice to the other obligations of Concessionaires specified in other provisions of this agreement, Concessionaire shall also discharge additional obligations:

### a. Development of Site

Concessionaire shall, after obtaining the vacant possessions of the Site in accordance with the provisions of the **Article 3** above and subject to the other provisions of this Agreement, commence development and improvement on the Site as required to implement the Project and to construct the Project Facilities in accordance with the provisions of this Agreement, including construction of internal roads at the site, fencing, greenery, etc. Concessionaire may use, free of any charge, any debris that may be available at the Site for constructing internal roads, as also the building/structures and infrastructure existing on the site.

### b. General Obligations/ Concessionaire Undertakings

The Concessionaire undertakes

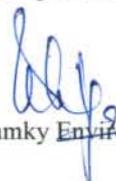
- i. To investigate, study, design, construct/renovate, operate and maintain the Project Facilities in accordance with the provisions hereof.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

39




Ramky Enviro Engineers Limited

- ii. To obtain all Applicable Approvals as required by or under the Applicable Law and be in compliance thereof at all times during the Term.
- iii. To comply with Applicable Law governing the operations of MSW processing units and engineered scientific landfills at all times during the Term.
- iv. To sell or otherwise dispose recyclables in a manner, which is not detrimental to the environment.
- v. To procure and maintain in full force and effect, as necessary, appropriate proprietary rights, licenses, agreements, permissions for materials, methods, processes and systems used in or incorporated into the Project.
- vi. To make efforts to maintain harmony and good industrial relations among the personnel employed in connection with the performance of its obligations under this Agreement and shall be solely responsible with all complaints with all labor laws and solely liable for all possible clients and employment related liabilities of its staff employed in relation with the project and hereby indemnifies GHMC against any clients, damages, expenses or losses in this regard that in no case and shall for no purpose shall GHMC be treated as employer in this regard.
- vii. To make its own arrangements for construction materials and observed and fulfill the environmental and other requirements under the Applicable Law and Applicable Approvals.
- viii. To be responsible for all the health, security, environment and safety related aspects of the Projects at all times during the Concession Period.
- ix. To ensure that the Project facilities remain free from all encroachments and take all steps necessary to remove encroachments, if any with the support/assistance from GHMC.
- x. Upon receipt of a request thereof, access to the Project Facilities to the authorized representatives of GHMC for the purpose of ascertaining compliance with the terms, covenants and conditions of this Agreement.
- xi. To pay all Taxes, duties and outgoings, including utility charges relating to the Project Facilities.

**c. Compliance to Environmental Laws**

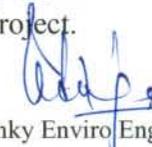
Concessionaire undertakes to establish a fully equipped laboratory to monitor the quality of Water, Air, Soil and impact of the Project.



Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION**

40



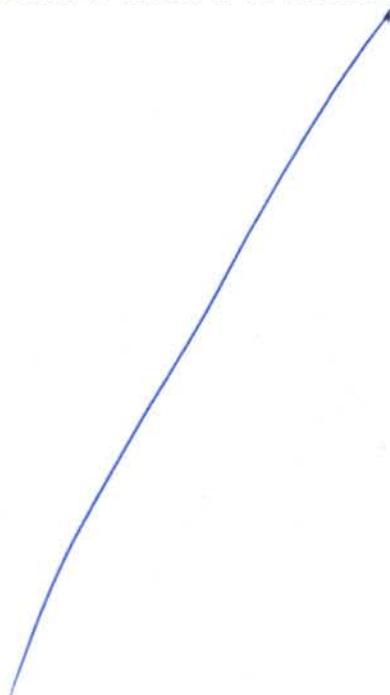

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Hyderabad

**d. Implementation Plan**

Concessionaire shall ensure that it undertakes the Construction and Commissioning of the plant in accordance with the implementation plan that shall be submitted to GHMC by Concessionaire within 180 (One Hundred and Eighty) days of the signing of Concession Agreement of the Concessionaire.

**5.26 Assignment of Concession to Special Purpose Company (SPC)**

In the event of Ramky Enviro Engineers Limited promoting and incorporating a SPC as a limited liability company under the Companies Act, 1956 within 6 (six) months of the Effective Date, Ramky Enviro Engineers Limited shall request GHMC to accept the SPC as the entity which shall undertake and perform the obligations and exercise the rights of the Concessionaire under the Agreement. Ramky Enviro Engineers Limited shall hold atleast 51% (fifty one percent) of the paid up capital of the SPC throughout the Concession Period. GHMC agrees that upon incorporation of the SPC, the SPC shall be treated as a permitted assign of Ramky Enviro Engineers Limited and shall, within 15 days, enter into a novation agreement with the SPC. The SPC shall be bound to adhere to all the terms and conditions of the Agreement.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

Ramky Enviro Engineers Limited



## ARTICLE 6 GHMC's OBLIGATIONS

In addition to and not in derogation or substitution of any of its other obligations under this Agreement, GHMC shall have the following obligations:

### 6.1 Specific Obligations

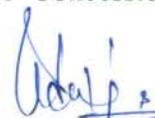
- a. GHMC shall grant in a timely manner all such approvals, permissions and authorizations which Concessionaire may require or is obliged to seek from GHMC under this Agreement, in connection with implementation of the Project and the performance of its obligations. Provided where authorization for availing permits for utilities such as power, water, sewerage, telecommunications or any other incidental services/utilities is required, the same shall be provided by GHMC within 120 (One Hundred and Twenty) days from receipt of request from Concessionaire to make available such authorization, subject to the conditions of the applications / details submitted being complete and correct.
- b. Without prejudice to the generality of **Clause 6.1 (a)** above, GHMC shall:
  - i. Recommend and forward to the relevant authority/ministry/department, any application of Concessionaire to obtain any Applicable Approval,
  - ii. Co-ordinate grant of the Applicable Approval with the relevant authority/ministry/department and assist Concessionaire in getting necessary clearances from the relevant authorities/ ministry/ departments.
  - iii. Ensure that the building plans for the Project Facilities at Site are duly and expeditiously approved by the concerned authorities under the relevant Acts/ building by-laws / other relevant by-laws or regulations.
- c. GHMC agrees, for the purposes of the Financing Documents, to intimate to the Senior Lenders by such notice as required under the Financing Documents:
  - i. Of the happening or likely happening of an Event of Default on the part of Concessionaire;
  - ii. Of the termination of this Agreement by GHMC;
  - iii. Of the occurrence, continuance and cessation of any force majeure cause; Or
  - iv. Other breach or default on the part of Concessionaire under this Agreement.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

42



Ramky Enviro Engineers Limited



- d. GHMC shall pay Tipping Fees to Concessionaire for collection, transportation, transfer station management, and transportation of waste from transfer station to processing facilities, processing of MSW, disposal of Residual Inert Matter to Landfill. The Tipping Fee shall be paid on a monthly basis equivalent to the amount calculated as per provisions of **Clause 7.1** and subject to necessary approval by the Independent Engineer.
- e. GHMC shall declare and maintain, or cause to declare and maintain, a no-development zone around the Site in accordance with Applicable Laws.
- f. Water, power and approach road to the Project Facility at Jawaharnagar, Hyderabad shall be provided by GHMC at applicable user charges.
- g. If during the Term of this Agreement, the available Site falls short of the actual Landfill requirements, then, upon request from Concessionaire for additional land and due recommendation by the Independent Engineer, GHMC shall provide additional land for development of Sanitary Landfill at a location within 60 km from the GHMC office at Tank Bund.
- h. GHMC hereby agrees that if there is any financial or tax benefits or otherwise in respect or on account of the Project (including but not limited to viability gap funding, carbon credits and tax benefits), they shall accrue directly and exclusively to, Concessionaire alone and not to GHMC and GHMC hereby undertakes that it shall not claim or file and application claiming such benefits to the prejudice of Concessionaire. GHMC agrees to facilitate the receipt of all such benefits by Concessionaire, whether on its own behalf or on behalf of GHMC and for the purpose to give all needed recommendations, no-objections, authorizations, etc.
- i. GHMC shall endeavor to dispose bio-medical waste and hazardous waste separately, in an environmentally benign way.
- j. GHMC endeavors to set up four integrated waste management facilities for safe disposal of municipal waste generated in the MSW supply area. The first facility is to be set up at Jawharnagar and as and when the land is available for the other three facilities, GHMC shall transfer the land to the Concessionaire for development of the integrated waste management facilities.
- k. GHMC shall handover the existing infrastructure like dumper bins, vehicles, transfer stations, etc., deployed in a Zone, on an 'as is where is' basis, to the Concessionaire within the time frames as set out in a handover plan finalized based on mutual consent.

Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

43

Ramky Enviro Engineers Limited



**6.2 General Obligations**

GHMC shall:

- a. Provide necessary support to Concessionaire in securing Applicable Approvals;
- b. Observe and comply with all its obligations set forth in this Agreement.
- c. Ensure timely payments to Concessionaire

**6.3 No GHMC Taxes on Project Facilities**

Having regard to the nature and importance of the Project aimed at reducing environmental pollution and being implemented in said discharge of the statutory liabilities and social responsibility of GHMC, it is agreed that for the purposes of this project, the Concessionaire shall be exempt from the levy, assessment and payment of all municipal taxes, levies, and property tax. In respect of the Project Facilities from the Effective Date until expiry of the Term and such exemption(s) shall also be applicable on all additional waste management facilities as allowed upon case to case basis by the Commissioner, GHMC.

**6.4 Covenant of Non-Interference by GHMC**

- a. GHMC covenants with Concessionaire that GHMC or any of its officers, employees or workmen shall not, at any time, during the Term of this Agreement interfere with or obstruct in the functioning, running and the overall management of the Project and in any matter in relation to or connected therewith.
- b. GHMC shall have no right, title or interest to the technology that would be used by Concessionaire in the development, operation and maintenance of the Project Facilities. GHMC agrees that any technology that may be employed by Concessionaire in the development, operation and maintenance of the Project Facilities would be proprietary technology obtained under specific license and GHMC hereby undertakes that it shall not violate or cause a breach of the license arrangements of Concessionaire for such technology.

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## ARTICLE 7 TIPPING FEE

### 7.1 Tipping Fee

Subject to the provisions of this Agreement and bid documents, and in consideration of Concessionaire accepting the Concession and undertaking to perform and discharge its obligations in accordance with the terms, conditions and covenants set forth in this Agreement, GHMC agrees and undertakes to pay to Concessionaire, the Tipping Fee, which shall be the only fee paid by GHMC to the Concessionaire for performing the services under this Agreement. The quoted Tipping Fee is Rs. 1431 per ton of MSW (also called as the base Tipping Fee) received and weighed at the gate of disposal facility. The total payment would be a product of number of tons of MSW received at the gate of the disposal facility and the Tipping Fee.

- a. The Concessionaire shall, on the 7<sup>th</sup> day of every month or in case the 7<sup>th</sup> day of a month is a holiday then on the following working day of such month, submit to Independent Engineer / GHMC a month fee statement.
- b. As the Tipping Fee covers three main components of work, break up of Tipping Fee for each of the component is given below:
  - i. Primary and secondary collection & transportation of waste upto transfer station: 40% of the Tipping Fee.
  - ii. Transfer station management and transportation of waste from transfer station to the processing facilities: 20% of the Tipping Fee.
  - iii. Treatment & disposal: 40% of the Tipping Fee.

The base Tipping Fee shall be increased annually, without compounding, by 5% thereof. For illustration, the base Tipping Fee of Rs 1431, would be Rs 1502.55 in the next year and Rs, 1574.10 in the year after and so on .

In addition to the annual revision, the applicable base Tipping Fee shall be adjusted and revised annually on April 1 of each year to reflect the variation in the Wholesale Price Index (WPI) occurring between the first week ending of January and the week ending on or immediately after January 1 of the year in which such revision is undertaken. The revision shall be undertaken such that on every 1st April every year (the date of revision”), the Tipping Fee applicable shall be adjusted and revised to reflect 60% rate of inflation occurring during the aforesaid period.

Greater Hyderabad Municipal Corporation

45

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The formula for determining the Tipping Fee due and payable shall be as Tipping Fee =  $z + \{z(WPIb/WPIa) - z\}0.6$

Where

z is the basic Tipping Fee approved

WPIb is the WPI of the week ending on or subsequent to January 1 of the year of revision.

WPIa is the WPI of the week ending first week of January for the year.

- c. In the event of allocation of other three new Sites to the Concessionaire by GHMC for establishment of processing and disposal facilities there would be no escalation in Tipping Fee to be paid by GHMC (for any of the components) if the sites are located within a distance of 60 Km from the center of the city – centre being recognized as GHMC office located at Tank Bund. However if the sites are located at distance greater than 60 km fee towards Transfer station management and transportation of waste from transfer station to the processing facilities (20% of the Tipping Fee) shall be increased on *pro-rata* basis of the distances involved.
- d. There shall be no escalation in the Tipping Fee incase of allocation of land by GHMC for establishing new transfer stations within the GHMC area
- e. It's the responsibility of the Concessionaire to fulfill all the obligations & requirements on behalf of GHMC as per the MOUs signed by GHMC with the other project developers treating/ disposing waste, as on date of issue of this tender notice. In the event such off takers do not accept the waste it would be the responsibility of the Concessionaire to provide additional facilities to meet the processing and disposal requirements of such quantities. Tipping Fee for the same would be paid as per the above quoted price for each ton (excluding the treatment and disposal component) of waste processed and disposed. However GHMC shall stabilize the offtake by other agencies and give a confirmed requirement of the quantity of waste that would be accepted by them within two years from the date of signing of this Agreement between GHMC and the Concessionaire.
- f. In the event of the GHMC Area being extended during the Concession Period, the Concessionaire shall fulfill all obligations and requirements under this Agreement for such extended area under the same terms and conditions. Provided that such extended areas shall be located within a distance of 60 km from the GHMC Office at Tank Bund.



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46



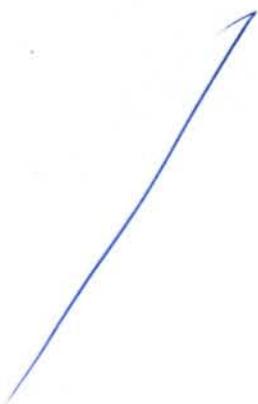
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**7.2 Mechanism of Payment during Term of Concession**

- a. Tipping Fees shall be paid to Concessionaire by GHMC within a period of 60 days from the date of submission of Monthly Statement by Concessionaire, duly certified by the Independent Engineer. If there is a delay in the payment beyond 60 days, GHMC shall pay an interest of 2% above the corresponding State Bank of India (Medium Term) Lending Rate.
- b. GHMC deduct/ withhold the following charges:
  - i. Statutory deductions, such as Income Tax and Service Tax.
  - ii. 10% of the Treatment Disposal revenues receivable from GHMC. This amount shall be held in escrow towards post-closure obligations. The mechanism shall be operated through an escrow account with a nationalized Bank. The amounts shall be utilized for the purpose of Post-Closure obligations only, and released to the Concessionaire in equal quarterly installments during Post-closure period, and to be detailed out in the escrow agreement with the bankers. In an event of Termination due to any reason whatsoever, the amounts in the escrow account will be appropriated by GHMC to be utilized towards post-closure obligations
  - iii. Any penalties for operational breaches, which is determined to be due and payable, as specified in **Schedule 4**.
  - iv. Any other recoveries under the terms of this Agreement.

All payments to the Concessionaire by GHMC shall be made by way of cheque payable at par at Hyderabad.



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## ARTICLE 8 FORCE MAJEURE

As used in this Agreement, the expression "Force Majeure" or "Force Majeure: Event" shall mean occurrence in India of any or all of Non-Political Event, Indirect Political Event and Political Event, as defined in **Clauses 8.1, 8.2 and 8.3** respectively, if it affects the performance by the Party claiming the benefit of Force Majeure (the "Affected Party") of its obligations under this Agreement and which act or event (i) is beyond the reasonable control of the Affected Party, and (ii) the Affected Party could not have prevented or overcome by exercise of due diligence and following Good Industry Practice, and (iii) has Material Adverse Effect on the Affected Party.

### 8.1 Non-Political Event

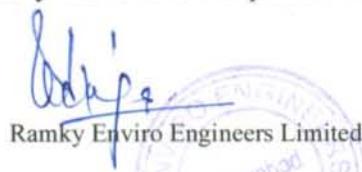
A **Non-Political Event** shall mean one or more of the following acts or events:

- a. Act of God, epidemic, extremely adverse weather conditions, lightning, earthquake, landslide, cyclone, flood, volcanic eruption, chemical or radioactive contamination or ionizing radiation, fire or explosion (to the extent of contamination or radiation or fire or explosion originating from a source external to the Site);
- b. Strikes or boycotts (other than those involving contractors, or their respective employees/representatives, or attributable to any act or omission of any of them) interrupting supplies and services to the Project for a continuous period of 24 (twenty four) hours and an aggregate period exceeding 7 (seven) days in an Accounting Year, and not being an Indirect Political Event set forth in **Clause 8.2**;
- c. Any failure or delay of a Contractor but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to Concessionaire, by, or on behalf of such Contractor;
- d. Any judgment or order of any court competent jurisdiction or statutory authority made against the Concessionaire in any proceedings for reasons other than (i) failure of the to comply with any Applicable Law or Applicable Permit, or (ii) on account of breach of any Applicable Law or Applicable Permit or of any contract, or (iii) enforcement of this Agreement, or (iv) exercise of any of its rights under this Agreement by the Government;
- e. The discovery of geological conditions, toxic contamination or archaeological remains on the Site that could not reasonably have been expected to be discovered through a site inspection; or



Greater Hyderabad Municipal Corporation

48



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- f. Any event or circumstances of a nature analogous to any of the foregoing.

## 8.2 Indirect Political Event

An indirect Political Even shall mean one or more of the following acts or events:

- a. An act of war (whether declared or undeclared), invasion, armed conflict or act foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage;
- b. Industry-wide or State-wide strikes or industrial action for a continuous period of 24 (twenty four) hours and exceeding an aggregate period of 7 (seven) days in an accounting Year;
- c. Any civil commotion, boycott or political agitation which prevents collection of Tipping Fee by Concessionaire for an aggregate period exceeding 7 (seven) days in an accounting Year;
- d. Any failure or delay of a Contractor to the extent caused by any Indirect Political Event and which does not result in any offsetting compensation being payable to Concessionaire by or on behalf of such Contractor; and
- e. Any Indirect Political Event that causes a Non-Political Event;

## 8.3 Political Event

A Political Event shall mean one or more of the following acts or events by or on account of any Government Instrumentality:

- a. Change in Law, only if consequences thereof cannot be dealt with under and in accordance with the provisions of the **Clause 8.11**;
- b. Compulsory acquisition in national interest or expropriation of any Project Assets or rights of Concessionaire or of the Contractors;
- c. Unlawful or unauthorized or without jurisdiction revocation of or refusal to renew or grant without valid cause, any clearance, license, permit, authorization, no objection certificate, consent, approval or exemption required by Concessionaire or any of the Contractors to perform their respective obligations under this Agreement and the Project Agreements; provided that such delay, modification, denial, refusal or revocation did not result from Concessionaire or any Contractor's inability or failure to comply with any condition relating to grant, maintenance or renewal of such clearance, license, authorization, no objection certificate, exemption, consent, approval or permit;

  
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- d. Any failure or delay of a Contractor but only to the extent caused by another Political, Event and which does not result in any offsetting compensation being payable to Concessionaire by or on behalf of such Contractor; or
- e. Any event or circumstance of a nature analogous to any of the foregoing.

#### 8.4. Duty to report Force Majeure Event

8.4.1 Upon occurrence of a Force Majeure Event, the Affected Party shall by notice report such occurrence to the other Party forthwith. Any notice pursuant hereto shall include full particulars of:

- a. The nature and extent of each Force Majeure Event which is the subject of any claim for relief under this **Article 8** with evidence in support thereof;
- b. The estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
- c. The measures which the Affected Party is taking or proposes to take for alleviating the impact of such Force Majeure Event; and
- d. Any other information relevant to the Affected Party's claim.

8.4.2. The Affected Party shall not be entitled to any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event not later than 14 (fourteen) days after the Affected Party knew, or ought reasonably to have known, of its occurrence, and shall have given particulars of the: probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement

8.4.3. For so long as the Affected Party continues to claim to be materially affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) reports containing information as required by **Clause 8.4.1**, and, such other information as the other Party may reasonably request the Affected Party to provide.

#### 8.5 Effect of Force Majeure Event on the Concession

Upon the occurrence of any Force Majeure Event prior to the Appointed Date, the period set forth for achieving Financial Close shall be extended by a period equal in length to the duration of the Force Majeure Event. At any time after the Appointed Date, if any Force Majeure Event occurs before COD, the Concession Period and the



Greater Hyderabad Municipal Corporation

50



Ramky Enviro Engineers Limited

dates set forth in the Project Completion Schedule shall be extended by a period equal in length to the duration for which such Force Majeure Event subsists;

### 8.6 Allocation of costs arising out of Force Majeure

Upon occurrence of any Force Majeure Event prior to the Appointed Date, the Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs thereof.

- a. Upon occurrence of a Force Majeure Event after the Appointed Date, the costs incurred and attributable to such event and directly relating to the Project the; "Force Majeure Costs") shall be allocated and paid as follows:
  - i. Upon occurrence of a Non-Political Event, the Parties shall bear their respective Force Majeure costs and neither Party shall be required to pay to the other Party any costs thereof;
  - ii. Upon occurrence of an Indirect Political Event, all Force Majeure costs attributable to such Indirect Political Event, and not exceeding the insurance cover for such Indirect Political Event, shall be borne by, and to the extent Force Majeure costs exceed such insurance cover, one half of such excess amount shall be reimbursed by the GHMC to Concessionaire; and
  - iii. Upon occurrence of a Political Event, all Force Majeure costs attributable to such Political Event shall be reimbursed by the GHMC to Concessionaire.
- b. For the avoidance of doubt, Force Majeure costs may include interest payments on debt, O&M Expenses, any increase in the cost of Construction Works on account of inflation and all other costs directly attributable to the Force Majeure Event, but shall not include loss of Tipping Fee revenues or debt repayment obligations, and for determining such costs, information contained in the Financing Documents may be relied upon to the extent that such information is relevant.
- c. Save and except as expressly provided in this **Article 8**, neither Party shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure event or exercise of any right pursuant hereto.



Greater Hyderabad Municipal Corporation



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**8.7. Termination Notice for Force Majeure Event**

If a Force Majeure Event subsists for a period of 180 (one hundred and eighty) days or more within a continuous period of 365 (three hundred and sixty five) days, either Party may in its discretion terminate this Agreement by issuing a Termination Notice to the other Party without being liable in any manner whatsoever, save, as provided in this **Article 8**, and upon issue of such Termination Notice, this Agreement shall, notwithstanding anything to the contrary contained herein, stand terminated forthwith; provided that before issuing such Termination Notice, the Party intending to issue the Termination Notice shall inform the other Party of such intention and grant 15 (fifteen) days time to make a representation, and may after the expiry of such 15 (fifteen) days period, whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

**8.8. Termination Payment for Force Majeure Event**

- a. If Termination is on account of a Non-Political Event, the GHMC shall make a Termination Payment to Concessionaire in an amount equal to 90% (ninety per cent) of the Debt Due less Insurance Cover for assets under Concessionaire ownership. The Concessionaire shall be entitled to withdraw the Performance Security, if subsisting.
- b. If Termination is on account of an Indirect Political Event, the GHMC shall make a Termination Payment to Concessionaire in an amount equal to:
  - i. Debt Due less Insurance Cover for assets under Concessionaire ownership; provided that if any Insurance claims forming part of the Insurance Cover are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall be included in the computation of Debt Due; and
  - ii. 110% (one hundred and ten per cent) of the Adjusted Equity.

The Concessionaire shall be entitled to withdraw the Performance Security, if subsisting.

- c. If Termination is on account of a Political Event, the GHMC shall make a Termination Payment to Concessionaire in an amount that would be payable under **Clause 9.2** as if it were a GHMC Default. The Concessionaire shall be entitled to withdraw the Performance Security, if subsisting.



Greater Hyderabad Municipal Corporation

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52



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### 8.9. Dispute Resolution

In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such Dispute shall be finally settled in accordance with the Dispute Resolution Procedure; provided that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

### 8.10. Excuse from Performance of Obligations

If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable .to perform on account of such Force Majeure Event; provided that;

- a. The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- b. The Affected Party shall make all reasonable efforts to mitigate or limit damage to the other party arising our of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- c. When the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party notice to that effect and shall promptly resume performance of its obligations hereunder.

### 8.11. Changes in Law

- a. Change in Law shall mean the occurrence or coming into force of any of the following, after the Appointed Date:
  - i. The enactment of any new Indian law;
  - ii. A change in the interpretation or application of any Indian law by a court of record
  - iii. Any order, decision or direction of a court of record.

Provided that Change in Law shall not include:

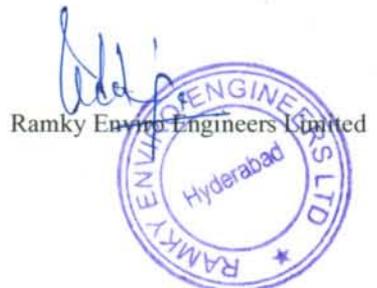
- i. Coming into effect, after the Appointed Date, of any provision or statute which is already in place as of the Appointed Date,



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**GREATER HYDERABAD MUNICIPAL CORPORATION**

53



Ramky Enviro Engineers Limited  
Hyderabad

- ii. Any new law or any change in the existing law under the active consideration of or in the contemplation of any government as of the Appointed Date which is a matter of public knowledge,
  - iii. Any change in the rates of the Taxes and introduction / levy of new Taxes.
- b. Subject to Change in Law resulting in Material Adverse Effect and subject to the Concessionaire taking necessary measures to mitigate the impact or likely impact of Change in Law on the Project, if as a direct consequence of a Change in Law, Concessionaire is obliged to incur Additional Costs, and GHMC shall subsequently reimburse to Concessionaire 50% of such Additional Costs, provided such Additional Cost in any manner as may be mutually agreed upon by Parties.
- c. Upon occurrence of a Change in Law, Concessionaire may, notify GHMC/the Independent Engineer of the following;
- i. The nature and the impact of Change in Law on the Project.
  - ii. In sufficient detail, the estimate of the Additional Cost likely to be incurred by Concessionaire on account of Change in Law.
  - iii. The measures, which Concessionaire has taken or proposes to take to mitigate the impact of Change in Law, including in particular, minimizing the Additional Cost.
  - iv. The relief sought by Concessionaire.
- d. Upon receipt of the notice of Change in Law issued by Concessionaire pursuant to preceding sub-clause, GHMC and Concessionaire shall along with the Independent Engineer hold discussions and take all such steps as may be necessary including determination by the Independent Engineer/GHMC of the quantum of the Additional Cost to be borne and paid by GHMC.
- e. GHMC shall within 30 days from the date of determination of quantum of Additional Cost, provide relief to Concessionaire in the manner as mutually agreed upon by the Parties.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

54



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## ARTICLE 9 EVENTS OF DEFAULT AND TERMINATION

### 9.1 Events of Default

Event of Default shall mean either Concessionaire Event of Default or GHMC Event of Default or both as the context may admit or require.

#### a. Concessionaire Event of Default.

Any of the following events shall constitute an Event of Default by Concessionaire ("Concessionaire Event of Default") when not caused by a GHMC Event of Default or Force Majeure Event:

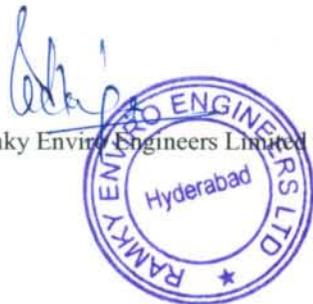
- i. Concessionaire is in breach of any of its material obligations leading to material adverse effect under this Agreement and the same has not been remedied for more than 60 days from the date of notice from GHMC seeking curing of the defect.
- ii. A resolution for voluntary winding up has been passed by the shareholders of Concessionaire.
- iii. Any petition for winding up of Concessionaire has been admitted and liquidator or provisional liquidator has been appointed or Concessionaire has been ordered to be wound up by Court of competent jurisdiction, except for the purpose of amalgamation or reconstruction, provided that, as part of such amalgamation or reconstruction and the amalgamated or reconstructed entity has unconditionally assumed all surviving obligations of Concessionaire under this Agreement.
- iv. The equity holding of the Concessionaire is not in line with Clause 5.26 at any point during the Term.
- v. The Concessionaire has failed to achieve any of the Project Milestones beyond 180 (one hundred and eighty) days of the respective Scheduled Project Milestone Date, as set in the Table in Clause 5.5 (m), for any reason whatsoever.
- vi. The Concessionaire has failed to achieve COD – T&D within 30 (thirty) months of the Effective Date for any reason whatsoever.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

55



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**b. GHMC Event of Default**

Any of the following events shall constitute an event of default by GHMC ("GHMC Event of Default") when not caused by a Concessionaire Event of Default or Force Majeure Event:

- i. GHMC is in Material Breach of any of its obligations under this Agreement and has failed to cure such breach within (sixty) days of receipt of notice thereof issued by the Concessionaire.
- ii. GHMC has unlawfully repudiated this Agreement or otherwise expressed its intention not to be bound by this Agreement.

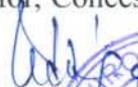
**9.2 Termination due to Event of Default****a. Termination for Concessionaire Event of Default**

- i. Without prejudice to any other right or remedy which GHMC may have in respect thereof under this Agreement, upon the occurrence of a Concessionaire Event of Default, GHMC shall, subject to the provisions of the "Substitution Agreement" (if any, with the Senior Lenders, pursuant to which, in case of Default by Concessionaire, Senior Lenders shall be allowed to take charge of Concessionaire's roles and responsibilities under this Agreement), be entitled to terminate this Agreement in the manner as set out under **Clause 9.2(a)(ii)**. Provided however that upon the occurrence of a Concessionaire Event of Default as specified under **Clause 9.1 (a)(iii)**, GHMC may terminate this Agreement by issue of Termination Notice in the manner set out under **Clause 9.2(c)**.
- ii. If GHMC decides to terminate this Agreement pursuant to preceding clause (i), it shall in the first instance issue Preliminary Notice to Concessionaire. Within thirty (30) days of receipt of the Preliminary Notice, Concessionaire shall submit to GHMC in sufficient detail and if applicable the manner in which *inter-alia* it proposes to cure the underlying Event of Default (the "Concessionaire Proposal to Rectify"). The same shall be reasonably considered by GHMC. In case of non-submission of Concessionaire Proposal to Rectify within the said period of 30 days, GHMC shall be entitled to terminate this Agreement by issuing Termination Notice, and to appropriate the Performance Security, if subsisting. In case Concessionaire has made a Proposal to Rectify within the period stipulated therefor, Concessionaire shall have



Greater Hyderabad Municipal Corporation

56




Ramky Enviro Engineers Limited  
Hyderabad

further period of 60 days to remedy/ cure the underlying Event of Default. If, however the Concessionaire fails to remedy/ cure the underlying Event of Default within such further period allowed, GHMC shall be entitled to terminate this Agreement, by issue of Termination Notice and to appropriate the Performance Security, if subsisting.

**b. Termination for GHMC Event of Default**

- i. Without prejudice to any other right or remedy which Concessionaire may have in respect thereof under this Agreement, upon the occurrence of a Concessionaire Event of Default, Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.
- ii. If Concessionaire decides to terminate this Agreement pursuant to preceding clause (i) it shall in the first instance issue Preliminary Notice to GHMC. Within 30 days of receipt of Preliminary Notice, if applicable, GHMC shall forward to Concessionaire its proposal to remedy/ cure the underlying Event of Default (the "GHMC Proposal to Rectify"). In case of non-submission of GHMC Proposal to Rectify within the period stipulated therefore, Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.
- iii. In case GHMC Proposal to Rectify is forwarded to Concessionaire within the period stipulated therefore, GHMC shall have further period of 45 days to remedy/ cure the underlying Event of Default. If, however GHMC fails to remedy/ cure the underlying Event of Default within such further period allowed, Concessionaire shall be entitled to terminate this Agreement by issuing Termination Notice.

**c. Termination Notice**

If a Party having become entitled to do so decide to terminate this Agreement pursuant to the preceding sub article (a) or (b), it shall issue Termination Notice setting out:

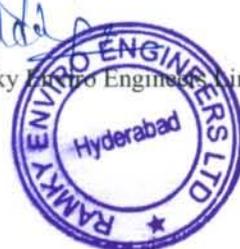
- i. In sufficient detail the underlying Event of Default;
- ii. The Termination Date which shall be a date occurring not earlier than 90 days from the date of Termination Notice;
- iii. The estimated termination payment including the details of computation thereof; and,
- iv. Any other relevant information.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

57

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The Parties hereby agree that any Termination Notice shall also be sent to all Senior Lenders , by registered post/courier and a public notice of default of the Concessionaire in leading daily newspaper (of both English and the prevalent local language) of Hyderabad.

**d. Obligation of Parties**

Following issue of Termination Notice by either Party, the Parties shall, subject to the provision of the Financing Documents and the rights of the Senior Lenders provided therein, promptly take all such steps as may be necessary or required to ensure that:

- i. Until Termination the Parties shall, to the fullest extent possible, discharge their respective obligations so as to maintain the continued operation of the Project Facilities.
- ii. The Termination Payment, if any, payable by GHMC in accordance with the sub-clause (f) is paid to Concessionaire on the Termination Date and
- iii. The Project Facilities are handed back to GHMC by Concessionaire on the Termination Date free from any Encumbrance along with any payment that may be due by Concessionaire to GHMC

**e. Withdrawal of Termination Notice**

Notwithstanding anything inconsistency contained in this Agreement, if the Party who has been served with the Termination Notice cures the underlying Event of Default to the satisfaction of the other Party at any time before the actual Termination occurs, the Termination Notice shall be withdrawn by the Party which had issued the same.

Provided that the Party in breach shall compensate the other Party for any direct costs/consequences occasioned by the Event of Default which caused the issue of Termination Notice or as mutually agreed upon by both parties.

**f. Termination Payments**

Upon Termination of this Agreement on account of GHMC Event of Default, the Concessionaire shall be entitled to the following termination payments in



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58



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addition to payment from GHMC that may have accrued to Concessionaire prior to the Termination:

**g. GHMC Event of Default:**

Upon Termination of this Agreement on account of GHMC Event of Default, the Concessionaire shall receive from GHMC,

Termination payment = Debt Due + 150% of Adjusted Value of the equity on Termination Date.

The Concessionaire shall be entitled to withdraw the Performance Security, if subsisting, provided that the Performance Security shall be withdrawn only after substitution of the Concessionaire in accordance with the provisions of Substitution Agreement, if any.

**h. Concessionaire Event of Default:**

Upon Termination on account of a Concessionaire Default after COD – T&D, GHMC shall pay to the Concessionaire, by way of Termination Payment, an amount equal to 90% (ninety per cent) of the Debt Due. For the avoidance of doubt, the Concessionaire hereby acknowledges that no Termination Payment shall be due or payable on account of a Concessionaire Default occurring prior to COD – T&D.

Upon Termination of this Agreement on account of Concessionaire Event of Default the Performance Security, if subsisting, shall be invoked by GHMC.

**9.3 Rights of GHMC on Termination**

- a. Upon Termination of this Agreement for any reason whatsoever, GHMC shall have the power and authority to:
- i. Enter upon -and take possession and control of the Project Facilities, Plant, and Site, forthwith free from any encumbrances;
  - ii. Prohibit Concessionaire and any person claiming through or under Concessionaire from entering upon dealing with the Project Facilities, Plant, and Site or permit as required for pending resolution of any issues to a limited number of representatives of Concessionaire.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

59



Ramky Enviro Engineers Limited



- b. Notwithstanding anything contained in this Agreement, GHMC shall not, as a consequence of Termination or otherwise, have any obligation whatsoever including but not limited to obligations as to compensation for loss of employment, continuance or regularization of employment, absorption or re-employment on any ground, in relation to any person in the employment of or engaged by Concessionaire in connection with the Project, and the handover of the Project Facilities by Concessionaire to GHMC shall be free from any such obligation.

#### 9.4 Accrued Rights of Parties

Notwithstanding anything to the contrary contained in this Agreement, Termination pursuant to any of the provisions of this Agreement shall be without prejudice to accrued rights of either Party including its right to claim and recover money damages and other rights and remedies which it have in law or contract. The rights and obligations of either Party under this Agreement, including without limitation those relating to the Termination Payment, shall survive the Termination but only to the extent such survival is necessary for giving effect to such rights and obligations.

Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

Ramky Environmental Engineers Limited



**ARTICLE 10**  
**HANDOVER OF PROJECT FACILITIES**

**10.1 Ownership during the term of Concession**

Without prejudice and subject to the Concession, the ownership of the Project Facilities, including all improvements made therein by Concessionaire, during the term of the Concession shall at all times remain as mentioned below:

- a. That of all immovable assets including site and civil structures created for compost plant, Project facility and landfill site shall remain with GHMC.
- b. That of all movable assets including equipments & machinery and vehicles shall remain with Concessionaire and in accordance with the Financing Documents and first prior charge to Senior Lenders privileges.

**10.2 Concessionaire's Obligations**

**a. Waste Processing Facility**

Concessionaire shall on the date of expiry of the agreement term, hand back on as-is where-is basis, peaceful possession of the Project facility to GHMC free of cost and free from all encumbrances and in good operable condition.

At least 12 months before the expiry of the term of agreement a joint inspection of the Project Facilities shall be undertaken by Independent Engineer/ GHMC and Concessionaire. Concessionaire shall promptly undertake and complete such works/ jobs as may be required by GHMC at least three months prior to the expiry of agreement term and ensure that the Project Facilities may continue to meet such requirements even after the same are handed back to GHMC.

**b. Landfill Facility**

At least 12 months before the expected expiry of the Landfill Life, the Parties jointly with the Independent Engineer shall, discuss and jointly prepare the closure plan for scientific closure of the Landfill Facility, under the provisions of the prevailing Applicable Law ("Closure Plan").



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

61



Ramky Enviro Engineers Limited



Upon the Closure of the landfill Facility, Concessionaire shall maintain the Landfill Facility in accordance with an appropriate Post-closure Maintenance Plan and hand back peaceful possession of the Landfill Facility to GHMC free of cost and in reasonable condition at the end of 15 (fifteen) years from the Closure of the landfill Facility.

**c. All Vehicles, Workshop, Offices, Communication Arrangements etc., and Immovable Infrastructure/ Facilities:**

On completion of the Agreement Term, unless it is extended, the Concessionaire will transfer all movable infrastructure and facilities including vehicles, equipment, workshop, offices, communication arrangements etc. and immovable infrastructure/ facilities to GHMC, in working condition and certified by Independent Engineer, free of cost.

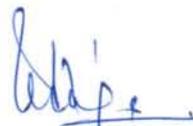
**10.3 GHMC's obligations**

GHMC shall, subject to GHMC's right to encash bank guarantees towards carrying out works/jobs listed under **Article 10.2**, which have not been carried out by Concessionaire, or any outstanding dues, which may have accrued in respect of the project during the Concession Period, duly discharge and release to Concessionaire any amounts / bank Guarantees due to Concessionaire.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**



Ramky Enviro Engineers Limited



## ARTICLE 11 DISPUTE RESOLUTION

### 11.1 Amicable Resolution

Save where expressly stated to the contrary in this agreement, any dispute, difference or controversy of whatever nature between the parties, howsoever arising under, out of or in relation to this Agreement (the "Dispute") shall in the first instance be attempted to be resolved amicably in accordance with the procedure set forth in **Clause (b)** below.

- a. Either Party may require such Dispute to be referred to the Commissioner, GHMC (or the Person holding charge) and the Chief Executive Officer of Concessionaire for the time being, for amicable settlement. Upon such reference, the two shall meet at the earliest mutual convenience and in any event within 15 days of such reference to discuss and attempt to amicably resolve the Dispute. If the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the two, either party may refer the Dispute to arbitration in accordance with the provisions of **Article 11.2** below.

### 11.2. Arbitration

#### a. Procedure

Subject to the provisions of **Article 11.1**, any Dispute which is not resolved amicably shall be finally settled by binding arbitration under the Arbitration and Conciliation Act, 1996. The arbitration shall be by a panel of three arbitrators, one to be appointed by each Party and the third to be appointed the two arbitrators appointed by the Parties. The Party requiring arbitration shall appoint an arbitrator in writing, inform the other Party about such appointment and call upon the other party to appoint its arbitrator. If within 30 days of receipt of such intimation, the other Party fails to appoint its arbitrator, the Party seeking appointment of arbitrator may take further steps in accordance with Arbitration Act.

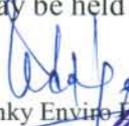
#### b. Place of Arbitration

The request for arbitration shall ordinarily be Hyderabad but by agreement of the Parties, the arbitration hearings, if required, may be held elsewhere.

  
Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION**

63

  
Ramky Environmental Engineers



**c. Language**

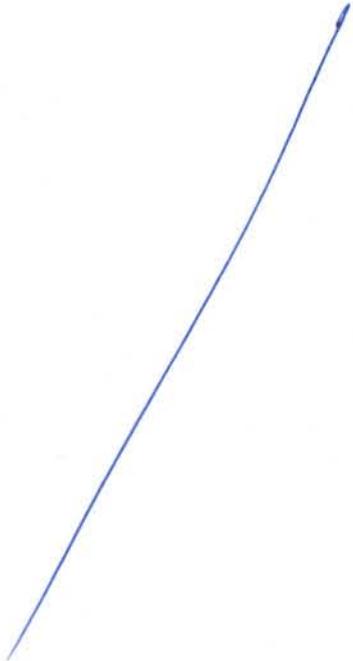
The request for arbitration, the answer to the request, the terms of reference, any written submissions, any orders and awards shall be in English and, if oral hearings take place, English shall be the language to be used in the hearings.

**d. Enforcement of Award**

The Parties agree that the decision or award resulting from arbitration shall be final and binding upon the Parties and shall be enforceable in accordance with the provisions of the Arbitration Act subject to the rights of the aggrieved parties to secure relief from any higher forum.

**11.3. Performance During Dispute**

Pending the submission of and/or decision on a Dispute and until the arbitral award is published; the Parties shall continue to perform their respective obligations under this Agreement without prejudice to a final adjustment in accordance with such award.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

Ramky Enviro Engineers Limited



## ARTICLE 12 REPRESENTATIONS AND WARRANTIES

### 12.1 Representations and Warranties of Concessionaire

Concessionaire represents and warrants to GHMC that:

- a. It is duly organized, validity existing and in good standing under the laws of India;
- b. It has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- c. It has taken all necessary corporate and other action under Applicable laws and its constitutional documents to authorize the execution, delivery and performance of this Agreement;
- d. It has the financial standing and capacity to undertake the Project;
- e. This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- f. The execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under or accelerate performance required by any of the terms of Concessionaire's 'Memorandum and Articles of Association' or any of the Applicable laws or any covenant, agreement, understanding, decree or order to which it is a party or by which it or any of its properties or assets are bound or affected;
- g. There are no actions, suits, proceedings or investigations pending, or to Concessionaire's knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi judicial or other authority, the outcome of which may constitute Concessionaire Event of Default or which individually or in the aggregate may result in Material Adverse Effect;
- h. It has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Government Agency which may resulting Material Adverse Effect;
- i. It has complied with all Applicable Laws and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have Material Adverse Effect;
- j. Without prejudice to any express provision contained in this Agreement, Concessionaire acknowledges that prior to the execution of this Agreement, Concessionaire has after a complete and careful examination made an independent evaluation of the required Project Facilities and the information

  
Greater Hyderabad Municipal Corporation

65

  
Ramky Enviro Engineers Limited

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**



provided by GHMC, and has determined to its satisfaction the nature and extent of risks and hazards as are likely to rise or may be faced by Concessionaire in the course of performance of its obligations hereunder;

- k. Concessionaire also acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth above and hereby confirms that GHMC shall not be liable for the same in any manner whatsoever to Concessionaire;
- l. Concessionaire agrees to indemnify and hold indemnified the GHMC against all cost, expenses, penalties arising out of:
  - i. Operations of the project facilities under this Agreement.
  - ii. Compliance with all labor laws and all possible claims and employment related liabilities of its staff employed in relation with the project.

## 12.2 Representations and warranties of GHMC

GHMC represents and warrants to Concessionaire that:

- a. That it is duly incorporated under the laws of India and has the power to conduct its business as presently as presently conducted and to enter into this Agreement;
- b. That it has full power, capacity and authority to execute, deliver and perform this Agreement and has taken all necessary sanctions and approvals and followed all the procedure required to authorize the execution, delivery and performance of this Agreement;
- c. Nothing in this Agreement conflicts with its constitutional authority, mandate, or any law or any other agreement, understanding or arrangement or any judgment, decree or order or any statute, rule or regulation applicable to it;
- d. All approvals and permissions as are necessary for the execution of this Agreement have been obtained and all the required procedure for the due execution of this Agreement have been adhered to and further that this Agreement will be valid, legal and binding against it under the Indian law.

## 12.3 Obligation to Notify Change

In the event that any of the representations or warranties made/ given by a Party ceases to be true or stands changed, the Party who had made such representation are given such warranty shall promptly notify the other of the same.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

66



Ramky Enviro Engineers Limited



### ARTICLE 13 MISCELLANEOUS

#### 13.1 Assignment and Charges

- a. Concessionaire shall not assign in favor of any person this Agreement or the rights, benefits and obligations hereunder save and except with prior consent of both GHMC & Senior Lenders.
- b. Concessionaire shall not create nor permit to subsist any Encumbrance over the Project Facilities except with prior consent in writing of GHMC and Senior Lenders.
- c. Restraint set forth in clauses (a) and (b) above shall not apply to :
  - i. Liens/ encumbrances arising by operation of law (or by an Agreement evidencing the same) in the ordinary course of business of Concessionaire.
  - ii. Pledges/ hypothecation of goods/ stocks/ movable assets, Revenue and receivables as security for indebtedness, in favor of the Senior Lenders and working capital providers for the Project.
  - iii. Assignment of Concessionaire's rights and benefits under this Agreement to or in favour of the Senior Lenders as security for financial assistance provided by them.

#### 13.2 Interest and Right of Set Off

Any sum which becomes payable under any of the provisions of this agreement by one Party to the other Party shall, if the same be not paid with in the time allowed for payment thereof, shall be deemed to be a debt owned by the Party responsible for payment thereof to the Party entitled to receive the same. Such sum shall until payment thereof carry interest at prevailing prime lending rate of State bank of India per annum from the due date for payment hereof until the same is paid to or otherwise realized by the Party entitles to the same. Without prejudice to any other right or remedy that may be available under this Agreement or otherwise under Law, the Party entitled to receive such amount shall also have the right of set off.

Provided the stipulation regarding interest for delayed payments contained in this **Article 13.2** shall neither be deemed nor construed to authorized any delay in payment of any amount due by a party nor be deemed or construed to be a waiver of the underlying breach of payment obligation.

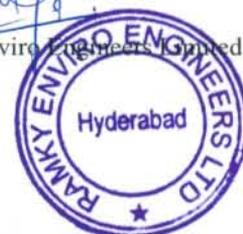


Greater Hyderabad Municipal Corporation

67

Ramky Enviro Engineers Limited

**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**



### 13.3 Governing Law and Jurisdiction

This agreement shall be governed by the laws of India. The Courts at Hyderabad shall have jurisdiction over all matter arising out of or relating to this Agreement.

### 13.4 Waiver

Waiver by either party of any default by the other party in the observation and performance of any provision of or obligation under this Agreement:

- a. Shall not operate or be construed as a wavier of any other or subsequent default hereof or of other provisions or obligation under this agreement;
- b. Shall not be effective unless it is in writing and executed by a duly authorized representative of such Party; and
- c. Shall not affect the validity or enforceability of this agreement in any manner.

Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this agreement or any obligation hereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver/ breach of any terms, conditions or provisions of this Agreement.

### 13.5 Survival

Termination of this agreement shall not relive GHMC of any obligations already incurred hereunder which expressly or by implication survives Termination hereof, and expect as otherwise provided in any provision of this agreement expressly limiting the liability of either party, shall not relieve either party of any obligations or liabilities for loss or damage to the other party arising out of or caused by acts or omissions of such party prior to the effectiveness of such termination or arising out of such termination.

### 13.6 Amendments

This Agreement and the Schedules/ Annexures together constitute a complete and exclusive understanding of the terms of the Agreement between the parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless agreed to by all the parties hereto and evidenced in writing.



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**

**GREATER HYDERABAD MUNICIPAL CORPORATION**

68



Ramky Enviro Engineers Limited



**13.7 Notice**

Unless otherwise stated, notices to be given under this Agreement including but not limited to a notice of waiver of any term, breach of any term of this agreement and termination of this Agreement, shall be in writing and shall given by hand delivery, recognized international courier, mail, telex or facsimile transmission and delivered or transmitted to the Parties at their respective addresses set forth below;

**If to GHMC:**

The Commissioner  
Greater Hyderabad Municipal Corporation.  
Tank Bund,  
Hyderabad.

**If to Concessionaire:**

Ramky Enviro Engineers Limited  
Ramky House,  
Opposite Necklace Road Railway Station,  
Rajbhavan Road,  
Somajiguda,  
Hyderabad – 500082

Or such address, telex number, or facsimile number as may be duly notified by the respective Parties from time to time, and shall be deemed to have been made or delivered:

- a. In the case of any communication made by letter, when delivered by hand, by recognized international courier or by mail (registered, return receipt requested) at that address, and
- b. In the case of any communication made by telex or facsimile, when transmitted properly addressed to such telex number or facsimile number.

**13.8 Severability**

If for any reason whatsoever any provision of this agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the parties shall negotiate in good faith with a view to agreeing upon one or more



Greater Hyderabad Municipal Corporation

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

69

Ramky Enviro Engineers Limited



provisions which may be substituted for invalid, unenforceable or illegal provisions, as nearly as is practicable, provided failure to agree upon any such provisions shall not be subject to dispute resolution under this agreement or otherwise.

**13.9 No Partnership**

Nothing contained in this agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.

**13.10 Language**

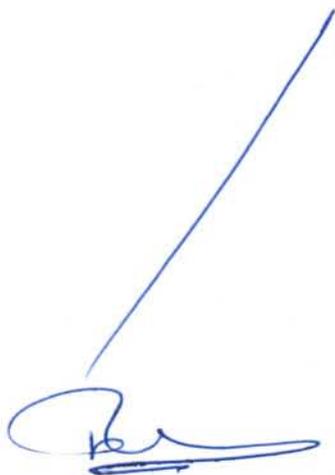
All notice required to be given under this agreement and all communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language and true translation into English language if other than English is used at user's costs and expenses.

**13.11 Exclusion of Implied Warranties etc.**

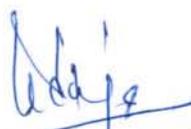
This Agreement expressly excludes any warrant, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties and any representation by any Party not contained in a binding legal agreement executed by the Parties.

**13.12 Counterparts**

This agreement may be executed in two counterparts, each of which when executed and delivered shall constitute an original of this agreement but shall together constitute one and only the Agreement.



Greater Hyderabad Municipal Corporation  
**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**



Ramky Enviro Engineers Limited



IN WITNESS WHEREOF the parties through their duly authorized representatives have executed this agreement with the Schedules appended hereto as follows:-

**SIGNED SEALED AND DELIVERED**

For and on behalf of Greater Hyderabad Municipal Corporation.

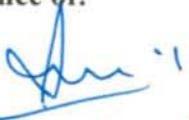
For and on behalf of Ramky Enviro Engineers Limited.

(Signature)   
(Name) **SPECIAL COMMISSIONER**  
(Designation) **GREATER HYDERABAD MUNICIPAL CORPORATION**

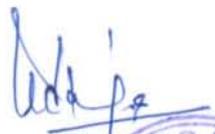
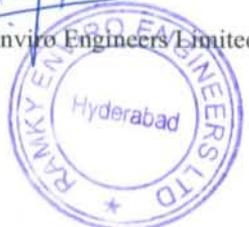
(Signature)   
(Name) **Padmaja B**  
(Designation) **Director**



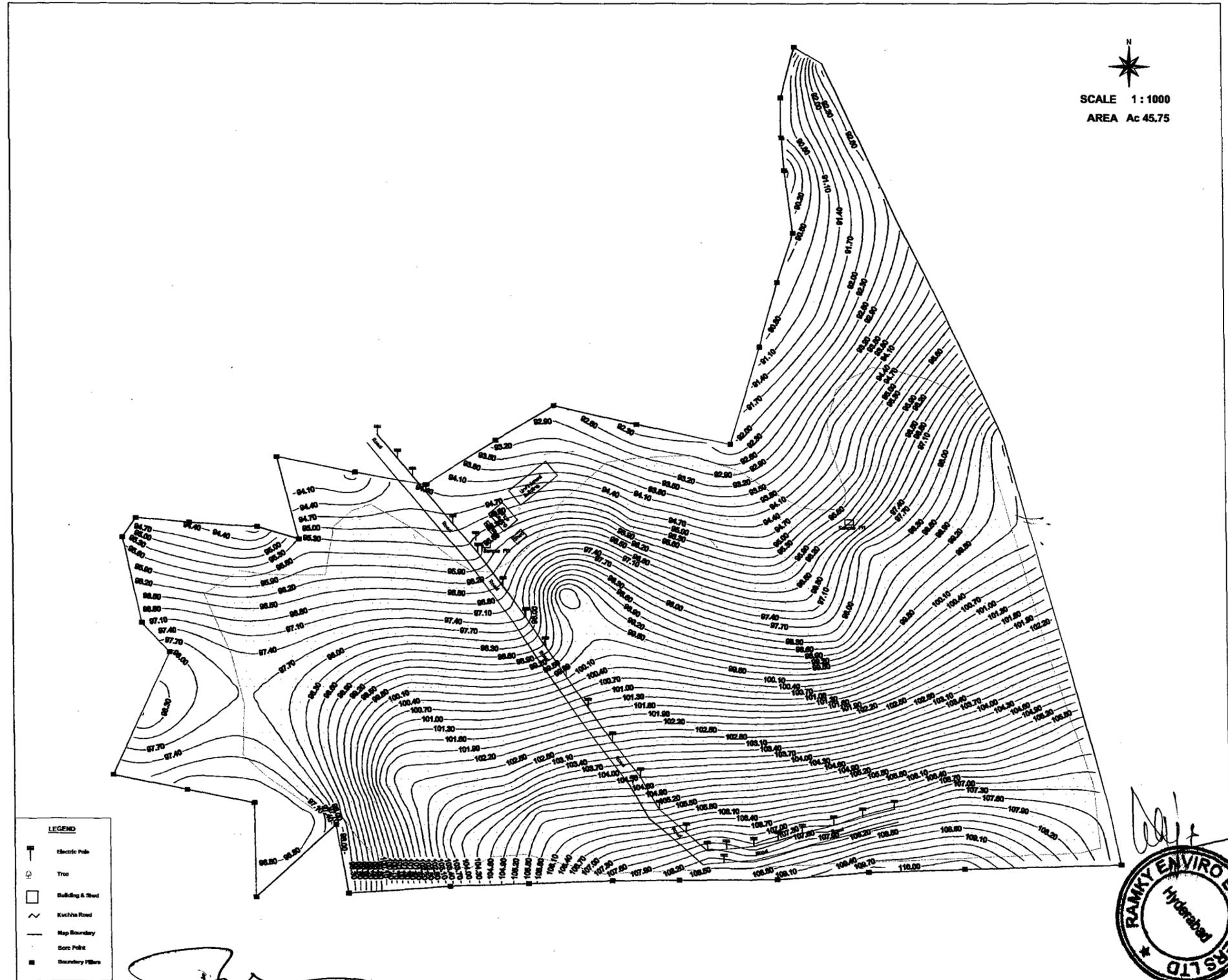
In the presence of:

1.   
Dr. C. Sreedhar,  
CGMA, INCAP
2.   
B. A. Shariq  
BASHER AHMED SHARIQ  
Regional Manager  
SENES Consultants  
India Pvt. Ltd.  
Hyderabad.

  
Greater Hyderabad Municipal Corporation  
**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**

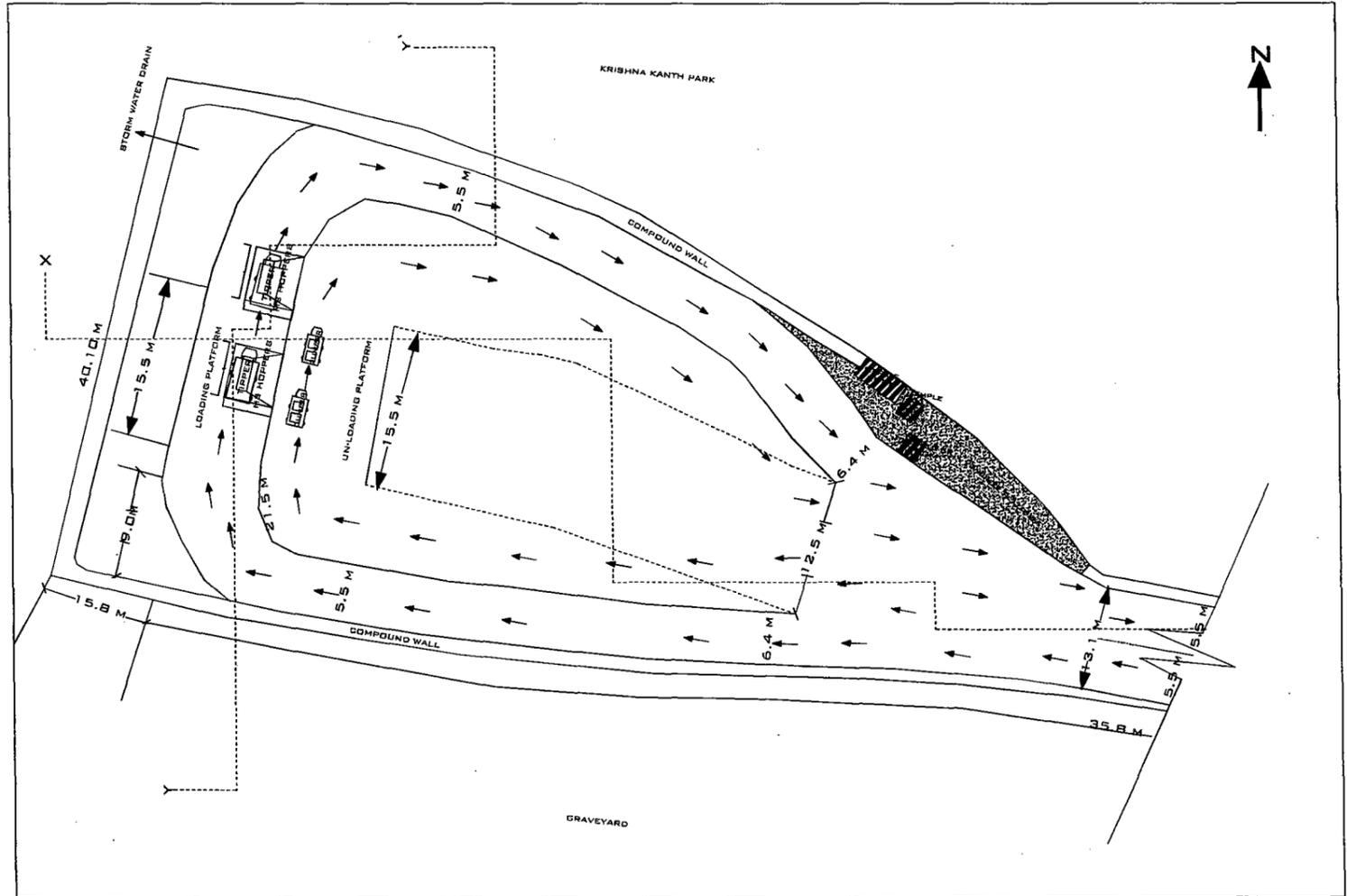
  
Ramky Enviro Engineers Limited  


### Topographical Map with Elevation Contours of 0.3m Interval within MSW Site, Fathelguda, Ranga Reddy District, A.P.

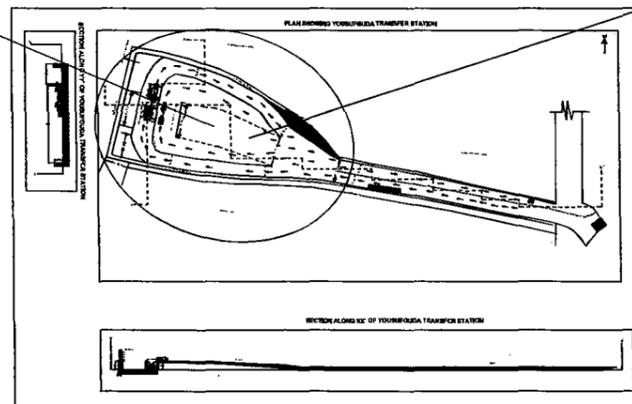
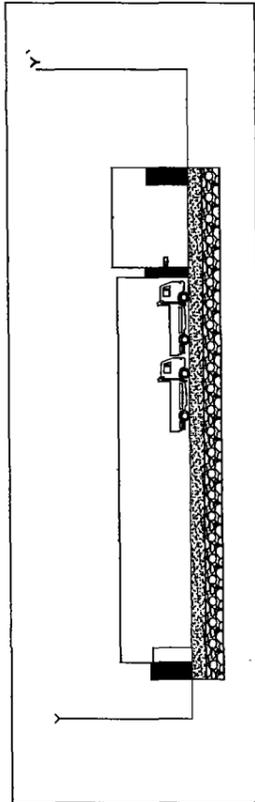


*[Signature]*  
SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION

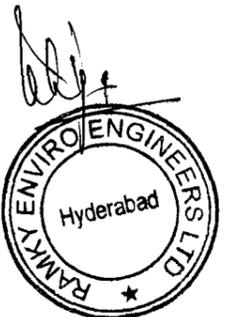
PLAN SHOWING YOUSUFGUDA TRANSFER STATION



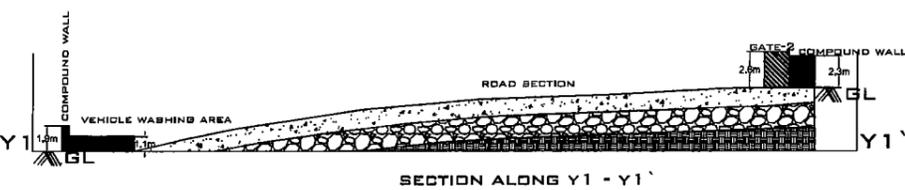
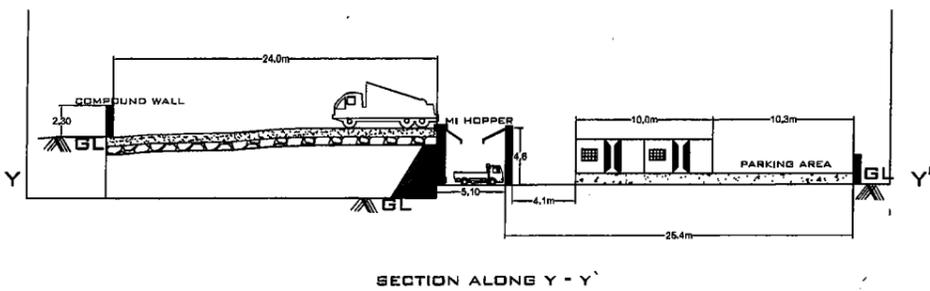
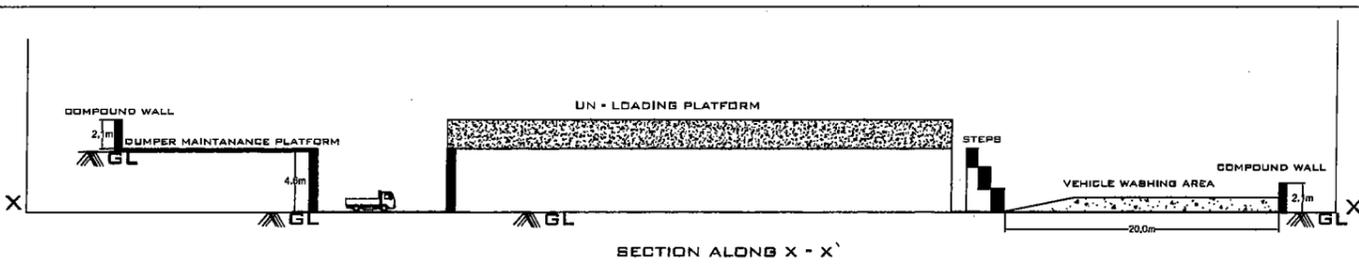
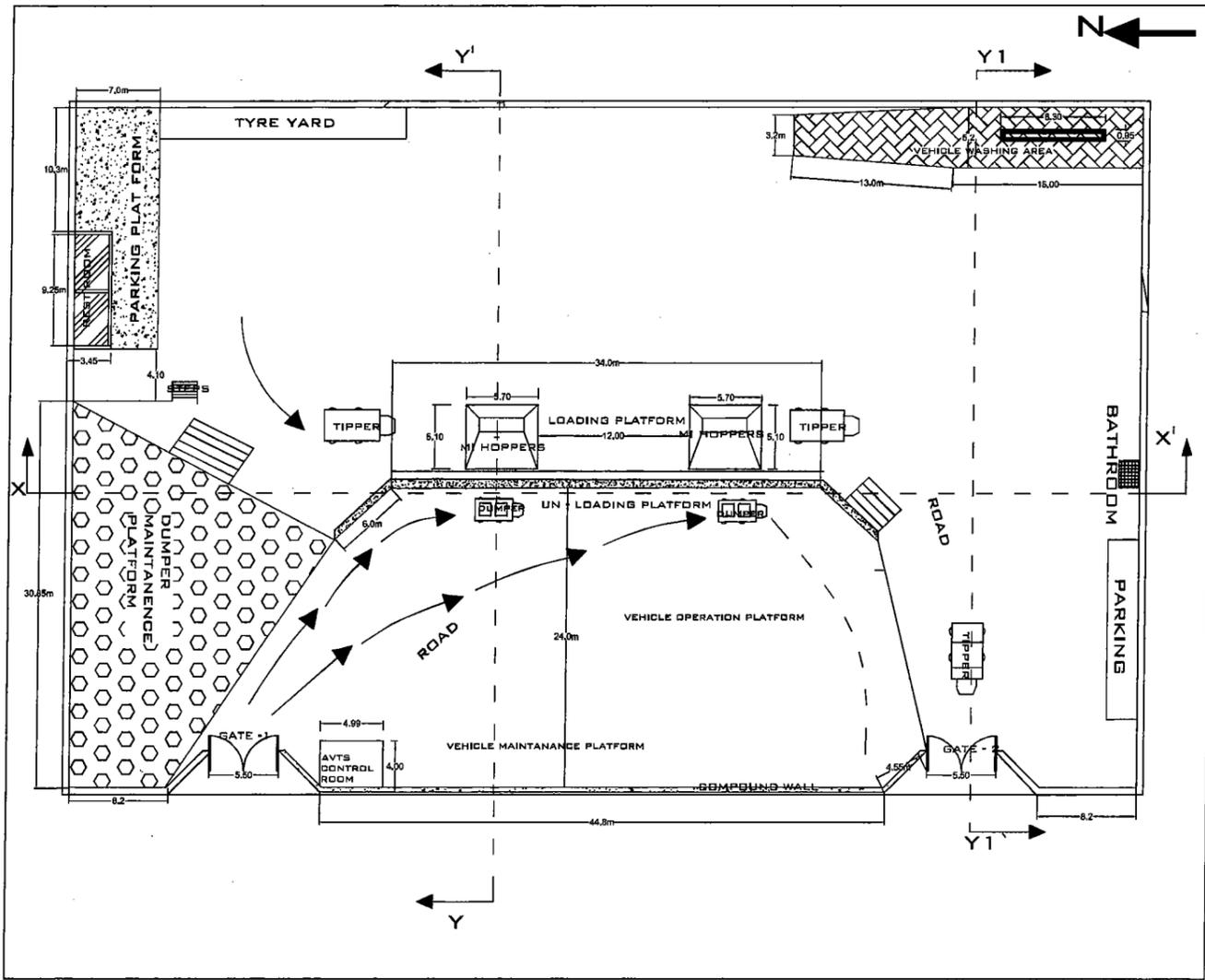
SECTION ALONG Y-Y' OF YOUSUFGUDA TRANSFER STATION



*[Signature]*  
 SPECIAL COMMISSIONER  
 GREATER HYDERABAD MUNICIPAL CORPORATION

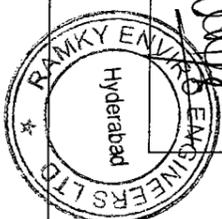


PLAN SHOWING TANK BUND TRANSFER STATION

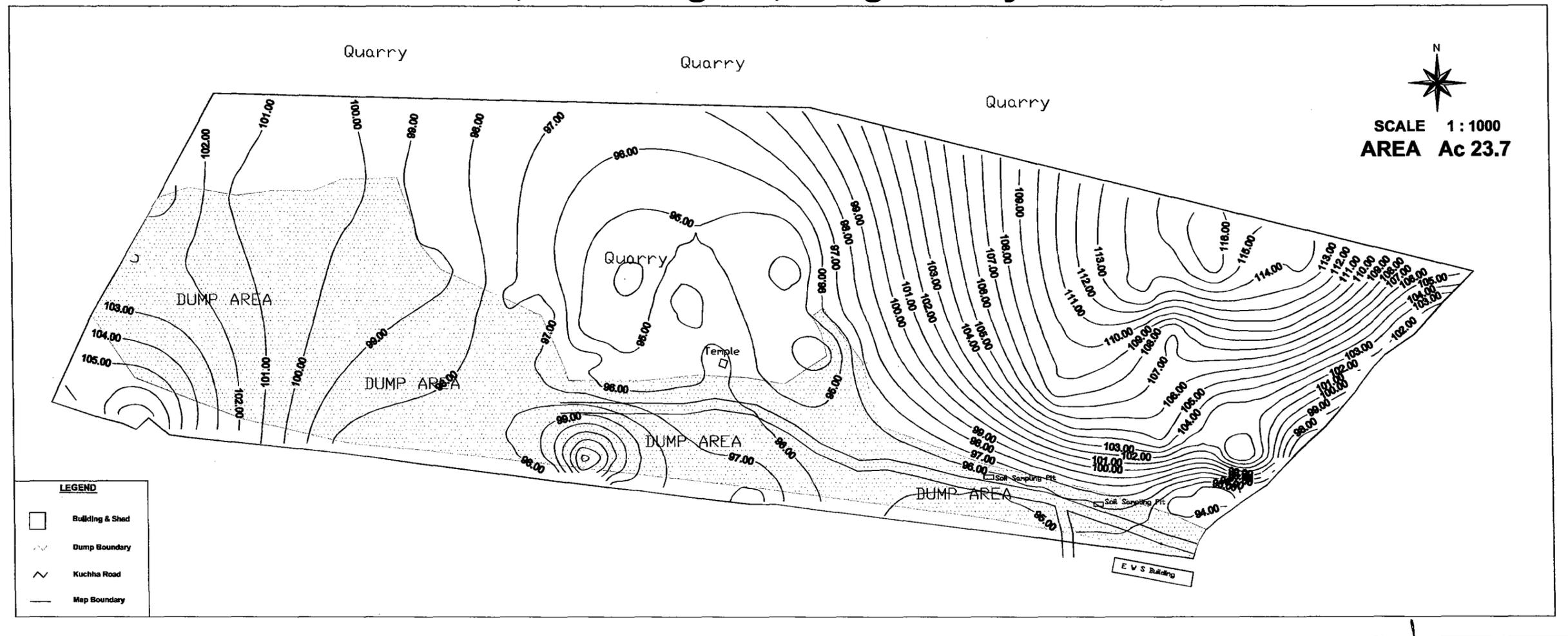


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GREATER HYDERABAD MUNICIPAL CORPORATION

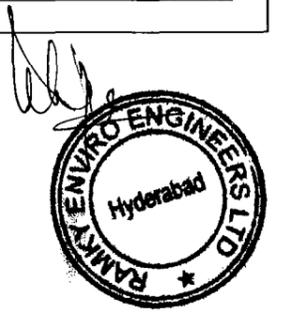
*[Handwritten Signature]*



### Topographical Map with Elevation Contours of 1m Interval within MSW Site, Shamshiguda, Ranga Reddy District, A.P.

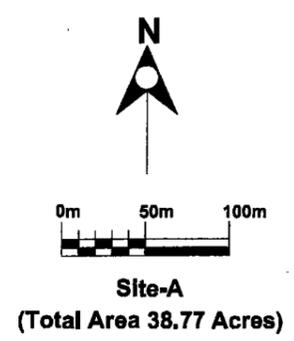
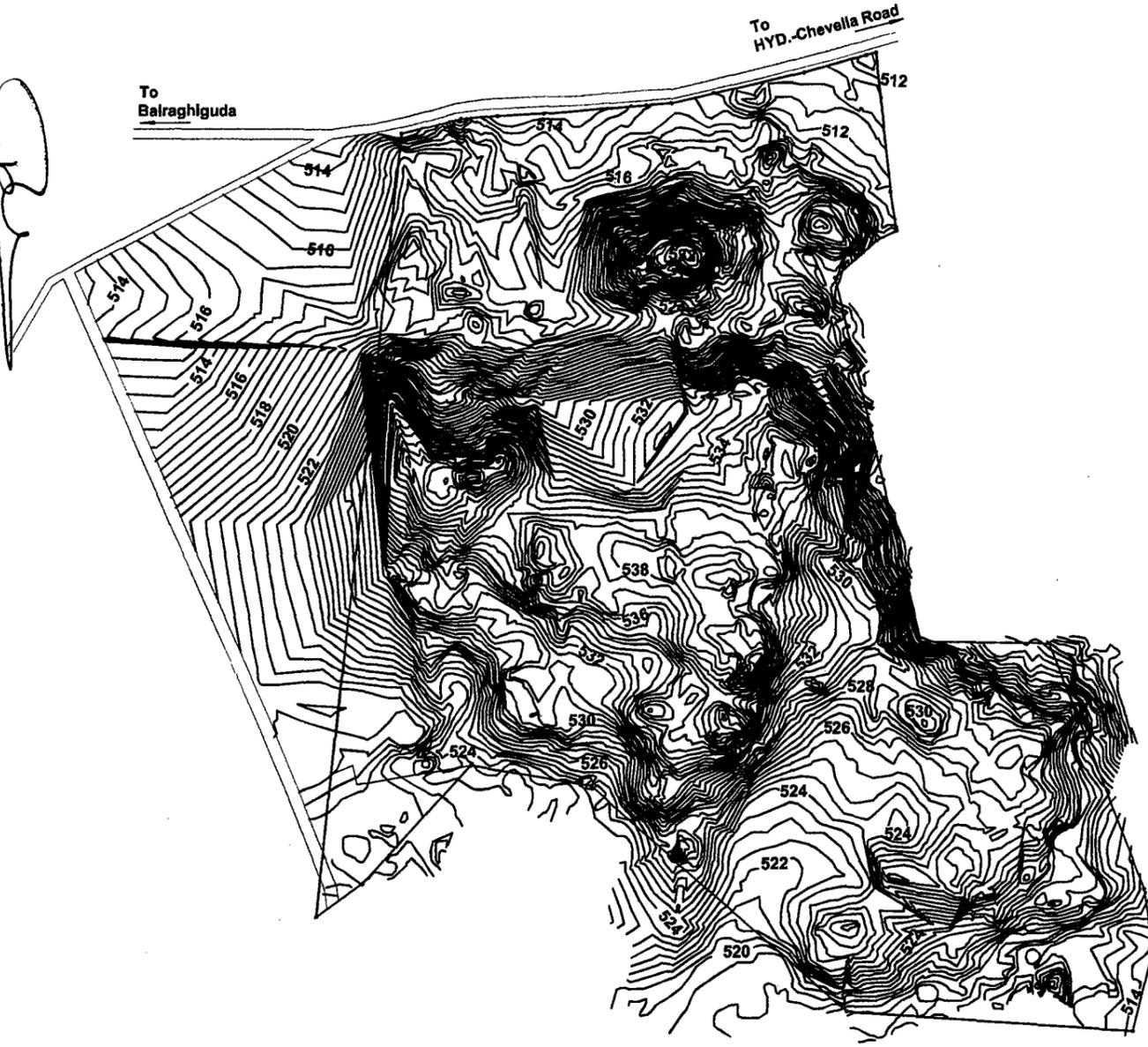


  
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**Topographical Map With Elevation Contours of 0.5m Interval within MSW Site, Gandamguda, Ranga Reddy District, A.P.**

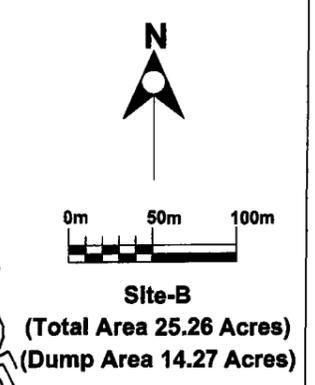
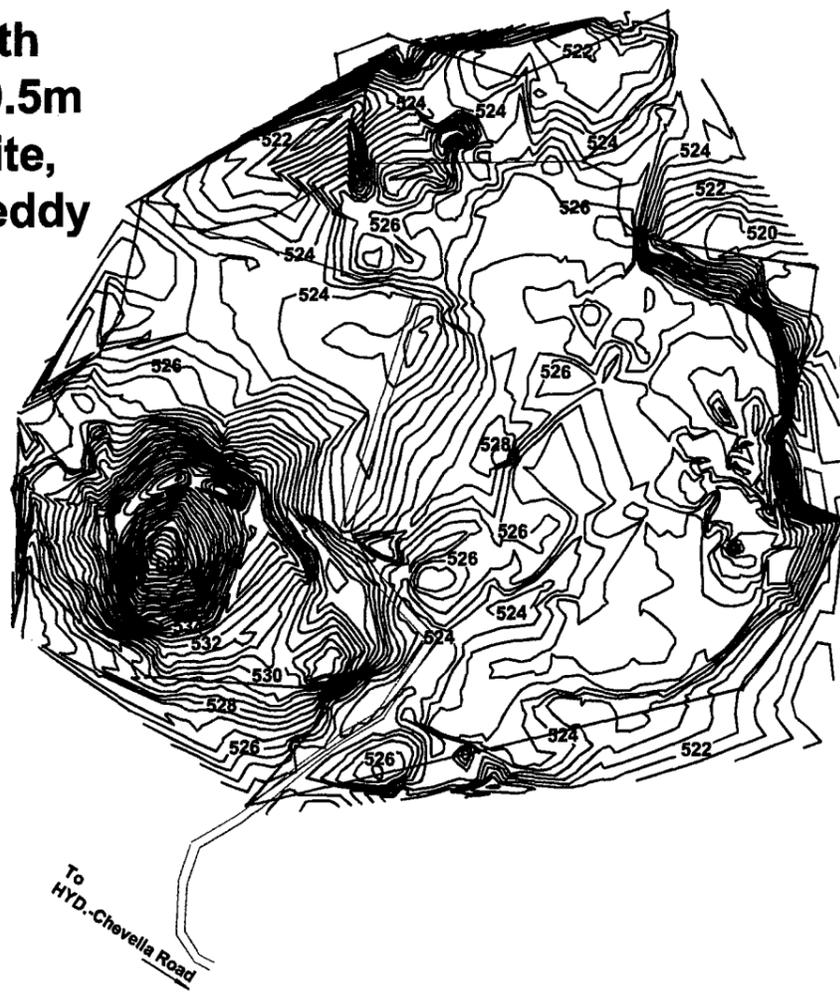
GREATER HYDERABAD MUNICIPAL CORPORATION  
SPECIAL COMMISSIONER



**INDEX**

- Site Boundary
- Dump Boundary
- Roads
- Contours
- Boundary Pillers

**Topographical Map With Elevation Contours of 0.5m Interval within MSW Site, Gandamguda, Ranga Reddy District, A.P.**



**INDEX**

- Site Boundary
- Dump Boundary
- Roads
- Contours
- Boundary Pillers





## CONSTRUCTION REQUIREMENTS

### 1. General

The minimum facilities to be provided in the Landfill Facility which is to be implemented by the Concessionaire as part of the Project have been highlighted in this Schedule.

The concessionaire shall follow all the applicable rules, regulations, acts, guidelines, standards and laws which are applicable for this project. Some important rules, regulations, acts, guidelines, standards, etc. need to be followed are;

- i. All applicable rules, regulations, acts, guidelines, standards and laws of Government of India
- ii. Recommendations of Honorable Supreme Court of India and Honorable High Court of Andhra Pradesh, time to time
- iii. All applicable Indian Standards (IS)
- iv. All applicable standards by the Bureau of Indian Standard (BIS)
- v. All norms of the Indian Road Congress (IRC)
- vi. All norms of the National Building Code (NBC)
- vii. Municipal Solid Wastes (Management and Handling) Rules, 2000
- viii. Environment (Protection) Act, 1986
- ix. Environment (Protection) Rules, 1986
- x. S.O. 1533: EIA Notification, 2006
- xi. Guidelines and recommendation of Central Public Health & Environmental Engineering Organisation, MoUD, GoI
- xii. Electricity Rules, 2005
- xiii. Electricity Act, 2003
- xiv. All applicable norms of the Central Electricity Authority (CEA)
- xv. All applicable rules, regulations, acts, guidelines, standards of Central Pollution Control Board (CPCB)
- xvi. Motor Vehicle Act and Vehicle Emission Control
- xvii. Labour Laws – Minimum Wages, Contract Labour Abolition and Regulation
- xviii. All applicable rules, regulations, acts, guidelines, standards and laws of Government of Andhra Pradesh
- xix. All applicable rules, regulations, acts, guidelines, standards of Andhra Pradesh Pollution Control Board (APPCB)
- xx. Construction standards by Andhra Pradesh Public Works Department and Greater Hyderabad Municipal Corporation and any other GoAP departments
- xxi. Good Industry Practices
- xxii. Directives on MSW Management in the Act for GHMC, Governing the Civic Services

The concessionaire shall adhere to all the applicable and above mentioned rules, regulations, acts, guidelines, standards and laws updated/modified/revised time to time.

### 2. Storage Facilities

The storage facilities shall be in the form of containers or bins only, no static storage facilities shall be allowed to provide. The storage facilities shall be made of high quality

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73

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HDPE for small containers upto 150 liters capacity and/or MS Steel for above 150 liter capacity.

**2.1 HDPE Containers**

- (a) If the containers are manually lifted the capacity of the container shall not be more than 20kg.
- (b) If the containers mechanically lifted the capacity of the container shall be to suit the collection and transportation system
- (c) The containers shall have cover
- (d) All the containers shall be coded

**2.2 Metal Containers**

- (a) The container shall be used for storage of municipal solid wastes. The containers shall be of suitable capacity made of reinforced steel frame and clad with sheets. The lifting hooks would be integrated into the frame and be capable of taking the loads specified.
- (b) The container shall have adequate strength to handle a weight of MSW.
- (c) The containers shall have a top hinged door with locking arrangement with provision for tipping of the wastes.
- (d) The material for the container should be steel conforming to IS 2062.
- (e) Adequate provision for corrosion should be included in the design.
- (f) The container shall be made of MS sheets of above 3.0 mm thickness except bottom plate which shall be 4.0 mm or above.
- (g) The support channels shall be minimum 3 mm thickness.
- (h) Top door hinges, tail gate hinges, top flap support, top, bottom frame supports, angles, channels, tee, anchor pins, locking arrangements of tailgate shall be heavy duty of rugged steel.
- (i) The top of the container shall have a hinged door(s) for closing which can be kept in open position using hooks.
- (j) The tail gate of the container shall have hinges at top to open automatically.
- (k) The hooks for lifting the bin would be integral to the structure of the bin. It shall be provided with the necessary reinforcement to handle the design weight for lifting with adequate factor of safety.
- (l) The whole container should be sand blasted prior to coating/painting. The inside of the containers to be coated with two-coat fibre reinforced plastic resin or equivalent polyurethane resin. The outside shall be painted with 2 coats of anti corrosive paint to ensure long lasting structure suitable for use of handling MSW under corrosive conditions.
- (m) The capacity and design of the container shall be of approved by GHMC.
- (n) All the containers shall be coded

**3. Vehicles**

The concessionaire shall use tipping autos for collecting the MSW from source. If there are some lanes/by-lanes where the tipping autos access is not possible, a rickshaw having two compartments / atleast 6 bins may be used by the concessionaire.

In specific, all the vehicles should conform to Bharat Stage III / Euro III standards of emission and above - up graded from time to time as per statutory requirements.

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**GREATER HYDERABAD MUNICIPAL CORPORATION**

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A wireless Communication net work shall be provided by the concessionaire for the supervisors as well as on the vehicles and equipment for drivers with a base station at the control room at workshop.

All vehicles shall be equipped by advanced vehicle tracking system and should be capable of being monitored from the control room, transfer station and integrated facility.

The type of system shall be two way communication wireless or mobile phone

### 3.1 Auto Tippers

- (a) The auto tipper shall be well maneuverable.
- (b) The auto chassis shall be equipped with tipping hopper which can be tipped using a hydraulic arrangement.
- (c) The auto tipper shall be suitable for moving in narrow lanes.
- (d) The auto tipper shall have factory made with provision for seating driver plus one person.
- (e) The container shall be made of steel conforming to IS 2062 to carry organic and inorganic waste separately.
- (f) The auto tipper shall be painted with superior quality and anti-corrosion paint to ensure handling of MSW under corrosive conditions.

### 3.2 Other Vehicles – Secondary Collection and Transportation

- (a) The vehicle shall be of a standard make with company built cabin with all standard fittings and control panel. The GVW of the vehicle shall be sufficient enough to transport the MSW.
- (b) The vehicles shall be hydraulically operated and designed for a sufficient payload with a tipping angle of 70 degree.
- (c) Direct engine driven hydraulic pumps with tank mounted so as to ensure constant oil flow. Equipped with easily visible level read-out gauge and replaceable filter cartridge elements. Cylinder, central valve, pump and hoses of reputed Indian or foreign make and proven performance.
- (d) A control panel will be provided and located conveniently. All gauges levers and switches required for operation of the unit shall be grouped in the control panel.
- (e) The vehicles shall be provided with heavy-duty steel radials
- (f) The vehicles shall be painted with superior quality and anti-corrosion paint to ensure handling of MSW under corrosive conditions.

### 4 Platforms for Placement of Bins

A platform to place bins/containers has to be constructed at every storage/collection point (wherever containers are placed) with the following requirements;

- (a) Each station should be large enough to accommodate containers.
- (b) The platform should have impermeable base constructed with cement concrete or RCC.
- (c) The design and specifications shall be approved by GHMC.
- (d) The platform shall be provided with proper drainage system connected to the nearby sewer where ever possible. The drainage system shall consist of a screen and inspection chamber to avoid entering of MSW into the sewer and chocking of connecting pipes and sewers.

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## 5 Transfer Stations

The transfer stations shall be provided and the existing transfer stations shall be upgraded with the following facilities.

It is required that the Concessionaire prepare engineering drawings that will be presented to GHMC for review and approval. Concessionaire is responsible for providing appropriate engineering drawings (recommended scale 1:100) showing construction details including plan and layout of the transfer station, structural details, cross sectional & structural drawings, roads, utilities, etc.

During all construction activities, the Concessionaire shall be responsible for maintaining quality control over all suppliers, services, site conditions, and workmanship. Require that the Concessionaire prepare a construction and quality control plan that describes the QA/QC measures that will be employed during construction. Require that the Concessionaire should submit the plan to GHMC for approval. QA/QC plan procedures and requirement should include the following:

- i. Continuous inspection and field supervision by qualified personnel provided by the Concessionaire.
- ii. Laboratory testing of construction materials.
- iii. Utilizing experienced Concessionaires and workers having a minimum of 5 years of experience in their profession or trades.
- iv. Conformance to manufacturer's installation QC procedures.

The Concessionaire must construct the facilities in strict accordance with the approved design drawings. They should also be advised that any changes of the approved design would require approval.

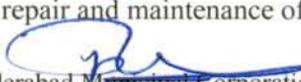
The transfer stations shall be a split level transfer station sufficient to handle at least 500 – 1500 tons of waste everyday and large enough for future expansion.

The base and elevated platforms shall be impermeable constructed with minimum 1:4:8 PCC and M35 grade CC.

The transfer stations shall be provided with two weigh bridges (at the entrance and exit) located at the entrance and at the exit of the transfer station. The Weighbridge should be equipped with a computerized system for billing and tracking vehicle movement. The platform scales should have the capability of accurately measuring tare and net weights of range of vehicles. The scales should have a minimum designated level of accuracy (i.e.,  $\pm 5$ kg). The weighbridge should be permanent structure furnished with appropriate space to maintain and operate the computerized weight recording system, store historical records and have sufficient room for two weighbridge operators. The minimum weighing capacity of the weigh bridge shall be 40 tons

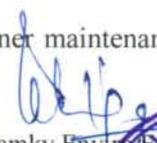
The transfer stations shall be provided with security cabins at entrance and exit sufficient enough to accommodate 2 persons.

The transfer stations shall be provided with vehicle and container maintenance facilities for repair and maintenance of vehicles and containers.

  
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**GREATER HYDERABAD MUNICIPAL CORPORATION**

76

  
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The transfer stations shall be provided with green belt not less than 6 m width in case of new transfer station and one row of trees in case of existing transfer stations.

The transfer stations shall be fully covered with dome supported by RCC and steel structures. The transfer station shall have sufficient ventilation.

All the steel structure shall be painted with anti-corrosive paints.

The transfer stations shall be provided with boundary walls with minimum 2m height

The transfer stations shall be provided with sufficient hoppers and if required provide compaction facilities. The transfer stations shall be planned and designed for future expansion.

The transfer stations shall be provided with sufficient vehicle parking facility with the provision of future expansion.

The transfer stations shall be provided with approach and internal roads to allow for two-way traffic and be designed to accommodate vehicles having a minimum 40-ton gross weight.

The transfer stations shall be provided with leachate collection and treatment system

The transfer stations shall be provided with vehicle cleaning and washing facility

The transfer stations shall be provided with rainwater harvesting system

The transfer stations shall be provided with odor control mechanism and management system

The transfer station shall be provided with office building which should be a permanent structure. It should be equipped with an office area for transfer station management and supervisory staff and also include the following:

- i. Office for the facility manager
- ii. Office to accommodate working space and desks for the employees.
- iii. Office to store documents, drawings and records
- iv. Washrooms and shower area.
- v. Bathroom facilities
- vi. Lunch room for employees.
- vii. First aid station.
- viii. Visitor reception area.

The Concessionaire is responsible for design and construction of on-site utilities including the following:

- i. Water: The facility should be equipped with potable drinking water as well as water for fire fighting and dust mitigation.
- ii. Electricity: The facility should be equipped with sufficient electrical capacity to power all electrical equipment located on the site with backup arrangement.

Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION



- iii. **Sanitary Facilities:** The permanent office building should be equipped with a shower area, washrooms, toilets, and a change area to handle all employees.

Adequate lighting system to achieve a minimum lux level of 20 for the working area shall be provided. Street lighting with permanent steel light posts for internal roads and access roads. Movable heavy duty focus lamps depending on the operational requirements

The maintenance of the transfer station should be at par with Good Industry Practice and should have all arrangements to meet emergency situations such as fire hazards as per Applicable Laws

**6. Workshop / Vehicle Maintenance Facility**

Workshop to meet requirements below:

The Workshops should be such that it allows for systematic use of designated parking of vehicles, easy right of way for in and outbound vehicles and separate sections for repair and maintenance of vehicles.

The maintenance of the Workshops should be at par with Good Industry Practice and should have all arrangements to meet emergency situations such as fire hazards as per Applicable Law.

The building and sheds in the Workshops should be painted periodically (at least annually) and periodically (at least repair annually) and maintenance operations should be carried out.

The concessionaire shall submit list of equipments & machineries to be provided in the workshops to maintain the entire fleet of vehicles.

The concessionaire shall establish workshops and vehicle parking facilities at the present disposal sites viz. Fatullaguda, Shamshiguda, Gandhamguda and Jawaharnagar.

**7. Integrated Facility**

The waste processing shall include composting, incineration, pelletisation, energy recovery or any other facility based on the state-of-the-art technology duly approved by the Ministry of Environment and Forests / Central Pollution Control Board.

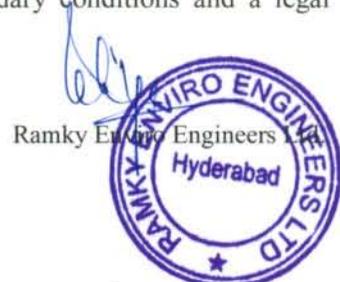
**7.1 Design Drawings**

The Concessionaire should prepare the final design and engineering drawings during the preparation period. At a minimum, require that the Concessionaire provide the following engineering drawings:

- i. **Location and Vicinity Maps:** These should show the site location and vicinity. The vicinity map should include the site boundary and all major roads, structures, industries, commercial and residential areas within a 2 -km radius of the site.
- ii. **Site Boundary Surveys:** These should show the boundary conditions and a legal description of the site.



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- iii. Site Layout with Topographic Contours: These should show locations and dimensions of all proposed site structures including roads, buildings, fencing, amenities, utilities etc. topographic contours with a minimum of 1 m intervals should be depicted.
- iv. Construction Phasing Plan: These should the ultimate use of the site in a planned phasing approach. Interfacing of construction and operation should be noted. At a minimum it should require an overall drawing (recommended scale 1:100) as well as construction phase drawings (recommended scale 1:100) showing the construction phasing details. The construction phasing details should include details on processing facility development, phasing of cells, leachate collection system, landfill gas collection system, roads, and all other components of the integrated facility.
- v. Layout Plans: These should be the layout plan for all the components of integrated facility.
- vi. Structural drawings: These should be the structural drawings for all the components of integrated facility.
- vii. Evacuations and Grading Plans: These should be the excavation and base grading for the landfill & cells and required earth work for construction. At a minimum over all drawing (recommended scale 1:100) as well other drawings (recommended scale 1:100) showing the excavation and grading plans should be required.
- viii. Cell Construction Details: Theses should show cell profiles with liner, leachate collection pipe lateral drainage layer, ditches, access roads and final cover tie-in to the bottom liner at the edge of the fill area (recommended scale 1:100).
- ix. Leachate Management Plan: It is required that the Concessionaires provide a drawing (recommended scale 1:100) that shows that the leachate collection, transport, and treatment system. This plan should include all inverts of the collector pipes, transport pipes, manholes, tanks, etc.
- x. Landfill Gas Management Plan: This plan should show landfill gas migration control and monitoring measure and venting system (recommended scale 1:100).
- xi. Odor Control Management Plan: This plan should show odor control mechanism and management plan (recommended scale 1:100).
- xii. Final Cover Contours: It is required that the Concessionaire provide a drawing (recommended scale 1:100).
- xiii. Construction Details: These should show liner anchorage details, leachate management & treatment system, roadways, other infrastructure, etc. (recommended scale 1:100) when required.
- xiv. Cross Sections: These should show typical sections through the fill area; bottom cells, slide slopes, and final cover elevations. Detailed cross sections showing the construction of solid waste lifts and slopes should be required (recommended scale 1:100).

## 7.2 Bottom Liner

The landfill site bottom composite liner of following specifications shall comply to Municipal Solid Waste (Management and Handling) Rules 2000.

- (a) Drainage layer of 50 cm thick granular soil material of permeability value of  $1 \times 10^{-2}$  cm/sec.
- (b) A minimum 1.5mm thick Grade I smooth HDPE liner as per IS: 10889-1984 Specification for High Density Polyethylene Films. The HDPE liner should meet the requirements as stipulated in CPHEEO Manual.



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- (c) A 900 mm thick clay or compacted soil amended with additives as per IS: 6186-1986 Specification for Bentonite to reach the required permeability coefficient, (to leachate) and measured in field,  $1 \times 10^{-7}$  cm/sec.

### 7.3 Quality Control

During all construction activities, the Concessionaire shall be responsible for maintaining quality control over all suppliers, services, site conditions, and workmanship. Require that the Concessionaire prepare a construction and quality control plan that describes the QA/QC measures that will be employed during construction. Require that the Concessionaire should submit the plan to GHMC for approval. QA/QC plan procedures and requirement should include the following:

- i. Continuous inspection and field supervision by qualified personnel provided by the Concessionaire.
- ii. Laboratory testing of construction materials.
- iii. Utilizing experienced Concessionaires and workers having a minimum of 5 years of experience in their profession or trades.
- iv. Conformance to manufacturer's installation QC procedures.

Facility Construction: The Concessionaire must construct the facilities in strict accordance with the approved design drawings. They should also be advised that any changes of the approved design would require approval.

### 7.4 Construction Phasing Plan

For each phase, It is required that the Concessionaire prepare engineering drawings that will be presented to GHMC for review and approval.

The construction-phasing plan should demonstrate that the site has sufficient disposal capacity. The phasing plan should show how interfacing of the landfill construction and operation would take place.

Concessionaire is responsible for providing appropriate engineering drawings (recommended scale 1:100) showing cell construction details including profile of the cell leachate collection pipes, lateral drawings layers, perimeter roads, and access roads and other important details.

### 7.5 Final Cover

The final cover system shall be based on the recommendations of MoEF and CPHHEO Manual. The final cover shall consists of the following components,

- i. Vegetative layer of 450mm thick with good vegetation supporting soil
- ii. Drainage layer of 150mm thick granular material with permeability  $1 \times 10^{-2}$ cm/sec
- iii. Barrier Soil Layer of 600mm thick compacted clay or soil amended with additives as per IS: 6186-1986 to achieve a permeability value not greater than  $1 \times 10^{-7}$  cm/sec
- iv. Gas venting layer of 200mm thick granular material with permeability  $1 \times 10^{-2}$ cm/sec

### 7.6 Leachate Management

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80

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The engineered integrated facility design should include a leachate management system consisting of a leachate collection from processing facility, drainage and leachate conveyance layer on top of the bottom and side slope liners, sumps and/or tanks, and a system to treat the collected leachate.

It is required that the leachate collection system in landfill should be placed directly above the liner. Leachate head should not exceed 20 cm at any point on the lining system with the exception of collection wells. The lateral leachate drainage layer should be designed with a minimum slope of 2 percent.

The leachate collection system should be designed for the maximum estimated loading of solid waste material and equipment during landfill construction. The Concessionaire should use high density polyethylene (HDPE) SDR 11 or better piping, or a geosynthetic equivalent for leachate collection. Sufficient gravel, sand, and / or soil should be placed on the leachate collection system so that the integrity of the leachate collection system is maintained at all times during construction and operation of the engineered landfill.

The collected leachate should be routed to an individual manhole, lined leachate pond or lagoon or a central storage tank. The leachate pond or lagoon or a central storage tank shall be lined with 1.5mm thick HDPE membrane and permeability not greater than  $1 \times 10^{-7}$  cm/sec.

The Concessionaire should be responsible for meeting all permitting requirements for leachate treatment. The Concessionaire shall provide a leachate treatment plant of appropriate capacity with suitable technology to ensure treatment of leachate to Inland Surface Water Standards as per IS: 2490: Part I 1981 Tolerance Limits for Industrial Effluents and standards set out by APCCB. If allowed by regulatory authorities, the leachate could be concentrated in an evaporation pond or re-circulated into the landfill.

## 7.7 Office Building

The office building should be a permanent structure. It should be equipped with an office area for facility management and supervisory staff and also include the following:

- i. Office for the facility manager
- ii. Office to accommodate working space and desks for the employees.
- iii. Office to store documents, landfill drawings and records
- iv. Washrooms and shower area.
- v. Bathroom facilities
- vi. Lunch room for employees.
- vii. First aid station.
- viii. Visitor reception area.

## 7.8 On-Site Utilities

The Concessionaire is responsible for design and construction of on-site utilities including the following:

- (a) Water: The facility should be equipped with potable drinking water as well as water for fire fighting and dust mitigation.

Greater Hyderabad Municipal Corporation

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GREATER HYDERABAD MUNICIPAL CORPORATION

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- (b) Electricity: The facility should be equipped with sufficient electrical capacity to power all electrical equipment located on the site with backup arrangement.
- (c) Sanitary Facilities: The permanent office building should be equipped with a shower area, washrooms, toilets, and a change area to handle all employees.

### 7.9 On-Site Access Road

It is also required that the engineered landfill design include an appropriate access road from the site entrance to the landfill working face. This access road should be designed to accommodate vehicles having a minimum 40 ton gross weight. The access road should be at a minimum of 15m wide to handle two-way transfer trailer traffic from the scale house to the face of the landfill. The access road should be designed and constructed to include ditching and drainage.

### 7.10 Weighbridge Facility

It is also required that the integrated facility design include three weighbridges located at the entrance to the facility, at the exit of the facility and at the entrance of the landfill site. The Weighbridge should be equipped with a minimum of two platform weighbridge and a computerized system for billing and tracking vehicle movement. The platform scales should have the capability of accurately measuring tare and net weights of range of vehicles. The scales should have a minimum designated level of accuracy (i.e.,  $\pm 5$ kg). The weighbridge should be permanent structure furnished with appropriate space to maintain and operate the computerized weight recording system, store historical records and have sufficient room for two weighbridge operators. The minimum weighing capacity of the weigh bridge shall be 40 tons.

### 7.11 Separation Barrier

It is required that the landfill design include provisions for a minimum 2 m separation between the maximum groundwater elevation and bottom of the landfill liner. The design should include a separation barrier to ensure that water does not penetrate or destroy the integrity of the bottom and side slopes liners. Design documentation should include details on the materials, permeability, strength, thickness, and physical characteristics of the separation barrier.

### 7.12 Side Slope Liner

As a minimum service specification, it is require that the side slopes shall have a liner hydraulic barrier performance equal to that of the bottom liner. The Concessionaire is responsible for the design of any side slope lining system required within the landfill design.

### 7.13 Site Access Road

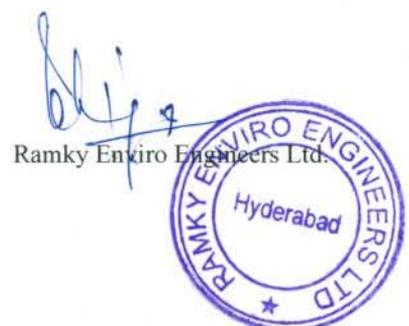
Through the service specification, it should require that the access road design allow for two-way traffic to and from the facilities and be designed to accommodate vehicles having a minimum 40-ton gross weight.



Greater Hyderabad Municipal Corporation

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82



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**7.14 Site Fencing**

The integrated facility shall be fully secured by boundary wall and wire mesh fencing having a height of at least 2.4m above plinth area with top 0.6 m being barbed wire fencing with mild steel angles.

**7.15 Storm Water Drainage System**

The concessionaire shall design and implement a storm water drainage system within the integrated facility in such a manner as to ensure that;

- i. It is independent from the leachate system
- ii. The run-off from hinterland does not enter into the processing plant and landfill
- iii. The run-off from active landfill area shall not be mixed with other run-off
- iv. There should not be any stagnation of rain water within the integrated facility

The concessionaire shall design and implement the rainwater harvesting within the integrated facility

**7.16 Lighting**

The concessionaire shall provide

- i. Adequate lighting system to achieve the lux levels, specified in the Indian Standard Codes (latest versions) of SP – 30 and IS 6665 – 1972 for the different working areas;
- ii. Achieve a minimum lux level of 20 for the working area
- iii. Street lighting with permanent steel light posts for internal roads and access roads
- iv. Movable heavy duty focus lamps depending on the operational requirements

**7.17 Green Belt**

The concessionaire shall provide a vegetative cover in a strip of minimum width 6 m all along the integrated facility site boundary. The species of the trees for providing vegetative cover shall be approved by the Independent Engineer. The green cover requirements within the integrated facility shall be as per the applicable norms and regulations.

**7.18 Quality Control Laboratory**

The concessionaire shall establish a quality control laboratory to carryout the following activities;

- i. Physical and chemical characterization of MSW as per MoEF and CPHEEO recommendations
- ii. Regular monitoring during implementation, construction, operation and post closure phases as set out in operation and maintenance requirements

The laboratory shall meet the standards of National Accreditation Board for Testing and Calibration Laboratories (NABL) and MoEF.



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The laboratory shall be accredited by NABL and MoEF within two years of its establishment.

## **8. Procedure**

### **8.1 Before Commencement of Implementation / Construction**

Prior to commencement of any construction activity, the Concessionaire shall finalise an implementation plan for the Project (“Implementation Plan”) in consultation with the Independent Engineer. The Implementation Plan shall, inter alia, include:

A detailed schedule of implementation for putting up and operationalising the project, which shall specify at least four major milestones

The Critical Path Method (CPM)/Programme Evaluation and Review Technique (PERT) charts or similar activity planning technique/ method for monitoring. This would cover all stages/ aspects of implementation of the project including design and engineering, procurement of materials and equipment, installation, construction and testing;

Manpower deployment plan, including the designation of key personnel for the management and supervision of all Project-related activities. (This would include the designation of suitably qualified personnel for areas such as contract administration and supervision, construction management, safety, environmental management, plant and equipment maintenance, procurement, materials management and quality control);

A broad method statement for key items (including earth works, concrete works, structural concrete work, and road works) setting out the methodology of construction, materials and construction equipment mobilisation/ utilisation plans;

Details of the quality assurance and quality control procedures; and

Format of the Monthly Project Progress Report giving details of the physical progress in implementation of the project and operations and maintenance activities undertaken (“Monthly Project Progress Report”).

Prior to commencement of any implementation / construction, the Concessionaire shall also finalise in consultation with the Independent Engineer:

- i. An operations and maintenance plan for the Landfill Facility during the Implementation Period (O&M Plan – Implementation Period) and which shall, inter alia, include an Environmental Management Plan,
- ii. Quality Assurance Plan

The Concessionaire shall, in consultation with the Independent Engineer workout an appropriate schedule for submission of all the documents set out to the Independent Engineer for review.

Prior to commencement of implementation of the project, the Concessionaire shall have:

- i. Obtained all such Applicable Permits as are necessary to commence implementation of the project



Greater Hyderabad Municipal Corporation

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**GREATER HYDERABAD MUNICIPAL CORPORATION**



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- ii. Finalised such Drawings as are necessary and the Implementation Schedule in consultation with the Independent Engineer;
- iii. Mobilised the requisite resources, personnel and organisation necessary for the same and designated and appointed suitable officers/ representatives as it may deem appropriate with responsibility to supervise implementation of the Project and for exchange of information with the Independent Engineer and GHMC;
- iv. Finalised in consultation with the Independent Engineer a method statement setting out details of the actual methods that would be adopted by the Concessionaire for the implementation of the project including details of equipment and machinery that would be used, their locations, and arrangements for conveying and handling materials;
- v. Finalised in consultation with the Independent Engineer quality assurance and quality control procedures to cover all aspects of the project so as to ensure the desired level of performance. This would include establishment of a well-equipped functional laboratory at the integrated facility.

The Concessionaire shall immediately upon commencement of implementation and Construction Works notify GHMC of the same

## 8.2 During Implementation / Construction

The Concessionaire shall:

- i. Ensure that the implementation / construction of the project is undertaken with no inconvenience to the traffic.
- ii. Take precautions to avoid inconvenience to, damage to, destruction of or disturbance to any third party rights and properties
- iii. Ensure adequate safety of the personnel deployed which would include measures such as the provision and maintenance of barricades, and illumination during night in consultation with the Independent Engineer
- iv. Adhere to the Implementation Plan and O&M Plan-Implementation Period
- v. Deploy adequate number of qualified and competent personnel having relevant experience and skills for implementation of the Project and interaction with the Independent Engineer / GHMC.

## 8.3 Positions and Levels

The Concessionaire shall be responsible for:

- i. The accurate setting-out survey control points, lines and levels of reference;
- ii. The correctness of the positions, levels, dimensions and alignment of all components of the project
- iii. The provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities
- iv. If, at any time during execution of the works, any error is noticed in the position, levels, dimensions or alignment of any component of the project, the Concessionaire, on being asked to do so by the Independent Engineer, shall at his own cost, rectify such errors to the satisfaction of the Independent Engineer

The checking of any setting-out or of any line or level by the Independent Engineer shall not in any way relieve the Concessionaire of his responsibility for the accuracy thereof

Greater Hyderabad Municipal Corporation

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**GREATER HYDERABAD MUNICIPAL CORPORATION**

85

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and the Concessionaire shall carefully protect and preserve all benchmarks, sight rails, pegs and other materials used in setting-out the works.

#### 8.4 Tests

Various tests ("Tests") would be undertaken for the Project as per the standards prescribed under applicable rules, regulations, acts, guidelines, standards and laws. Where no testing methods are specified by the said standards, details of the Tests to be carried out and specifications to be achieved for the respective works or part thereof shall be agreed upon with the Independent Engineer prior to implementation/construction.

Where material properties vary from or comply only marginally with the specifications contained in the Construction Requirements, the Independent Engineer shall increase the frequency of Testing as appropriate at the cost of the Concessionaire.

The Tests would be carried out at a location (place of manufacture, fabrication or preparation, at site or any specialised testing laboratory) that the Independent Engineer may reasonably require, at the cost and expense of the Concessionaire.

The Concessionaire shall provide such assistance, labour, electricity, fuels, stores, apparatus and instruments as are normally required for examining, measuring and testing any materials or plant and shall supply samples of materials, as required by the Independent Engineer to undertake Tests.

No part of the Construction Works shall be covered up or put out of view before the same has been examined by the Independent Engineer.

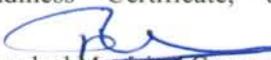
The Independent Engineer may from time to time require:

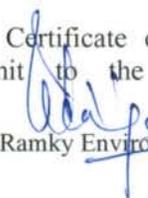
- i. Removal from the location/site, within such time as may be specified in its instructions, any material, equipment, machinery, vehicle or plant which, in its opinion, do not meet the standards specified in the Construction Requirements
- ii. Substitution/ replacement of such improper material, equipment, machinery or plant
- iii. Re-execution, of any or part of the implementation/construction works which in the opinion of the Independent Engineer do not meet the standards set out in the Construction Requirements;
- iv. The Concessionaire to required investigations and surveys for the Project.

The Concessionaire shall mobilise adequate numbers of equipment, plants and machinery to ensure adherence to the Implementation Plan

The Concessionaire shall arrange for all the material requirements for the Project and disposal of all material wastes. The Applicable Permits in this regard would have to be obtained by the Concessionaire. All excavation operations shall be carried out by the Concessionaire with minimum degradation of the environment. All excessive and unsuitable excavated materials shall be stacked at appropriate dumping places or otherwise disposed of by the Concessionaire in consultation with the Independent Engineer

Prior to making the request for the issue of Readiness Certificate or Provisional Readiness Certificate, the Concessionaire shall submit to the Independent

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Engineer/GHMC the following, duly finalised in consultation with the Independent Engineer:

- i. The Operations and Maintenance Manual for the Project ("O&M Manual") setting out in detail the standards, schedules, procedures, type, periodicity and other details of the operation and maintenance activities to be carried out for the Project during the Active Operations Period so as to meet the O&M Requirements as well as details of the management information system to be incorporated, reports to be submitted and procedure for reviews, and
- ii. The Operations & Maintenance Plan ("O&M Plan") for the first five years of operations.

## 8.6 After Completion of Implementation / Construction

Upon completion of implementation / construction but prior to issue of the Readiness Certificate, the sites shall be cleared of all construction equipment, surplus materials, debris and temporary installations and shall be left in tidy and clean manner and to the satisfaction of the Independent Engineer.

## 8.7 Reporting Requirements and Documents to be Provided

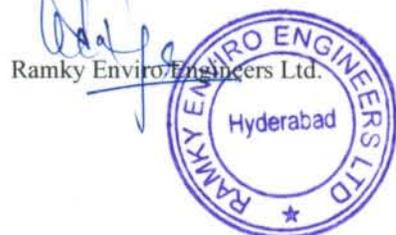
During the period of construction of the Project ("Implementation Period"), the Concessionaire shall submit to the Independent Engineer/ GHMC, Monthly Project Progress Reports (for each calendar month or part thereof) within 5 working days of the last day of the month. The report shall review the progress made, identify slippages, if any, and project the future activities to be undertaken (including rectifications), operations and maintenance activities undertaken and would, inter alia, include the following:

- i. Listing of working drawings/designs submitted
- ii. Comments of Independent Engineer, if any on the working drawings/designs submitted
- iii. Concessionaire's response to the comments on the Drawings/designs
- iv. Listing of the "As Built" drawings submitted
- v. Progress of pre-construction activities - mobilization of plant, machinery, equipment, personnel, site office, utility relocation etc.
- vi. Concessionaire's compliance inspection report, if any required
- vii. Constraints in construction
- viii. Progress data with "S" curves
- ix. Project data with contract detail and sectional completion details
- x. Tests carried out, if any, and results thereof
- xi. Remedial measures taken by the Concessionaire following such tests, where required
- xii. Review of milestones and reasons for delay, if any
- xiii. Suspension of implementation/construction, if any, its reasons, duration and the steps undertaken to resume implementation/construction
- xiv. All actual or potential deviations from the Implementation Plan
- xv. Disagreements/ Disputes, if any, and proposed measures to be taken
- xvi. Maintenance activities carried out by the Concessionaire
- xvii. Monthly monitoring report (please refer O&M Requirements)
- xviii. Injury to any personnel, its severity, cause and remedial measure(s) taken to avoid recurrence

Greater Hyderabad Municipal Corporation

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- xix. Brief report of any accident / incident, injury/fatality, property damage, cause of accident and actions taken to avoid recurrence
- xx. Notes of meetings between the Concessionaire, the Independent Engineer and GHMC highlighting critical decisions taken or agreements reached.

Within 90 days of issue of Readiness Certificate or the Provisional Readiness Certificate, as the case may be, the Concessionaire shall submit to GHMC the following documents, free of cost:

- i. Three hardcopies and two copies in electronic form (two Compact Discs) of the "as-built" Drawings of the implementation / construction works which have been completed as on COD (both COD – C&T and COD – T&D), duly verified by the Independent Engineer, including, but without limitation, an "as-built" survey illustrating all the details of the Project as actually designed, engineered, implemented and constructed. Such "as-built" Drawings shall be detailed, accurately scaled and sequentially numbered, covering all relevant engineering features, which in relation to structures shall also include cross sections in each drawing;
- ii. Copies of all studies, surveys, investigations and test carried out
- iii. Three hardcopies and two copies in electronic form (two Compact Discs) of the Operations and Maintenance Manual.

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Hyderabad

## OPERATION AND MAINTENANCE REQUIREMENTS

### 1. General

The Concessionaire shall comply with the O&M Requirements set out in this Schedule. In doing so, the Concessionaire shall ensure that the project is operated and maintained to the standards and specifications as set out in the Construction Requirements and also meet the other requirements, if any, set out in the Agreement.

In the design, planning and implementation of all works and functions associated with the operation and maintenance of the project, the Concessionaire shall take all such actions and do all such things (including without limitation, organising itself, adopting measures and standards, executing procedures including inspection procedures, and engaging contractors, if any, agents and employees) in such manner, as will :

- iv. Ensure the safety of personnel deployed on and users of the project or part thereof;
- v. Keep the equipment and machinery employed for the project from undue deterioration and wear
- vi. Permit unimpaired performance of statutory duties and functions of any party in relation to the Project;

During the Concession Period, the Concessionaire shall, in respect of the project, ensure that:

- i. Applicable and adequate safety measures are taken
- ii. Adverse effects on the environment and to the owners and occupiers of property and/or land in the vicinity of the project components, due to any of its actions, is minimised
- iii. Any situation which has arisen or likely to arise on account of any accident or other emergency is responded to as quickly as possible and its adverse effects controlled/minimised;
- iv. Disturbance or damage or destruction to property of third party by operations of the project or project components is controlled/minimised
- v. Data relating to the operation and maintenance of the project is collected
- vi. All materials used in the operation, maintenance of any of the project component shall meet the Construction Requirements;
- vii. The personnel assigned by the Concessionaire have the requisite qualifications and experience and are given the training necessary to enable the Concessionaire meet the O&M Requirements.

### 2. Operations and Maintenance Manual and O&M Plans

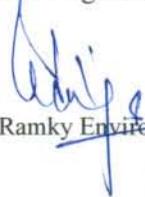
The Concessionaire shall finalise the O&M Plan and the O&M Manual for the project in the manner as set out below:

- (a) Prior to making application for the Readiness Certificate for the Project the Concessionaire shall finalise in consultation with the Independent Engineer:

  
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89

  
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- i. The O&M Manual (including the formats for the reports to be submitted during the Operations Period and the Post Closure Period)
- ii. The O&M Plan for the first five years of operations.

- (b) Six weeks prior to the anniversary of COD (both COD – C&T and COD – T&D) each year, the Concessionaire shall submit to the Independent Engineer and GHMC an annual O&M Plan for the next year of operations.

### 3. Compliance Criteria as per MSW Rules 2000

#### 3.1 Collection of Municipal Solid Wastes

Organising door to door collection of municipal solid wastes through organized door to door collection system by collecting daily on pre-informed timings and scheduling by using bell ringing of musical vehicle (without exceeding permissible noise levels).

Devising organized collection of waste from slums and squatter areas, direct collection of MSW from bulk generators including markets, hotels, restaurants, cinema theaters, malls, multiplexes, function halls, office complexes, commercial areas and other sources as indicated by GHMC time to time.

Wastes from slaughter houses, meat and fish markets, fruits and vegetable markets, which are biodegradable in nature, shall be managed to make use of such wastes.

Bio-medical wastes and industrial wastes shall not be mixed with municipal solid wastes and such wastes shall follow the rules separately specified for the purpose. If the bio-medical and industrial waste is observed same shall be reported to GHMC immediately.

Collected waste from residential and other areas shall be transferred to storage bins by suitable vehicles.

Horticultural and construction or demolition wastes or debris shall be separately collected and disposed off following proper norms. Similarly, wastes generated at dairies shall be regulated in accordance with the applicable regulations.

At any stage the MSW shall not be burnt.

Stray animals shall not be allowed to move around waste storage facilities or at any other place in the city and shall be managed accordingly.

The concessionaire shall notify waste collection schedule and the likely method to be adopted for the public benefit.

The concessionaire shall achieve the binless system over a period of time as finalized in the implementation plan.

#### 3.2 Segregation of municipal solid wastes

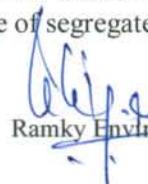
In order to encourage the citizens, concessionaire shall organize awareness programmes for segregation of wastes and shall promote recycling or reuse of segregated materials.



Greater Hyderabad Municipal Corporation

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90



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The awareness programs shall be conducted periodically once in a month for the first two years from COD-C&T and once in every quarter for rest of the concession period. Every six month schedule shall be prepared and submitted for GHMC approval at least 2 months before the program start date.

The concessionaire shall undertake phase programme to ensure community participation in waste segregation. For this purpose, regular meetings at quarterly intervals shall be arranged by the concessionaire with representatives of local resident welfare associations and non-governmental organizations.

**3.3 Storage of municipal solid wastes**

Concessionaire shall establish and maintain MSW storage facilities/containers/bins in such a manner as they do not create unhygienic and in-sanitary conditions around it. Following criteria shall be taken into account while establishing and maintaining storage facilities,

- i. Storage facilities/containers/bins shall be created and established by taking into account quantities of waste generation in a given area and the population densities. A storage facility shall be so placed that it is accessible to users;
- ii. Storage facilities/containers/bins to be set up by concessionaire shall be so designed that wastes stored are not exposed to open atmosphere and shall be aesthetically acceptable and user-friendly.
- iii. Storage facilities/containers/bins shall have 'easy to operate' design for handling, transfer and transportation of waste. Separate bins for storage of bio-degradable and non bio-degradable wastes shall be provided separately. The colour code for the storage facilities/containers/bins shall be followed as per the GHMC's directions;
- iv. Manual handling of waste shall be prohibited.
- v. Multiple handling of waste shall be prohibited.
- vi. At no stage of the system the MSW shall touch the ground.

**3.4 Transportation of municipal solid wastes**

Vehicles used for transportation of waste shall be covered. Waste should not be visible to public, nor exposed to open environment preventing their scattering. The following criteria shall be met:

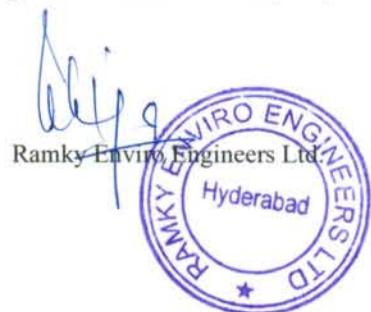
- i. The storage facilities shall be daily attended for clearing of wastes. The bins or containers wherever placed shall be cleaned before they start overflowing;
- ii. Transportation vehicles shall be so designed that multiple handling of wastes, prior to final disposal, is avoided.
- iii. The transportation system shall be designed in synchronization with the collection system.

**3.5 Processing of municipal solid waste**

Concessionaire shall adopt suitable technology or municipal solid technologies to make use of wastes so as to minimize burden on landfill. Following criteria shall be adopted, namely:-



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- i. The bio degradable wastes shall be processed by composting, vermin composting, anaerobic digestion or any other appropriate biological processing for stabilization of wastes. It shall be ensured that compost or any other end product shall comply with standards as specified in Schedule-IV of MSW Rules 2000;
- ii. Mixed waste containing recoverable resources shall follow the route of recycling. Incineration with or without energy recovery can also be used for processing MSW. Concessionaire wishing to use other state-of-the-art technologies shall approach the Central Pollution Control Board to get the standards laid down before applying for grant of authorization.

### 3.6 Disposal of municipal solid wastes

Land filling shall be restricted to non-biodegradable inert waste and other waste that are not suitable either for recycling or for processing. Land filling shall also be carried out for residues of waste processing facilities as well as pre-processing rejects from waste processing facilities. Land filling of mixed waste shall be avoided unless the same is found unsuitable for waste processing. Till installation of integrated facility, land-filling shall be done following proper norms. Landfill sites shall meet the specifications as given in schedule- III of MSW Rules 2000.

### 4. Containers – HDPE or Metal

The containers shall be maintained clean and hygienic.

The containers shall be inspected at least once in a week. On each container date of installation, date of last inspection and next due date for the inspection shall be clearly written.

No leakage of leachate and overflow of MSW from the containers are allowed. Containers without lid/cover shall not be allowed.

Any repair of containers shall be attended immediately.

If the container found unfit for the use shall be replaced immediately.

All the bins reaching transfer station or integrated facility shall be recorded using the bin coding along with the details time & date of entry, vehicle carrying the bins, area, etc.

### 5. Vehicles

Vehicle garages/workshops shall be maintained at the locations as agreed by GHMC for repair and maintenance of all the vehicles (except operated at integrated facility). The vehicle garage/workshops shall have facilities to attend following but not limited to;

Regular repair and maintenance works like;

- i. Washing, greasing, servicing as per schedule
- ii. Water topping in the radiator
- iii. Engine oil level check and change of engine oil
- iv. Air pressure in tyres
- v. Checking oil level of the hydraulic system



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92



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- vi. Check leakage of oil and change oil seal if required
- vii. Check hydraulic operation, check pressure
- viii. Auto electric works,
- ix. Battery checking, charging, etc.
- x. Regular repair and maintenance of vehicles

The garage/workshop shall support preventive maintenance of vehicles. The working of the preventive maintenance should be devised on the recommendations of the vehicle manufacturers (daily, fortnightly and after every 2000 km).

A schedule shall be prepared for daily checking, monthly checking and periodic checking and repairs, replacements as specified by the manufacturers of the vehicles.

Each vehicle & equipment should have its own history of document, providing details of purchase, specifications, deployment and use, maintenance work done, all costs, etc.

Sufficient number of recovery vehicles for attending break downs shall be provided.

Stock of all spare parts, tyres, oil, auto electric items, hosepipes of hydraulic systems, etc.

Battery chargers, tyre inflators, vulcanising facilities.

Welding units, both electrical and gas welding.

Air compressor & water servicing facilities.

The vehicles shall be kept clean and regularly painted at least twice in a year with anti corrosive paint.

Sufficient trained staff shall be deployed to attend the repair and maintenance of vehicles.

All the vehicles shall have fitness certificate from Road Transport Authority, Government of Andhra Pradesh or any other agency approved by Government of Andhra Pradesh.

## 6. Transfer Station

### 6.1 Reception

During the reception procedures the concessionaire shall ensure, that only waste, which can be, accepted at the transfer station is admitted and that the waste is controlled and registered before admittance.

### 6.2 Acceptable Waste

The transfer station can receive only municipal solid waste as defined in MSW Rules 2000 and Andhra Pradesh Pollution Control Board, excluding hazardous waste, bio-medical waste and treated hazardous & bio-medical waste.

### 6.3 Permission for disposal

Only wastes from GHMC area and GHMC approved sources/areas shall be accepted.

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#### 6.4 Reception of Waste in Small Vehicles or Private Vehicles

Citizens of GHMC can deliver waste for disposal at the transfer station by their own transport without prior agreement. The concessionaire can at his choice establish an area in close connection with the reception area, where private citizens can unload their waste into e.g., open containers, thereby avoiding traffic of private vehicles in the transfer station.

#### 6.5 Control of incoming waste

All waste delivered at the transfer station shall be controlled by the Concessionaire. The control comprises:

- i. Registration details of the waste transportation truck and the origin of waste.
- ii. Weighing and registration of the waste.
- iii. Control of delivery documents (i.e. weightment slips).
- iv. Direct visual control of the waste for type and composition for compliance of waste type with documentation.

All information is recorded in the electronic data system, stored and secured.

#### 6.6 Registration

Records of all data concerning reception and transport of waste to the transfer station are registered in the software data system connected to the weighbridge. The operator of the weighbridge and registration system is responsible for the input to the data system of all relevant data for each incoming truck and for each shipment of waste. Input data will consist of:

Date and time of arrival of the vehicle.

Data regarding the waste supplier:

- i. Source – by the concessionaire / GHMC / citizen / other
- ii. Address
- iii. Telephone number
- iv. Responsible person/officers name.
- v. Registration number/code of the truck.

The waste producer and the origin of the waste as stated in the waste declaration

If the waste is delivered in trucks that have no registration card/details vehicle shall not be allowed into the transfer station.

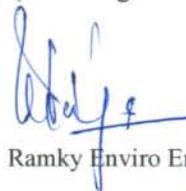
#### 6.7 Weighing and registration of the waste

All incoming and outgoing vehicles carrying waste shall pass over the weighbridge and be weighed and registered. Data from the weighing procedure (including data for rejected waste) shall be recorded in the integrated data system.



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GREATER HYDERABAD MUNICIPAL CORPORATION**



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Persons specifically trained in its use shall operate the systems. A special instruction manual for operating the data recording system will be prepared for the staff by the supplier of the weighing system / concessionaire.

The manufacturer's operation manuals for the individual units shall be adhered to strictly. Each weighing procedure shall as a minimum comprise:

- i. Truck registration number. Owner of the truck
- ii. Waste origin/producer.
- iii. Waste type
- iv. Weight of the waste.
- v. Acceptance/non-acceptance of the waste at the landfill

Data from each weighing procedure shall be recorded in a database. At the end of each day a back-up copy of the weighing of the day shall be produced on compact disc (CD). The back-up files shall be stored in a building other than the traffic Control Building containing the data recording system.

Not later than by the end of each day the weighbridge records of the day are printed and inserted in the "Transfer Station Report Book" kept by the Manager of the facility.

### **6.8 Installation of Close circuit Camera**

The concessionaire shall install a close circuit camera at each weighbridge to record the vehicles being weighed. The camera shall record clearly the registration details of the vehicle and face of the vehicle driver along with time. At the end of each day a back-up copy of the close circuit camera recording of the day shall be produced on compact disc (CD) or any other electronic data storage device.

### **6.9 Vehicles Departing the Facility**

All vehicles departing the transfer station shall be weighed, inspected and if necessary cleaned in the truck wheel wash facility located at the transfer station.

All the vehicles leaving the transfer station shall be weighed and the procedure for weighing and monitoring and data record shall be same as waste reception.

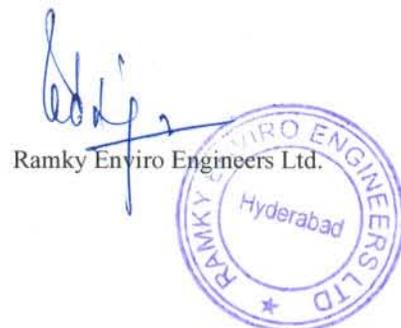
### **6.10 Maintenance of Structures**

The CC, RCC, Masonry, Steel and other structures within the transfer station shall be reported to the Independent Engineer and repaired or maintained.

- i. The CC, RCC, Masonry and other structures shall be checked for cracks and other deformations and shall be attended immediately
- ii. Periodic maintenance including plastering, cementing, painting, etc. shall be done for CC, RCC, Masonry and other structures periodically (atleast once in every year)
- iii. Periodic maintenance including welding, riveting, painting, etc. shall be done for steel structures periodically (atleast once in every year)



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**6.11 Maintenance of Utilities and Services**

The utilities and services like water supply, wastewater collection & treatment, leachate management system, lighting, green belt, etc. within the transfer station shall be attended immediately for any repaired or maintained. The same shall be brought into the notice of the Independent Engineer.

**6.12 Maintain Hygienic and Aesthetic Conditions**

The transfer stations shall be maintained hygienic and aesthetic conditions by taking proper measures as suggested by Independent Engineer. This shall be the part of O&M Plan / O&M Manual.

**7. Integrated Facility**

All incoming vehicles carrying waste shall pass through the main gate and on to the weighbridge for registration of the weight. All data on received waste shall be recorded in the data system integrated with the weighbridge. This data will indicate the type and composition of the incoming waste, quantity (in tons), the origin of the waste (i.e. the transfer station or area) and the waste declaration (permission for disposal of the waste in the integrated facility).

**7.1 Reception**

During the reception procedures the concessionaire shall ensure, that only waste, which can be, accepted by the integrated facility is admitted and that the waste is controlled and registered before admittance.

**7.2 Acceptable waste**

The integrated facility can receive only municipal solid waste as defined in MSW Rules 2000 and Andhra Pradesh Pollution Control Board, excluding hazardous waste, bio-medical waste and treated hazardous & bio-medical waste.

**7.3 Permission for disposal**

Only wastes from GHMC area and GHMC approved sources/areas shall be accepted.

**7.4 Reception of Waste in Small Vehicles or Private Vehicles**

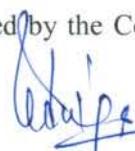
Citizens of GHMC can deliver waste for disposal at the integrated facility by their own transport without prior agreement. The concessionaire can at his choice establish an area in close connection with the reception area, where private citizens can unload their waste into e.g., open containers, thereby avoiding traffic of private vehicles in the integrated facility.

**7.5 Control of incoming waste**

All waste delivered to the integrated facility shall be controlled by the Concessionaire. The control comprises:



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- i. Registration details of the waste transportation truck and the origin of waste.
- ii. Weighing and registration of the waste.
- iii. Control of delivery documents (i.e. weightment slips).
- iv. Direct visual control of the waste for type and composition for compliance of waste type with documentation.

All information is recorded in the electronic data system, stored and secured.

## 7.6 Registration

Records of all data concerning reception and transport of waste to the integrated facility are registered in the software data system connected to the weighbridge. The operator of the weighbridge and registration system is responsible for the input to the data system of all relevant data for each incoming truck and for each shipment of waste. Input data will consist of:

Date and time of arrival of the vehicle.

Data regarding the waste supplier:

- v. Source – by the concessionaire / GHMC / citizen / other
- vi. Address
- vii. Telephone number
- viii. Responsible person/officers name.
- ix. Registration number/code of the truck.

The waste producer and the origin of the waste as stated in the waste declaration

If the waste is delivered in trucks that have no registration card/details vehicle shall not be allowed into the integrated facility.

## 7.7 Weighing and registration of the waste

All incoming and outgoing trucks carrying waste shall pass over the weighbridge and be weighed and registered. Data from the weighing procedure (including data for rejected waste) shall be recorded in the integrated data system.

Persons specifically trained in its use shall operate the systems. A special instruction manual for operating the data recording system will be prepared for the staff by the supplier of the weighing system / concessionaire.

The manufacturer's operation manuals for the individual units shall be adhered to strictly. Each weighing procedure shall as a minimum comprise:

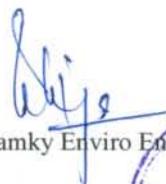
- i. Truck registration number. Owner of the truck
- ii. Waste origin/producer.
- iii. Waste type
- iv. Weight of the waste.
- v. Acceptance/non-acceptance of the waste at the landfill



Greater Hyderabad Municipal Corporation

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**GREATER HYDERABAD MUNICIPAL CORPORATION**

97



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Hyderabad

Data from each weighing procedure shall be recorded in a database. At the end of each day a back-up copy of the weighing of the day shall be produced on compact disc (CD). The back-up files shall be stored in a building other than the traffic Control Building containing the data recording system.

Not later than by the end of each week the weighbridge records of the week are printed and inserted in the "Integrated Facility Report Book" kept by the Manager of the facility.

**7.8 Installation of Close circuit Camera**

The concessionaire shall install a close circuit camera at each weighbridge to record the vehicles being weighed. The camera shall record clearly the registration details of the vehicle and face of the vehicle driver along with time. At the end of each day a back-up copy of the close circuit camera recording of the day shall be produced on compact disc (CD).

**7.9 Vehicles Departing the Facility**

All vehicles departing the integrated facility shall be weighed, inspected and if necessary cleaned in the truck wheel wash facility located at the facility.

All the vehicles leaving the integrated facility shall be weighed and the procedure for weighing and monitoring and data record shall be same as waste reception.

**7.10 Waste Transport at the Integrated Facility**

After control and registration at the entrance the operator of the weighing bridge directs the driver of the truck to the appropriate area for unloading of the waste.

The concessionaire shall install traffic signs and road markings inside the integrated facility.

The common Traffic Regulations shall valid inside the facility area. The maximum speed limit for all vehicles is shall be 30 kmph.

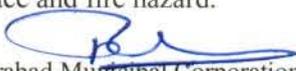
In order to ensure a safe transportation of the waste at the facility all displayed traffic signs shall be maintained properly. This applies whether it is a signboard or signage on the road surface.

The traffic regulations shall be in accordance with the Transport Department, GoAP and all applicable regulations.

**7.11 MSW Processing or Treatment Facility**

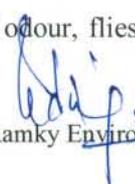
The incoming wastes at facility shall be maintained properly prior to further processing. The waste storage area should be covered. The storage area shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility.

Necessary precautions shall be taken to minimize nuisance of odour, flies, rodents, bird menace and fire hazard.



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Necessary alternative and / or storage arrangements shall be planned during of breakdown or maintenance of plant.

Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the facility. Recyclables shall be routed through appropriate vendors. The non-recyclables shall be sent for landfill site(s).

In case of compost plant, the windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay having permeability coefficient less than  $10^{-7}$  cm/sec and load bearing capacity 40 MT/m<sup>2</sup>. The base shall be provided with 2 per cent slope and circled by lined drains for collection of leachate and surface run-off;

The operation & maintenance and monitoring of the processing / treatment facility shall be in accordance with the Andhra Pradesh Pollution Control Board and all other applicable rules, regulations, acts, guidelines, standards and laws

## 8. Secured Landfill Facility

### 8.1 Temporary Roads

No traffic shall be allowed directly on top of drainage layer in the landfill cells or on the intermediate dikes. The landfill staff shall establish and maintain access ramps and temporary roads over the dikes and the drainage layer with a minimum thickness of 0.5 m ensuring a minimum distance from wheelbase to the polymer liner of minimum 1.0 m.

The landfill staff shall establish and maintain access ramps and temporary roads over the already deposited waste inside the landfill cells, securing the safe access of waste delivery trucks for unloading in the cells. The roads can be established using gravel and/or stone, crushed mineral debris from construction and demolition waste or moveable plates of concrete or steel. The thickness of compacted waste below the temporary roads shall be at least 2.5 m.

### 8.2 Unloading and Control

When the delivery truck arrives at the landfill cell the operator of the compacter points out to the driver the exact location for unloading the waste.

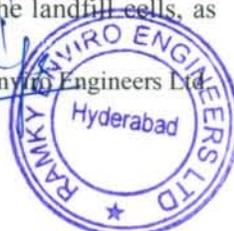
After unloading at the appointed position, the landfill compactor or a bulldozer spreads the waste and the operator visually inspects the waste for compliance with the waste type and composition, which is acceptable in the landfill cell. The delivery truck is not allowed to leave the landfill cell before the waste has been finally accepted or rejected.

In case the waste is rejected the waste shall be loaded back into the truck and the truck driver shall be instructed to return for processing.

### 8.3 Compaction of the Waste

Neither the compactor nor any other vehicles are under any circumstances allowed to drive directly on the drainage layer at the bottom or inner slopes of the landfill cells, as

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this may cause damage to the drainage pipes and/or the bottom liner. Therefore an initial layer of mainly fine grained waste without large objects (longer than 1 m), hard or sharp objects, which could perforate the HDPE membrane shall be placed before any compaction of the waste takes place. Nor may the initial layer contain sludge or liquid waste. The initial layer is installed using a bulldozer or the compactor to position the waste by "over-rolling" - not pushing -in to a single layer of approx. 2.5 m height before compaction.

The initial layer shall be covered using a daily or intermediate cover.

After the 'initial layer has been placed concurrent layers are installed using the compactor or a bulldozer to push the unloaded waste to its final position in the landfill cell and spread it to a layer no more than 0.5 m in thickness. The waste is crushed and compacted by 3-5 passes by the landfill compactor. Larger objects in the waste may require additional passes to be crushed adequately.

The compacted waste layers are installed with a sloping face to promote surface water run off and to minimize the total open area of uncovered waste during operation.

#### 8.4 Face tipping

The waste is tipped out and compacted into a bench. The bench continues level across the cell for a period of days or weeks until the cell is filled in its full 'Width. The height of the bench is 2-3 m, and the compactor is working down the face of the bench as well as along the surface of the bench.

#### 8.5 Onion Skin Tipping

The gradient of the face slope is considerably shallower than for the Face Tipping method, and the compactor operates solely on the face. This method generally results in higher compaction degree of the waste and reduces the risks for litter being blown of the face by the wind.

#### 8.6 Counteracting seepage and overflow:

Irrespective of the chosen installation technique, the concessionaire shall ensure, that neither during filling of the landfill cells, nor after installation of intermediate, temporary or final cover may overflow or seepage of leachate occur, that results in leachate flowing to the surroundings.

Until the top coyer system has been installed a temporary ditch shape shall be maintained between the deposited waste and the side of the dike along the surrounding dike and the ring road.

Each lift of waste shall be installed and compacted with a slight gradient of the near horizontal surface towards the central part of the landfill cell. This will reduce the risks for leachate inside the waste body to move horizontally towards the outer slopes of the deposited waste and consequently reduce the risks for seepage through the cover system.



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100




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## 8.7 Special measures

The operators of any machinery operating in the landfill cells shall pay special attention not to cause damages to gas collection wells or other structures inside the landfill cell. The compactor and other vehicles may not operate within a 2.0m distance from these structures.

## 8.8 Daily and Intermediate Cover

### (a) Daily Cover

At the end of each working day the working face of the waste shall be covered with free-draining soil or other suitable inert and permeable material, e.g. crushed construction and demolition wastes. The implementation of a daily cover decreases the risks for fires and odours, for windblown litter, and impedes the access for vectors to the waste.

The Concessionaire shall, in accordance with the O&M Requirements, at its own cost and expense provide the Daily Cell Cover which shall consist of atleast 150 mm thick compacted soil layer over a 2 m thick layer of MSW amended with additives as per IS: 6186-1986.

### (b) Intermediate Cover

Intermediate cover is used when filled surfaces are likely to be left for a period of 4 weeks or one month and before monsoon before additional lifts of waste are to be added. The cover significantly reduces rainfall infiltration, whilst it effectively reduces the risks for windblown litter.

The Concessionaire shall, in accordance with the O&M Requirements, provide an Intermediate Liner, which shall consist of atleast 450 mm thick compacted soil amended with additives as per IS: 6186-1986 to reach the required permeability value  $1 \times 10^{-7}$  cm/sec.

## 8.9 Gas Collection Wells

After installation of the initial layer of waste at the bottom of the landfill cells, gas collection wells shall be erected concurrently with the increasing fill height. The wells shall be established using coarse grained gravel and stones or crushed mineral debris from construction and demolition wastes installed as vertical "chimneys" through the waste body. Installation takes place using a steel tube as casing as described in the following:

The open ended pipe casing is positioned vertically at the surface of the initial layer of waste using the compactor or equivalent machinery, lifting the casing by chains attached to handles welded to the casing. The casing shall be stabilized, e.g. with waste positioned up to the casing.

When the filling of waste reaches the lift height the casing is filled with the gas drain material. The drainage material shall not be compacted as this may impede the extraction of the casing without dislocation of the drainage material.



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101



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The casing is lifted corresponding to the height of the next lift of waste, again using chains and the compactor or equivalently suitable machinery. The operations above are then repeated for each lift of the waste up to the last lift before reaching the final filling height in the landfill cell.

In the final lift the vertical gas collection pipe in the centre of the well is installed inside the casing before filling the casing. When the final filling height has been reached the casing shall be removed in which process special care shall be exercised securing, that the vertical collection pipe is not damaged or dislocated.

When the final top cover system has been installed the remaining components of the gas collection well shall be installed

### **8.10 Temporary Cover and Top Cover System**

#### **(a) Temporary Cover:**

The utilisation of a temporary cover reduces the area of exposed waste and thus diminishes negative visual impacts and reduces leachate generation. The temporary cover is used when filled surfaces are likely to be left for a period of one year or more. Further the temporary cover is used to cover the waste in the period of time between the final filling height being reached and the final top cover system being established. Materials used for the temporary cover shall be low-permeable - but not impermeable - soils.

The thickness of the temporary cover shall be approximately 50 cm or more. In order to protect the surfaces from erosion and to reduce the risks for drift of dust from the surface, a thin layer of topsoil is applied and seeded using grass and herbs with strong root systems.

In areas where filling operations are resumed at a later stage and prior to installation of the final top cover system, the temporary' cover is scraped off for subsequent reuse.

The temporary cover shall be inspected regularly and as minimum after any heavy rainstorms in order to detect and repair any defects in the cover caused by e.g. erosion.

#### **(b) Top / Final Cover System**

The top cover system acts as a barrier between the waste and the surrounding environment and reduces the amount of rainwater infiltrating the landfill body and herewith reduces the leachate generation.

The top cover system shall be installed in phases concurrently with stages of the landfill reaching their final filling height.

The top cover shall be inspected regularly and as minimum after any heavy rainstorms in order to detect and repair any defects in the cover caused by e.g. erosion, sliding, etc.

### **8.11 Leachate Management System**

Leachate management at the landfill includes the operation of the following units:



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102



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- i. Leachate drainage system (drainage layer and drainpipes at the bottom of the landfill cells, the leachate outlet structures in the lowest and in the highest positioned corners of each cell)
- ii. Inspection and leachate collection shafts positioned outside the membrane covered area.
- iii. Leachate pumps installed in the leachate collection shafts.
- iv. Leachate transportation pipes installed in the surrounding dike.
- v. Leachate treatment

During normal operation the equipment is totally self reliant requiring no input by the site personnel shall however be exercised to ensure the proper function of the system at all times.

To ensure an effective operation of the systems the periodical inspections and maintenance must be exercised

### 8.12 Wastewater Management

The wastewater generated in the facilities and buildings in the reception area shall be treated to meet the applicable standards. The system shall be inspected on a regular basis for sedimentations or other blockages impeding the function of the system.

### 8.13 Landfill Gas Management

#### (a) General

The emission of landfill gas is controlled by the operation of the gas collection system, which will be installed and set in to operation immediately after the top cover system has been installed. The principles for the design and function of the gas collection system shall be submitted for GHMC's approval. The final design in terms of the final number of necessary gas collection wells cannot be undertaken before actual measurements of the gas production have been performed, which again cannot be performed before the deposition of waste in a landfill cell is completed.

When installed and running at a stable level the gas management system is in principle self reliant. In order to secure the most efficient gas control it is however necessary, that the concessionaire monitors and adjusts the system on a regular basis.

#### (b) Installation of wells, etc.

During filling operations the concessionaire ensures, that the gas collection wells are installed as approved. As the filling of waste reaches its final height and the top cover system is installed, the collection gas drain pipes in the top cover system shall be connected to the gas collection wells, the remaining parts of the gas collection wells shall be installed as shall the gas transportation pipes and the flare/utilization unit. The initial adjustments of the collection system shall be performed in accordance with the operation instructions given by the supplier of the flare unit after GHMC's approval.

It is strongly recommended that the installations are undertaken by a contractor experienced with this kind of work under the supervision of Independent Engineer / GHMC.

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103

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During the initial operation of the gas collection system it may prove necessary to install additional gas collection wells in order to control gas emissions from the landfill. These can be established by drilling or by excavation from the top of the re-cultivated landfill.

The quality (composition) of the gas and the pressure inside the wells vary from well to well and over time for the individual well. Each well must be adjusted individually at start-up of operation, and it is further necessary to monitor and adjust the wells later during the operation.

In order to adjust a gas well, it is necessary to monitor 3 parameters:

- i. The vacuum or the flow in the boring
- ii. The methane content ( $\text{CH}_4$ )
- iii. The oxygen content ( $\text{O}_2$ ).

(c) Running-in

In the initial phase of the operation and after any major changes to the system (e.g. the addition of new gas collection wells) the system shall be adjusted to the new conditions through the below procedures.

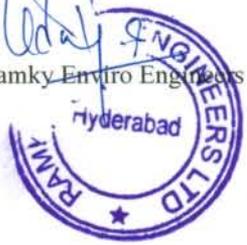
- i. All the gas wells are checked for water and emptied if necessary.
- ii. The above stated parameters are measured and registered for each well, as is the corresponding atmospheric pressure.
- iii. All valves at the gas wells are opened corresponding to the maximum flow from each well.
- iv. All valves at the in-flow manifold at the stack and flare/utilisation unit are opened, and the pump is adjusted to a gas flow of approx. 2-3  $\text{m}^3/\text{year}/$  tons waste covered by the installed gas extraction system.
- v. Pumping continues for approx. 1 week. Every 24 hours readings are taken of all the above stated parameters.
- vi. In case the content of oxygen increases significantly and above 1.0% in either any of the wells, the valve at the well is adjusted in small increments to reduce the flow from that well, until the content of oxygen is below 1.0 %.
- vii. The measurements and consequent adjustments are continued until the contents of methane and oxygen are stable for each well. In this stable situation the content of methane shall not be less than 35% and the content of oxygen not more than 1.0%.
- viii. When a stable situation is reached, the total flow is increased by about 20% by adjustment of the pump.
- ix. The above procedures - items 5 to 8 - are repeated until the maximum flow, i.e. the maximum gas production, at a stable content of methane is reached.

During the first 48 hours the quality of the gas most likely will be better (i.e. have a higher methane content), than when the stable situation is reached.

(d) During operation

When the system is operating at full capacity the content of methane and oxygen, the vacuum and/or the flow shall be measured once every week at the in-flow manifold at the

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stack and flare / collection unit. All Measurements are registered in the log book for the gas management system.

If the total oxygen content measured in the pump house increases to approximately 1.5%, measurements shall be done at the individual gas wells. At all wells, where the oxygen content is more than 1.0 %, the valve is adjusted in small increments until a stable level of oxygen below 1.0% has been reached. It may prove necessary to make several rounds of measurements and adjustments.

Adjustments of the flow from and especially the closing of individual gas wells will influence the flow from the other gas wells in the system. After significant adjustments and after closure of one or more gas wells, the resulting vacuum (suction pressure) at the in-flow manifold of the pump must be checked. If necessary the pump must be adjusted accordingly to obtain an acceptable suction pressure.

Closed gas wells shall be monitored every 14 days. If the methane content increases above 35% the well shall be re-opened

#### 8.14 Measures for Reduction of Nuisances

Odours, dust, wind-blown litter, vermin and noise can become significant nuisance factors for the surroundings during the operation of the landfill.

##### (a) Odour

Offensive odours may arise from:

- i. Digging activities in previously deposited waste.
- ii. Handling of malodorous wastes.
- iii. Aerial spraying (re-circulation) of leachate, open leachate lagoons or containers
- iv. Emission of landfill gas

Principal means of minimizing landfill odours include:

- i. Effective compaction.
- ii. Provision of adequate cover especially the daily cover.
- iii. Immediate deposition and covering of especially malodorous wastes.
- iv. Effective gas collection and treatment system.
- v. Immediate deposition and covering of excavated wastes
- vi. Avoid re-cycling of leachate and the storage of untreated leachate in open lagoons or containers

##### (b) Dust

Emission of dust may occur under windy conditions:

- i. During unloading of waste.
- ii. During installation of cover materials.
- iii. When driving on dry, unpaved areas.
- iv. When driving on paved but poorly cleaned areas.



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The concessionaire shall organize the operations at the landfill in such a way, that emission of dust is kept to a minimum. The following measures can be used:

- i. Surfaces with dry soil and service roads are sprinkled with water.
- ii. Transportation activities are restricted to the service roads
- iii. Paved service roads are cleaned by sweeping.
- iv. Sprinkling of dry soil or waste during excavation and reposition
- v. Areas with temporary cover area seeded with grass.

(c) Litter

A frequent reason for complaints from residents living near landfill sites is litter blowing outside the landfill area. The perimeter fence installed around the landfill site and the planted windbreak zone helps to contain litter and prevents it from being scattered to adjacent properties. Daily cleanups, particularly at the end of the working day, limit the quantity of litter that can be carried to adjacent properties.

The amount of wind-blown litter can further be substantially reduced by:

- i. Keeping the working area as small as possible
- ii. Placement and compaction of the waste immediately after unloading
- iii. Installation and maintenance of daily, intermediate and temporary covers
- iv. Installation and maintenance of moveable fencing around the working face
- v. Restricting unloading on windy days to areas of the landfill cells sheltered from the wind
- vi. Closing the site under exceptionally bad weather conditions.

(d) Vermin

Vermin include rats and other rodents, insects, birds and other animals, each of which can carry disease agents and therefore becomes a health hazard.

The most effective practice in the control of vermin is rapid and complete compaction and covering of all waste. The territory of the landfill must be maintained clean and tidy. The accumulation of stagnant water anywhere on the site must be prevented by proper grading, filling low spots, and placing cover soil over waste material.

Rats and mice may be brought into the site with the solid waste. Regular site inspections will indicate the prevalence of these animals. When significant numbers are identified, an experienced pest control specialist should be employed to deal with the problem.

Noise:

Nuisance from noise mainly may arise from vehicles and mechanical equipment operating or moving at the site.

In order to mitigate noise all vehicles and mechanical equipment shall be kept in good working order at all times. Special attention shall be given to the fitting and maintenance of any sound reducing equipment to vehicles, machinery and fixed plant. The strict enforcement of speed limits will reduce noise from vehicles moving in the area.



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## 9. Cleaning and Maintenance Requirements

### 9.1 General

The Concessionaire shall plan and execute cleaning and maintenance procedures ensuring, that

- i. the buildings, structures, seeded and planted areas, paved and un-paved traffic areas etc. are maintained clean and proper without damages, that may impede their functionality or appearance.
- ii. all moving or fixed equipment and machinery are maintained clean and in good working condition.
- iii. all service facilities, e.g. outdoor sewage system, leachate management system, etc., are inspected regularly, cleaned and maintained.

All mechanical equipment and machinery used at the landfill must be strictly maintained according to the manufacturer's specifications.

Every day at closing time the internal roads and other paved areas shall be inspected, and any spillage of waste shall be collected and disposed of in the landfill cell currently in operation. If necessary the paved areas shall be swept using a sweeping machine. During dry periods dust emission shall be controlled by sprinkling the surfaces with water in connection with sweeping activities.

### 9.2 Fence and Surrounding Areas

The fence, the windbreak zone and the surrounding areas in the vicinity of the landfill shall be inspected and windblown litter removed on a regular basis, e.g. once every week. Collected litter shall subsequently be disposed of in the landfill cell currently in operation.

Registered damages of the fence and gate must be repaired immediately.

### 9.3 Reception Area

The reception area shall be kept free from dropped and windblown waste, soil/mud, etc.

### 9.4 Weighbridges

The weighbridges and the weighbridge foundations shall be kept clean and free of spilled waste.

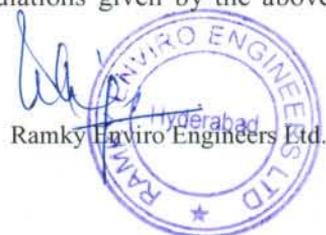
The weighbridges shall be serviced and maintained strictly in accordance with the manufacturer's specifications.

The weighbridges shall be calibrated and certified on a yearly basis by the competent authority:

Any calibration needed shall follow the directions and regulations given by the above authority.



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## 135

In the case of any problems with the weighbridge operation, the concessionaire shall immediately inform the GHMC and shall undertake the immediate repair works.

At times when either one of the two weighbridges is out of operation the weight of the delivered waste must be recorded using the other weighbridge. The landfill management shall search for cooperation with other facilities that possess an approved weighbridge to enable weighing even at times when both weighbridges are out of operation.

In case of malfunction of the data registration system the concessionaire shall immediately inform the GHMC and shall undertake the immediate repair works. In such a period the data on delivered waste shall be recorded manually. When the data system has been repaired and in operation all the manually registered data shall be converted to the data system.

### 9.5 Buildings, Structures and Installations

Observed damages to buildings, structures and installations must be repaired immediately. For all significant incidents a damage report shall be prepared and kept in record for GHMC's verification.

The garage and workshop must always be kept clean and tidy for optimal working conditions for the maintenance and repair of facility machinery and vehicles.

### 9.6 Equipment and Machinery

Equipment and machinery used at the landfill must be strictly maintained according to the manufacturer's specifications, on the frequency of lubrication, oil change and inspections must by strictly adhere to.

The equipment and machinery must be kept clean and protected from corrosion.

- i. A log-book must be kept for each main element of equipment. Log-books shall be maintained for all the equipment, machinery and vehicles

All data regarding service, maintenance and repair of the equipment, machinery and vehicles shall be recorded in the log-books as well as the operating time of equipment, machinery and vehicles.

### 9.7 Access and Service Roads

The roads must be inspected regularly. Any potholes or other damages must be repaired within the shortest period of time ensuring, that minor damages do not develop in to an extent, which may impede the function of the facility.

By the end of each working day all paved areas at the integrated facility and the external access road shall be inspected for dust, litter and spillage of waste. If required they shall be cleaned and swept using a sweeping machines.

### 9.8 Dikes and Surface Water Ditches

Dikes must be inspected regularly and at least twice a year,, as well as after heavy rains.

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Registered damages to the surface of the dikes, e.g. from surface water erosion, landslides etc., shall be repaired and if damaged the vegetation shall be restored.

In places where the same kind of damage is registered repeatedly special attention shall be given to determine the cause of the damage and to determine appropriate countermeasures.

Surface water ditches shall on a regular basis be inspected and kept clear from waste, vegetation, soil and sand to prevent clogging of the system. The ditches must be inspected at least twice a month.

## 9.9 Leachate Management System

### (a) General

The following on site incidents may impede the proper function of the leachate management:

- i. Intrusion of fine particles in to the drainpipes and subsequent clogging of the pipes
- ii. Accumulation of sediments at the bottom of the collection well causing malfunction of the pumps
- iii. Mechanical malfunction of the pumps in the collection wells
- iv. Clogging of main transportation pipe line in the ring road
- v. Malfunction of the waste water treatment plant
- vi. In general the above incidents are avoided by the regular inspection, cleaning and maintenance of the components in the system.
- vii. Measurement of the leachate depth in the inspection and collection wells
- viii. Visual control of the landfill cell for accumulations of leachate above the drainage layer
- ix. Monitoring of the pump function (operation time, registration of start and stop, registration of unscheduled stops and alarms)
- x. Registration of the quantities of leachate delivered for treatment at the waste water treatment plant
- xi. The inspections shall be exercised on a monthly basis and in addition after heavy rain storms each incident and pursuant counter measure shall be recorded in a log-book.

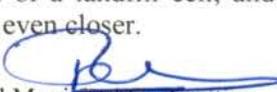
### (b) Clogging of the drainpipes

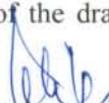
Indications of clogging of the drainpipes in the landfill cell can be:

- i. A rising level of leachate in the inspection well and/or visible leachate above the drainage layer combined with little or no pumping activity in the collection well.
- ii. Little or no pumping activity in the collection well even after heavy rain.

The drainpipes shall be flushed using a high-pressure water jet from the inspection well and the collection well respectively, ensuring that the drain pipes are flushed in their entire length.

The risk of the drainpipes being clogged is increased during the initial 1-2 years of operation of a landfill cell, and in this period the function of the drain pipes shall be followed even closer.

  
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(c) Malfunction of the pumps

A rising level of leachate in a collection shafts and/or alarms from the control panel for the pump indicates that the pump does not operate adequately.

The pump shall be removed from the well for appropriate inspection for mechanical malfunction and for immediate repair.

The collection well shall be inspected for accumulation of sediments and if necessary emptied using a vacuum tanker / gully emptier prior to reinstallation of the pump. If the pump cannot be reinstalled within 24 hours a spare pump or moveable pump shall be temporarily installed ensuring the function of the leachate management system.

(d) During pump Stop

The control panels for the pumps are equipped with a usual alarm for breakdowns or stoppages of pumps.

In case of breakdown or stoppage of a pump, and when a pump shall undergo maintenance procedures, the pump in question shall be removed from the leachate collection shaft for appropriate repair or maintenance.

In order to remove pumps personnel has to enter the leachate shaft observing at all times the special measures for work in confined areas containing hazardous fumes.

The following procedure shall be followed for removal and re-installation of pumps:

- i. The power for the pumps shall be switched off before entering the shaft.
- ii. Qualified personnel enter the shaft and from a position at the intermediate platform inside the shaft the stop valves of the pump are closed.
- iii. The pump in question is lifted to the platform, dismantled and removed from the pumping station.
- iv. In case the pump must be removed for more than 24 hours a suitable spare pump shall be installed in its place ensuring the function of the collection shaft.
- v. In case sediments have accumulated in the bottom of the pumping well to an extent impeding the re-installation, the pumping well may be flushed using pressurized water through a flexible hose or emptied using a vacuum tanker / gully emptier prior to the re-installation of the pump.
- vi. After installation of the repaired pump the pump is lowered into position.
- vii. The stop valves for the pump are opened.
- viii. After leaving the collection shaft the power to the pump is switched on again.

(e) Clogging of main transportation pipe

A low in-flow of leachate to the waste water treatment plant combined with a rising level of leachate in the collection shafts may indicate sedimentations in the main transportation pipe. The pipeline shall then be flushed using a high-pressure water jet ensuring that the pipeline is flushed in its entire length.



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### 9.10 Top Cover and other covers

Areas covered by intermediate, temporary or the final top cover shall be inspected at least once every two months for damages, e.g. erosion, slides, cracks or significant subsidence. Seeded areas shall be inspected for signs of vegetation die-off. Inspections shall also be carried out after heavy rain storms.

Any registered damages shall be repaired ensuring the continued function of the cover. In places where the same kind of damage is registered repeatedly special attention shall be given to determine the cause of the damage and to determine appropriate countermeasures. It is strongly recommended that the Independent Engineer is consulted in this case.

Vegetation die-off may indicate migration of landfill gas through the cover, which may be caused by reduced efficiency of the land fill gas collection system in the area in question or by damages to the top cover. Where the surface of the landfill at the same time exhibits significant subsidence, the reduced efficiency may have been caused by discontinuities in the gas drain layer in the top cover. The efficiency of the gas collection system shall be increased by regulation of the vacuum in the nearest gas wells or by adding new gas wells to the system. It may prove necessary to excavate the top cover in the subsidence area, level the subsidence and reinstall the top cover.

The vegetation shall be restored following the above repair works.

### 9.11 Landfill Gas Management

The pump and flare stack unit shall be checked, cleaned and serviced as required by the supplier / manufacturer.

The efficiency of the landfill gas management system can be influenced by condensate accumulated in water traps in the transmission pipes - created by subsidence in the waste or by excessive accumulation of condensate in the condensate wells. The Concessionaire shall check the system for such disturbances whenever the gas flow seems to be reduced and at least once every month.

#### (a) Condensate wells

Condensate wells are opened and the level of the accumulated condensate is checked. If the level of condensate exceeds a level of 0.7 m above the bottom of the well, the well shall be drained and a return-blow procedure shall be executed.

#### (b) Water traps

A progressing accumulation of condensate in a water trap will result in significant and rapid changes in the suction pressure in the pipeline, as the gas passes the water trap in thrusts. During the regular readings of the suction pressure at the in-flow manifold at the pump, the reading will be very unstable, thus indicating a progressing condensate accumulation.



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## 9.12 Wastewater Management System

The waste water management system shall be inspected at least once every two weeks. Any repair and maintenance shall be attended immediately. Sufficient storage of wastewater and alternative arrangements shall be planned.

## 10. Monitoring Procedures

The monitoring at integrated facility shall be carried out during implementation / construction period, operation period and post closure maintenance period. The monitoring plan shall include but not limited to the following sections 10.1 to 10.9. The monitoring plan shall be prepared in accordance to the Andhra Pradesh Pollution control Board (APPCB) requirements.

### 10.1 Meteorological Data

No	Parameters	Unit	During operations	After closure
1	Precipitation	mm/m <sup>2</sup>	Daily	Daily
2	Temperature. - minimum and maximum reading - - reading at 2 p.m.	°C	Daily	Daily
3	Wind direction and speed	m/s	Daily	Daily
4	Evaporation	mm/m <sup>2</sup>	Daily	Monthly
5	Atmospheric Humidity at 2 p.m	%	Daily	Monthly
6	Atmospheric pressure - minimum and maximum reading - reading at 2 p.m.	mmHg	Daily	Monthly

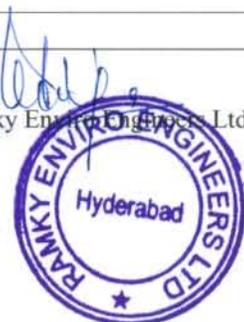
### 10.2 Air

Description	Sampling Specifications
Ambient Air Quality	Two continues days every week with segregated days every month. Ambient air quality monitoring at one location in upwind, three locations in downwind and one location at cross-wind directions.

S. No	Parameters to be monitored	Acceptable Levels
1.	Sulfur dioxide	120 µg/m <sup>3</sup> (24 hours)

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2.	Suspended particulate matter (SPM & RSPM)	500 $\mu\text{g}/\text{m}^3$ (24 hours) – SPM
3.	Methane	$\leq 25\%$ of the lower explosive limit(650 $\text{mg}/\text{m}^3$ )
4.	Ammonia ( 24 hour average)	0.4 $\text{mg}/\text{m}^3$ (400 $\mu\text{g}/\text{m}^3$ )
5.	Carbon Monoxide	1 hour average: 2 $\text{mg}/\text{m}^3$ 8 hour average: 1 $\text{mg}/\text{m}^3$

### 10.3 Surface and Ground Water

Description	Sampling Specifications
Surface Water Quality	One grab sample at all the water bodies within 5km from the integrated facility every month.
Ground Waste Quality	Five samples at upstream side and Ten samples at down stream side of the integrated facility every month.
Ground Water Level	Once in every month.

The parameters to be monitored shall be as indicated in IS 10500 standards updated time to time.

S.No.	Parameter to be monitored	IS 10500: 1991 Desirable Limit
1	Arsenic, mg/l	0.05
2	Cadmium (as Cd) mg/l	0.01
3	Chromium, mg/l	0.05
4	Copper as Cu, mg/l	0.05
5	Cyanide as CN, mg/l	0.05
6	Lead (as Pb), mg/l,	0.05
7	Mercury (as Hg) mg/l	0.001
8	Nickel as Ni, mg/l	-
9	Nitrate as NO, mg/l	45
10	pH	6.5 – 8.5
11	Iron, mg/l	0.3
12	Total Hardness (as $\text{CaCO}_3$ ), mg/l	300
13	Chloride as Cl, mg/l	250
14	Dissolved solids, mg/l	500
15	Phenolic compounds (as $\text{C}_6\text{H}_5\text{OH}$ ), mg/l	0.001
16	Zinc A as Zn, mg/l	5
17	Sulpahte (as $\text{SO}_4$ ), mg/l	200

### 10.4 Leachate

The leachate monitoring programme shall provide data for:

- Confirmation on the proper function of the leachate management system
- The evaluation of the decomposition progress in the waste
- The current composition of the leachate as basis for evaluation of grand water monitoring

All cells shall be monitored in the operation phase and after closure providing data describing the level and the composition of leachate in the cells.

  
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The level of the leachate shall be measured in the inspection and in the collection shafts. Samples for analysis shall be extracted from the collection shafts. The volumes of leachate from each cell shall be estimated on basis of the recorded pumping hours from each collection shaft the inflow to the waste water treatment plant and the released volumes to the municipal sewage network.

No	Parameters	Unit	Monitoring point	During operation	After closure
1	Leachate levels	m above well bottom	Inspection shafts Collection shafts	Weekly and after heavy rain	Weekly and after heavy rain
2	Leachate volume (Accumulated and average)	m <sup>3</sup> /h	Collection shafts (control panel) Inflow point to WWTP Outflow point to public sewer system	Daily and after heavy rain	Monthly and after heavy rain
3	Leachate composition	mg/l	Collection shafts Inflow point to WWTP Outflow point to public sewer system	Quarterly	Every 6 months

No	Parameter	Unit	Mixed Waste	
			Standard	Extended
1	pH	-	D	D
2	Conductivity	mS/m	D,K	D,K
3	NVOC	mg/l	D,K,R	D,K,R
4	Phenols	mg/l	K,R	K,R
5	Arsenic	mg/l	K,R	K,R
6	Lead	mg/l	-	D,R
7	Cadmium	mg/l	-	D,R
8	Chromium – VI	mg/l	-	D,R
9	Copper	mg/l	-	D,R
10	Nickel	mg/l	-	D,R
11	Mercury	mg/l	-	R,K
12	Zink	mg/l	-	D,R
13	Fluoride	mg/l	-	K,R
14	Ammonia	mg/l		D,R,K
15	Chloride	mg/l		D,K,R
16	Cyanides, volatile	mg/l		K,R
17	Sulphate	mg/l		D,K
18	Nitrites	mg/l		K,R
19	AOX	mg/l		D,K,R

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**Supplemental Parameters**

20	Dry matter	mg/l	D,R	D,R
21	Nitrate	mg/l	K,R	-
22	Calcium	mg/l	-	D,K
23	Potassium	mg/l	-	-
24	Sodium	mg/l	-	D,K
25	Total Iron	mg/l	-	D,R
26	Iron-III	mg/l	-	D,R
27	Sulphide	mg/l	D,R	D,R
28	COD	mg/l	-	D,R
29	BIs	mg/l	-	D,R
30	GC-FID-screening	mg/l	-	D,K

**NOTES:**

NVOC = Non volatile Organic Carbon

AOX = Absorbable Organically Bound Halogen

GC-FID= Screening by Gas Chromatography for extractable, organic substances, incl. solvents and oil products

D = Parameter related to decomposition processes in the waste

K = Parameter related to control of ground -and surface water

R = Parameter related to the treatment of leachate

**10.5 Landfill Gas**

The monitoring programme for landfill gas shall provide data for:

- i. Assessment of the potential generation of landfill gas
- ii. Estimation of any risks to human health and safety.
- iii. Evaluation of the efficiency of the gas management system, when installed.
- iv. Evaluation of emissions to surrounding areas.

The monitoring of gas will be performed according to approved methodologies and by using measuring equipment, specified by standardization documents, or - when such standardization documents are not available - according to methodologies, approved by the Ministry of Environment.

**(a) Monitoring locations**

The composition of the landfill gas shall be measured using handheld equipment in:

- i. All gas collection wells under construction (i.e. in the active filling areas of the landfill cells)
- ii. All gas collection wells completed but not yet connected to the gas management system

As part of the monitoring system gas alarms shall be installed in all manned rooms in the buildings in the reception area.

The barometric pressure of the gas shall be measured inside completed gas collection wells not yet connected to the gas management system.

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115

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The data collected during the operation of the gas management system will provide supplemental data generation and composition of the landfill gas. Emission control monitoring shall take place at two stations: At the reception area of the landfill and in the nearest village.

## (b) Monitoring frequency

No	Parameter	During operation	After closure
1	Potential gas emissions and atmospheric pressure	Monthly	Monthly
2	Emissions to surroundings	Monthly	Monthly

## (c) Parameters measured

No	Parameter	Unit	Gas wells under construction	Gas wells completed not yet in operation
1	Geometric dimensions of the gas pipe, where the measurement or sample taking is carried out	mm	-	X
2	Mean velocity	m/s	-	X
3	Gas temperature	$^{\circ}\text{C}$	X	X
4	Barometric pressure in gas	mm Hg	X	X
5	Oxygen concentration $\text{O}_2$	%-vol.	X	X
6	Methane concentration $\text{CH}_4$	%-vol.	X	X
7	Carbon dioxide $\text{CO}_2$	%-vol.	X	X
8	Outside air-temperature	$^{\circ}\text{C}$	X	X
9	Outside Atmospheric pressure	mm Hg	X	X

## 10.6 Landfill Stability and Settlement

The appearance of the landfill waste body shall be monitored on a yearly basis to provide information for assessing and reporting the status of the landfill, i.e. the totals for deposited wastes, the remaining capacity, etc. Information from the topographical survey is further crucial for the concessionaire for meeting the requirements in respect of the final filling heights and to avoid land sliding or instabilities in the waste body. Registration of settlements provides information on the current status for the decomposition of the waste body.

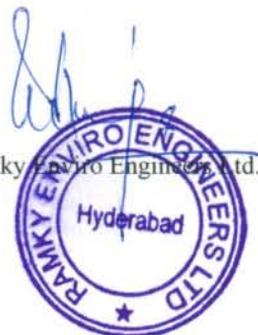
The topographical surveys and the assessment of landfill stability and settlement should be undertaken by a qualified civil engineer.



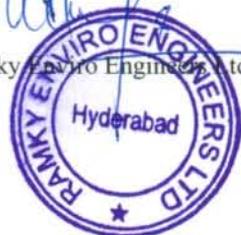
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116



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No	Parameter	During operation	After closure
1	Landfill stability: -Area of landfill covered waste <sup>1</sup> -Volume of waste deposited <sup>1</sup> -Composition (types) of waste deposited <sup>2</sup> -Methods for depositing <sup>4</sup> -Time and duration of depositing <sup>3</sup> -Calculation of remaining capacity of the landfill <sup>1</sup>	Annually	-
2	Landfill settlement behaviour <sup>1</sup>	Annually	Annually <sup>5</sup>

**NOTE:**

- 1 Determined on basis of annual topographical survey
- 2 From registrations at the reception
- 3 Description of technology used for landfilling
- 4 Dates for initiation and ending of operation of each cell. Total operation time of each cell
- 5 By registration of noted changes in the landfill body and surface.

A number of benchmarks shall be installed, from which the topographical surveys of the landfill surface shall be carried out. The benchmarks shall be installed outside the waste body and shall be well marked and protected against damages caused by negligence or malice.

**10.7 Stack Monitoring**

The monitoring of all the stacks within the integrated site including stacks of RDF Plant, Power Plant, DG Sets, etc. shall be monitored as per the APPCB and CPCB norms and regulations.

**IMPORTANT NOTE:** The parameter, sampling schedule and sampling methodology shall be approved by the Independent Engineer one month before carrying out the monitoring.

**10.8 Quality Control Laboratory**

Quality and calibration certification from authorised independent certification agency (approved by the Independent Engineer) to be renewed every year.

Maximum period of non-operation: 5 days.

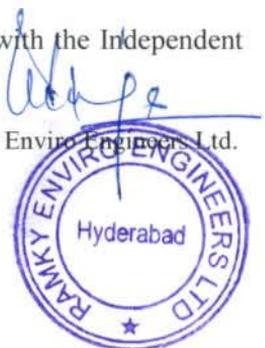
Data recording and reporting format to be decided in consultation with the Independent Engineer and to form part of the O&M Plan and/or O&M Manual.

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117

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**10.9 Post-Closure Maintenance Plan**

The Concessionaire shall maintain the Landfill Facility during the Post Closure Period in accordance with the Post-Closure Maintenance Plan.

At least three months prior to the completion of any Financial Year during the Post Closure Period, the Concessionaire shall prepare and submit for review and approval by the Independent Engineer / GHMC, the Post Closure Maintenance Plan for the subsequent Financial Year.

Post-closure maintenance shall be in accordance with Applicable Laws and shall involve periodical inspections, of at least once every three months, of the Landfill Facility to monitor land surface care, leachate collection, and methane control.

Post-closure maintenance shall also involve investigations for detection of adverse environmental impacts, if any, and implementation of measures for mitigation of the same.

**11. Reclamation Of Existing Dumpsites**

The construction requirement and operation procedures including monitoring and other procedures of integrated facility are holds good for reclamation of existing dump sites.

**12. Operational Records and Operations Control**

The concessionaire shall keep all the statutory documents and registers duly recorded for inspection of GHMC at any point of time.

The concessionaire should also keep operational records :

- i. Attendance Cards/ Register of the manpower deployed
- ii. Log Book of vehicles.
- iii. Register of issue of the disinfectants.
- iv. Register of Stock of implements, and other materials and their issue.
- v. Record of Acceptance of Personnel carriers with registration Numbers & timings.
- vi. Register for issue of Uniforms and protective gears.
- vii. Performance Evaluation Record in separate form for each circle (in coordination with Independent Engineer).
- viii. Operations & Maintenance records of all vehicles, equipment and machinery.

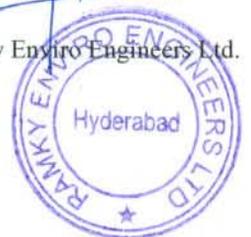
A computerized system of keeping records of operations & maintenance of the service and complaint Registration & Redressal shall be established and maintained to keep information on all the aspects of the service ready and to receive and redress complaints to the satisfaction of the users.

The concessionaire shall give a wide publicity in leading Hyderabad news papers to this effect along with other modes of communication like radio, cable T.V., cinema halls, display on vehicles etc..

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The concessionaire may design his own operations management and operations control system for approval of GHMC before commencing the work.

An overall supervisor, first line supervisors capable of understanding work plan, organizing the work accordingly, and capable of directing, disciplining and controlling work force shall be appointed before commencing the work.

The concessionaire supervisors shall keep close liaison with GHMC staff that is in charge of the work and Independent Engineer of organizing joint inspection daily as desired for ascertaining work performance.

### 13. Management of Labour and Prevention of Events of Accidents

The concessionaire shall comply with all the provisions of the laws regarding deployment of labour under the contract; The Abolition of contract Labour Act, The Minimum wages Act, The Workmen's Compensation Act and the provisions of the MSW Rules 2000.

It shall be the liability and responsibility of the concessionaire to implement the provisions of these acts. In addition to;

The concessionaire shall not employ in connection with the work any person who has not completed 18 years of age.

The concessionaire shall furnish to the GHMC; information on the various categories of labour employed by him and the facilities given to the employees in the form prescribed for the purpose at such intervals as may be specified in the work specification.

The concessionaire shall keep all records desired under the said labour laws and submit periodical returns to the respective statutory authorities.

The concessionaire shall in respect of labour employed by him comply with provisions of the various labour Laws and the Rules and Regulations as applicable to them in regards to matters provided therein and shall indemnify GHMC in respect of all claims that may be raised against GHMC for non-compliance thereof by the concessionaire.

The concessionaire shall obtain the license in accordance with the rules and provisions of contract Labour (regulation and abolition) Act, 1970 and adhered to all terms and conditions stipulated therein.

The concessionaire shall pay their workers - supervisor, labourer, drivers etc as per the minimum wages act in force and amended from time to time.

In the event of the concessionaire committing a default or breach of any provision of the above labour laws and MSW Rules, 2000 and Regulations as applicable, and pointed out by the statutory authority, the concessionaire shall without prejudice to any other liabilities under the Act pay to GHMC, a sum not exceeding **Rs. 1,00,000/- (Rupees one lakh only)** per day for each default till it is redressed.

Notwithstanding anything contained herein, GHMC, may declare as concessionaire's event of default and take necessary action.



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**14. Facilities and Benefits for the Work Force Employed**

The concessionaire shall furnish the details of the work force employed for the work defined in this document – details of the workers including those for supervision before commencing the work

Each person (including Supervisor) deployed on this work shall be provided the following facilities.

- ix. Uniform – Pant, shirt / apron, cap – approved by GHMC (visible distinctly at night)
- x. The name of the person and level shall be either knitted on pocket of the apron or name embossed on plastic badge.
- xi. A set of Hand Gloves, Mask, safety shoes, etc. will be given to all employees
- xii. A set of gum boots and rain wear shall be provided.
- xiii. If the employees are found without proper dress code; a penalty of Rs. 5,000 (Rupees five thousand) per person per default shall be imposed on the concessionaire.

**15. Public Awareness Programmes**

Daily/Fortnightly/Monthly public awareness program details to be provided to GHMC by the one month before throughout the concession period

**15.1 Prime approach in conducting public awareness programme**

Prime objective of the activities under the programme is creation of public awareness for their responsibility under the MSW Rules, 2000 and explain them contents of the Bye laws framed and also the GHMC's plan for improving the services.

The end results aim at full implementation of the directives under the MSW Rules 2000 regarding separate collection of solid waste at source, door to door collection, prevention of littering/ prevention of deposition of all kinds of waste on roads and public places done by them and maintain discipline regarding general cleanliness and nuisance free streets and public places.

The performance evaluation shall be based on measurement on fortnightly work, planned against carried out as assessed by GHMC / Independent Engineer.

Looking to the mode of work on contract due care should be taken for planning and implementing the public awareness

**15.2 The work coverage - Public Awareness**

It is necessary to organize the public awareness programme in the GHMC Area target group wise consultation with GHMC.

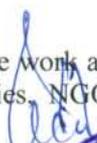
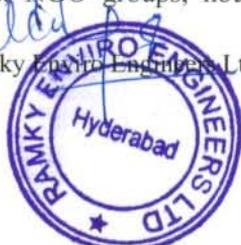
This should be one day duration workshop to explain the service users the proposed approach of the integrated solid waste management in the GHMC Area and the role of the service users- citizens and outsiders.

The programme shall be organized on an average 15 days in the work area, target group wise. Target group stake holders; councilors, housing societies, NGO groups, house

  
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120

  
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wives, shop keepers, school children, hawkers, construction agencies, citizens etc. should be invited group by group.

The literature, posters and other reading material desired for the programme shall be prepared and distributed.

More cycles shall be repeated by organizing meetings of the local stake holders ward wise or group of wards wise in subsequent months for the next four to five months. This round shall be completed within the period by which the regular project / work starts on daily basis.

As explained earlier the Public awareness should encompass all the aspects of the compliances under the Rules. Major items shall be

- i. Separate collection of biodegradable and recyclable waste at source for all the generators,
- ii. Generators participation and close cooperation in door to door collection,
- iii. Public participation in prevention of littering & prevention of deposition of garbage, debris and other households in drains and on public roads and places,
- iv. Encouragement in use of litter bins and keeping them clean,
- v. Encouraging citizens for using on demand services of debris and green waste collection,
- vi. Daily/Fortnightly/Monthly programme shall be planned a month in advance to cover systematically the awareness components listed above and implemented.
- vii. The Contractor should plan, organize and conduct the awareness programmes and initiate citizen's group's formation to continue such programmes periodically and help GHMC in monitoring the results.
- viii. The programme shall be a continuous feature with innovations in approach as the level of response of the users / beneficiaries changes.

## 16. Health Safety and Environment (HSE) Policy

The concessionaire shall prepare HSE Policy exclusively for the project. The HSE policy shall be international standard and need approval from GHMC.

## 17. Health Records

The concessionaire shall maintain health records of all the staff. The health record formats and record keeping procedure shall be approved by GHMC.

## 18. Accidents and Other Incidents

The concessionaire shall report and register all occurrences of;

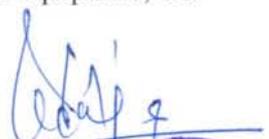
- i. Accidents involving risks for human health and security
- ii. Other incidents connected with occupational health and security
- iii. Unscheduled interruptions to the planned operations including fires, explosions, break-down of vehicles, break-down of essential machinery & equipment, etc.



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121



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The reports shall be forwarded to the GHMC & relevant authorities. The registered information shall be kept in the "Report Book". The accident and other incident record formats and record keeping procedure shall be approved by GHMC.

**19. Citizens Charter and Create A System to Register Public Grievances**

The concessionaire should draw up a citizen's charter and create a system to register public grievances in all the wards and set up a mechanism for expeditious redressal of grievances through sophisticated system.

For this purpose the concessionaire shall establish 24X7 customer care call centre with the following communication media;

- iv. Telephone
- v. E-mail
- vi. Web Registration
- vii. Fax
- viii. Postal letters
- ix. Compliant boxes at ward level

The complaints received upto 3.00 PM shall be redressed on the same day and the complaint received after 3.00 PM shall be redressed by next morning.

The concessionaire shall notify the public awareness programmes, public grievance, customer care, etc. details regularly in the at least top two leading local news papers (one English and one telugu) in GHMC.

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# 150

## SCHEDULE 4

### PERFORMANCE STANDARDS AND PENALTIES

#### 1. DOOR TO DOOR COVERAGE OF SOLID WASTE MANAGEMENT SERVICES

##### Performance Indicator

Indicator	Unit	Definition
Coverage of MSW Management Services through door-to-door Collection of waste	%	Percentage of households and establishments and other sources that are covered door to door Collection system.

##### Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of households and establishments and other sources in the Circle	Number	The total number of households and establishments and other sources in the circle as per O&M Plan / O&M Manual and GHMC / Other data.
b) Total number of households and establishments with and other sources covered daily doorstep collection	Number	Include doorstep collection through concessionaire. This can even include door-to-door collection systems operated by concessionaire with the help of Resident Welfare Associations, etc.
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Daily
	Measurement
	Circle level



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2. NUMBER OF BINS ATTENDED

**Performance Indicator**

Indicator	Unit	Definition
Number of bins attended daily	%	Percentage of bins attended in the circle.

**Data Requirements**

Data required for calculating the indicator	Unit	Remarks
a) Total number of bins in the circle	Number	The total number of bins including HPDE and metal bins in the circle
b) Total number of bins attended in the circle	Number	The total number of bins including HPDE and metal bins attended in the circle
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Daily Measurement Circle level




## 3. MAINTENANCE OF THE BINS

## Performance Indicator

Indicator	Unit	Definition
Maintenance of the bins by the concessionaire	%	Percentage of bins in good conditions in the circle.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of bins in the circle	Number	The total number of bins including HPDE and metal bins in the circle / inspected by the Independent Engineer
b) Total number of bins in the good condition in the circle	Number	The total number of bins including HPDE and metal bins the good condition in the circle as assessed by Independent Engineers during daily checking of bins
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Weekly
	Measurement
	Circle level

Note: Good conditions means bins with;

- No overflow
- Regular cleaning and disinfection
- No breakages
- No large cracks
- No toppling of bins
- No dislocation of covers
- Bin coding clearly visible, etc.

To the satisfaction of Independent Engineer / GHMC




## 4. MSW MANAGEMENT VEHICLES ON THE ROAD – PRIMARY COLLECTION

## Performance Indicator

Indicator	Unit	Definition
Vehicles for MSW management on the road under good condition for primary collection	%	Percentage of vehicles for MSW management on the road under good condition for primary collection i.e. collection from source to the secondary collection points / vehicles. Primary collection vehicles shall also include vehicles for door to door collection in the circle.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of vehicles deployed for primary collection	Number	The total number of vehicles deployed for primary collection in the circle as per the O&M Plan / O&M Manual
b) Total number of vehicles in the good condition for primary collection in the circle	Number	The total number of vehicles on the road for primary collection in the circle
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Daily Measurement Circle level




## 5. MSW MANAGEMENT VEHICLES ON THE ROAD – SECONDARY COLLECTION

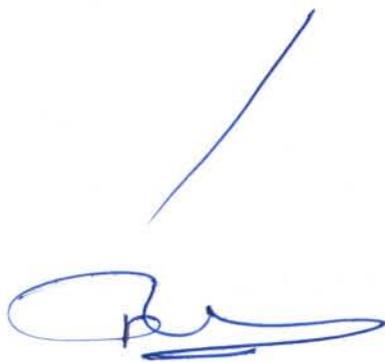
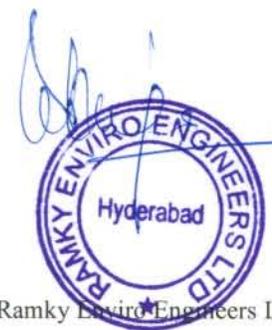
## Performance Indicator

Indicator	Unit	Definition
Vehicles for MSW management on the road under good condition for secondary collection	%	Percentage of vehicles for MSW management on the road under good condition for secondary collection i.e. transportation of MSW upto transfer stations or directly to integrated facility in the circle.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of vehicles deployed for secondary collection	Number	The total number of vehicles deployed for secondary collection in the circle as per the O&M Plan / O&M Manual
b) Total number of vehicles in the good condition for secondary collection in the circle	Number	The total number of vehicles on the road for secondary collection in the circle
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Measurement
Daily	Circle level

6. MSW MANAGEMENT VEHICLES ON THE ROAD – TRANSPORTATION

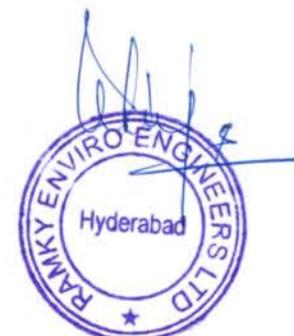
Performance Indicator

Indicator	Unit	Definition
Vehicles for MSW management on the road under good condition for transportation	%	Percentage of vehicles for MSW management on the road under good condition for transportation i.e. transportation of MSW from transfer stations to integrated facility.

Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of vehicles deployed for transportation	Number	The total number of vehicles deployed for transportation under transfer station as per the O&M Plan / O&M Manual
b) Total number of vehicles in the good condition for transportation	Number	The total number of vehicles on the road for transportation under transfer station
Coverage	%	Coverage = [(b/a)*100]
Desired Level	%	100

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Measurement
Daily	Transfer Station level



# 156

## 7. HYGIENIC TRANSPORTATION OF MSW

### Performance Indicator

Indicator	Unit	Definition
Hygienic transportation of MSW	%	Percentage of vehicles transporting MSW under hygienic conditions deployed for primary collection, secondary collection, transportation of MSW from transfer stations to integrated facility, etc.

### Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of vehicles deployed for primary collection, secondary collection, transportation of MSW from transfer stations to integrated facility, etc.	Number	The total number of vehicles inspected daily by Independent Engineer – primary collection, secondary collection, transportation of MSW from transfer stations to integrated facility, etc.
b) Total number of vehicles transporting MSW under hygienic conditions	Number	Total number of vehicles transporting MSW under hygienic conditions during daily inspection of Independent Engineer - primary collection, secondary collection, transportation of MSW from transfer stations to integrated facility, etc as
<b>Coverage</b>	%	<b>Coverage = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator		Smallest geographical jurisdiction for measurement of performance	
Measurement	Daily	Measurement	GHMC level

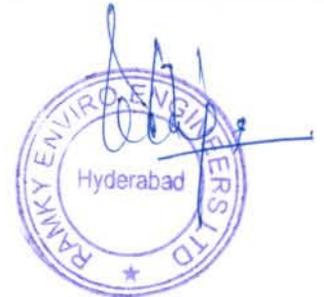
Note: Hygienic transportation means;

- Covered transportation
- No overflow of MSW
- No leakage of leachate, etc.

To the satisfaction of Independent Engineer / GHMC



Greater Hyderabad Municipal Corporation  
SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION



Ramky Enviro Engineers Ltd.

8. EFFICIENCY OF COLLECTION OF MUNICIPAL SOLID WASTE

**Performance Indicator**

Indicator	Unit	Definition
Collection Efficiency	%	Total waste collected by concessionaire versus the total Waste generated within the GHMC excluding recycling or processing at the Generation point. [Typically, some amount of waste generated is either recycled Or reused by the citizen itself. This quantity is excluded from the total quantity Generated].

**Data Requirements**

Data required for calculating the indicator	Unit	Remarks
a) Total waste that is generated and which needs to be collected	Tons per day	Total waste generated shall be calculated based on the number of sources and their unit generation rate. This quantity shall be authenticated by the Independent Engineer after review of the first three months collection of MSW by the concessionaire. The quantity of waste generated shall be revised every 3 months by the Independent Engineer.
b) Total quantum of waste that is collected by the concessionaire	Tons per day	Total quantity of waste collected by the concessionaire. This should be based on actual weightment of the collected waste assessed at transfer stations. This Should exclude any special drives for waste collection, and waste generated from one-off activities such as demolitions, desilting canals, etc.
<b>Collection Efficiency</b>	<b>%</b>	<b>Collection efficiency = [(b/a)*100]</b>
<b>Desired Level</b>	<b>%</b>	<b>100</b>

Minimum frequency of measurement of performance indicator		Smallest geographical jurisdiction for measurement of performance	
Measurement	Daily	Measurement	GHMC level

## 9. EXTENT OF SEGREGATION OF MUNICIPAL SOLID WASTE

## Performance Indicator

Indicator	Unit	Definition
Extent of Segregation of waste	%	Segregation should be separation of bio-degradable waste and non bio-degradable. It is important that segregated waste collected, is not again mixed, but transported through the entire chain in a segregated manner. It is therefore important that this indicator is based on measurement of waste arriving in segregated manner at the integrated facility, rather than measuring the same at collection point.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Quantum of waste that is segregated	tons per day	Total quantum of waste that arrives in segregated manner at the integrated facility. Waste that arrives at these locations in an un-segregated manner should not be considered.
b) Total quantum of waste that is collected by the concessionaire	tons per day	Total quantity of waste collected by the concessionaire. This should be based on actual weighment of the collected waste assessed at integrated facility.
<b>Extent of Segregation</b>	%	<b>Extent of Segregation = [(a/b)*100]</b>
<b>Desired Level</b>	%	<b>100% of the segregation levels committed by the concessionaire time to time (revised atleast once in every one year)</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Daily Measurement GHMC level



10. FUNCTIONING OF TRANSFER STATION

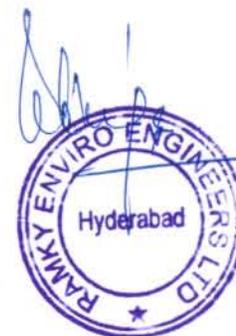
**Performance Indicator**

Indicator	Unit	Definition
Functioning of Transfer Station	%	Total number of days functioning of transfer station as per the standards and O&M Plan / O&M Manual every week

**Data Requirements**

Data required for calculating the indicator	Unit	Remarks
a) Total number of days	Number	Total number of days in the week
b) Total number of days transfer station functioned in the week	Number	Total number of days for which transfer station has functioned as per standards and O&M Plan / O&M Manual
<b>Collection Efficiency</b>	%	<b>Collection efficiency = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance		
Measurement	Weekly	Measurement	Transfer Station level



11. FUNCTIONING OF INTEGRATED FACILITY

**Performance Indicator**

Indicator	Unit	Definition
Functioning of Integrated Facility	%	Total number of days functioning of integrated facility as per the standards and O&M Plan / O&M Manual every week

**Data Requirements**

Data required for calculating the indicator	Unit	Remarks
a) Total number of days	Number	Total number of days in the week
b) Total number of days integrated facility functioned in the month	Number	Total number of days for which integrated facility has functioned as per standards and O&M Plan / O&M Manual and accepted the waste.
<b>Collection Efficiency</b>	<b>%</b>	<b>Collection efficiency = [(b/a)*100]</b>
<b>Desired Level</b>	<b>%</b>	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance	
Measurement	Weekly	Measurement Integrated Facility level

## 12. EXTENT OF MUNICIPAL SOLID WASTE RECOVERED

## Performance Indicator

Indicator	Unit	Definition
Extent of recovery of waste collected	%	This is an indication of the quantum of waste collected, which is either recycled or processed. This is expressed in terms of % of waste collected.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Amount of waste that is processed or recycled	Tons per month	Total quantum of waste intake by waste processing/ recycling facilities. Inert matter, and other material refused by the processing / recycling facilities, which will go back to the landfills should be deducted from the intake quantities.
b) Total quantum of waste that is collected by the concessionaire	Tons per month	Total quantity of waste collected by the concessionaire. This should be based on actual weighment of the collected waste assessed at integrated facility.
<b>Recovery</b>	<b>%</b>	<b>Extent of recovery = [a / b] * 100</b>
<b>Desired Level</b>	<b>%</b>	<b>80</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Measurement
Daily	GHMC level




## 162

## 13. EXTENT OF SCIENTIFIC DISPOSAL OF MUNICIPAL SOLID WASTE

## Performance Indicator

Indicator	Unit	Definition
Extent of scientific disposal of waste in landfill sites	%	Amount of waste that is disposed in landfills that have been designed, built, operated and maintained as per standards laid down. This extent of compliance should be expressed as percentage of total quantum of waste disposed at landfill sites.

## Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total waste disposed in "compliant" landfills every month	Tons per month	Daily log vehicles with waste being disposed at such "compliant" land fill sites should be maintained, at the active landfill cell.
b) Total waste disposed in all landfills every month	Tons per month	Total waste disposed after collection and recovery (if any) at landfills. This quantity should be based on actual measurement at weighbridges that are located at the entrance of landfill.
<b>Extent of scientific disposal</b>	%	<b>Extent of scientific disposal = [a / b]*100</b>
<b>Desired Level</b>	%	<b>100</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Measurement
Daily	GHMC level




14. EFFICIENCY IN REDRESSAL OF CUSTOMER COMPLAINTS

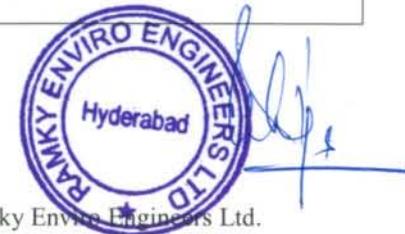
Performance Indicator

Indicator	Unit	Definition
Efficiency in redressal of customer complaints	%	Total number of MSW management related complaints redressed within 24 hours of receipt of complaint, as a percentage of the total number of MSW management related complaints received in the given time period

Data Requirements

Data required for calculating the indicator	Unit	Remarks
a) Total number of SWM related complaints received per month	Number per week	Total number of all MSW management related complaints from consumers received during the month. Systems for receiving and logging in complaints should be effective and easily accessible to the citizens.
b) Total number of complaints redressed within the month	Number per week	Total number of MSW management related complaints that are satisfactorily redressed within 24 hours or the next working day, within that particular week. Satisfactory resolution of the complaint should be endorsed by the person making the complaint in writing, as part of format / proforma that is used to track complaints.
<b>Efficiency in redressal of complaints</b>	%	<b>Efficiency in redressal of complaints = [(b/a)*100]</b>
<b>Desired Level</b>	%	<b>95</b>

Minimum frequency of measurement of performance indicator	Smallest geographical jurisdiction for measurement of performance
Measurement	Measurement
Weekly	Circle level

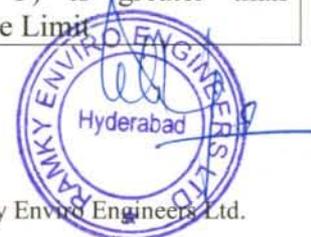



**164****PENALTIES AND CONCESSIONAIRE'S EVENT OF DEFAULT W.R.T PERFORMANCE**

S.No	Performance / Service Standards	Performance Target / Desirable Level	Tolerance Limit (T)	Penalty for Under Performance	Concessionaire's Event of Default
1	Door to door coverage of solid waste management services	100%	10%	$0.08 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
2	Number of bins attended	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
3	Maintenance of the bins	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 2 continuous weeks or if the monthly average of $(100 - P)$ is greater than Tolerance Limit
4	MSW management vehicles on the road – Primary Collection	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit

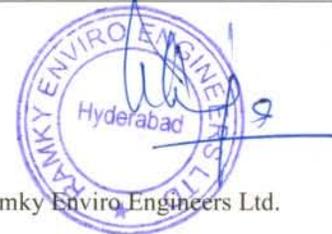


Greater Hyderabad Municipal Corporation  
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## 165

S.No	Performance / Service Standards	Performance Target / Desirable Level	Tolerance Limit (T)	Penalty for Under Performance	Concessionaire's Event of Default
5	MSW management vehicles on the road – Secondary Collection	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
6	MSW management vehicles on the road – Transportation	100%	5%	$0.1 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
7	Hygienic transportation of MSW	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
8	Efficiency of collection of MSW	100%	5%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 3 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit

## 166

S.No	Performance / Service Standards	Performance Target / Desirable Level	Tolerance Limit (T)	Penalty on not Meeting the Criteria	Concessionaire's Event of Default
9	Extent of segregation of municipal solid waste	100%	10%	$0.04 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
10	Functioning of transfer station (any operating transfer station)	100%	15%	$0.1 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 2 continuous weeks or if the monthly average of $(100 - P)$ is greater than Tolerance Limit
11	Functioning of integrated facility	100%	15%	$0.1 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 2 continuous weeks or if the monthly average of $(100 - P)$ is greater than Tolerance Limit
12	Extent of MSW recovered	80%	10%	$0.2 \times TFA \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 5 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit



Greater Hyderabad Municipal Corporation

SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION

Ramky Enviro Engineers Ltd.

**167**

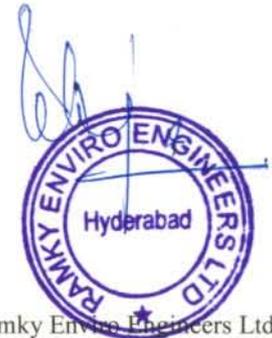
S.No	Performance / Service Standards	Performance Target / Desirable Level	Tolerance Limit (T)	Penalty on not Meeting the Criteria	Concessionaire's Event of Default
13	Extent of scientific disposal of MSW	100%	5%	$0.1 \times \text{TFA} \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 3 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
14	Efficiency in redressal of customer complaints	95%	5%	$0.04 \times \text{TFA} \times \{(100 - P)/100\}$	$0 < (100 - P) \leq T$ for 2 continuous days or if the bi-weekly average of $(100 - P)$ is greater than Tolerance Limit
15	Daily Collection of Waste	Daily	Nil	TFA	If the MSW is not collected continuously for 3 days

**Note:** The penalty clauses shall be read with reference to the Performance Standards

P means Performance Achieved as assessed by GHMC / Independent Engineer as per Performance Standards

TFA means the Total Tipping Fee Amount to be paid to the concessionaire on the particular day

T means Tolerance Limit

AXIS B/HYD/BG/3530/08-09

February 20, 2009

## 168

To  
 Commissioner Greater Hyderabad  
 Municipal Corporation,  
 Tank Bund Road,  
 Hyderabad.

Dear Sir,

**Re: Issue of BG No. 0080100003530 dated 20.02.2009 for Rs.18,00,00,000/-**

We forward herewith an Inland Bank Guarantee in original issued by us in your favour on behalf of **M/s.Ramky Enviro Engineers Ltd.**, The said Guarantee is valid up to **19.02.2011** (Including of claim period).

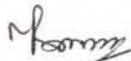
The Bank shall be discharged from its liability on the expiry of the guarantee unless and until a written claim is lodged with branch before the expiry of the said guarantee inclusive of claim period of i.e. **19.02.2011**.

**Note: "The beneficiary may in Their own interest may obtain a confirmation of the Guarantee from the AP Advances Cell of the Bank for checking the genuineness of the Bank Guarantee."**

AXIS BANK Ltd  
 AP Advances Cell  
 Ground Floor,6-3-879/B  
 Greenlands Road,Begumpet  
**Hyderabad-500016**  
 Tel.040-66841188/66841177/ Fax: 23418128

Kindly acknowledge the receipt.

Yours faithfully,



Authorised Signatory



Encl: One Original Bank Guarantee



**SPECIAL COMMISSIONER**

**GREATER HYDERABAD MUNICIPAL CORPORATION**





ఆంధ్రప్రదేశ్ రాష్ట్రం ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

R 184679  
K. Rama Chandravathi

8227 20/2/2009 1001

S. No. .... Dt. .... Rs. ....

Sold To: Naren

Chary of the  
Ramby Envisio Engineers Ltd

**K. RAMA CHANDRAVATHI**  
STAMP VENDOR (L. No:27/99, RL.No.16/2008);  
6-3-387, Beside Banjara Durbar Hotel, Panjagutta,  
HYDERABAD - 500 082. Phone. No. 23351795

B.G. No.	0080100003530
B.G. Amount Rs.	18,00,00,000/-
B.G. Date	20.02.2009
B.G. Expiry Date	19.02.2011
B.G. Claim Expiry Date	19.02.2011

**BANK GUARANTEE**

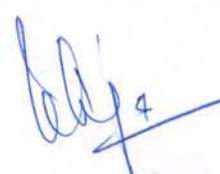
To  
Commissioner Greater Hyderabad  
Municipal Corporation  
Tank Bund Road  
Hyderabad

THIS DEED OF GUARANTEE executed on this the 20<sup>th</sup> day February 2009. We AXIS BANK LIMITED, a banking company incorporated under the Companies Act, 1956 and carrying on Banking Business under The Banking Regulation Act, 1949 and having its Registered Office at 'Trishul', 3rd Floor,

For AXIS BANK LTD.

  
Authorized Signatory  
SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION

For AXIS BANK LTD.

  
Authorized Signatory  
N. S. S. N. Bapi

B.G. No.	0080100003530
B.G. Amount Rs.	18,00,00,000/-
B.G. Date	20.02.2009
B.G. Expiry Date	19.02.2011
B.G. Claim Expiry Date	19.02.2011

170

Opposite Samartheshwar Temple, Law Garden, Ellis Bridge, Ahmedabad 380 006, Gujarat and its Central office at Maker Towers "F", 13th floor, Cuffe Parade, Colaba, Mumbai 400 005 and one of its branch office at 6-3-879/B, Greenlands Road, Begumpet, Hyderabad-500016 (hereinafter referred to as the "Bank" which expression shall unless repugnant to context or meaning thereof, include its successors or assigns in business) hereinafter referred to as "the Guarantor" which expression shall unless it be repugnant to the subject or context thereof include successors and assigns;

**In favour of**

Greater Hyderabad Municipal Corporation, represented by the Commissioner, Greater Hyderabad Municipal Corporation and having its office at Tank Bund, Hyderabad, hereinafter referred to as "GHMC", which expression shall, unless repugnant to the context or meaning thereof include its administrators, successors or assigns.

**WHEREAS**

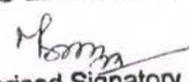
- A. By the Concession Agreement ("the Concession Agreement") being entered into between GHMC and M/s. Ramky Enviro Engineers Limited, a company incorporated under the Companies Act, 1956, having its registered office at "RAMKY HOUSE", Opp. Necklace Road Railway Station, Rajbhavan Road, Somajiguda, Hyderabad – 500 082, ("the Concessionaire"), the Concessionaire has been granted the Concession to implement the project envisaging collection & transportation of MSW, design, financing, construction, operations, maintenance of transfer stations and an integrated Municipal Solid Waste Processing and Engineered Sanitary Landfill facility at Jawaharnagar, Hyderabad, (hereinafter referred to as "the Project").
- B. In terms of Article 5.1 of the Concession Agreement, the Concessionaire is required to furnish to GHMC, an unconditional and irrevocable bank guarantee for an amount of Rs.18,00,00,000/ (Rupees Eighteen Crores Only) as security for due and punctual performance / discharge of its obligations under the Concession Agreement, relating to achievement of COD by the Concessionaire.
- C. At the request of the Concessionaire, the Guarantor has agreed to provide bank guarantee, being these presents guaranteeing the due and punctual performance/discharge by the Concessionaire of its obligations relating to the Project.

NOW WHEREFORE THIS DEED WITNESSETH AS FOLLOWS:

- 1. Capitalised terms used herein but not defined shall have the meaning assigned to them respectively in the Concession Agreement.

  
**For AXIS BANK LTD.**  
 SPECIAL COMMISSIONER  
 GREATER HYDERABAD MUNICIPAL CORPORATION  
 Authorised Signatory  
 AJAY UD GIRI PAR



**For AXIS BANK LTD.**  
  
 Authorised Signatory

M. V. K. S. S. N. Banu Raje  
 S.S. No. 521



B.G. No.	0080100003530
B.G. Amount Rs.	18,00,00,000/-
B.G. Date	20.02.2009
B.G. Expiry Date	19.02.2011
B.G. Claim Expiry Date	19.02.2011

Notwithstanding anything contained hereinabove, our liability is restricted to Rs. 18,00,00,000/ (Rupees Eighteen Crores Only) in the aggregate. This Guarantee will remain in force up to 19.02.2011 unless a claim or a demand in writing is made against the bank in terms of this guarantee on or before the expiry of 19.02.2011 all your rights in the said guarantee shall be forfeited and we shall be relieved and discharged from all the liability there under irrespective of whether the original guarantee is received by us or not.

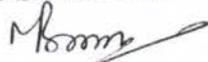
IN WITNESS WHEREOF THE GUARANTOR HAS SET IT'S HANDS HEREUNTO ON THE DAY, MONTH AND YEAR FIRST HEREINABOVE WRITTEN.

**For AXIS BANK LTD.**

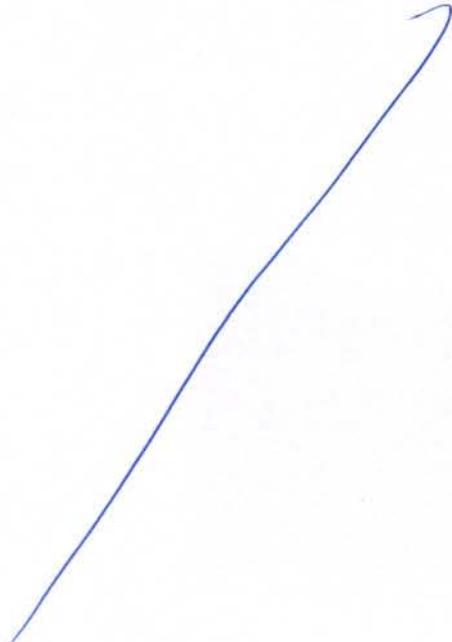
  
**Authorised Signatory**

**AJAY UDGIRKAR**  
 SS.No:3185

**For AXIS BANK LTD.**

  
**Authorised Signatory**

*M.V.K.S.S.N. Bapi Raju*  
 SS.No.527





**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**



## SCOPE OF WORK OF INDEPENDENT ENGINEER

### 1. Role of the Independent Engineer

The Independent Engineer ("IE") is expected to play a positive and independent role in discharging its functions, thereby facilitating the smooth implementation and operation of the Project Facilities. Broadly, the role of the Independent Engineer is to:

- i) independently review, monitor and where required by the Agreement, to approve activities associated with the Design, Construction, Operation and Maintenance of the Project Facilities to ensure compliance by the Concessionaire with the Construction Requirements and O&M Requirements;
- ii) report to the Parties on the various physical, technical and financial aspects of the Project based on inspections, site visits and Tests;
- iii) assist the Parties in arriving at an amicable settlement of disputes, should the need arise; and
- iv) review matters related to safety and environment management measures adopted by the Concessionaire for the Project.

### 2. Scope of Services

The services to be provided by the Independent Engineer are listed below. In addition, the scope of services would also include such other functions as are required to be undertaken pursuant to specific provisions of the Agreement.

#### 2.1 Implementation Period - Design and Planning

- (a) Ensure that all design work fully complies with all Applicable Laws and, in particular, MSW Rules governing the requirements of Municipal Solid Waste disposal.
- (b) Review all the drawings submitted by the Concessionaire and ensure conformity of the same with the Construction Requirements.
- (c) Review of the following submitted by the Concessionaire :
  - (i) Quality Assurance Plan;
  - (ii) Implementation Plan;
  - (iii) O&M Plan – Implementation Period.

#### 2.2 Implementation Period - Construction Inspection and General Services

- 2.2.1 The Independent Engineer would monitor, in accordance with Good Industry Practice, the progress in implementation of the Waste Processing Facility and the Landfill Facility and ensure compliance with the Construction Requirements. For this purpose the



Greater Hyderabad Municipal Corporation

146

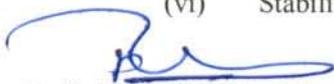
Ramky Enviro Engineers Limited



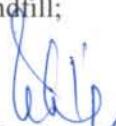
**SPECIAL COMMISSIONER**  
GREATER HYDERABAD MUNICIPAL CORPORATION

Independent Engineer shall undertake, interalia, the following activities and where appropriate make suitable suggestions:

- (a) Provide administration of the contract in full and in complete accordance with applicable laws;
- (b) Act on the GHMC's behalf as the GHMC's representative regarding all contact with the Concessionaire unless expressly indicated otherwise;
- (c) Designate tests on materials and/or equipment;
- (d) Review and approve test results and materials and/or equipment used in the Construction Works;
- (e) Interpret the requirements of the contract and make decisions regarding performance of the Concessionaire. The IE shall inform and advise the GHMC, in a timely manner all matters relating to the execution, progress, and completeness of the Construction Works;
- (f) Reject work which fails to comply with the specifications and requirements of the Agreement. Whenever considered necessary or advisable to ensure correction of defective work, the IE may require inspection or testing of such work, whether or not such work be then fabricated, installed, or completed;
- (g) Review, approve or disapprove drawings, samples, and other submissions of the Concessionaire to determine compliance and conformance with the requirements of the Agreement;
- (h) Provide the services of a full time resident project representative during the period commencing from 7 seven days from the date of appointment of the IE until the expiry of the IE's appointment;
- (i) Provide the services of experts to check the quality of materials and the workmanship during the installation/contruction of the Waste Processing Facility, including the following:
  - (i) weigh bridge at the Project Facility entry gate;
  - (ii) windrow platforms;
  - (iii) drainage system;
  - (iv) leachate collection and treatment system;
  - (v) water supply system;
  - (vi) seiving mechanism for the Residual Inert Matter;
  - (vii) quality control laboratory and associated equipments;
  - (viii) electrical systems.
- (j) Provide the services of experts to check the quality of materials and the workmanship during the installation/contruction of the the Landfill Facility, including the following:
  - (i) weigh bridge at the Landfill Facility gate;
  - (ii) drainage system;
  - (iii) leachate collection system;
  - (iv) leachate treatment plant
  - (v) composite liner system of the Engineered Sanitary Landfill;
  - (vi) Stability of the Engineered Landfill upto Final Cover

  
Greater Hyderabad Municipal Corporation

147

  
Ramky Enviro Engineers Limited

**SPECIAL COMMISSIONER**  
**GREATER HYDERABAD MUNICIPAL CORPORATION**



(vii) testing laboratory and associated equipments

- (k) Address issues relating to specific site conditions, design modifications, or Concessionaire disputes.

2.2.2 The IE shall attend regular meetings (“Project Review Meetings” or “PRMs”) with the GHMC and the Concessionaire, to be held at least once in every two week during the Implementation Period to report on progress and quality of work performed by the Concessionaire and to discuss problems or other pertinent matters relating to the work. The IE shall take notes at the meetings and provide a copy of the PRM minutes to each person who attended the meeting.

2.2.3 The IE shall prepare and submit to GHMC, Fortnightly Progress Reports including the following:

- (a) Daily progress of works;
- (b) Slippages, if any, in the construction vis-à-vis planned construction schedule and the reasons thereof;
- (c) Construction schedule for the succeeding week;
  - (i) Report on Tests
  - (ii) Report on notices issued
- (d) Issues, if any, with regard to the works along with the details of the action taken for the resolution of the same;
- (e) Photographic record of progress of works over the previous week.

2.2.4 The IE shall provide all other services as normally provided by an architect-engineer.

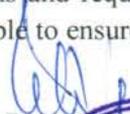
### 2.3 Active Operations Period

2.3.1 During this period the Independent Engineer would monitor, in accordance with Good Industry Practice, the operations and maintenance activities undertaken by the Concessionaire so as to ensure compliance with the O&M Requirements. The specific activities to be undertaken would include the following:

- (a) Provide administration of the contract in full and in complete accordance with applicable laws;
- (b) Act on the GHMC’s behalf as the GHMC’s representative regarding all contact with the Concessionaire unless expressly indicated otherwise;
- (c) Designate tests on materials and/or equipment;
- (d) Review and approve test results and materials and/or equipment used;
- (e) Interpret the requirements of the contract and make decisions regarding performance of the Concessionaire. The IE shall inform and advise the GHMC, in a timely manner all matters relating to the execution, progress, and completeness of works;
- (f) Reject work which fails to comply with the specifications and requirements of the Agreement. Whenever considered necessary or advisable to ensure correction

  
Greater Hyderabad Municipal Corporation

148

  
Ramky Enviro Engineers Limited

- of defective work, the IE may require inspection or testing of such work, whether or not such work be then fabricated, installed, or completed;
- (g) Review, approve or disapprove drawings, samples, and other submissions of the Concessionaire to determine compliance and conformance with the requirements of the Agreement;
  - (h) Provide the services of a full time resident project representative during the period commencing from 7 seven days from the date of appointment of the IE until the expiry of the IE's appointment;
  - (i) In addition to the daily responsibilities, conduct a general inspection of the Project Facilities at least once a month and as and when exigencies require to ascertain conformity with Construction Requirements and O&M Requirements;
  - (j) Provide the services of experts to check the quality of materials and the workmanship during the construction of the the Landfill Facility, including that of the following:
    - (i) leachate collection system;
    - (ii) intermediate liner system of the Engineered Sanitary Landfill;
    - (iii) daily cell cover;
    - (iv) gas venting and flaring system;
    - (v) slope stability of the Engineered Sanitary Landfill;
    - (vi) final cover system.
  - (k) Inspect and certify the quality of Municipal Solid Waste supplied by GHMC, when required
  - (l) Inspect and certify the quality of compost being sold or otherwise disposed outside the Site
  - (m) Inspect and certify composition of the Residual Inert Matter
  - (n) Address issues relating to specific site conditions, design modifications, or Concessionaire disputes.
  - (o) Review the O&M Plans submitted by the Concessionaire from time to time and assist the Concessionaire in finalising the same. The Independent Engineer shall also consult GHMC prior to finalisation of the O&M Plans;
  - (p) Periodically review the O&M Manual for adequacy;
  - (q) Monitor Operation and Maintenance activities (including maintenance of Project Facilities and equipment, standards of service, safety and environmental issues) and the overall quality of O&M activities so as to ensure compliance by the Concessionaire with the O&M Requirements, O&M Plan and O&M Manual;
  - (r) Review and ascertain the cost variation arising as a result of Change in Law and determine the Additional Cost;
  - (s) Undertake a quarterly review of the various records and registers to be maintained by the Concessionaire and suggest suitable remedial measures/ procedures, where necessary.

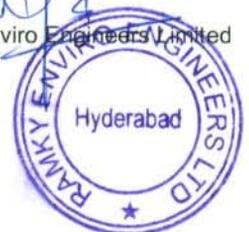
2.3.2 The IE shall attend regular meetings ("Project Review Meetings" or "PRMs") with the GHMC and the Concessionaire, to be held at least once in every month during the Active Operations Period to report on progress and quality of work performed by the

Greater Hyderabad Municipal Corporation

149

Ramky Enviro Engineers Limited

**SPECIAL COMMISSIONER**  
GREATER HYDERABAD MUNICIPAL CORPORATION



Concessionaire and to discuss problems or other pertinent matters relating to the work. The IE shall take notes at the meetings and provide a copy of the PRM minutes to each person who attended the meeting.

2.3.3 The IE shall prepare and submit to GHMC, Monthly Project Reports including the following:

- (a) Report on Tests
- (b) Report on notices issued
- (c) Issues, if any, with regard to the works along with the details of the action taken for the resolution of the same;
- (f) Photographic record of progress of works over the previous week.

**2.4 Handback of Waste Processing Facilities to GHMC**

2.4.1 At the time of handing back the Waste Processing Facilities to GHMC at the end of Active Operations Period, the IE shall:

- (a) monitor and certify compliance with the Handback Requirements,
- (b) issue a Certificate of Compliance with Handback Requirements to the Concessionaire,
- (c) assist in preparation of the Post Closure Maintenance Plan

**2.5 Post Closure Period**

2.5.1 During the Post Closure Period, the IE shall monitor and certify compliance with the Post Closure Maintenance Plan.

2.5.2 Attend meetings with the GHMC and the Concessionaire, to be held at intervals as mutually decided upon by the Parties, to discuss problems or other pertinent matters relating to the Project. The IE shall take notes at the meetings and provide a copy of the minutes of such meetings to each person who attended the meeting.

**2.6 Meetings, Records and Reporting**

2.6.1 In addition to attending the meetings hereinabove mentioned, the IE shall also participate in emergency or extra-ordinary meetings of the Parties held to deal with any Force Majeure Event or other exigencies.

2.6.2 The Independent Engineer shall, in the ordinary course, maintain record of the activities undertaken by it in discharge of its functions and responsibilities. This would include records in respect of the following:

- (i) Manpower deployed and other organisational arrangements of the Independent Engineer;



Greater Hyderabad Municipal Corporation



Ramky Enviro Engineers Limited



- (ii) Reviews of documents submitted to it by the Concessionaire to meet Construction Requirements and O&M Requirements, such as manuals, Drawings, As Built drawings, schedules, plans and reports;
- (iii) Inspections undertaken and notices/ instructions issued to the Concessionaire;
- (iv) Review of compliance with Construction Requirements and O&M Requirements;
- (v) Tests;
- (vi) Concession Payments / Tipping Fees certified;
- (vii) Change in Law;
- (viii) Force Majeure Events;
- (ix) Breaches and defaults by the Parties; and
- (x) Handback Requirements

2.6.3 The Independent Engineer would be required to submit the following reports to the Parties during the Concession Period:

- (a) Implementation Period
  - (i) Fortnightly Progress Report (in accordance with Article 2.2.3 above)
  - (ii) Readiness Certificate (including Provisional Readiness Certificate)
  - (iii) Any supplemental or special report that may be considered necessary by the Independent Engineer (including Force Majeure, and breach of obligations).
- (b) Active Operations Period
  - (i) Monthly Project Report (in accordance with Article 2.3.3 above)
  - (ii) Any supplemental or special report that may be considered necessary by the Independent Engineer (including Force Majeure, and breach of obligations)
  - (iii) Annual Review of O&M Manual
- (c) Report on Handback Requirements.
- (d) Any other report as may be reasonably required by GHMC or as may be necessary to give effect to the provisions of the Agreement.



Greater Hyderabad Municipal Corporation

151



Ramky Enviro Engineers Limited

**SPECIAL COMMISSIONER**  
GREATER HYDERABAD MUNICIPAL CORPORATION



**OPERATIONAL PLAN**

**(TO BE SUBMITTED BY THE CONCESSIONAIRE)**

Greater Hyderabad Municipal Corporation

152

Ramky Enviro Engineers Limited



**SPECIAL COMMISSIONER  
GREATER HYDERABAD MUNICIPAL CORPORATION**

## LIST OF EXISTING ASSETS

Asset	Unit	Number
<b>Bins and Vehicles</b>		
Dumper Bins	No.	3000
Dumper Placers	No.	185
25T Tippers	No.	39
16T Tippers	No.	63
6T Tippers	No.	200
Compactors	No.	8
<b>Transfer Stations</b>	No.	3
<b>Sites for New Transfer Stations</b>		
Fathullaguda	Acers	45
Shamshiguda	Acers	23
Gandhamguda	Acers	10
<b>Site for Integrated Facility</b>		
Jawaharnagar	Acers	350

Refer Project Information Memorandum for the description



Greater Hyderabad Municipal Corporation

153



Ramky Enviro Engineers Limited



**Copies of Agreement Executed between GHMC and Other Developers  
(Selco International Limited, RDF Power Projects Limited)**

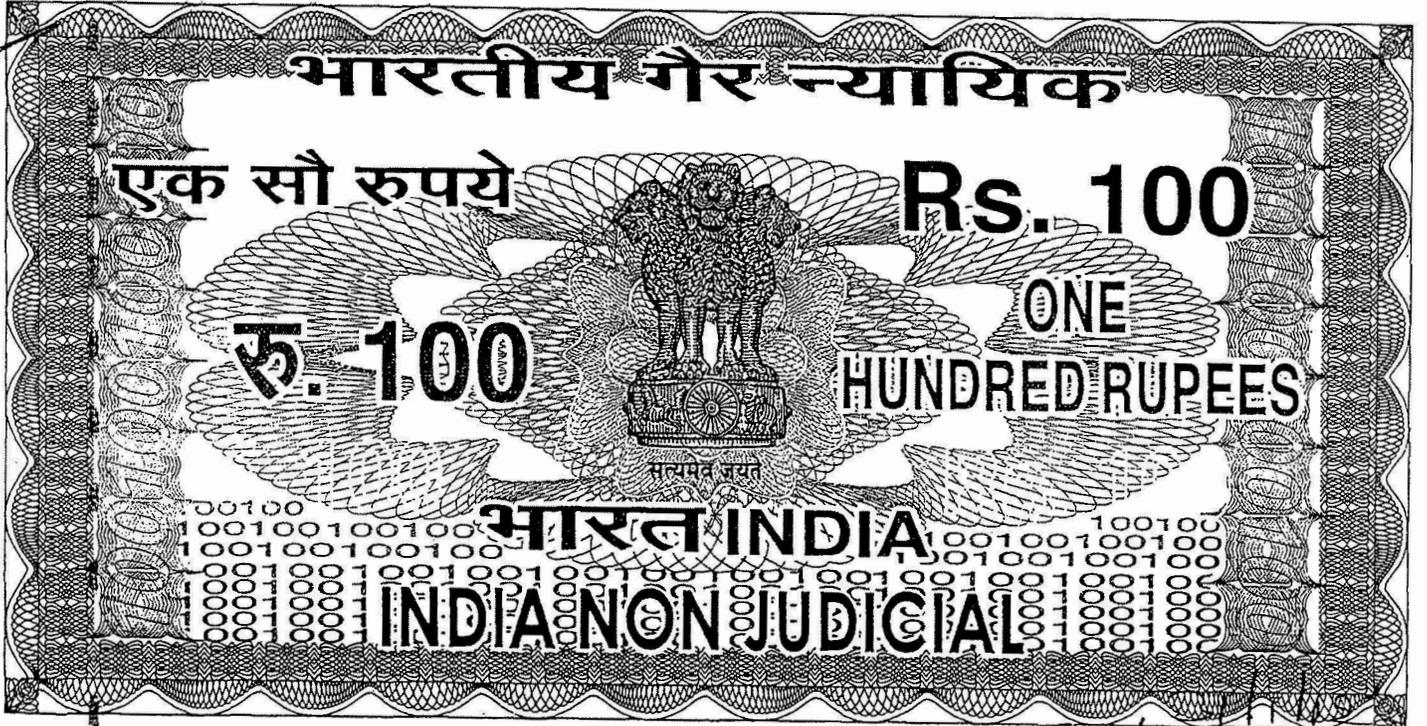
Greater Hyderabad Municipal Corporation

154

Ramky Enviro Engineers Limited



## Annexure R-2



ఆంధ్రప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

S. Laxmi Narayan  
AN 123814

St.No. 2277 Date: 31/1/12 Rs. 100/-

Name: M. Ramy

S/D/W/O: Shankar. pto Hq

For Whom: Hyderabad Integrated MSW Limited. Regd: 063407

S. LAXMI NARAYANA  
Licensed Stamp Vendor  
Lic. No 16-11-02/06, Ren.No:16-11-02/09  
Plot No 222, behind Panjagutta Police Station  
Panjagutta, Hyderabad (South) District  
Phone No: 9989862579

**NOVATION AGREEMENT**

This Novation Agreement is made on 1<sup>st</sup> day of February, 2012.

**BETWEEN**

- (A) **Greater Hyderabad Municipal Corporation**, established under the Hyderabad Municipal Corporation Act, 1956 and having its registered office at Tank Bund, Hyderabad acting through the Commissioner ("GHMC") of the first part ;
- (B) **Ramky Enviro Engineers Limited**, a company incorporated under the Companies Act, 1956 and having its registered office at Ramky House, Opposite Necklace Road Railway Station, Rajbhavan Road, Somajiguda, Hyderabad – 500 082 ("Concessionaire") of the second part, and
- (C) **Hyderabad Integrated MSW Limited**, a company incorporated under the Companies Act, 1956 and having its registered office at 6-3-1089/G/10 & 11, Gulmohar Avenue, Rajbhavan Road, Somajiguda, Hyderabad – 500 082 ("SPC") of the third part.

For Ramky Enviro Engineers Limited

A. S. Narayana

Authorized Signatory

For HYDERABAD INTEGRATED MSW LTD  
Authorized Signatory

Navin Kulkarni

11/2/12

For Greater Hyderabad Municipal Corporation

**WHEREAS :**

1. Pursuant to the Concession Agreement (CA) made on 21<sup>st</sup> day of February, Two Thousand and Nine at Hyderabad between Greater Hyderabad Municipal Corporation (GHMC) and M/s.Ramky Enviro Engineers Limited (REEL), the Concessionaire.
2. Pursuant to the provisions of Clause 5.26 of the CA, upon fulfillment of conditions, GHMC agreed that upon incorporation of the SPC, SPC shall undertake and perform the obligations and exercise the rights of the Concessionaire under the CA.

Now this Agreement witness as follows:

1. In this Agreement, except to the extent that the context requires other wise : "Effective Date" means, 21.05.2009 being the date of commencement of business for SPC.
2. M/s.REEL has promoted and incorporated a SPC "Hyderabad Integrated MSW Limited" on 23.04.2009 as a limited liability company under the Companies Act, 1956 in terms of clause 5.26 of the CA to undertake and perform all its obligations and exercise the rights of the Concessionaire under the CA.
3. M/s. REEL hereby undertake to hold at least 51% (fifty one percent) of the paid up capital of the SPC throughout the Concession Period.
4. M/s.REEL undertakes to hold itself principally responsible for all the duties and obligations under the CA throughout the concession period though the same is assigned in favour of the SPC.
5. GHCM agreed that the SPC is a permitted Assign who shall do and cause to be done the implementation of CA duly discharging all the duties, obligations and responsibilities of M/s.REEL, and claiming the rights reserved for the Concessionaire.
6. The Novation Agreement is only to facilitate the principal to execute the CA through its associate/assigns. It is not a contract for substitution of M/s.REEL with the assign and discharge the M/s.REEL from its obligations.
7. This Agreement shall be governed by and construed in accordance with the laws of India. The Parties hereto agree to submit to the exclusive jurisdiction of the Courts of Hyderabad.

M/s. Engineers Limited  
*A. Satyanarayana*  
 Authorised Signatory

HYDERABAD INTEGRATED MSW LTD  
*[Signature]*  
 AUTHORIZED SIGNATORY

*[Signature]*  
 SPECIAL COMMISSIONER  
 GREATER HYDERABAD MUNICIPAL CORPORATION

IN WITNESS WHEREOF this agreement has been executed by the authorized representatives of the Parties on the day and year first above written.

*Navin Mittal*

Signed by : Navin Mittal, I.A.S., Special Commissioner, GHMC  
for and on : Authorized by Commissioner, GHMC  
behalf of : No.589/EE(SWM)/AC(H&S)/GHMC/2010 dt.30.01.2012  
Commissioner, GHMC

*S. Aleem Basha*  
1/2/12

In the presence of : 1) S.Aleem Basha, Addl. Commissioner (H&S)

*N. Ashok Samrat*  
1/2/12

2) N.Ashok Samrat, Jt. Commissioner (H&S)

Ramky Enviro Engineers Limited

*A. Satyanarayana*

Signed by : Adamala Satyanarayana, Authorised Signatory  
for and on behalf of : Ramky Enviro Engineers Limited

*I.W. Vijaya Kumar*  
HYDERABAD INTEGRATED MSW LIMITED

Signed by : I.W. Vijaya Kumar, Director & Chief Financial Officer  
for and on behalf of : Hyderabad Integrated MSW Limited

*V.S. Venkatesan*  
1/2/2012

In the presence of : 1) V.S.Venkatesan, Head - C & T

*R. Srikanth Reddy*

2) R.Srikanth Reddy, Executive Accounts

**GREATER HYDERABAD MUNICIPAL CORPORATION**

From The Commissioner, Greater Hyderabad Municipal Corporation Tankbund, Hyderabad	To The Project Head M/s.Hyderabad Integrated MSW Ltd., 13 <sup>th</sup> Floor, Ramky Grandiose Ramky Towers, Gachibowli Hyderabad – 500 032
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Lr.No.1064 /SE(SWM)/GHMC/2018

Dated : 14.06.2018 /02.07.18

Gentleman,

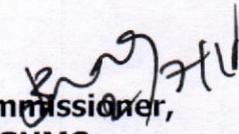
Sub : GHMC – H&S - SWM – Proposal to develop T&D facility in the land allotted to GHMC at Pyaranagar (V), Gummadidala (M) [erstwhile Jinnaram (M)] - Access from the main road to site through forest land – Conducting DGPS and other surveys – permission accorded – Reg.

Ref : 1)Hon'ble NGT orders issued on 07.12.2017  
2)Joint inspection by M/s HiMSW , GHMC and Revenue dept. on 06.06.2018

\*\*\*\*\*

You are aware that Hon'ble NGT has given directions to establish Treatment disposal facility centres in all corners of the city so as to reduce the burden on Jawaharnagar centre. In this direction, GHMC is putting its efforts in identifying lands and found the Ac 152-00Gts land at Pyaranagar (v), Gummadidala (M) [erstwhile Jinnaram (M)] Medak (D) is one suitable for the purpose during the inspection vide reference cited.

Since the said site requires a direct access from the Narsapur main road through the forest land, you are requested to conduct the DGPS and other necessary survey along with preparation of necessary formats and a conceptual plan for establishment of T&D facility including possible WTE plant. Treat this is as an immediate requirement so as to acquire the required land parcel from Forest department to plan for a direct access to the site from Narsapur main road.

  
Commissioner,  
GHMC

  
2/3



From  
The Commissioner,  
Greater Hyderabad Municipal Corporation,  
1<sup>st</sup> Floor, CC Complex  
Tankbund road,  
Hyderabad

To  
The Project Head  
HIMSW Ltd,  
Survey No 173, Jawaharnagar  
Kapra Mandal,  
Medchal Malkajgiri (D)500087

Lr.No. 594/AC(H&S)/EE(SWM)/2015

Dated : 17-05-2022

Gentleman,

Sub : GHMC - SWM - Establishing Solid Waste processing facility at Pyaranagar and diversion of 0.6228 ha of forest land for laying approach road - Reg.

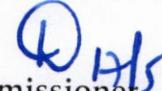
- Ref : 1. Lr.No: B/1055/2014 dated 20.12.2017 from Tasildar, Gummadidala Mandal addressed to RDO Sangareddy  
2. Lr no. F.No. 4-TSB244/2022-HYD/475, Dt: 05-05-2022 of the Asst. Inspector General of Forests (Central), Integrated Regional Office, Hyderabad, MoEFCC.

\*\*\*\*

With reference to the letter 1<sup>st</sup> cited, it is to inform that 152 acres of land at Pyaranagar (V), Sangareddy (D) is under advance possession of GHMC for establishing alternate Solid Waste Processing facility to the existing MSW Treatment & Disposal facility at Jawaharnagar. Further, vide reference 2<sup>nd</sup> cited, the Ministry of Environment, Forest & Climate Change, GoI has accorded in-principle approval (**Stage-I**) under section '2' of Forest (Conservation) Act, 1980 for diversion of 0.6228 ha of forest land for laying approach road, at Nallavelly(V), Nallavelly RF, Sangareddy (D), to the above said land subject to compliance of certain conditions.

In view of the above, HiMSW is hereby permitted to commence the construction of the treatment and disposal facility including waste to energy plant, if required, in the above said Government land of 152 Acres, as per the applicable rules and the terms & conditions of Concession Agreement of the IMSWM Project. Further, HiMSW is requested to lay the approach road in the above said forest land of 0.6228 Ha duly following the conditions enclosed in the Annexure to this letter, as communicated by the Ministry of Environment, Forest & Climate Change, GoI.

Encl: Copy of references & Annexure (2) pages

  
Commissioner,  
GHMC

Copy to the Director General, EPTRI for information.

ANNEXURE

(enclosed with Lr no: 594/AC(H&S)/EE(SWM)/2015

Dated : .05.2022)

- (i) Demarcation of the proposed forest area shall be carried out by erecting 4 feet high cement concrete pillars duly numbered at an interval of 20 meters.
- (ii) The dug out material/overburden shall be dumped outside the forest area. Storage of any material shall not be done in the forest area.
- (iii) The User Agency shall endeavor to minimize the felling of trees existing on the forest land proposed to be utilized to the extent possible. Wherever necessary, felling shall be carried out under the strict supervision of the DFO/FDO concerned.
- (iv) The User Agency has to create a live fencing by planting tree species in 4 rows (at a spacing of 2m x 2m) all around the boundary of the Solid Waste Treatment & Disposal Facility (within the UA's land).
- (v) Speed breakers shall be constructed along the road at an interval of 150 meter by the User Agency to prevent collision of trucks with wild animals.
- (vi) No additional or new path shall be constructed inside the forest area for transportation of construction materials for execution of the project work.
- (vii) Fencing of Solid Waste Treatment and Disposal Facility shall be done with compound wall.
- (viii) The layout plan of the proposed road shall not be changed without the prior approval of the Central Government.
- (ix) A manned barrier shall be established at the beginning of road and a gate at entry of waste treatment and disposal facility to prevent entry of private vehicles.
- (x) No labour camp shall be established inside the forest area.
- (xi) Ensure that the labourers & staff engaged in execution of work do not cause any damage to the nearby forest flora and fauna.
- (xii) The total forest area utilized for the project shall not exceed 0.6228 ha and the forest area diverted shall not be used for any purpose other than those shown in the diversion proposal.

- (xiii) The forest land proposed for diversion shall under no circumstances be transferred or sublet to any other agency, department or person without prior approval of the Central Government.
- (xiv) Shall ensure compliance to provisions of the all Acts, Rules, Regulations and Guidelines, for the time being in force, as applicable to the project.
- (xv) Any other conditions that the Central Government or Regional Officer (Central) of Integrated Regional Office, Hyderabad may impose from time to time in the interest of afforestation, conservation and management of flora and fauna in the area, shall be complied.

By

  
Commissioner  
GHMC



తెలంగాణ తెలంగాణ TELANGANA

*K. Rama Chandravathi* AU 141476

Sl. No: 21243 Date: 27/10/2022.  
 Sold To. : CH Pandu Ranga Reddy  
 S/o : CH Koti Reddy, R/o. Hyd.  
 To Whom : Hyderabad integrated MSW Ltd

**K. RAMA CHANDRAVATHI**  
 LICENSED STAMP VENDOR  
 L.No. 16-11-027/1999,  
 R.L.No.16-11-001/2020  
 SHOP No.6-3-387,  
 NEAR HIMALAYA BOOK WORLD  
 BESIDE IOC PETROL PUMP  
 PUNJAGUTTA, HYDERABAD-52  
 Mobile Phone Number +91-9392490025

#### LICENSE AGREEMENT

This License Agreement ("Agreement") is made and executed on this 17<sup>th</sup> day of November, 2022 at Hyderabad by and between

**GREATER HYDERABAD MUNICIPAL CORPORATION**, established under the Hyderabad Municipal Corporation Act, 1956 and having its registered office at Tank Bund Road, Hyderabad, acting through the Addl. Commissioner (Solid Waste Management), (hereinafter called the "LICENSOR / GHMC" which expression shall unless it be repugnant to the context or meaning thereof mean and include its successors in business and permitted assigns) of the One Part,

AND

**HYDERABAD INTEGRATED MSW LIMITED**, a company registered under the Companies Act, 1956, having its Registered Office at Level 11B, Aurobindo Galaxy, Hyderabad Knowledge City, Hitech City Road, Hyderabad - 500081, Telangana, acting through Sri. Krishna Rao Thota, Director (hereinafter called the "LICENSEE/CONCESSIONAIRE" which expression shall unless it be repugnant to the context or meaning thereof mean and include its successors in business and assigns) of the Other Part.

*[Signature]*  
 Licensor  
 Addl. Commissioner  
 SWM, GHMC

[1]



**WHEREAS**

- 1) GHMC vide Concession Agreement (hereinafter referred as "Concession Agreement") dated 21 February 2009, granted Re Sustainability Limited (RSL) (Formerly named as Ramky Enviro Engineers Limited) the project "to develop and implement a viable & environmentally sustainable integrated MSW management system in Hyderabad" (hereinafter referred as the "Project").
- 2) In pursuance of the Concession Agreement, RSL has incorporated a special purpose vehicle in the name & style "Hyderabad Integrated MSW Limited" (SPV / the Concessionaire) for undertaking the Project. The Concession Agreement was novated to the SPV vide Novation Agreement dated 01 February 2012 between GHMC, Re Sustainability Limited and the Concessionaire.
- 3) As per Clause 3.1 of the Concession Agreement, GHMC shall license the following site (the "Premises" / "Site") (The maps with boundaries are attached as Schedule to this agreement) to the Concessionaire for the purposes of the development of the Project Facilities:
 

Name of the Site	:	Integrated Municipal Solid Waste Processing and Disposal Facility, Nallavelly Village, Pyaranagar.
Location	:	Nallavelly Village, Nallavelly RF, Sangareddy District.
Survey No.	:	Not allotted
Extent	:	120.12 Acres (approximate land area as surveyed by the Licensee)
Purpose of Land	:	To develop and implement an Integrated MSW Facility.
- 4) The Licensor are the sole and legal owners and absolutely seized and in possession of the above premises.
- 5) Now the Licensor being desirous of licensing the Premises (hereinafter called the "Licensed Premises") to the Concessionaire at a nominal license fee of Rs.1000/- (Rupees One Thousand only) per annum for the term and conditions mutually agreed upon by and between the Parties hereto in the manner hereinafter appearing.

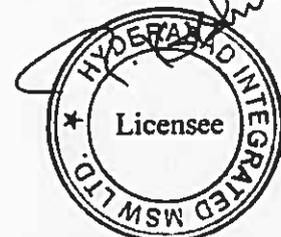
**NOW THIS AGREEMENT WITNESSETH AND IT IS HEREBY AGREED BY AND BETWEEN THE PARTIES HERETO as under:-**

1. In consideration of the nominal license fee of Rs. 1000/- (Rupees One Thousand only) per annum for the term of the Concession, the Licensor hereby grants to the Licensee, the license of all that of the Licensed Premises.
2. Rights, Title and Use of the Site:
  - a. The Concessionaire shall have the right to the use of the Site in accordance with the provisions of the Concession Agreement and for such purpose authorised by it; it may regulate the entry into and use of the same by third Parties.



Licensor  
Addl. Commissioner  
SWM, GHMC

[2]



- b. The Concessionaire shall not part with or create any encumbrance on the whole or any part of the Site except with prior consent in writing from GHMC.
- c. The Concessionaire shall not, without the prior written approval of GHMC, use the Project Facilities for any purpose other than for the purpose of the Project and purpose incidental or ancillary thereto.
- d. The Concessionaire shall allow access to and use the Site for laying / installing / maintaining telegraph lines electric lines or for such other public purposes as GHMC may specify. Provided that such access or use shall not result in a Material Adverse Effect and that GHMC shall, in the event of any physical damage / shifting of the Project Facilities on account thereof, ensure that the Project Facilities are promptly restored at cost and expense of GHMC.
- e. The Concessionaire shall have the right to use the space available at the project site for display of advertisements duly following the advertising policy of GHMC.
- f. The Concessionaire shall ensure optimum utilization of the Site & land available and shall not use the same for any purpose unconnected or which is not incidental to the Project or related activities, unless otherwise permitted under this agreement. For avoidance of doubt, any land given by GHMC to the Concessionaire for this project shall not be used for development of residential or commercial facilities or premises for rent, lease or similar purpose.

3. Peaceful Possession:

GHMC hereby warrants that:

- a. The Site together with the necessary right of way/way-leaves has been acquired through the due process of law and belongs to and is vested in GHMC and that GHMC has full powers to hold, dispose of and deal with the same; consistent and interlaid with the provisions of this Agreement and that the Concessionaire shall, in respect of the Site, have no liability regarding any compensation payment on account of land acquisition or rehabilitation / resettlement of any Persons affected thereby as warranted in the Concession Agreement.
- b. The Concessionaire shall, subject to complying with the terms and conditions of the Concession Agreement, remain in peaceful procession and enjoyment of the whole Site during the Term of Concession and in the event the Concessionaire is obstructed by any Person claiming any right, title or interest in or over the Site or any part thereof or in the event of any enforcement action including any attachment, distraint, appointment of receiver or liquidator being initiated by and Person claiming to have any interest in/charge on the

  
Licensor  
Addl. Commissioner  
SWM, GHMC

[3]



site or any part thereof, GHMC shall as called upon by the Concessionaire, defend such claims and proceedings at its costs and also keep the Concessionaire indemnified against any consequential loss or damages which the Concessionaire may suffer, on account of any such right, title, interest or charge.

4. The Licensee hereby covenants with the Licensor as follows:

- a. To pay the total license fee hereby reserved within 30 days from the date of execution of this Agreement.
- b. To obtain and maintain the Applicable Approvals in such sequence as is consistent with the requirements of the Project, GHMC shall provide all necessary co-operation / assistance for obtaining the permission. The Concessionaire shall be responsible to be in compliance with the terms and conditions subject to which Applicable Approvals have been issued.
- c. To pay all charges for electricity and water consumed in or upon the said Licensed Premises;
- d. To deliver upon the said Licensed Premises at the end or upon sooner determination of the said Term of Concession (including the renewal term, if any) together with all the structural additions thereto made by the Licensee and all the Licensor's fittings and fixtures in such repair, order and condition (reasonable wear and loss or damage by fire, flood, violence, riots, civil commotion, irresistible force or Act of God expected) as is consistent with the covenants and conditions on the part of the License herein contained;
- e. To insure and keep insured the Licensed Premises against loss or damage by fire, riot, earthquake and other usual risks;

5. PROVIDED ALWAYS AND IT IS hereby mutually agreed as follows:

- a. If at any time during the said term, the said Licensed Premises are destroyed or damaged by fire, storm or tempest or earthquake or any other means so as to become unfit for use, occupation and habitation then in that event, the Licensee has the right but not the obligation at its own costs and expenses to get the Licensed Premises rendered fit for use and occupation and the Licensee shall in the meantime continue to pay the license fee as also all taxes and outgoings payable in respect of the said Licensed Premises or any part thereof only in the event the Licensee is carrying out any work pursuant to the aforesaid and the Licensee shall not be under any obligation to pay the license fee in the event the Licensee opts not to carry out any work to restore the Licensed Premises and license shall stand suspended for the Force Majeure period provided further that in case if the Licensor / Licensee have insured the entire property and receive any amount from the insurance company then and in that event the Licensee shall contribute and utilize the amount so received for rebuilding the said property and / or the premises as the case may be;

  
Licensor.  
Addl. Commissioner  
SWM, GHMC

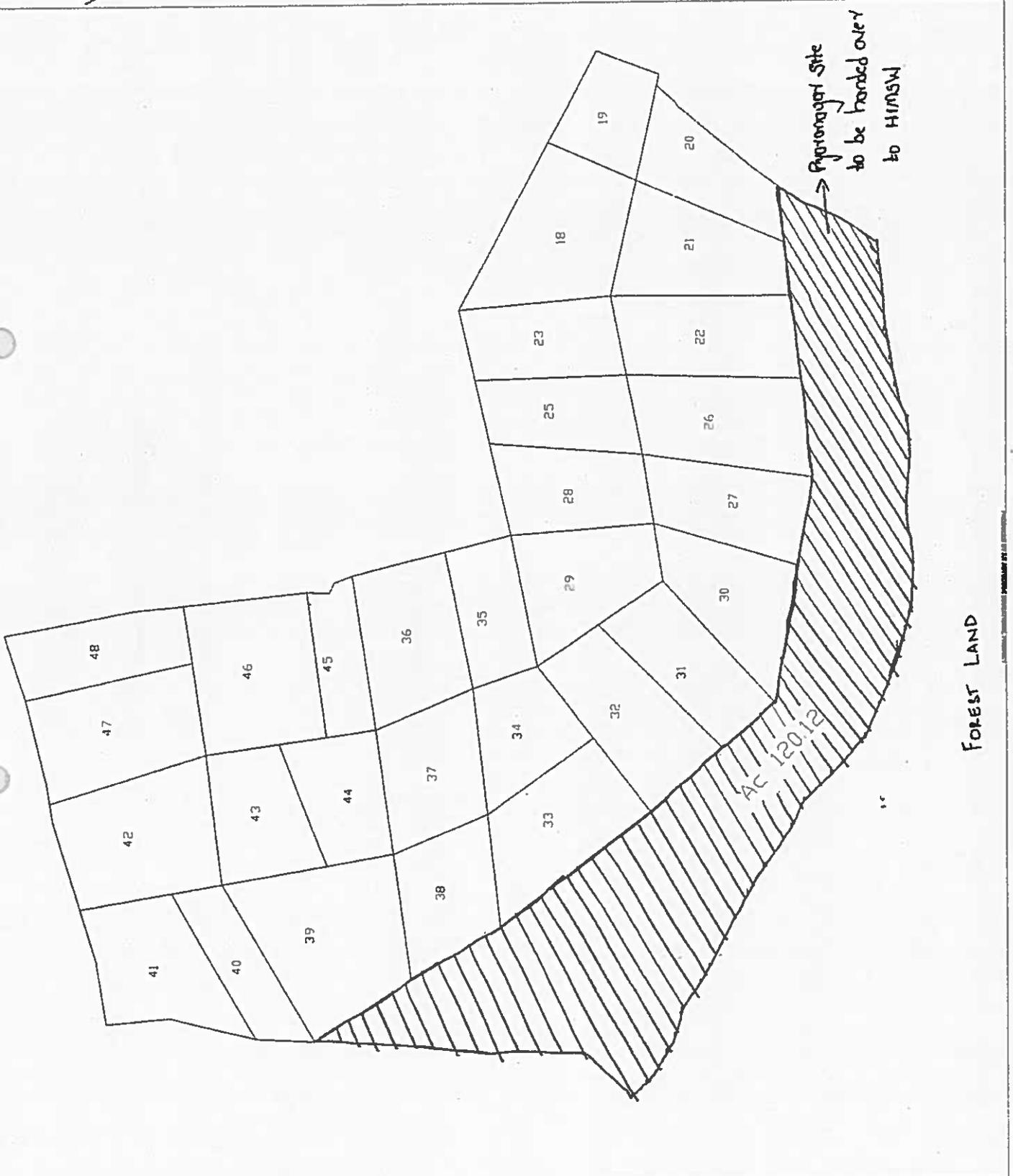
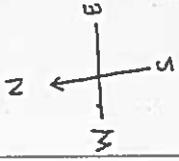
[4]



- b. Moreover, if the Licensed Premises altogether become unfit for use, occupation and habitation and then in that event, the Licensor shall provide any other premises under license for the purpose of implementation of the Project.
- c. The Licensee shall be at liberty during the said term to make alterations modifications and additions in the Licensed Premises (without making any structural changes) and also to make or install any additional fittings and fixtures on or to the said premises such as air conditioners and other plant, equipment, pipes cables, partitions, cabins, screens, shelves, telephone, telex and sanitary installations, fittings, lights and fans and to remove the same subject to the necessary permission (if any) being obtained from the concerned authorities, but the Licensee shall make good any damage which may be caused to the said Licensed Premises by such removal. The Licensor undertakes that the Licensor or its agents or servants shall not remove or damage any fittings and fixtures owned by the Licensee.
- 6. The Stamp Duty and Registration charges payable in respect of this Agreement and the duplicate hereof shall be borne and paid by the Licensee alone. However, each party shall bear and pay their respective Advocates and Solicitors' costs.
- 7. The terms and conditions of the License shall be governed by the provisions of Concession Agreement. In the event of any conflict between the provisions of this agreement and Concession Agreement, the provisions of the Concession agreement shall prevail.
- 8. That this License Agreement shall be revised upon allotment of Survey numbers, extent and land boundary by the concerned Revenue Department.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE HEREUNTO SET AND SUBSCRIBED THEIR RESPECTIVE HANDS AND SEALS THE DAY AND YEAR FIRST HEREINABOVE WRITTEN

Signed by Addl. Commissioner (SWM), GHMC	:	 Addl. Commissioner SWM, GHMC
In the presence of	:	1) 2)
Signed by for and on behalf of Hyderabad Integrated MSW Limited	:	 
In the presence of	:	1) 2)





<p>From, The Commissioner, Greater Hyderabad Municipal Corporation, 1<sup>st</sup> Floor, GHMC- HO, CC Complex, Lower Tankbund Road, Hyderabad.</p>	<p>To, The Project Head, M/s. Hyderabad Integrated MSW Ltd., Level 11B, Aurobindo Galaxy, Hyderabad Knowledge City, HITECH City Road, Hyderabad- 500081</p>
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Lr.No.SWM/0013/2020/AE-3(SWM)HO

Dated : 29 .11.2022

Gentleman,

Sub : GHMC - SWM - Alternate MSW Processing facility at Pyaranagar (V), Sangareddy (D) - Requests of Concessionaire to provide authorization - Authorization - Reg.

Ref : 1) Lr.No.HiMSW/GHMC/22-23/2205 dated 08.09.2022  
2) Lr.No.HiMSW/GHMC/22-23/2207 dated 12.09.2022  
3) T/o. Lr .No 594/ AC(H&S)/EE(SWM)/2015 dt: 17.05.2022  
4) Land License agreement of Pyaranagar land with GHMC dt:17.11.2022  
5) Concession Agreement with GHMC for the IMSWM Project dt: 21.02.2009

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Against the subject and references cited above, GHMC hereby issues authorization to M/s. Hyderabad Integrated MSW Limited (SPC) for setting up Municipal Solid Waste Processing and Disposal Facility at Pyaranagar under the IMSWM project of GHMC with a condition that all such facilities so set up/going to set up and maintained by the SPC i.e., Hyderabad Integrated MSW Limited, shall be handed over to GHMC under same terms and conditions of the Concession Agreement keeping them encumbrance free. There shall not be any exclusive rights to this SPC i.e., Hyderabad Integrated MSW Limited as the same shall be treated as permitted assign of Re Sustainability Limited (erstwhile Ramky Enviro Engineers Limited) whose validity shall cease on expiry of the Concession Period of the IMSWM Project under the Concession Agreement vide reference 5<sup>th</sup> cited above.

  
Commissioner,  
GHMC

7



**TELANGANA STATE POLLUTION CONTROL BOARD**  
**PARYAVARAN BHAVAN, A - 3, INDUSTRIAL ESTATE,**  
**SANATHNAGAR, HYDERABAD - 500 018**

Phone: 23887500  
 Fax: 040 - 23815631  
 Website: www.tspcb.cgg.gov.in

**CONSENT ORDER FOR ESTABLISHMENT – RED CATEGORY**

**Order No. 4258760/ TSPCB/CFE/RO-RCP/SWM/HO/2023 -**

**Dt.06.02.2023**

**Sub:** TSPCB – CFE – M/s. Hyderabad Integrated MSW Ltd., Pyranagar, Nallavelli Village, Gummadidala Mandal, (GPS Co-ordinates – West side E-78°19'26.49", N-17°43'19.08" and South east – E-78°20'20.68", N-17°42'43.63", South West Side E-78°19'22.92"N-17°42'58.84" Sangareddy District – Consent for Establishment of the Board under Sec.25 of Water (Prevention & Control of Pollution) Act, 1974 and Under Sec.21 of Air (Prevention & Control of Pollution) Act, 1981 – Issued – Reg.

**Ref:**

1. CFE application received through TS iPASS on 06.01.2023.
2. RO, RC Puram verification report dated 20.01.2023.
3. CFE Committee meeting held on 24.01.2023
4. Industry's letter submitted on 28.01.2023 & 30.01.2023

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1. In the reference 1st cited, an application was submitted to the Board seeking Consent for Establishment (CFE) to set up Integrated Municipal Solid Waste Processing facility comprising of Power Plant, Compost plant, Bio Methanization and RDF etc, as mentioned below, with a cost of Rs. 44,550 Lakhs.

**A. Raw Materials :**

Municipal Solid Waste (MSW)	4000 TPD
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**B. Products:**

Sl. No.	Products	Capacity
1.	Bio-gas	260 TPD
2.	Compost	200 TPD
3.	RDF	*2035 TPD
4.	Recycled Plastics (Granules and LD Bags)	90 TPD

**C. Waste to energy Plant:**

Sl. No.	Products	Capacity
1.	Electricity	15 MW

**\*The RDF of 1000 TPD shall be used as Raw Material. The remaining 1035 TPD shall be disposed to other waste to energy plants/Cement plants.**

2. As per the application, the above facility is to be located at Pyranagar, Nallavelli Village, Gummadidala Mandal, Sangareddy District with a total area of Acres 120.12 Guntas.
3. In the reference 2<sup>nd</sup> cited, the Environmental Engineer, Regional Office, RC Puram, T.S.Pollution Control Board reported that the above site was inspected on 20.01.2023 and observed that the site is surrounded by:

North Open Land (covered with forest area) followed by Pyranagar village at a distance of about 850 meters.

South Nallavelly Reserved forest followed by Hyderabad – Narsapur High Way at a distance of about 500 meters.

East Forest land followed by agricultural land followed by Nallavelly village at a distance of about 1.92 km.

West Forest area.

4. The Board, after careful scrutiny of the application and verification report of the Regional Officer and after examining in the CFO Committee meeting held on 24.01.2023, hereby issues **CONSENT FOR ESTABLISHMENT** to your facility under Section 25 of Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of Air (Prevention & Control of Pollution) Act, 1981 and the rules made there under. **This order is issued to the facility as mentioned at Para (1) only.**
5. This Consent Order now issued is subject to the conditions mentioned in Schedule 'A' and Schedule 'B'.
6. This order is issued from pollution control point of view only. Zoning and other regulations are not considered.

Encl: Schedule 'A'  
Schedule 'B'

Sd/-  
MEMBER SECRETARY

To,  
M/s. Hyderabad Integrated MSW Ltd.,  
Pyaranagar, Nallavelli Village, Gummadidala Mandal,  
(GPS Co-ordinates – West side E-78°19'26.49", N-17°43'19.08"  
and South east – E-78°20'20.68", N-17°42'43.63",  
South West Side E-78°19'22.92"N-17°42'58.84"  
Sangareddy District.

//T.C.F.B.O//

*M. Prasad*  
*06/02/2023*  
Senior Environmental Engineer

*CS*

**SCHEDULE – A**

1. **This order is valid for a period of 5 years from the date of issue.** Progress on implementation of the project shall be reported to the concerned Regional Office, T.S. Pollution Control Board once in six months. The consent of the Board shall be exhibited in the factory premises at a conspicuous place for information of the inspecting officers.
2. The proponent shall obtain Consent for Operation (CFO) from TSPCB, as required Under Sec.25/26 of the Water (Prevention and Control of Pollution) Act, 1974 and under sec. 21/22 of the Air (Prevention and Control of Pollution) Act, 1981, before commencement of the activity.
3. The proponent shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
4. Good housekeeping shall be maintained.
5. The industry is liable to pay compensation for any environmental damage caused by it, as fixed by the Hon'ble Courts, Collector and District Magistrate as Civil liability.
6. The rules and regulations notified under Environmental Acts by the MOEF&CC and by the Ministry of Law and Justice, GOI, regarding the Public Liability Insurance Act, 1991 shall be followed.
7. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers under Section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and amendments thereof, to review any and/or all the conditions imposed herein, to modify conditions or stipulate any further conditions and to take action including revocation of this order in the interest of public health and environment.
8. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per the State Water Rules, 1976 and Air Rules, 1982, to such authority (hereinafter referred to as the Appellate Authority) constituted under Section 28 of Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.

**SCHEDULE – B****Water Consumption:**

1. The source of water is Borewell. The maximum water consumption shall not exceed the following:

Sl. No.	Purpose	Quantity (KLD)
1.	Process	140
2.	Boiler feed/make up	68
3.	Washing	20
4.	Domestic	35
5.	Cooling water makeup	150
6.	Greenbelt	130 (Recycled water)
7.	Other Flue gas cleaning	50 (Recycled water)
8.	Ash quenching	150 (Recycled water)
9.	Odour Control	100
	<b>Total</b>	<b>843 KLD</b>

2. The maximum waste water generation shall not exceed the following::

Sl. No.	Effluent	Quantity (KLD)	Mode of final disposal
1.	Boiler blow down	40	After treatment shall be used for Ash Quenching
2.	Cooling bleed off	110	
3.	Domestic	30	Shall be treated in STP of 50 KLD capacity and the treated water shall be utilized for on land for gardening duly meeting the standards
4.	Washings (Floor and Vehicle)	18	ZLD treatment system:
5.	Leachate	600	After treatment in ETP shall be passed through stripper – 600 KLD and then subjected to Mechanical Vapour Recompression Technology of capacity 600 KLD.  The permeates of 480 KLD shall be used for the process and the rejects – 120 KLD shall be subject to paddle dryer and salt shall be disposed to waste to energy plant.

3. The disposal of treated Leachate shall follow the following standards:

Sl.No.	Parameter	Standards
i.	Suspended solids, mg/l, max	100
ii.	Disso ved solids(inorganic), mg/l, max	2100
iii.	pH value	5.5 to 9.0
iv.	Ammonical Nitrogen (as N), mg/l, max	50
v.	Total kjeldahl nitrogen (as N), mag/l, max.	100
vi.	Biochemical Oxygen Demand (3 days at 27°C. mg/l, max.	30
vii.	Chemical Oxygen Demand, mg/l, max.	250
viii.	Arsenic, (as AS), mg/l, max.	0.2
ix.	Mercury (as Hg), mg/l, max	0.01
x.	Lead (as Pb), mg/l, max	0.1
xi.	Cadmium (as Cd), mg/l, max	2.0
xii.	Total Chromium (as Cr), mg/l, max	2.0
xiii.	Copper (as Cu), mg/l, max	3.0
xiv.	Zinc (as Zn), mg/l, max	5.0
xv.	Nickel (as Ni), mg/l, max	3.0
xvi.	Cyan de (as CN), mg/l, max	0.2
xvii.	Chloride (as Cl), mg/l, max	1000
xviii.	Fluor de (as F), mg/l, max	2.0
xix.	Phenolic compounds (as C6H5OH), mg/l, max	1.0

4. **The facility shall obtain NOC from Air Force Academy Dundigal before applying of CFO of the Board.**
5. **The facility shall submit survey no's of the site before applying of CFO of the Board..**
6. **The facility shall not carry any land fill activity within the processing facility as committed by the industry.**
7. The Sewage Treatment Plant (STP) shall be constructed and commissioned along with the commissioning of the activity. All the units of the STP shall be impervious to prevent ground water pollutior.

8. The domestic effluents shall be treated in the STP to the on land for irrigation standards, stipulated under Environment (Protection) Rules, 1986, notified and published by Ministry of Environment and Forests, Government of India as specified in schedule VI vide G.S.R.422 (E), dt.19.05.1993 and its amendments thereof.
9. The industry shall construct ETP consisting of pre-treatment tank and neutralization pit for treating of boiler blow-down and cooling tower bleed off and the treated water shall be used for ash-quenching.
10. In case of compost plant, the windrow area shall be covered with shed and provided with impermeable base. Such a base shall be made of concrete or compacted clay, 50 cm thick, having permeability coefficient less than 10<sup>-7</sup> cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off.
11. Composting shall be carried out in a closed shed so as to avoid odour nuisance to the surrounding area.

**Air:**

12. The facility shall comply with the following for controlling air pollution:

S. No	Details of Stack	Stack 1	Stack 2
a)	Attached to	Boilers	DG Sets
b)	Capacity	2 x 21 TPH	2 x 500 KVA
c)	Fuel	MSW RDF	HSD
d)	Fuel quantity	1000 TPD	--
e)	Stack height (m)	60 meters	15 mtrs
f)	Details of Air Pollution Control Equipment	Bag filters	Acoustic enclosures
g)	Standards to be complied	SPM – 115 mg/Nm <sup>3</sup>	SPM – 115 mg/Nm <sup>3</sup>

13. The facility shall install stack of 60 m height for boiler and shall install bagfilters as air pollution control equipment to control the emissions.  
The facility shall meet the emissions standards as as prescribed in Schedule – II (C) of the Solid waste Management Rules, 2016 i.e, Particulate matter – 50 mg/Nm<sup>3</sup>, HCl – 50 mg/Nm<sup>3</sup>, SO<sub>2</sub> – 200 mg/Nm<sup>3</sup>, CO – 100 mg/Nm<sup>3</sup>, Total Organic Carbon - 20 mg/Nm<sup>3</sup>, HF – 4 mg/Nm<sup>3</sup>, NO<sub>x</sub> - 400 mg/Nm<sup>3</sup> (Standard refers to half hourly average)  
Total dioxins and furans – 0.1 ngTEQ/Nm<sup>3</sup>, Cd+Th+ their compounds – 0.05mg/Nm<sup>3</sup> and Sb+As +Pb+ Cr+Co+Cu+Mn+Ni+V+ their compounds – 0.05mg/Nm<sup>3</sup>
14. The facility shall provide Continues Emission Monitoring System(OCEMS) for the stack attached to the boilers for parameters SPM, SO<sub>2</sub>, NO<sub>x</sub>, HCL & CO and shall connect to TSPCB server.
15. The facility shall lay internal cement concrete roads for movements of vehicles within the processing facility.
16. The facility shall transport the MSW in closed vehicles only and ensure that there is no spillage of MSW during transportation.
17. The incoming wastes at site shall be maintained prior to further processing. To the extent possible, the waste storage area should be covered. If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility.
18. The proponent shall ensure compliance of the National Ambient Air quality standards notified by MoE&F, Gol vide notification No. GSR 826(E), dated. 16.11.2009 during construction and regular operational phase of the project.
19. Diesel generators shall be installed in a closed area with silencers and suitable noise absorption systems. The ambient noise level shall not exceed 65 dB(A) during day time and 55 dB(A) during night time.
20. Ambient noise levels should conform to the residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely

monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by the CPCB.

21. Vehicles hired to bring construction material to the site should be in a good condition and should conform to ambient air and noise standards and should be operated only during non peak hours.

**Solid / Hazardous Waste:**

22. The facility shall comply with the following:

Sl. No.	Name of the Waste	Quantity	Disposal option
1.	Waste Oil / Used Oil	200 LPM	Shall be sent to Board's authorized Recyclers /Repressors
2.	Inert	400 TPD	Shall be sent to M/s. Jawahar Nagar dump site for land filling/further processing.
3.	Bottom & fly Ash	250 TPD	

The compost plant and other processing facilities shall follow the conditions as follows:

- i. The incoming solid wastes and the wastes storage at site shall be covered.
- ii. The facility shall provide a system for collection of leachate and surface water run-off in to lined drains leading to leachate treatment and disposal facility.
- iii. Necessary precautions shall be taken to minimize nuisance of odor, flies, rodents bird menace and fire hazard.
- iv. In case of breakdown or maintenance of plant, waste intake shall be at stopped and arrangements be worked out for diversion of wastes to the landfill site.
- v. **Pre-process and post-process rejects shall be removed from the processing facility on regular basis and shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclables shall be sent for well-designed landfill site(s).**
- vi. In case of compost plant, the windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay, 50 cm thick, having permeability coefficient less than 10<sup>-7</sup>cm/sec. The base shall be provided with 1 to 2 percent slope and circled by lined drains for collection of leachate or surface run-off.
- vii. Ambient air quality monitoring shall be regularly carried out particularly for checking odour nuisance at down-wind direction on the boundary of processing plant.
- viii. In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely:

Parameters	Concentration not to exceed * (mg/kg dry basis, except pH value and C/N ratio)
Arsenic	10.00
Cadmium	5.00
Chromium	50.00
Copper	300.00
Lead	100.00
Mercury	0.15
Nickel	50.00
Zinc	1000.00
C/N ratio	20 – 40
PH	5.5 – 8.5

23. The facility shall construct silos for storage of fly ash and the bottom ash shall be transported through closed system only.
24. The solid waste generated shall be properly collected and segregated before disposal to the municipal facility. Waste paper, cartons, thermocol, plastic waste, glass etc., shall be disposed to recycling units. E-Waste shall be disposed to authorized

- recycling units. The organic waste shall be composted.
25. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the facility site.
  26. **The facility shall take the authorization under Rule-16(1)(c) of the Solid Waste Management Rules, 2016.**
  27. The following rules and regulations notified by the MoE&F, GoI shall be implemented.
    - a) Solid Waste Management Rules, 2016.
    - b) Construction and Demolition Waste Management Rules, 2016.
    - c) Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
    - d) The Plastic Waste Management Rules, 2016 and amendments thereof.
    - e) Batteries Waste Management Rules, 2022.
    - f) E-Waste (Management) Rules, 2016 and its Amendment Rules, 2018.
    - g) Bio-Medical Waste Management Rules, 2016 and its Amendment Rules, 2018.

**Other Conditions:**

28. **The facility shall maintain buffer zone on all the sides as committed and develop green belt of 5 to 8 mtrs width with tall growing trees.**
29. **The Bio-gas generated in the facility after operation shall be maximum utilized for captive consumption and the remaining shall be exported to requisite industries.**
30. **The compostable waste after composting shall be sold as compost and maintain records.**
31. **The recyclable plastic waste shall be used for in house granules making/LD Bags.**
32. **The facility shall develop thick green belt with tall growing trees all along the forest area approach road.**
33. Thick Green belt shall be developed along the boundary of the facility in 33% area. Green belt development shall be started along with the construction activity. The facility shall not disturb the existing greenbelt provided.
34. The facility shall take proper measures for control of odour nuisance. In case persistent odour exists, necessary measures shall taken otherwise the facility should go for alternate site.
35. The MSW carrying vehicles shall not pass through the village road.
36. The facility shall obtain Plastic Waste Authorization from the Board & Extended Producer Reasonability (EPR) Registration in the website <https://eprplastic.cpcb.gov.in/#/plastic/home>
37. The facility shall obtain necessary permissions for the proposed activity, from the concerned Government departments / concerned authorities.
38. The facility shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board.
39. The operator of facility shall submit the Annual report to the local body in Form-III on or before the 30th day of April every year
40. The facility shall comply with all the directions issued by the Board from time to time.
41. **The facility shall submit the Survey Nos. after obtaining from the concerned department.**
42. **The industry shall allocate a minimum of 1% of its project cost towards CSR (Corporate Social Responsible) activities during construction period and 0.20% of the project cost per year during operational period for 10 years.**
43. **The proponent shall lay internal cement concrete roads for movement of vehicles within the dump yard.**
44. **The proponent shall provide G.I. sheets for covering for the belt conveyor and**

- also install adequate dust suppression equipment at all around the stockpiles.
45. The proponent shall take adequate measures to control self-ignition of municipal solid waste.
  46. The proponent shall regularly conduct ground water, ambient air monitoring around the dump site regularly.
  47. The vehicles transporting municipal solid waste shall be covered with tarpaulin covers.
  48. The facility shall provide compound wall /fencing to avoid entering of animals etc,.
  49. The facility should comply with the Solid Waste Management Rules, 2016 and its amendments.
  50. The Board may stipulate/delete any other conditions if necessary.
  51. Concealing the factual data or submission of false information / fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts.

Sd/-  
MEMBER SECRETARY

To,  
M/s. Hyderabad Integrated MSW Ltd.,  
Pyaranagar, Nallavelli Village, Gummadidala Mandal,  
(GPS Co-ordinates – West side E-78°19'26.49", N-17°43'19.08"  
and South east – E-78°20'20.68", N-17°42'43.63",  
South West Side E-78°19'22.92"N-17°42'58.84"  
Sangareddy District.

//T.C.F.B.O//

*M. Praveen*  
*06/10/2023*

Senior Environmental Engineer

*GP*

dk

## Annexure R-8



Lr.No.HIMSW/GHMC/22-23/2305

Dated: 20.02.2023

To,

The Commissioner,  
Greater Hyderabad Municipal Corporation,  
Tank Bund Road,  
Hyderabad – 500 063.

- Sub :** Establishment of proposed P&D facility at Pyaranagar –Survey and physical handover – Reg.  
**Ref 1** GHMC office letter no. Lr.No. 594/AC(H&S)/EE(SWM)/2015 dated 17.05.2022.  
**2** Concession Agreement dated 21.02.2009 for the IMSWM Project.

Dear Sir,

1. This letter is being submitted in furtherance to above-referred correspondences and on the subject matter.
2. We are in receipt of your above-referred office letter dated 17.05.2022 wherein it was informed that, GHMC is under the advance possession of 152 acres of land at Pyaranagar (V), Sangareddy (D) for establishing an alternate Solid Waste Processing facility and Waste to Energy Plant.
3. Upon receipt of above letter, we have conducted a detailed survey on the ground and were able to identify land admeasuring 120.12 acres in lieu of 152 acres as informed by your good office. We have communicated the same vide our letter Lr.No.HIMSW/GHMC/22-23/2005 dated 08.09.22.
4. The land coordinates were marked only the map, and the same was submitted to the State Pollution Control Board for application of the Consent for Establishment, which is subsequently approved.
5. It is also submitted that the land identified is not assigned a survey number which can lead to potential future titular disputes.

20/2/23





6. In light of the above, we humbly request GHMC to write to the concerned revenue officials to arrange a survey and panchnama, thereby identifying the extent of land physically and officially handing over to us to start the development activities.

Thanking You

Yours Sincerely,  
For Hyderabad integrated MSW Limited

Authorized Signatory.

C.C: The Director General, EPTRI, Gachibowli, Hyderabad.

# Annexure R-9 206

## GOVERNMENT OF TELANGANA FOREST DEPARTMENT

Rc. No. 70/FRO/SRD/2023,  
Date: 06.08.2025.

Office of the Forest Range Officer,  
Sangareddy.

Present:- Sri K.Devilal, M.Sc.,  
Forest Range Officer,  
Sangareddy.

### Notice:

Sub:- TGFD – Clearance of tree growth in 71.12 acres more than 0.4 density – violation of Forest conservation Act, 1980 and WALTA Act, 2004 – Sho cause Notice issued – Reg.

- Ref:-
- 1) POR No. 906/37, dated: 05.05.2025.
  - 2) Lr. No. SWM/0013/2020/AE-3 (SWM) HO Dated: 29.11.2022.
  - 3) This office Rc. No. 70/FRO/SRD/2023, Date:06.05.2025
  - 4) Reply of Hyderabad Integrated MSW Ltd., Dated:
  - 5) DFO Sangareddy Rc.No.457/S6/2020, Dated:24.06.2025
  - 6) DFO Sangareddy Rc.No.457/S6/2020, Dated:26.07.2025
  - 7) This office Report to DFO, Sangareddy in Form-F, Dated:28.07.2025

Attention of Sri R.Ram Mohan Rao, Project Head, Municipal Solid Waste Management Project, Pyaranagar, O/o the Hyderabad Integrated Municipal Solid Waste Ltd., is invited where in it has come to the notice of the undersigned that you have cleared the tree growth in the land in Pyaranagar village, Gummadidala Mandal adjacent to the Nallavally R.F. where the tree growth is more than 0.4 and the area cleared is more than 10 Ha.

Accordingly, a notice has been issued to you vide reference 3<sup>rd</sup> cited, in which you have submitted that, you are denied the and not admitting the subject notice saying that, it is issued under false information or misinterpretation of the people.

Further, you have submitted that, no tree growth was cleared in the area and prepare to provide satellite imagery showcasing no change. And the District Forest Office, Sangareddy has also instructed vide reference 5<sup>th</sup> and 6<sup>th</sup> cited to reexamine the Preliminary Offence Report issued vide reference 1<sup>st</sup> cited, and to reexamine the legal provisions invoked in the POR and also to re-estimate the quantity of tree growth removed from the site in question.

Accordingly, it is found that, the land from where the tree growth is removed a Govt. land, and till date it is deemed that it is not included in Forest area, it attracts the Telangana (Protection Trees and Timber in Public Premises) Rules, 1989 hence, the same is invoked.

As per the instruction of the District Forest Officer, Sangareddy the quantity of tree growth removed from this public premises is re-estimated to be 10167 trees and 694.54 Cmt. And the value of the tree growth removed is calculated to Rs.15,54,653/-.

Hence, if you agree for compounding the case as per the Section 59 of the Telangana Forest Act, 1967, the case will be submitted to the competent authority.

Hence, you are required to appear before the under signed and depose a statement accordingly and also to express willingness for paying the compounding amount, by submitting in Form-D as per the rule 5 of Telangana Forest Offence (Compounding and Prosecution) Rules, 1969. Otherwise, the case will be dealt under relevant provisions of the law.

Your reply to this reference shall reach the under signed within (7) days from the issue of this reference, failing which the case will be dealt accordingly.

  
6/8/2025  
Forest Range Officer,  
Sangareddy.

To  
Sri R.Ram Mohan Rao,  
Project Head, Municipal Solid Waste Management Project,  
Pyaranagar. O/o the Hyderabad Integrated MSW Ltd.,  
Level 11B, Aurobindo Galaxy, Hyderabad Knowledge City,  
Hitech City Road, Hyderabad – 500081.

Copy submitted to the District Forest Officer, Sangareddy for favour of kind information.

  
Forest Range Officer,  
Sangareddy.

## Annexure R-10



Date: 12.08.2025

To

Forest Range Officer,  
Sangareddy, Forest Department,  
Government of Telangana.

Sub: Clearance of Tree growth in public Premises - Telangana WALTA Act 2002  
reply furnished - Reg

Ref:

1. Your office letter bearing No. RC.No.70FRO/SRD/2023; dated 06-08-2025;
2. GO Ms. No. 73, EFS&T (For.I) Dept. Dt: 01.08.2023, the principal Chief conservator of Forests & Head of Forest Force, Govt. of Telangana;
3. GHMC's Application to DFO, Sangareddy vide Lr.No.SWM/0013/2020/AE-3 (SWM)HO dated 20.12.2023;
4. Show Cause Notice Ref No.70/FRO/SRD/2023 dated 06.05.2025
5. Our office reply notice Lr. No. HIMSW/Pyaranagar/2025-26/2733, dated: 11-06-2025;

\*\*\*

Respected Sir,

This letter is in reference to the Show Cause Notice, cited at reference (1), regarding the alleged clearance of tree growth in Pyaranagar village. We, Hyderabad Integrated Municipal Solid Waste Limited (HIMSW), are submitting our formal reply to this notice.

We deny all allegations of violating the provisions of the Telangana Water, Land and Trees Act (WALTA), 2002. Our response is as follows:

- The Show Cause Notice was improperly addressed to Mr. R. Rama Mohan Rao in his personal capacity. This is legally incorrect, as the matter pertains to the company and R. Rama Mohan Rao is not Head of the Project nor an employee of the company. We are submitting this reply through a properly authorized signatory by the Board of the Company.
- HIMSW is the executing agency and Concessionaire for the Greater Hyderabad Municipal Corporation (GHMC) under the Concession Agreement dated 19/02/2009. The land and project ownership remain solely with the GHMC and the State Government. This project is an integral part of Hi MSW which is the Concessionaire for implementation of Integrated Solid Waste Management on behalf of the GHMC. We have not initiated any activity independently or without explicit authorization from the relevant authority.
- GHMC, via their letter dated 17.05.2022 (Ref 1), permitted HIMSW to begin construction of the treatment and disposal facility at Pyaranagar. This letter also instructed us to lay the approach road through the designated forest land, subject to the conditions outlined in the annexure.



Hyderabad Integrated MSW Ltd.,  
(Wholly owned subsidiary of Re Sustainability Limited)

Registered Office:  
Level 11B, Aurobindo Galaxy,  
Hyderabad Knowledge City,  
HITECH City Road, Hyderabad-500087, India

Site Address:

Survey No. 173, Jawahar Nagar Village, CRPF Road,  
Near Army Dental College, Kapra Mandal,  
Medchal-Malkajgiri District, Hyderabad - 500087, Telangana.

CIN: U91309TG2009PLC063407

Certificate Registration No. 4410020392797 [ISO 9001 : 2015]  
Certificate Registration No. 4410420392797 [ISO 14001 : 2015]  
Certificate Registration No. 4412620392797 [ISO 45001 : 2018]

T: +91 40 2444 6000  
E: info@resustainability.com



- We subsequently engaged a contractor, whose details are provided at the end of this letter, to carry out the works on the land. We believe that any deviations from the permitted activities are the responsibility of the contractor.
- As soon as the High Court of Telangana issued a stay order, we immediately ceased all work on the project.
- We are a law-abiding and the main objective our company is to protect the environment and we operate strictly in accordance with legal and regulatory frameworks.
- All the allegations levelled against HIMSW in your letter were hereby denied and not admitted and we are submitting this reply without prejudice to our legal rights and remedies available under law including challenging the compounding notice or penalties if any.

In view of the above, we respectfully submit that we are not the appropriate party to address this matter, neither R Rama Mohan Rao nor HIMSW has any direct involvement or liability in this issue.

We request that all proceedings initiated under the aforementioned notice be dropped in the interest of justice and equity.

Thank you for your understanding and cooperation.

Yours sincerely,



*Handwritten signature and date: 12/08*

Hyderabad Integrated Municipal Solid Waste Limited (HIMSW)  
(Srinivas G)  
Authorised Signatory.

**Contractor details:**

Firm Name : M/s Zanvi Constructions Private Limited.  
Referred by Mr Donthireddy Hima Vardhana Reddy  
S/o D Govardhan Reddy, Age : 35 Years

Address : Flat no 503, Bahumaan Apartments, Hyderguda Village, Erraboda, Rajendra Nagar Mandal, Hyderabad - 500048

*Received  
12/8/2018  
S/o Govardhan Reddy*



Certificate Registration No. 441020392797 [ISO 9001 : 2015]  
Certificate Registration No. 4410420392797 [ISO 14001 : 2015]  
Certificate Registration No. 4412620392797 [ISO 45001 : 2018]

Hyderabad Integrated MSW Ltd.,  
(Wholly owned subsidiary of Re Sustainability Limited)

**Registered Office:**

Level 11B, Aurobindo Galaxy,  
Hyderabad Knowledge City,  
HITECH City Road, Hyderabad - 500 081 India.

**Site Address:**

Survey No. 173, Jawahar Nagar Village, CRPF Road,  
Near Army Dental College, Kapra Mandal,  
Medchal-Malkajgiri District, Hyderabad - 500087, Telangana.  
CIN : U90001TG2009PLC063407

T: +91 40 2444 6000  
E: info@resustainability.com

## Annexure R-11

GOVERNMENT OF TELANGANA  
FOREST DEPARTMENTOffice of the Forest Range Officer,  
Sangareddy.Rc. No.70/FRO/SRD/2023.  
Date:13.08.2025.Present:- Sri K.Devilal, M.Sc.,  
Forest Range Officer,  
Sangareddy.

\*\*\*

Notice:Sub:- TGFD – Clearance of tree growth in Public Premises – Telangana WALTA Act, 2002 –  
Notice issued – Reg.

- Ref:-
- 1) POR No. 906/37, dated: 05.05.2025.
  - 2) Lr. No. SWM/0013/2020/AE-3 (SWM) HO Dated: 29.11.2022.
  - 3) This office Rc. No.70/FRO/SRD/2023, Date:06.05.2025
  - 4) Reply of Hyderabad Integrated MSW Ltd., Dated:11.06.2025
  - 5) DFO Sangareddy Rc.No.457/S6/2020, Dated:24.06.2025
  - 6) DFO Sangareddy Rc.No.457/S6/2020, Dated:26.07.2025
  - 7) This office Report to DFO, Sangareddy in Form-F, Dated:28.07.2025.
  - 8) This office Rc. No.70/FRO/SRD/2023, Date:06.08.2025
  - 9) Reply of Sri R.Ram Mohan Rao, Project Head MSW Ltd., Date:12.08.2025

\*\*\*

Aattention of Sri Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, Zanvi Constructions Pvt. Ltd. Ramky Bahumaan, Hyderaguda village, Erraboda, Rajendra Nagar mandal, Hyderabad is invited where in it has come to the notice of the undersigned that you have cleared the tree growth in the Government land proposed for Municipal Solid Waste Management Project in Pyaranagar village, Gummadidala Mandal adjacent to the Nallavally R.F.

Accordingly, a notice has been issued to Sri R.Ram Mohan Rao, Project Head MSW Ltd., Hyderabad vide reference 8<sup>th</sup> cited, in which he has submitted his reply vide reference 9<sup>th</sup> cited, they have engaged Zanvi Constructions Pvt. Ltd., referred by Sri Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, and clearance has been done by your agency.

Accordingly, it is found that, the land from where the tree growth is removed a Govt. land, and till date it is deemed that it is not included in Forest area, it attracts the violation of rule 28 (5) of Telangana WALTA Act, 2002 and Rules made there under. Hence, the same is invoked.

As per the instruction of the District Forest Officer, Sangareddy the quantity of tree growth removed from this public premises is re-estimated to be 10167 trees and 694.54 Cmt. And the value of the tree growth removed is calculated to Rs.15,54,653/-.

As per rule 28 (5) of Telangana WALTA Act, 2002 and Rules made there under, any forest officer may accept a compensation from any person who committed the offence as provided in relevant Act. Hence, this notice is being issued in supersession to the notice issued earlier vide reference 3<sup>rd</sup> cited and if you agree for compounding the case will be submitted to the competent authority.

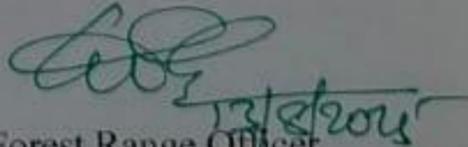
If agreed, you are required to appear before the under signed and depose a statement accordingly and also to express willingness for paying the compounding amount, by submitting in Form-D as per the rules in vogue. Otherwise, the case will be dealt under relevant provisions of the law.

Your reply to this reference shall reach the under signed within (7) days from the issue of this reference, failing which the case will be dealt accordingly.

  
13/8/2015  
Forest Range Officer,  
Sangareddy.

To,  
Sri Donthi Reddy Hima Vardhana Reddy  
S/o D.Govardhan Reddy,  
Zanvi Constructions Pvt. Ltd.,  
Flat No.503, Ramky Bahumaan,  
Hyderaguda village, Erraboda,  
Rajendra Nagar mandal,  
Hyderabad-500048.

Copy submitted to the District Forest Officer, Sangareddy for favour of kind information.

  
13/8/2015  
Forest Range Officer,  
Sangareddy.

## Annexure R-12



Date: 19.08.2025

To

The Forest Range Officer,  
Sangareddy, Forest Department,  
Government of Telangana.

Sub: Clearance of Tree growth in Public Premises - Telangana WALTA Act 2002  
Reply furnished - Reg

Ref: Your office letter bearing No. RC.No.70/FRO/SRD/2023, Dated: 13.08.2025

Respected Sir,

This letter is in reference to the Show Cause Notice, cited at reference, regarding the alleged clearance of tree growth in Pyaranagar village. On behalf of Zanvi Constructions Pvt Ltd, I am submitting the reply to the above notice as follows:

I wish to submit that I am a civil contractor engaged in execution of civil, electro mechanical works. Since a long time, I am associated with Hi MSW executing their various project related works. As per the work order I am supposed to execute the construction of compound wall. As this work is of emergency basis, I started construction of the compound wall. During the course, I have un knowingly and un aware of law, removed the tree growth all along the proposed compound wall.

Hence, this was not done intentionally, I may be pardoned and exonerated from the punishment of imposing penalties. However, I will comply and pay the compounding fee as directed by you.

Thanking you,

Yours sincerely,



*D. Hima Vardana Reddy*

(D Hima Vardana Reddy)  
Authorised Signatory.

*Received  
19/8/2025  
FRO Sangareddy*

## Annexure R-13 (Colly)

GOVERNMENT OF TELANGANA  
FOREST DEPARTMENT

Re. No.70/FRO/SRD/2023,  
Date: 20.08.2025.

Office of the Forest Range Officer,  
Sangareddy.

Present:- Sri K.Devilal, M.Sc.,  
Forest Range Officer,  
Sangareddy.

\*\*\*

Sub:- TGFD – Compounding of Offence case vide POR No.906/37, Date:05.05.2025 to Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, Zavni Constructions Pvt. Ltd. Ramky Bahumaan, Hyderaguda village, Erraboda, Rajendra Nagar mandal, Hyderabad – Request to remit an amount of Rs.31,09,306/- - Regarding.

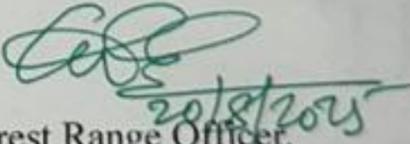
Ref:- 1) POR No. 906/37, dated: 05.05.2025.  
2) Compounding Statement of Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, Zavni Constructions Pvt. Ltd. dt. 19.08.2025.  
3) DFO Sangareddy file No.16/C/2025-26, Dated:20.08.2025.

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It is to inform that, through reference 2<sup>nd</sup> cited, Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, Zavni Constructions Pvt. Ltd. Ramky Bahumaan, Hyderaguda village, Erraboda, Rajendra Nagar Mandal, Hyderabad has agreed to compound the offence case an amount of Rs. 31,09,306/- (Rupees Thirty One Lakhs Nine Thousand Three Hundred and Six only). Accordingly, after completion of due procedure the District Forest Officer, Sangareddy has compounded the offence case and imposed penalty of Rs. 31,09,306/- (Rupees Thirty One Lakhs Nine Thousand Three Hundred and Six only) as agreed by Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy.

Therefore, Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy, Zavni Constructions Pvt. Ltd. Ramky Bahumaan, Hyderaguda village, Erraboda, Rajendra Nagar Mandal, Hyderabad is requested to remit an amount of Rs. 31,09,306/- (Rupees Thirty One Lakhs Nine Thousand Three Hundred and Six only) and furnish the same to this office. The Challan Generated is enclosed herewith.

Encl: (Challan Generated)

  
20/8/2025  
Forest Range Officer,  
Sangareddy.

To  
Sri. Donthi Reddy Hima Vardhana Reddy S/o D.Govardhan Reddy,  
Zavni Constructions Pvt. Ltd. Ramky Bahumaan, Hyderaguda village,  
Erraboda, Rajendra Nagar Mandal, Hyderabad.

Received

gy 21/8/2025





GOVERNMENT OF TELANGANA

TRIPLICATE

STO : Sanga Reddy  
 Treasury Challan No : **6501834454**  
 Major Head : **0 4 0 6** Forestry and Wild Life  
 Sub Major Head : **0 1** Forestry  
 Minor Head : **8 0 0** Other Receipts  
 Group Sub Head : **0 0**  
 Sub Head : **0 4** Compounding Fees  
 Detailed Head : **0 0 1** Other Receipts  
 Sub Detailed Head : **0 0 0**  
 Non-Plan/Plan : **N**  
 Voted/Charged : **V**  
 Non-Contingency/ Contingency : **N**  
 DDO Code: **16010402005**  
 Amount Rs. : **3109306**  
 in words Rupees : **THIRTY ONE LAKH NINE THOUSAND THREE HUNDRED SIX ONLY**  
 Purpose : **Collection of C Fees vide POR No.906**  
 Remitter's Name & Address: **DONTHI REDDY HIMA VARDHANA REDDY M/s. Zavni Constructions Pvt. Ltd., Hyde, 9000915202**  
 Remitter's Signature: *D. Himavardhan Reddy*  
 Head of Account verified  
**Dated 20-08-2025** S.T.O/T.O  
 Received Rs \_\_\_\_\_ S.T.O/Bank Manager  
 by transfer through RTGS/NEFT \_\_\_\_\_  
 Bank Branch Code : \_\_\_\_\_  
 Note: Seperate challan should be used for each detailed head



GOVERNMENT OF TELANGANA

DUPLICATE

STO : Sanga Reddy  
 Treasury Challan No : **6501834454**  
 Major Head : **0 4 0 6** Forestry and Wild Life  
 Sub Major Head : **0 1** Forestry  
 Minor Head : **8 0 0** Other Receipts  
 Group Sub Head : **0 0**  
 Sub Head : **0 4** Compounding Fees  
 Detailed Head : **0 0 1** Other Receipts  
 Sub Detailed Head : **0 0 0**  
 Non-Plan/Plan : **N**  
 Voted/Charged : **V**  
 Non-Contingency/ Contingency : **N**  
 DDO Code: **16010402005**  
 Amount Rs. : **3109306**  
 in words Rupees : **THIRTY ONE LAKH NINE THOUSAND THREE HUNDRED SIX ONLY**  
 Purpose : **Collection of C Fees vide POR No.906**  
 Remitter's Name & Address: **DONTHI REDDY HIMA VARDHANA REDDY M/s. Zavni Constructions Pvt. Ltd., Hyde, 9000915202**  
 Remitter's Signature: *D. Himavardhan Reddy*  
 Head of Account verified  
**Dated 20-08-2025** S.T.O/T.O  
 Received Rs \_\_\_\_\_ S.T.O/Bank Manager  
 by transfer through RTGS/NEFT \_\_\_\_\_  
 Bank Branch Code : \_\_\_\_\_  
 Note: Seperate challan should be used for each detailed head



GOVERNMENT OF TELANGANA

ORIGINAL

STO : Sanga Reddy  
 Treasury Challan No : **6501834454**  
 Major Head : **0 4 0 6** Forestry and Wild Life  
 Sub Major Head : **0 1** Forestry  
 Minor Head : **8 0 0** Other Receipts  
 Group Sub Head : **0 0**  
 Sub Head : **0 4** Compounding Fees  
 Detailed Head : **0 0 1** Other Receipts  
 Sub Detailed Head : **0 0 0**  
 Non-Plan/Plan : **N**  
 Voted/Charged : **V**  
 Non-Contingency/ Contingency : **N**  
 DDO Code: **16010402005**  
 Amount Rs. : **3109306**  
 in words Rupees : **THIRTY ONE LAKH NINE THOUSAND THREE HUNDRED SIX ONLY**  
 Purpose : **Collection of C Fees vide POR No.906**  
 Remitter's Name & Address: **DONTHI REDDY HIMA VARDHANA REDDY M/s. Zavni Constructions Pvt. Ltd., Hyde, 9000915202**  
 Remitter's Signature: *D. Himavardhan Reddy*  
 Head of Account verified  
**Dated 20-08-2025** S.T.O/T.O  
 Received Rs \_\_\_\_\_ S.T.O/Bank Manager  
 by transfer through RTGS/NEFT \_\_\_\_\_  
 Bank Branch Code : \_\_\_\_\_  
 Note: Seperate challan should be used for each detailed head

*Receipt ok  
m 21/8/25*



5-87-90, MAIN ROAD, LAKSHMIPURAM  
GUNTUR-522007, ANDHRA PRADESH  
RTGS / NEFT IFSC : HDFC0000189

21082025

D D M M Y Y Y Y

Valid for 3 months only

Pay Treasury Challan No - 6501834454 (STO - Sanga Reddy)

Or Bearer

या धारक को

Rupees रुपये Thirty One Lakh Nine thousand Three hundred.

Six only

अदा करें

₹ 31,09,306/-

A/c. No. 50200098551487

Brn: 00189 Pdt:1013 (New Account)  
SMARTUP ALPHA CA

For ZAVNI CONSTRUCTIONS PRIVATE LIMITED

Payable at par through clearing/transfer at all branches of HDFC BANK LTD

A. J. Reddy  
A 308 06 0003

Authorised Signatories

Please sign above / कृपया यहाँ हस्ताक्षर करें

000003 5202401021 073291 29