

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

O.A. NO. 199 of 2021 (SZ)

IN THE MATTER OF:

Sri. Shankar Narayanan Bala Krishnan,
Telangana and Ors.

...APPLICANTS

Versus

State of Telangana and Ors.

...RESPONDENTS

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125-132

THROUGH


01/10/2021

**MATRUGUPTA MISHRA/ SWAGATIKA SAHOO/
RITIKA SINGHAL/ VIGNESH SRINIVASAN/
ISHITA THAKUR/ SANJEEV SINGH THAKUR
ADVOCATES FOR THE RESPONDENT NO. 10**

**M/S RITAM LEGAL,
ADVOCATES AND ADVISORY,
M-15, FIRST FLOOR
SOUTH EXTENSION PART - II
NEW DELHI – 110049
Tel: (+91) 011-43552390-91
Email: desk@ritamlegal.com**

**PLACE: NEW DELHI
DATE: 07.10.2021**

1

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**REPLY ON BEHALF OF M/s HYDERABAD INTEGRATED MSW
LIMITED/RESPONDENT NO. 10**

MOST RESPECTFULLY SHOWETH:

1. That the captioned application has been preferred by the Applicants claiming to raise substantial questions of law relating to the environment. It is the Applicants' allegation that their health has suffered negatively due to the manner in which municipal solid waste is being collected, transported, treated and disposed by the Respondents. The Applicants have alleged non-implementation of the various environmental laws, including the Environment (Protection) Act, 1996, Air Act, 1981, Municipal Solid Waste (Management and Handling) Rules, 2000, Solid Waste Management Rules, 2016 (hereinafter referred to as "SWM Rules") along with the directions issued, by the Principal Bench of this Hon'ble Tribunal, in O.A. No. 606 of 2018, at the Jawahar Nagar dump site.
2. The said application was first listed on 09.09.2021 on which date this Hon'ble Tribunal issued notice to the Respondents and directed them to file their independent responses to the

application. Accordingly, in furtherance of the said direction, M/s Hyderabad Integrated MSW Ltd/ Respondent No. 10 (hereinafter referred to as the 'Answering Respondent') is filing the instant Reply.

3. At the outset, the Answering Respondent denies all the claims made by the Applicants against the Answering Respondent. The Applicants, in preferring the present Application, have overlooked material facts relating to the operation of the Answering Respondent's Municipal Solid Waste Treatment and Disposal Facility at Jawahar Nagar (hereinafter "the Facility"). The Answering Respondent does not intend to ignore the concerns raised by the Applicants, claiming to be the residents residing, nearby the dumpsite, however, such consideration of the concerned displayed by the Answering Respondent, should not be construed to admit the allegations which has been levelled on the Answering Respondent. Such allegations are baseless and mere conjectures, surmises and apprehensions, which considerably and substantially lack any evidentiary substratum to corroborate the basis of the same. Hence, it is humbly submitted and requested before this Hon'ble Tribunal that each and every averment made by the Applicants, amount to serious allegations, which requires to be put to the test of proof, in the absence of which, no reliance may be made on such allegation while adjudicating upon the reliefs sought by the Applicants.
4. The Applicants have wrongly alleged that the activities of the Answering Respondent are violative of the Air (Prevention and

control of Pollution) Act, 1981, Environment (Protection) Act, 1986, Municipal Solid Waste (Management and Handling) Rules, 2000, and the directions issued by Telangana Pollution Control Board and Conditions imposed by MoEF&CC (Ministry of Environment, Forest and Climate Change) in its EC (Environment Clearances).

5. It is submitted that the Answering Respondent started operating its Facility, only after receiving all the necessary clearances and consent orders from the concerned authorities. Since the operationalization of the Facility, the Answering Respondent has proactively taken steps to ensure that all its clearances, consents and quality reports are updated in accordance to applicable law. The Answering Respondent has also always dedicatedly replied to any notices or letters, issued to it by any authorities, regarding operations at its Facilities. The Answering Respondent is cognizant of the important role it plays and has thus, always made full efforts to run its Facility in accordance with applicable provisions of law.

Brief Background

6. The Answering Respondent is a company incorporated under the Companies Act, 1956, having its registered office at 13th floor, Ramky Grandiose, Ramky Towers, Gachibowli, Hyderabad, Telangana 500032. The Answering Respondent was incorporated as a Special Purpose Company ("SPC") by M/s Ramky Enviro Engineers Ltd (hereinafter referred to as the "Respondent No. 9/ REEL") for Integrated Municipal Solid Waste Management for the city of Hyderabad. REEL, the Respondent No. 9 herein, is a pioneer

in the field of environmental engineering activities including but not limited to the municipal solid waste management, which is also reflective from the following:

- i. Established India's first Hazardous Waste Management Facility;
 - ii. Established India's First Bio Medical Waste Management Facility;
 - iii. Established India's First Municipal Solid Waste Management Facility;
 - iv. Managing the Asia's Largest MSW processing Facility (Hyderabad);
 - v. Established India's Largest Waste to Energy Facility.
7. It is pertinent to mention that the Answering Respondent was handed over the old dump site at Jawaharnagar, measuring 339 acres, for reclamation as well as for development of Treatment & Disposal Facility. At the time of the Facility's inception the dump site was a complete waste land covered with solid waste, resulting in frequent fires, continuous emanation of smoke, uncontrolled flow of leachate, contamination of surrounding water bodies etc. It is pertinent to mention that about 1.0 to 1.2 Crore tonnes of estimated waste was already accumulated at the site prior to starting of the Facility by the Answering Respondent.
8. The history of Jawaharnagar dump site, which happens to be a legacy waste dumpsite, situated in a hilly area with abandoned

quarries, would show that it was the historic dump site for bordering municipalities of Kapra and Alwal. The said municipalities started dumping waste at the Jawahar Nagar dump site from the year 2000-01. After successive closures of Processing and Disposing facilities at Auto Nagar, Fathullaguda, Shamshiguda & Gandhamguda between the years 2004-07, due to public unrest, the entire waste generated in the city started getting diverted to Jawaharnagar.

9. Thereafter, the Greater Hyderabad Municipal Corporation (hereinafter referred to as 'GHMC' or 'Respondent No. 6') was formed upon merger of 12 surrounding Municipalities with Municipal Corporation of Hyderabad in 2007. GHMC also started dumping the entire waste generated within its jurisdiction, of 625 Sq. Kms, at the Jawahar Nagar dump site.
10. The Respondent No. 6, cognizant of the issue of increasing municipal solid waste and for the purpose of establishing a suitable mechanism to manage the collection, transportation, processing and disposal of Municipal Solid Waste ("MSW"), generated within its command area, by adopting scientific method of waste management and disposal with a view to meet the rules and regulations pertaining to protecting the environment, health and hygiene, floated a tender on PPP mode. The Respondent No. 6 decided to conceive an Integrated Solid Waste Management project and prepared a Detailed Project Report, wherein the Project Cost was estimated to be about Rs. 500 Crore. The Respondent No. 6 submitted the said report to the Government of

India for its approval and sanction of 50% funds under JNNURM (Jawahar Nehru National Urban Renewal Mission). Thereafter, the Request for Proposal (RFP) was floated by Respondent No. 6 in October, 2008 for the purpose of inviting tenders from bidders for setting up of IMSWM Project.

11. The Respondent No. 9/ REEL successfully participated in the said tender process and emerged as the Selected Bidder. Accordingly, a Concession Agreement (hereinafter referred to as 'CA') was executed between the Respondent No. 6 and Respondent No. 9 on 21.02.2009 for setting up of Integrated MSW Management Project at Jawahar Nagar. *[Please see Annexure A-1 of the captioned application].*
12. Article 2 of the said CA, provides for the concession and the scope of the Project which includes primary and secondary collection, transportation of MSW, upgradation, operation and maintenance and management of existing transfer station, development of new transfer stations, recycle and reuse of wastes, processing and treatment of MSW by disposing the residual inert at the landfill site. Under Article 2.3, certain rights associated with the concession are enumerated. The Concessionaire has a right 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. Though, the ultimate responsibility/obligation to fulfil the covenants under the CA is vested in the Concessionaire.

13. Further, under the CA, Article 5.26 empowers the Concessionaire to incorporate a Special Purpose Company (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 the Respondent No. 6. Upon creation of such SPC, it shall be treated as a permitted assign of the Concessionaire and shall be bound to adhere to all the terms and conditions of the CA. In exercise of power under Article 5.26 of the CA, the Concessionaire has incorporated the Answering Respondent as a permitted assign under the CA for carrying out the scope of work as per the CA, since 2012. The Answering Respondent's scope of work includes collection, transportation, treatment and disposal of the MSW under the CA by undertaking segregation, treatment, disposal of Municipal solid waste and disposal of the residual rejects into sanitary landfill. However, the component of Collection & Transport could not fully hand over to the Answering Respondent by Respondent No.6. The activities of door to door collection, waste segregation and secondary transport continue to be performed by Respondent No.6. The operation of Transfer Stations and Tertiary Transport only is handed over to the Answering Respondent from 1st January, 2021.
14. Article 5.9 of the CA mandates that the Concessionaire shall, at all times, ensure that all aspects of the Project Facilities and processes employed in the construction, operation and maintenance are conforming with the laws pertaining to

environment, health and safety aspects including, rules such as MSW Rules, policies and guidelines related thereto.

15. The Answering Respondent, after receiving Environmental Clearance and other permissions started the Treatment & Disposal operations at Jawahar Nagar from 18.02.2012. The Answering Respondent has adopted a combination of mechanical and biological treatment (MBT) and thermal incineration technologies for treatment of waste. Biodegradable waste or the compostable fraction of waste is transformed in to City Compost and the combustible fraction largely comprising of non-biodegradable fraction of waste, is transformed to RDF, which is used as an alternative fuel in cement plants. The rejects/ inerts generated during the processes are landfilled in a secured engineered landfill. Further, the leachate is treated with a robust process of pre-treatment, P&T Reverse Osmosis system, Multiple Effect Evaporator with an Activated Thin Film Dryer.
16. That through Order No. 128/PCB/MSW/CFE/RR/2012 dated 19.12.2012, the Answering Respondent received the Consent for Establishment (CFE) from the Andhra Pradesh Pollution Control Board (APPCB). *[Please see Annexure A-1 of the captioned application]*
17. That a Consent for Establishment for Waste to Energy Plant was also obtained by the Telangana State Pollution Control Board (hereinafter referred to as "TSPCB" or "The Board") on 23.09.2017 through Order No. 01/TSPCB/CFE/Integrated/2017- 1854. *[Please see Annexure A-1 of the captioned application]*

18. A Clearance from the State Level Environment Impact Assessment Authority (SIEAA), Ministry of Environment, Forest and Climate Change in the form of Order No SEIAA/AP/RRD-111/2009 dated 20.06.2012 was also received for the MSW based Power plant, for capacity 48 MW. However, a request to issue an amendment to this clearance was sought by virtue of the revised proposal reducing the capacity of the MSW based power plant to 19.80 MW. Through Order No. SEIAA/A P/RRD- 111/2009 - 5364, dated 25.10.2013, the above amendment to the Environment Clearance was made. *[Please see Annexure A-1 of the captioned application]*
19. It is submitted that the approval, received in terms of Consent for Operations (CFOs), has to be renewed before its expiry by sending a renewal application to the State Pollution Control Board. Such annual consent for operating the Facility has been given to the Answering Respondent, since the operationalization of its Facility in February 2012.
20. The Answering Respondent has since the original CFO, successfully applied for and received such CFOs for its operations regularly. The Answering Respondent has consistently and successfully adhered to each and every condition/ direction, imposed on it, over the course of issuance of CFO.
21. As mentioned in the captioned application, the Board inspected the Facility on 20.05.2020 and made a number of observations qua waste disposal at the Jawahar Nagar dump site. Pursuant to these observations, the Board conducted a review meeting on

30.05.2020 with officers of both the Respondent No. 6 and the Answering Respondent. After detailed discussion, through Order No. RR-II-338 /TSPCB / U-V /TF / 2019272 dated 06.06.2020, the Board issued certain directions for both the Respondent No. 6 and Answering Respondent. *[Please see Annexure A-3 of the captioned application].*

22. The Answering Respondent replied, to the aforementioned order, through its Letter dated 29.06.2020. The Answering Respondent made detailed submissions and explained the steps already taken by it to comply with the directions issued by the Board. The Answering Respondent also annexed copy of the Compliance Report showing how the CFO Conditions issued by the Board had been met. Presently, all directions mentioned in Order dated 06.06.2020 have been complied with. This can be substantiated through the latest Compliance Report dated 23.07.2021 bearing Lr HIMSW/TSPCB/21-22/2025 submitted by the Answering Respondent to the Board. The said report shows that the Answering Respondent has fulfilled all the directions issued by the Board.

A copy of the Letter dated 29.06.2020, issued by the Answering Respondent to the Board is annexed hereto and marked as **ANNEXURE R-1.**

A copy of the Compliance Report dated 23.07.2021, issued by the Answering Respondent to the Board is annexed hereto and marked as **ANNEXURE R-2.**

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23. The Applicants, in the captioned application, have relied on the observations made by the Board in its Order dated 06.06.2020, to make random allegations against the Answering Respondent and its parent company, REEL/ the Respondent No. 9. The Applicants have alleged environmental violations, non-implementation of directions of the Board by the Answering Respondent. The Applicants have also alleged that they are suffering to the negative impact of Municipal Solid Waste, air, water, noise and soil pollution, caused due to the operation of the Facility at the Jawahar Nagar dump site.

PARA-WISE REPLY

24. That at the outset the Answering Respondent denies each and every submission made in the Application filed by the Applicants, in the manner alleged or at all, save and except what are matters of record or facts, specifically admitted by the Answering Respondent. The denial of the allegation made through the averments of the Applicant are made in toto, failure of any specific response to any allegation, may not be construed as an admission.
25. The contents of paras I to II are matter of record and merit no response.
26. The contents of para III are denied and disputed. It is submitted that the Applicants have made bold allegations against the Answering Respondent. The Applicants have simply relied on one report of the Board, which has since been completely complied with by the Answering Respondent. It is pertinent to mention that for most allegations, the Applicants have not even submitted any

proof/ document to substantiate their submissions. The instant application thus, merits to be dismissed as the same is baseless and devoid of merits.

27. The contents of para IV and V are denied and disputed in its entirety. It is reiterated that before the Answering Respondent's Facility was set-up, the area in question was an unmanaged and neglected dump site. MSW from all neighbouring municipalities used to be dumped, at the said land/ area, without any steps being taken to dispose and/or treat the waste in scientific manner as prescribed under the provisions of MSW Rules, 2000 as well as the provisions of SWM Rules, 2016. It is only after the Facility was set up by the Answering Respondent, that MSW is treated and disposed of in a scientific manner. Further, the Applicants have not showed any medical report/ certificates to show that they are suffering due to the Answering Respondent's Facility. The allegations are very generic in nature which are completely baseless and incorrect and merit to be dismissed.

It may be appreciated that the nature of business of the Answering Respondent is environment centric and at the same time, the process adopted by it, is such that lot of environmental compliances are taken into consideration while operating the facility. Hence, it is an environmental law compliance intensive business, therefore, the allegations shall have to be supported with documentary and other proof, since, the consequences of the violations of environmental law are high in intensity so far as the industries like the Answering Respondent is concerned. At the cost

of repetition, it is therefore reiterated that, each and every allegation made by the Applicants, shall have to be put to strict proof either by themselves or through an independent third party agency.

28. Further, at the time of handing over the site to the Answering Respondent, in 2012, the site was on the outskirts and far from the limits of the city and there was no habitation in the nearby areas. The Facility has been set up prior to the existence of any residency in the surrounding areas and that it is only with the existence of the knowledge of the facility that any residency has now been established in the area. Due to rapid urbanization, habitations have come very near to the facility. Further, it is also submitted that most of the residency around the site have come up without appropriate approvals from the concerned Municipality/Gram Panchayat

29. The contents of para VI are denied and disputed in the manner alleged or at all. It is submitted that the Applicants have just made bold allegations against the Respondent without any proof of the same. The Applicants are using this esteemed forum to further show their own interests without any consideration to the environment.

When it is stated that the present petition raises substantial questions, that means there are questions of law and propositions in law which have emerged due to the peculiar circumstances of a particular case. This Hon'ble Tribunal has been dealing with various substantial questions of law over the years which were

ably answered and responded to by this Hon'ble Tribunal by its judicial pronouncements. Such questions of law have been created in the particular facts and circumstances of the case. There can be a situation where a question of law has been substantiated due to anomalies amongst various regulatory provisions or due to a regulatory gap or overlapping of jurisdiction, so on and so forth.

However, in the present case, the alleged substantial questions listed out under para VI of the petition, are nothing but mere allegations and apprehensions of the Applicants, which cannot certainly be categorized as questions of law, for seeking the specific indulgence of this Hon'ble Tribunal, to look into the same for exercise of its judicious wit and wisdom.

30. That the contents of Para 1 being matter of record, need no reply. It is further reiterated that when the dumpsite was allotted to the Answering Respondent, there were no habitation nearby and the site was situated at an abandoned place. Now due to rapid urbanization, residential colonies and other institutions have started emerging in the nearby vicinity. This fact is required to be taken into consideration by this Hon'ble Tribunal while adjudicating upon the issues in hand.
31. The contents of para 2 are denied and disputed. It is denied that the waste is being dumped at the Jawahar Nagar Processing and Disposing facility in an unscientific manner. It is submitted that the Answering Respondent has taken all steps to ensure that the waste being dumped at the Jawahar Nagar Processing and Disposing facility is treated in a scientific manner and least

amount of trouble is caused to the surrounding areas and its occupants. The Applicants' allegations regarding the negative impact on the residents of the nearby areas, the surrounding water bodies and agricultural activities are completely denied.

32. The contents of para 3 are denied to the extent that there has been contravention of the conditions, imposed on the Answering Respondent and the Respondent No. 9, under the EC, CFOs and approvals granted by the Board. As already stated above the Answering Respondent has regularly and successfully obtained necessary clearances from various authorities. The same is also evident from the various reports annexed to the instant reply.
33. That the allegations made in Para 4 are denied. The Applicants have not submitted any report to submit their claim qua water contamination. It is submitted that this Hon'ble Tribunal must refuse to entertain such bold allegations. Further, it is humbly submitted that through its Report, dated 21.08.2021, submitted to Respondent No. 6, the Answering Respondent has provided details on ground water levels, wherein no such contamination has been detected.

A copy of the Annual Report submitted to GHMC dated 21.08.2021, by the Answering Respondent to the Board is annexed hereto and marked as **ANNEXURE R-3**.

34. The contents of para 5 are denied and disputed in toto. The Applicants have simply made bold allegations without filing any

report/ evidence to substantiate the allegations being raised by it. As such, these allegations merit to be set aside at the outset.

35. The contents of Para 6 are denied. It is vehemently denied that the Answering Respondent is burning plastic waste material in its Facility. It is pertinent to mention that the 1st Quarterly Status Report for the Year 2021-22, for the period of April, 2021 to June, 2021, showing the compliance, by the State of Telangana, with the directions, issued by the Principal Bench of this Hon'ble Tribunal, in O.A. No. 606 of 2018, clearly shows compliance with the Plastic Waste Management Rules, 2016. The said Report specifically mentions that no open burning of plastic takes place at the Jawahar Nagar Facility. The lighter density plastic is stored as Refused Derived Fuels (RDF) and used as fuel in the 19.8 MW Waste to Energy plant using incineration process. However high value plastic is recycled, in the 10 tons capacity recycling plant, established at the Facility. *[Please see Annexure A-6 of the captioned application].*
36. The contents of Para 7 are denied to the extent of allegations made against the Answering Respondent and the Respondent No. 9. It is denied that the Answering Respondent doesn't have the requisite infrastructure to dispose MSW in a scientific manner. The Answering Respondent has acquired all the statutory clearances and approvals, necessary for establishing the Facility. The said waste is then treated and disposed in a scientific manner by the Answering Respondent, in compliance with the provisions of the applicable laws. The Answering Respondent has set up a state-of-

the-art integrated MSW management facility in furtherance to its obligations under the CA and also in compliance of the requirements and rigours of SWM Rules, 2016.

37. The contents of para 8 are denied. It is submitted that the concerned authorities have always been proactive and have issued necessary guidelines to monitor the activities at the Jawahar Nagar Processing and Disposing facility. The Answering Respondent in turn has ensured that it complies with all such directions and guidelines.

The Applicants have mentioned nine main issues / adverse effects arising out of the massive dumping activity. Considering the seriousness of the issues, the Answering Respondent is giving detailed reply to each issue in the following paras.

i. Release of leachate from Municipal waste and Overflowing/release of leachate into water bodies, lakes

38. Leachate in common parlance means any liquid material that drains from land or stockpiled material and contains significantly elevated concentration of undesirable material derived from the material, it has passed through. It is submitted that in a tropical country like India, it is impossible for landfills/ Processing and Disposing facilities to avoid production of leachate. Thus, the only way of dealing with leachate is to treat and dispose the same in an efficient and effective manner in compliance with the conditions as stipulated in the CFO issued by the State Pollution Control Board. The Answering Respondent further states that all such

compliance are being constantly monitored by State Pollution Control Board There is no release of leachate and/ or permeate into any of the water bodies from the Project as total treatment of leachate is ensured and the permeate water is utilized within the Project for greenery and other purposes. As regards to the Legacy Leachate, the Answering Respondent states that as the same does not fall within the scope of work of the Answering Respondent and therefore it offers no comments on the same.

39. The Answering Respondent in its Reply dated 29.06.2020, filed before the Board, has stated that its Facility has a separate system for collection of storm water and water in the processing facility. Process leachate drains are connected to the LTP for treatment. For the landfill, the surface water run-off away is diverted away from the leachate network at site. Photos showing the Processing plant Storm water Drains and the Capping storm water drains were attached with the said Reply.

40. At present, the Answering Respondent has completed the entire 2900 running meters of the RCC storm water drain around the dump completed in full-fledged manner. The progress report is attached herewith dated along with the photographs.

A copy of the photographs showing the storm water drains is annexed hereto and marked as **ANNEXURE R-4**.

ii. Breeding of mosquitos, spread of diseases

41. It is submitted that the Applicants have not filed any document/ report to support this claim of breeding of mosquitoes. Further,

this allegation does not have any scientific basis as it is a scientific fact that mosquitoes cannot breed in places with low oxygen levels. Thus, the said allegation merits to be dismissed at the outset.

42. Due to presence of landfill leachate, there can be no breeding of mosquitoes. This is because the landfill leachate has high concentration levels of ammonia which affects the growth of insects. Further, the leachate Ph being acidic in nature, because of waste degradation, also curtails breeding of mosquitoes, since the same is possible only in slightly alkaline water. Secondly, larval nutrition is another important factor responsible for completion of life cycle of mosquitoes. Lower pH of water is not favourable for mosquito breeding since leachate is not like sewage water where insects and mosquitoes can breed. This is because pungent smell of leachate makes it difficult for insects and/ or mosquitoes to breath. This allegation thus, merits to be dismissed as being baseless and false.

ii. Bad smell emitting from Processing and Disposing facility due to Release of gases

43. It is the Applicants' allegation that bed smell is emanating from the Processing and Disposing facility due to release of gases. It is submitted that release of gases and subsequent bad smell are unavoidable at a Processing and Disposing facility. The Answering Respondent can at best just reduce the release of gases. Accordingly, the Answering Respondent has taken steps to cap the Facility. The same has also been noted in the State of Telangana's

Report dated 27.07.2021, through Lr.No.4582/For.III/A2/EFS&T/2019. The relevant extracts of the said report are as under:

"Capping of Jawahar Nagar Processing and Disposing facility is under completion stage with a cost of Rs.144 Crores. Waste shifting & Profiling, Impervious soil cover, GeoSynthetic clay liner, HOPE liner, Geo-composite drainage liner was completed 100%. Balance works such as topsoil cover, Dibbling/ green cover and Storm water drainage network are under completion stage. Legacy dump treatment (Bio-mining) in 52 ULBs has commenced."

[Please see Annexure A- 6 of the Applicants' application]

44. That in its reply dated 29.06.2021, submitted before the Board, the Answering Respondent, through images/ photographs, has shown the construction of sheds over the bio-composting plant which has now been completed with proper placement of the odour mitigation system. Also, through images, the Answering Respondent has shown that the MSW stored in the landfill is covered with Soil/Tarp and it is only the active area has been left open for receipt of waste.

A copy of the photographs showing construction of sheds over the bio-composting plant is annexed herewith and marked as **ANNEXURE R-5.**

45. It is also important to mention that the Answering Respondent has made arrangement to provide for three stages of odour treatment. This is done by application of bio enzymes and chemicals for

reduction of bad odour. The first stage includes application of bio-enzymes on the incoming MSW. This application suppresses the compounding in the MSW responsible for generation of odour causing by-products. The second stage is carried out in the processing facility with misting system with the help of odour neutralizing bio-enzymes. The final stage is carried out around the periphery of the Facility and includes spraying of odour absorbing bio-enzymes by deploying of fog-cannon.

46. The possibility of odor coming from un-capped portion of the legacy dump is minimal as the entire open surface of the dump has been scientifically capped into layers of soils and geo synthetic liners covered with 300 mm soil cover. Capping work of Jawahar Nagar dump site has scientific capping design was prepared by international consultants. Completed capped landfill includes - profiling, soil cover, lining, vegetative soil cover, leachate, collection and treatment greenbelt and gas network connection with flaring system. It is to be noted that this capping has been duly completed by the Answering Respondent. As on date capping of the old dumpsite stands completed as per the design except for minor maintenance, thus, the Answering Respondent has taken all possible steps to minimize bad odour from its Facility.
47. It is also submitted that the has established a gas network system to effectively capture the gases generated in the capped dump site with over 150 borewells connected to a grid and a system with 3 flares and a Compressed Bio-gas Plant for collection and purification for usage as alternative fuel

48. Further, the Answering Respondent has also submitted a letter dated 22.09.2018, being Lr. No. HiMSWFTSPCB/18-19/1480, informing the Board of the steps being taken by it for odor control. In the said letter, the Answering Respondent also submitted photos/ images of the RO plant, covered sheds, covered windrow heaps and RDF, soil covering the Old Dump as well as mist spraying for Odor Control. The Answering Respondent has installed a misting system of 2400 running meters, covering all the process area, including new compost plant and Landfill area, with odour neutralizing chemicals.

A copy of the Letter dated 22.09.2018, filed by the Answering Respondent before the Board is annexed hereto and marked as **ANNEXURE R-6.**

iii. Ground water becomes highly contaminated

49. That the dumping at the site had begun in 2001 and till the appointment of the Respondent No. 9 as the Concessionaire there was no scientific method in place to deal with any contamination prior to establishment of the facility.
50. The Applicants have mentioned that in 2014, one of the residents within the 5 km radius of the Jawahar Nagar Processing and Disposing facility collected the ground water from his colony and tested it in a private laboratory, being M/s. Sri Mahendra Laboratory. The report of such test revealed that the ground water of the colony was contaminated and the pollution level was high in comparison to the parameters fixed by the IS 1991. It is

submitted that no report has been submitted by the Applicants to substantiate the aforementioned claim. Thus, the said claim merits to be set aside.

iv. Generation of Smoke from dump site

51. The Applicants have not made any specific allegations with respect to increase/ generation of smoke from the Processing and Disposing facility. Various Air Ambient Analysis Reports, issued by the Board and annexed with the captioned application, clearly stated that even though SPM levels were exceeding, the stipulated standards, during certain hours of the day, the Board has noted that the average SPM levels were within the stipulated standards. The Reports also make mention of increased vehicular traffic. It is submitted that increased urbanisation has also resulted in greater number of vehicles on the roads in Jawahar Nagar. It is an established fact that in cities, particulate material in air (PM_{2.5}) is significantly affected by vehicular emissions. That pollution from these vehicles is also adding to the cumulative air ambient quality in the area. [Please see Annexure A-1 of the captioned application].

v. Noise from Waste to Power Plant

52. It is the Applicant's allegations operation of the Answering Facility leads to generation of unbearable noise disturbing/ scaring children, women and elderly persons. We submit that the Waste to Energy Power Plant is operated by a separate entity and it merits no response from the Answering Respondent.

53. It is humbly submitted that considering the numerous functions being undertaken at the Facility and the amount of waste being treated on a daily basis, the equipment used are well installed and the noise is muted. The Answering Respondent, however, concerned with the well-being of Jawahar Nagar residents has made necessary efforts for curtailment of noise with enclosed equipment.

vi. Smoke from burning of tyres and other materials

54. Since the Applicants have not submitted any evidence regarding the same the said allegation merits to be set aside.

vii. Threat to fish and creatures in water bodies

55. Since the Applicants have not submitted any evidence regarding the same, the said allegation merits to be set aside.

viii. Causing of accidents by trucks due to rash driving and Dust due to transporting of waste in open vehicles

56. The Applicants have failed to support this claim through any evidence. It is categorically stated that no such accidents have ever taken place due to rash driving and transportation of waste in vehicles.

57. As per the order of the Respondent No. 6, vide Proc. No. 0083/SWM/GHMC/2018 dated 29.12.2020, the Answering Respondent has taken over the Transfer Stations management and Transportation of waste from the existing 17 transfer stations to the Facility (Tertiary Transportation) on "as-is where-is" basis from 01.01.2021 onwards only. The Answering Respondent has

introduced 60 numbers of a state of art Vehicles and Equipment. Vehicles mobilized are all Bharat Stage 6 Emission Standards compliant. Balance of the trucks are also being planned out. By next year/in few months the entire waste transportation will be carried out in close container/compactor.

A copy of the GHMC Order vide Proc. No. 0083/SWM/GHMC/2018 dated 29.12.2020 is annexed herewith and marked as **ANNEXURE R-7.**

58. That the Applicants have wrongly alleged violation of the Municipal Solid Waste Rules, 2000 on the part of the Answering Respondent. The Municipal Solid Waste Rules, 2000 have been adhered to as follows:

- i. That as per the Criteria for Duties regarding setting-up solid waste processing and treatment facility under Rule 19, the facility has been set up as per the technical guidelines issued by the Central Pollution Control Board in this regard and the manual on solid waste management prepared by the Ministry of Urban Development, after obtaining the necessary approvals from the State Pollution Control Board or Pollution Control Committee.
- ii. Annual reports in pursuance to Rule 24 have been duly sent to the Respondent No. 6. The Annual Report dated 21.08.2021 showed no violation or the non-compliance to any standard.

- iii. The Answering Respondent has also submitted Annual Report on Solid Waste Processing and Disposal Facility to the Local Body for the FY 2020-21 and Hazardous Waste Annual Report by Operator of Solid Waste Processing and Disposal Facility to the State Pollution Control Board for the FY 2020-21 on 29.06.2021. The said reports have also been sent to the Respondent No. 6.

A copy of the Annual Report for Solid Waste Processing and Disposal Facility to the Local Body and Annual Report for Operator of Solid Waste Processing and Disposal Facility to the State Pollution Control Board for the FY 2020-21 on 29.06.2021 sent to the Respondent No. 6 is annexed hereto and marked as **ANNEXURE R-8.**

59. The contents of para 9 mention the various directions passed to the State of Telangana. Since the contents of the said para have no bearing on the Answering Respondent, the same are not being dealt with in the present reply.
60. The contents of para 10 are denied. It is submitted that the Applicants are relying on outdated and old reports to raise baseless allegations against the Answering Respondent. The Applicants have also not provided a copy of the CSIR report of 2014 relied upon by them.

Even otherwise, the Applicants have conveniently failed to mention the latest compliance reports, submitted by the Answering Respondent. Through the Annual Report submitted to

Respondent No 6 dated 21.08.2021, the Respondent No. 9 has submitted the most recent ground water reports, air ambient reports, noise control reports, waste water reports, stack emission monitoring reports, solid waste reports, collected through samples from the facility. These proved that the water, air and soil quality are within the permissible standards. Thus, these allegations of the Applicants merit to be set aside.

61. The contents of Para 11 with respect to inspection being done by the Board, show cause notice dated 23.05.2020 and Meeting dated 23.05.2020 are matter of fact and require no specific answer. It is however, important to note that the Answering Respondent has complied with all directions, issued by the Board, vide Order dated 06.06.2020. The Answering Respondent has submitted Reply, dated 29.06.2020, to the Board detailing the steps taken by it to ensure 100% compliance with directions issued by the Board.

Further, 100% compliance with the directions of the Board can be established by the Compliance Report dated 31.05.2021, submitted by the Answering Respondent to the Ministry of Environment, Forest and Climate Change and also the Half Yearly Compliance Report dated 23.07.2021, submitted to the Board.

62. The contents of Para 12 are denied. The Answering Respondent states that the directions of the Principal Bench of this Hon'ble Tribunal vide its order dated 14.12.2020 passed in O.A. No. 606/2018 are towards government authorities and therefore the Answering Respondent merits no response to the same.

63. The contents of Para 12(i) are completely false and baseless. The Applicants have failed to give any document/ evidence substantiating the allegations raised by them in the said para. It is submitted that the allegations raised in Para 12(i) have already been answered in great detail by the Answering Respondent in the preceding paras of the instant reply. Thus, for the sake of brevity the Answering Respondent is not repeating its submissions. It is however, important to mention that the Environment Clearance compliance report, dated 23.07.2021, submitted by the Answering Respondent to the TSPCB clearly states that no excessive noise is being caused due to the Facility.
64. The contents of Para 12(ii) are vehemently denied. It is denied that there is any collusion between the official Respondents and the Private Respondents. The Answering Respondent in preceding paras has detailed the steps taken by it to ensure compliance with applicable provisions of law. The Answering Respondent has been undertaking scientific management of solid waste and in compliance with the sitting guidelines issued by the Board. Despite this the Applicants have made unsubstantiated and baseless allegations against the Answering Respondent.
65. That the averments made in Para 13 are not directed towards the Answering Respondent and therefore it merits no response to the same.
66. The contents of para 14 are denied. It submitted that the management of the MSW facility at Jawahar Nagar is the only

facility for the city of Hyderabad and is in public interest and by fulfilling this function, the Answering Respondent is relieving the Respondent No. 6 of its obligation of handling the waste. That if pursuant to the prayer of the Applicants, the facility is made to close down, then the systematic working of the entire waste management for the city is jeopardized affecting a population of more than 1 crore.

67. This Hon'ble Tribunal may consider that the facility at Jawahar Nagar has been operating for 13 years and has an excellent track record in respect of collection, handling transportation, treatment and subsequent disposal of Municipal Solid Waste. Further it is stated that the Answering Respondent is taking all necessary precautions so that all compliances and directions that it is liable to adhere to are duly followed and no resident of Jawahar Nagar suffers from the functioning of the waste facility.

68. The contents of Para 15 relating to Limitation are denied. It is submitted that the instant application has been filed under Section 14 of the National Green Tribunal Act, 2010. Section 14 of the said Act provides a limitation of six months, from the date on which the cause of action arose. This limitation of six months can be further extended by sixty days on sufficient cause being shown by the Applicants. Relevant extract of Section 14(3) reads as under:

"No application for adjudication of dispute under this section shall be entertained by the Tribunal unless it is made within a period of six months from the date on which the cause of action for such dispute first arose.

Provided that the Tribunal may, if it is satisfied that the applicant was prevented by sufficient cause from filing the application within the said period, allow it to be filed within a further period not exceeding sixty days”

69. As per the claims made by the Applicants in the present case, the cause of action arose when certain violations were recorded by the Board through their order dated 06.06.2020. It is submitted that no evidence of any subsequent violation being committed by the Answering Respondent has been stated anywhere in the captioned application. It has also been shown through recent reports cited above, that the functioning of the facility at Jawaharnagar was devoid of any non-compliance to the directions issued to it by the relevant authorities. It may be relevant to refer to the following portion of the judgment by the Principal Bench of NGT dated 10.12.2015 passed in O.A. 61 of 2012 in Dr. Arvind Gupta vs. Union of India & Ors., in which similar issues of cause of action and continued cause of action were raised:

"It is true that the application has to be filed within a period of 6 months from the date when the Cause of Action first arose. The Tribunal is vested with the power to condone the delay in terms of proviso to Section 14 if the application is filed beyond 6 months. This power can be exercised for condoning the delay but under and not in excess of 60 days. The term 'cause of action' has been used in contra distinction to continuing cause of action. In case of a continuing cause of action, 'cause of action first arose' has completely a distinct and different role while computing period of limitation. However, it is not equally applicable and does not have the same

consequences in a case where the cause of action is recurring complete cause of action. In other words, whenever subsequent act or subsequent breach is a complete cause in itself and its consequences are different, then such cause of action would enable an applicant to bring action before the Tribunal on the strength of the subsequent act. The limitation would be computed from the date of the subsequent breach or act."

It is therefore submitted that in the absence of any subsequent cause of action arising, since the order dated 06.06.2020, the present petition is not maintainable on the grounds of expiration of the limitation period as prescribed under Section 14(3) of the National Green Tribunal Act, 2010.

70. In the instant matter the Applicants have essentially relied upon the Board Order dated 06.06.2020 and the Order dated 14.02.2020 passed by the Principal Bench of this Hon'ble Tribunal in O.A. No. 606 of 2018. Thus, evidently the limitation for filing the instant application stands exhausted. The Applicants have in fact also relied upon the Reports made in 2017 and 2018.
71. The Applicant to avoid applicability of Section 14 have simply stated that there is non-compliance of provisions of various laws and thus, it amounts to continuous and recurring cause of action. This submission of the Applicants is denied. It is submitted that the Applicants have not mentioned one specific provision of any Act, Regulation and/or Rule which is not being complied with by the Respondents, which makes the allegation entirely frivolous and baseless.

72. The contents of paras 16 and 17 are denied. It is submitted that the Applicants have failed to make a case showing non-compliance by the Answering Respondent of the applicable provisions of law and directions issued by the Board. This Hon'ble Tribunal may also consider the impact if the Facility of the Answering Respondent is shut down.
73. The Answering Respondent is deeply committed to continue to provide its services in collection, handling transportation, treatment and subsequent disposal of Municipal Solid Waste in the future and it is humbly submitted that this Hon'ble Tribunal may be pleased to appreciate the strict measures taken by the Answering Respondent to duly comply with the orders and directions issued to it by the various Government Authorities.
74. In light of the aforesaid, it is most respectfully prayed that this Hon'ble Tribunal may graciously be pleased to dismiss the present application.

THROUGH

**MATRUGUPTA MISHRA/ SWAGATIKA SAHOO/
RITIKA SINGHAL/ VIGNESH SRINIVASAN/
ISHITA THAKUR/ SANJEEV SINGH THAKUR
ADVOCATES FOR THE RESPONDENT NO. 10**

**M/S RITAM LEGAL,
ADVOCATES AND ADVISORY,
M-15, FIRST FLOOR
SOUTH EXTENSION PART - II
NEW DELHI - 110049
Tel: (+91) 011-43552390-91
Email: desk@ritamlegal.com**

NEW DELHI

DATE: 07.10.2021

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE BENCH AT CHENNAI
O.A. NO. 199 OF 2021**

IN THE MATTER OF:

Sri. Shankar Narayan Bala Krishnan & Ors

... Applicants

VERSUS

State of Telangana & Ors

... Respondents

AFFIDAVIT

I, Thota Krishna Rao, S/o Late Sri Thota Manik Rao, aged about 49 years, R/o Flat No. 201, Carcherla Castle, Gagan Mahal Colony, Hyderabad – 500 029, do hereby solemnly affirm and state as follows:

4. That I am the authorized representative of the Respondent No. 10 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.
5. 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.
6. The annexure filed along with Reply are true copies of their respective originals.

of HYDERABAD INTEGRATED MSW LTD.

K. Girish Rao
Authorized Signatory

DEPONENT

VERIFICATION:

I, the deponent above named do hereby verify that the contents of the above affidavit are true to my knowledge, no part of it is false and nothing material has been concealed therefrom.

of HYDERABAD INTEGRATED MSW LTD.

K. Girish Rao
Authorized Signatory

DEPONENT

Verified at Hyderabad on this 5th day of October, 2021.

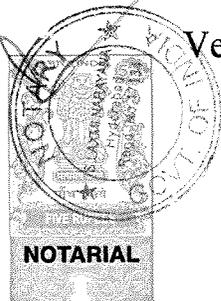
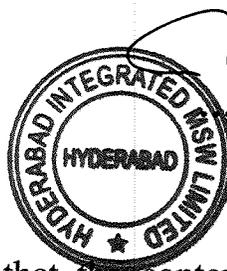
ATTESTED

Sworn before Me

S. LAXMI NARAYANA
B.Com, LL.B
NOTARY

Flat No: 204, Lumbini Towers
3-3-666/A/204, Panjagutta, Hyd-82
(Appointed by Govt. of India)

5 OCT 2021





Annexure R-1

Hyderabad Integrated MSW Ltd.

(Wholly owned subsidiary of REEL)

34

Survey No. 173, Jawahar Nagar Dump Site,
CRPF Road, Near Army Dental College,
Kapra Mandal Medchal District – 500087,
Telangana State.

CIN : U90001TG2009PLC063407

Lr.No.HIMSW/TSPCB/20-21/1788

Date: 29/06/2020

To,
The Sr. Environmental Engineer (FAC),
Telangana State Pollution Control Board,
Paryavaran Bhavan, A-III, Industrial Estate,
Sanathnagar,
Hyderabad – 500 018



Dear Sir,

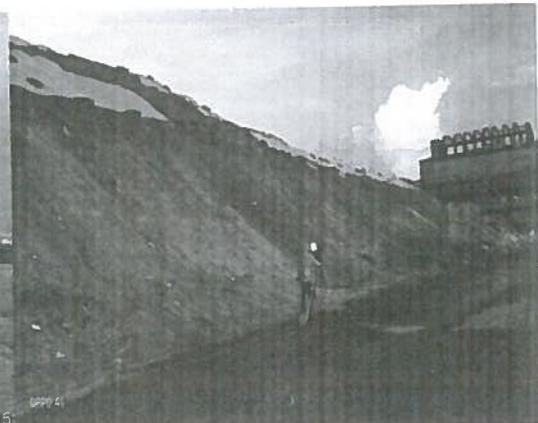
Sub : Directions issued by TSPCB – **Reg.**
Ref 1 Order No.RR-II-338/TSPCB/U-V/TF/2020 dated 23-05-2020
2 Your letter Lr.No.RR-II-338/TSPCB/U-V/TF/2019/271 dated 06-06-2020
3 Reply to your Notice by HIMSW Lr. No. HIMSW/TSPCB/20-21/1782 dated 29-05-2020

With reference to above subject, we here by submit the status report for the directions for your consideration.

1. The facility shall comply with II the CFO Conditions issued by the board.
 - Compliance report attached as **Annexure 1**
2. The facility shall ensure that the waste shall not be stored openly, all the waste shall be covered with tarpaulins
 - MSW stored in the landfill are covered with Soil/Tarp. Only active area has been left open for receipt of waste.



Landfill covered with Tarp



RDF covered with soil and Tarp

3. The facility shall continuously spray the smell absorbent chemicals like Bio enzymes & odor neutralizing solutions in the dump yard area frequently as a measure to arrest smell nuisance.

- Two stages of odor treatment through application of chemicals are provided for reduction of bad odor at the processing facility. First is the application of bio-enzyme on the incoming MSW. This application replaces the microorganisms in the MSW responsible for generation of odor causing by-products. Second stage application is done around the periphery of the facility by spraying odor masking chemicals. This application is being carried out by deployment of fog-cannon at site



Fog canon for spraying of masking agents



Tipping floor spraying of Bio-enzyme culture

4. The facility shall provide shed the additional bio-composting plant which is being used for windrow composting within one month.



The shed erection work is under progress.

5. The facility shall ensure that the vehicles carrying waste does not ply from the colony /gated community roads
 - Currently we are not handling collection and transportation of MSW it is taking care by GHMC.
6. 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).
 - The MSW is being processed as per SWM Handling Rules.

7. The facility shall divert storm water drains to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.

- We have separate system for collection of storm water and leachate water in the processing facility. Process leachate drains are connected to the LTP for treatment. For the landfill, we have diverted the surface water run-off away from the leachate network at site.



Processing plant Storm water Drains

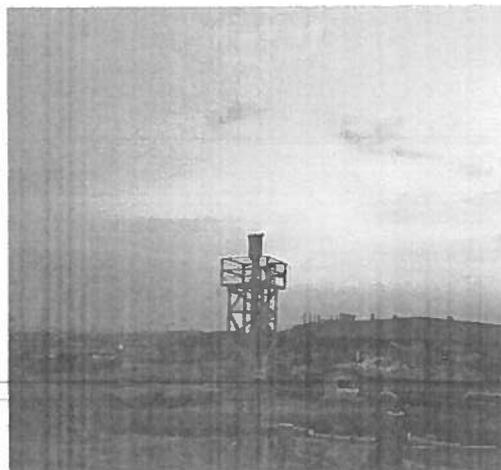


Capping storm water drains

8. The facility shall pass the gas through gas scrubbers to eliminate the H₂S gas and shall operate flaring system to flare the gas generated.
- Flaring of gas doesn't require scrubber as all the odour causing gases get oxidized through combustion
9. The facility shall continuously operate MEE&ATFD to treat the RO rejects from the leachate treatment plant.
- Noted. We are processing the leachate generated in our LTP.
10. The facility shall not accept the waste generated from slaughter house.
- Currently we are not receiving any slaughter house waste in the facility.
11. The facility shall regularly operate gas collection and flaring system so as to avoid spreading of gases in the surrounding areas.



Flare 1 placed near Malakaram



Flare 2 Near 5th weigh bridge

The Flares are operated according to the availability of the Landfill gas in the collection network. Based on the past few months of data, we are operating Flare 1 only during night for four to six hours. The network is isolated after the flaring of the gas is stopped. This ensures that the landfill gas generated during non-flaring period does not escape to the atmosphere.

12. The industry shall provide water flow meters for recording daily water consumption for composting plant, RDF Plant, recycling complex, floor wash and vehicle wash etc.
 - We are maintaining the data and same was submitted in our earlier communication dated 29th May 2020 to your office.

Thanking you,



Yours Sincerely,

For Hyderabad Integrated MSW Ltd.,

Encl: Annexure 1 – CFO Compliance Report

- CC: 1. The Joint Chief Environmental Engineer, Unit-1, TSPCB Board Office
2. The Joint Chief Environmental Engineer, Zonal Office, Hyderabad



Hyderabad Integrated Municipal Solid Waste Management Project
 Sy. No. 173, Jawahar Nagar(V), Shameerpet(M), Rangareddy (District)

Annexure - 2

38

Condition wise compliance report
 Consent order No: TSPCB/128/CFO/RO-RR-II/HO/2018-3299

S.No	Condition	Compliance																											
Schedule - A																													
1	The applicant shall make applications through online for renewal of Consent (under Air & Water Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts for obtaining consent & HW Authorization of the board.	Being complied																											
2	This order is issued in line with Boards CFE Order dated 19.12.2012 and CFO & HWA order dt: 11.12.2017. Concealing the factual data 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. The facility shall comply with all other conditions of CFE order dated 19.12.2012 still applicable.	Noted																											
3	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 Andhra Pradesh water rules, 1976 and air rules 1982, to such authority (hereinafter referred to as the appellate authority) constituted under section 31 of the air (Prevention and control of pollution) Act, 1981.	Noted																											
4	The facility may explore the possibility of tapping the solar energy for their energy requirements	Roof top solar panel placement completed commission is pending.																											
5	The board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of protection of public health and environment.	Noted																											
Schedule-B																													
6	<p>The facility shall take steps to the extent possible and consumptions shall NOT exceed the quantities prescribed below</p> <table border="1"> <thead> <tr> <th>S.No</th> <th>Purpose</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Domestic</td> <td>100</td> </tr> <tr> <td>2</td> <td>Floor wash</td> <td>10</td> </tr> <tr> <td>3</td> <td>Vehicle wash</td> <td>20</td> </tr> <tr> <td>4</td> <td>Compost plant</td> <td>350</td> </tr> <tr> <td>5</td> <td>RDF Plant</td> <td>25</td> </tr> <tr> <td>6</td> <td>Gardening</td> <td>1160</td> </tr> <tr> <td>7</td> <td>Recycling complex</td> <td>10</td> </tr> <tr> <td></td> <td>Total</td> <td>1675KLD</td> </tr> </tbody> </table>	S.No	Purpose	Quantity	1	Domestic	100	2	Floor wash	10	3	Vehicle wash	20	4	Compost plant	350	5	RDF Plant	25	6	Gardening	1160	7	Recycling complex	10		Total	1675KLD	Complied
S.No	Purpose	Quantity																											
1	Domestic	100																											
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7	Recycling complex	10																											
	Total	1675KLD																											
2	<p>The effluent discharged should not contain constituents in excess of the tolerance limits prescribed below.</p> <table border="1"> <thead> <tr> <th>Out</th> <th>Parameter</th> <th>Limiting</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Out	Parameter	Limiting				Being Complied																					
Out	Parameter	Limiting																											

let No		Standards for land application					
1	PH	5.5 – 9.0					
	Suspended solids	200 mg/l					
	Dissolved Solids (Inorganic) max	2100 mg/l					
	Biochemical Oxygen demand (BOD 3days at 27 ^o c)	100 mg/l					
	Chemical oxygen demand (COD)	250 mg/l					
	2	PH		5.5 – 9.0			
		Suspended solids		200 mg/l			
		Dissolved Solids (Inorganic) max		2100 mg/l			
		Biochemical Oxygen demand (BOD 3days at 27 ^o c)		100 mg/l			
		Chemical oxygen demand (COD)		250 mg/l			
Arsenic (as As)		0.2 mg/l					
Cyanide (as CN)		0.2 mg/l					
Chloride (as cl)	600 mg/l						
3	The emissions shall not contain constituents in excess of the prescribed limits mentioned below		Being Complied				
	<table border="1"> <thead> <tr> <th>Chimney No</th> <th>Parameter</th> <th>Emission standards</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Particulate matter</td> <td>115 mg/Nm³</td> </tr> </tbody> </table>	Chimney No		Parameter	Emission standards	1	Particulate matter
Chimney No	Parameter	Emission standards					
1	Particulate matter	115 mg/Nm ³					
4	<p>The facility shall comply with ambient air quality standards of PM10 (Particulate matter size less than 10um) - 100µg/m3; PM2.5 (Particulate Matter size less than 2.5um) – 60 µg/m3; SO2 - 80µG/M3; SAPM 100 µg/m3; Methane not to exceed 25% of explosive limit (650mg/m3), Ammonia – 0.4 mg/m3, CO-2 mg.m3 (1 hour average) & CO-1 mg/m3 (8 hours average)</p> <p>Noise Levels: Day time – (6AM to 10PM) – 75Db (A) Night Time – (10PM to 6AM) – 70Db (A)</p>		Being Complied				
5	The facility shall provide and maintain water flow meters for recording water recording water consumption for various purposes and maintain the records for daily consumption.		Complied				
6	The facility shall carryout treatment and disposal of leachate being generated from old dump site as committed in the meeting by December, 2018.		Being Complied				
7	The facility shall continuously operate the treatment facility for effective treatment of leachate generated from the scientific landfill facility (SLF) and proper disposal of RO permeate on land application and RO reject shall be sprayed on the waste dump to maintain moisture. The facility shall up-grade the existing leachate treatment facility to meet the requirement of the leachate generating from the operation facility/SLF		Complied, expansion of RO plant under process				



	<p>drainage layer of 15cm</p> <p>c. On top of the drainage layer there shall be a vegetative layer of 45cm to support natural plant growth and to minimize erosion.</p>	
19	<p>In order to prevent pollution problems from landfill operations, the following provisions shall be made.</p>	
	<p>a. Diversion of storm water drains to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions.</p>	Complied
	<p>b. Constructions of a non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of wastes processing facilities or mixed waste or waste having contamination of hazardous materials (such as aerosols, bleaches, plishes, batteries, waste oils, paint products and pesticides) minimum liner specifications shall be a composite barrier having 1.5 mm high density polyethylene (HDPE) geomembrane, or equivalent overlaying 90cm of soil (Clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer.</p>	Complied
	<p>c. Prevention of run-off landfill area entering any stream, river, lake or pond.</p>	Complied
20	<p>The compost plant and other processing facilities shall follow the conditions as follows:</p>	
	<p>i) The incoming solid waste and the wastes storage area of site shall be covered.</p>	Being covered
	<p>ii) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of wastes to the landfill sites.</p>	Being complied
	<p>iii) 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 designated landfill site(s).</p>	Pre-process and post-process rejects being segregated from the processing facility on regular basis and not allowed to pile at the site. Recyclables being routed through appropriate vendors. The non-recyclables being sent for well designated landfill site.
	<p>iv) In case of compost plant, the window 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^{-7} cm/sec. The base shall be provided with 1 to 2 percent slope and circled b lined drains for collection of leachate or</p>	Complied



8	The facility shall install MEE followed by ATFD to treat the RO rejects generated from the leachate treatment plant and shall commission the same by 31/5/2019 as committed vide Ir dt. 04.02.2019	Complied
8.1	The industry shall provide to additional bio-composting plant by June 2019 as committed and shall ensure that no odor nuisance is caused to the surrounding habitation.	Under process
9	The facility shall provide and maintain flow meters for recording the quantity of leachate generated, treated and disposal. They shall also maintain daily records.	Being complied
10	The facility shall complete capping of old landfill by May, 2019 as committed during the meeting.	soil cover completed, green cover is under process.
11	The facility shall operate the new landfill facility as per the protocol and submit monthly status reports to the RO, RR-II	Being complied
12	The facility shall continue the measures for stoppage of burning of waste near to the habitations such as spraying of soil/fire extinguishing chemicals, so as to avoid generation of smoke and causing odor nuisance.	Complied
13	The facility shall spray the odor suppressing chemicals to minimize the odor nuisance to the residents.	Being Complied
14	The facility shall provide H ₂ S & Methane gas collection, utilization/incineration system to minimize odor generation.	Complied
15	The facility shall develop & maintain thick green belt all along the boundary of the facility and in all the vacant places within the facility with in the facility with tall growing trees with wide leaf area.	Complied
16	A vegetative cover shall be provided over the completed site in accordance with the and following specifications namely; <ul style="list-style-type: none"> a. Selection of locally adopted non-edible perennial plants that are resident to drought and extreme temperatures shall be allowed to grow. b. The plants grown are such that their roots do not penetrate more than 30cms. This condition shall apply till the landfill is stabilized. c. Selected plants shall be having ability to thrive on low-nutrient soil with minimum nutrient addition. d. Plantation to be made in sufficient density to minimize soil erosion. 	Noted, we will implement after completion of capping.
17	The facility shall maintain good house keeping	Being Complied
18	After completion of landfill, a final cove shall be designed to minimize infiltration and erosion. The final cover shall meet the following specification namely. <ul style="list-style-type: none"> a. The final cover shall have a barrier soil layer comprising of 60 cms of clay or amended soil with permeability coefficient less than 1×10^{-7} cm/sec. b. On top of the barrier soil layer there shall be a 	Noted, we will implement after completion of capping.



	surface run-off.	
	v) The compost quality shall be checked as per SWM Rules, 2016 before its usage and proper records shall be maintained.	Being complied
21	The landfill site shall have wastes inspection facility to monitor wastes brought in for landfill, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipments.	complied
22	Safety provisions including health inspections of workers at landfill site shall be periodically made.	Periodically health inspection being carried out
23	The post-closure care of landfill shall be conducted for at least fifteen years and long term monitoring of care plan shall consist of the following namely;	Noted, we will implement after completion of capping
	a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover.	
	b) Monitoring leachate collection system is accordance with the requirement.	
	c) Monitoring of ground water is accordance with requirement and maintaining ground water quality.	
	d) Maintaining and operating the landfill gas collection system to meet the standards.	
24	The vehicles transporting municipal solid waste shall be covered with tarpaulin covers.	Being complied
25	The facility shall comply with Task Force directions issued by the Board from the time to time.	Will be complied
26	The facility shall comply with SWM Rules, 2016 for operation of the plant.	Being complied
27	The applicant shall submit Environmental statement in Form V to the Regional office before 30 th September of every year as per Rule No.14 of EP) Rules, 1986 & amendments thereof.	Being complied
28	The conditions stipulated in this order are without any prejudice to rights and contentions of this Board in any Hon'ble court of Law.	Noted
Schedule-c		
1	The facility shall give top priority for waste minimization and cleaner production practices.	waste minimization and cleaner production being practiced
2	The facility shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008 and amendments thereof. The facility shall maintain 5 copy manifest system for transportation of waste generated and copies of receipt of Consignee shall be submitted to the Concerned Regional office. The facility shall maintain proper records for Hazardous Wastes stated in Authorization in	Being complied



	FORM-3 i.e., quantity of Incinerable waste, land disposal waste, land disposal waste, recyclable waste etc., and file annual returns in Form – 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.	
3	The facility shall dispose / sell the Hazardous Wastes to only industries/agencies authorized by the State Pollution Control Boards. The facility shall verify the authorization of the Board given to the Party before disposing its waste to the External Party.	Being Complied
4	The facility shall maintain proper records for Hazardous Wastes disposal and its concurrence with authorization. In case of variation in generation, facility shall submit explanation and obtain amendment CFE/CFO in this regard.	Hazardous Wastes disposal records being maintained. If variation in generation, facility we will submit explanation and obtain amendment CFE/CFO
5	The facility shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal. Waste oil shall be disposed to the authorized Reprocessors / Recyclers and Used Lead Acid Batteries shall be disposed to the steps for prevention of oil spillages and carry-over of oil from the premises. The facility shall check the Certificate / Authorization of MoEF issued to the Re-user/Recycler units while disposing the waste oil.	Being Complied.
6	The facility shall dispose of e-waste to the authorized recyclers only.	Being complied
7	The facility shall submit the condition wise compliance report of the conditions stipulated in Schedule B & C of this Order on half yearly basis to Board Office, Hyderabad and concerned Regional Office.	Noted, being complied



Annexure R-2

Hyderabad Integrated MSW Ltd.,

(Wholly owned subsidiary of REEL)

Survey No. 173, Jawahar Nagar Dump Site,
CRPF Road, Near Army Dental College,
Kapra Mandal Medchal District - 500087,
Telangana State.

CIN : U90001TG2009PLC063407

44

ok

Lr. No HIMSW/TSPCB/21-22/ 2025

Date: 23 July 2021

To,

The Environmental Engineer,
Regional office, Medchal
Telangana State Pollution Control Board
Begumpet, Hyderabad -16

Dear Sir,

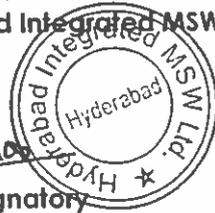
Sub: Half yearly Compliance status report of Consent for Operation -Reg
Ref: Consent order No: TSPCB/128/CFO/RO-RR-II/HO/2018-3299 Dt
19/02/2019.

With reference to subject aforementioned, we are submitting the half yearly Consent for operation compliance report for the first half of calendar year 2021.

Thanking You

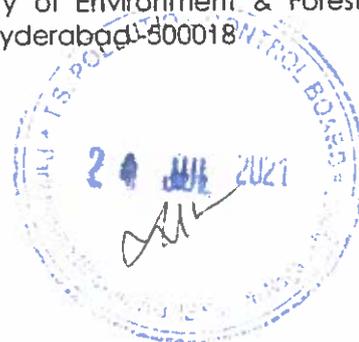
Yours sincerely,
For Hyderabad Integrated MSW Ltd


Authorized Signatory



Encl: Half Yearly CFO Compliance report.

CC 1 The senior Environmental Engineer, State Environmental Impact Assessment Authority (SEIAA), Ministry of Environment & Forests and climate change , A-3, Sanath Nagar, Hyderabad-500018



Hyderabad Integrated MSW Ltd
Conditions wise compliance of CFO

Consent order No: TSPCB/128/CFO/RO-RR-II/HO/2018-1695

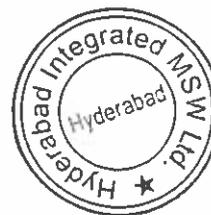
S.No	Clause description	Status																											
Schedule - A																													
1	The applicant shall make applications through online for renewal of Consent (under Air & Water Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts for obtaining consent & HW Authorization of the board.	Noted																											
2	This order is issued in line with Boards CFE Order dated 19.12.2012 and CFO & HWA order dt: 11.12.2017. Concealing the factual data 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. The facility shall comply with all other conditions of CFE order dated 19.12.2012 still applicable.	Noted																											
3	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 Andhra Pradesh water rules, 1976 and air rules 1982, to such authority (hereinafter referred to as the appellate authority) constituted under section 31 of the air (Prevention and control of pollution) Act, 1981.	Noted																											
4	The facility may explore the possibility of tapping the solar energy for their energy requirements	We commissioned 1 st Phase of Solar roof top plant with capacity of 500KW, net metering is pending from TSPDCL																											
5	The board reserves its right to modify above conditions or stipulate any further conditions and to take action including revoke of this order in the interest of protection of public health and environment.	Noted																											
Schedule-B																													
6	The facility shall take steps to the extent possible and consumptions shall NOT exceed the quantities prescribed below <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th>S.No</th> <th>Purpose</th> <th>Quantity</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Domestic</td> <td>100</td> </tr> <tr> <td>2</td> <td>Floor wash</td> <td>10</td> </tr> <tr> <td>3</td> <td>Vehicle wash</td> <td>20</td> </tr> <tr> <td>4</td> <td>Compost plant</td> <td>350</td> </tr> <tr> <td>5</td> <td>RDF Plant</td> <td>25</td> </tr> <tr> <td>6</td> <td>Gardening</td> <td>1160</td> </tr> <tr> <td>7</td> <td>Recycling complex</td> <td>10</td> </tr> <tr> <td></td> <td>Total</td> <td>1675KLD</td> </tr> </tbody> </table>	S.No	Purpose	Quantity	1	Domestic	100	2	Floor wash	10	3	Vehicle wash	20	4	Compost plant	350	5	RDF Plant	25	6	Gardening	1160	7	Recycling complex	10		Total	1675KLD	Complied
S.No	Purpose	Quantity																											
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6	Gardening	1160																											
7	Recycling complex	10																											
	Total	1675KLD																											
2	The effluent discharged should not contain constituents in excess of the tolerance limits prescribed below. <table border="1" style="width: 100%; margin-top: 5px;"> <thead> <tr> <th>Out let No</th> <th>Parameter</th> <th>Limiting Standards for</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Out let No	Parameter	Limiting Standards for				Complied																					
Out let No	Parameter	Limiting Standards for																											

			land application		
1	PH		5.5 - 9.0		
	Suspended solids		200 mg/l		
	Dissolved Solids (Inorganic) max		2100 mg/l		
	Biochemical Oxygen demand (BOD 3days at 27°C)		100 mg/l		
	Chemical oxygen demand (COD)		250 mg/l		
	2	PH		5.5 - 9.0	
		Suspended solids		200 mg/l	
		Dissolved Solids (Inorganic) max		2100 mg/l	
		Biochemical Oxygen demand (BOD 3days at 27°C)		100 mg/l	
		Chemical oxygen demand (COD)		250 mg/l	
Arsenic (as As)			0.2 mg/l		
Cyanide (as CN)			0.2 mg/l		
Chloride (as cl)		600 mg/l			
3	The emissions shall not contain constituents in excess of the prescribed limits mentioned below			Complied	
	Chimney No	Parameter	Emission standards		
	1	Particulate matter	115 mg/Nm ³		
4	The facility shall comply with ambient air quality standards of PM10 (Particulate matter size less than 10um) - 100µg/m ³ ; PM2.5 (Particulate Matter size less than 2.5um) - 60 µg/m ³ ; SO ₂ - 80µG/M ³ ; SAPM 100 µg/m ³ ; Methane not to exceed 25% of explosive limit (650mg/m ³), Ammonia - 0.4 mg/m ³ , CO-2 mg.m ³ (1 hour average) & CO-1 mg/m ³ (8 hours average) Noise Levels: Day time - (6AM to 10PM) - 75Db (A) Night Time - (10PM to 6AM) - 70Db (A)			Being Complied	
5	The facility shall provide and maintain water flow meters for recording water recording water consumption for various purposes and maintain the records for daily consumption.			Complied	
6	The facility shall carryout treatment and disposal of leachate being generated from old dump site as committed in the meeting by December, 2018.			Complied	
7	The facility shall continuously operate the treatment facility for effective treatment of leachate generated from the scientific landfill facility (SLF) and proper disposal of RO permeate on land application and RO reject shall be sprayed on the waste dump to maintain moisture. The facility shall up-grade the existing leachate treatment facility to meet the requirement of the leachate generating from the operation facility/SLF			Complied	
8	The facility shall install MEE followed by ATFD to treat the RO rejects generated from the leachate treatment plant.			Complied	
9	The facility shall provide and maintain flow meters for recording the quantity of leachate generated, treated and disposal. They shall also maintain daily records.			Complied	
10	The facility shall complete capping of old landfill by December, 2018 as committed during the meeting.			Dump capping completed and created gas network and treating.	

11	The facility shall operate the new landfill facility as per the protocol and submit monthly status reports to the RO, RR-II	Complied
12	The facility shall continue the measures for stoppage of burning of waste near to the habitations such as spraying of soil/fire extinguishing chemicals, so as to avoid generation of smoke and causing odor nuisance.	Complied
13	The facility shall spray the odor suppressing chemicals to minimize the odor nuisance to the residents.	Being Complied
14	The facility shall provide H ₂ S & Methane gas collection, utilization/incineration system to minimize odor generation.	Complied
15	The facility shall develop & maintain thick green belt all along the boundary of the facility and in all the vacant places within the facility with in the facility with tall growing trees with wide leaf area.	Complied
16	A vegetative cover shall be provided over the completed site in accordance with the and following specifications namely; <ul style="list-style-type: none"> a. Selection of locally adopted non-edible perennial plants that are resident to drought and extreme temperatures shall be allowed to grow. b. The plants grown are such that their roots do not penetrate more than 30cms. This condition shall apply till the landfill is stabilized. c. Selected plants shall be having ability to thrive on low-nutrient soil with minimum nutrient addition. d. Plantation to be made in sufficient density to minimize soil erosion. 	We are being complied, and we placed locally available grass.
17	The facility shall maintain good house keeping	Complied
18	After completion of landfill, a final cove shall be designed to minimize infiltration and erosion. The final cover shall meet the following specification namely. <ul style="list-style-type: none"> a. The final cover shall have a barrier soil layer comprising of 60 cms of clay or amended soil with permeability coefficient less than 1×10^{-7} cm/sec. b. On top of the barrier soil layer there shall be a drainage layer of 15cm c. On top of the drainage layer there shall be a vegetative layer of 45cm to support natural plant growth and to minimize erosion. 	Complied
19	In order to prevent pollution problems from landfill operations, the following provisions shall be made. <ul style="list-style-type: none"> a. Diversion of storm water drains to minimize leachate generation and prevent pollution of surface water and also for avoiding flooding and creation of marshy conditions. b. Constructions of a non-permeable lining system at the base and walls of waste disposal area. For landfill receiving residues of wastes processing facilities or mixed waste or waste having contamination of hazardous materails (such as aerosols, bleaches, plishes, batteries, waste oils, paint products and pesticides) minimum liner specifications shall be a composite barrier having 1.5 mm high density polyethylene (HDPE) geomembrane, or equivalent overlaying 90cm of osil (Clay or amended soil) having permeability coefficient not greater than 1×10^{-7} cm/sec. The highest level of water table shall be at least two meter below the base of clay or amended soil barrier layer. c. Prevention of run-off landfill area entering any stream, river, lake or pond. 	Being Complied Around capping area we placed RCC drain about 2945 running meter.
20	The compost plant and other processing facilities shall follow the conditions as follows:	Complied

	<p>i) The incoming solid waste and the wastes storage area of site shall be covered.</p> <p>ii) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of wastes to the landfill sites.</p> <p>iii) 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 designated landfill site(s).</p> <p>iv) 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^{-7} cm/sec. The base shall be provided with 1 to 2 percent slope and circled b lined drains for collection of leachate or surface run-off.</p> <p>v) The compost quality shall be checked as per SWM Rules, 2016 before its usage and proper records shall be maintained.</p>	
21	The landfill site shall have wastes inspection facility to monitor wastes brought in for landfill, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipments.	Complied
22	Safety provisions including health inspections of workers at landfill site shall be periodically made.	Complied
23	<p>The post-closure care of landfill shall be conducted for at least fifteen years and long term monitoring of care plan shall consist of the following namely;</p> <p>a) Maintaining the integrity and effectiveness of final cover, making repairs and preventing run-on and run-off from eroding or otherwise damaging the final cover.</p> <p>b) Monitoring leachate collection system is accordance with the requirement.</p> <p>c) Monitoring of ground water is accordance with requirement and maintaining ground water quality.</p> <p>d) Maintaining and operating the landfill gas collection system to meet the standards.</p>	Noted, we are in certification stage for capping activity by corporation, once it is done we will implement this as per norms.
24	The vehicles transporting municipal solid waste shall be covered with tarpaulin covers.	Being Complied, most of the vehicles we changed to closed compactors for MSW transport.
25	The facility shall comply with Task Force directions issued by the Board from the time to time.	Complied
26	The facility shall comply with SWM Rules, 2016 for operation of the plant.	Complied
27	The applicant shall submit Environmental statement in Form V to the Regional office before 30 th September of every year as per Rule No.14 of EP) Rules, 1986 & amendments thereof.	Complied
28	The conditions stipulated in this order are without any prejudice to rights and contentions of this Board in any Hon'ble court of Law.	Noted

Schedule-c		
1	The facility shall give top priority for waste minimization and cleaner production practices.	Noted
2	The facility shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Trans boundary Movement) Rules, 2008 and amendments thereof. The facility shall maintain 5 copy manifest system for transportation of waste generated and copies of receipt of Consignee shall be submitted to the Concerned Regional office. The facility shall maintain proper records for Hazardous Wastes stated in Authorization in FORM-3 i.e., quantity of Incinerable waste, land disposal waste, land disposal waste, recyclable waste etc., and file annual returns in Form - 4 as per Rule 22(2) of the Hazardous Wastes (Management, Handling & Transboundary Movement) Rules, 2008 and amendments thereof.	Complied
3	The facility shall dispose / sell the Hazardous Wastes to only industries/agencies authorized by the State Pollution Control Boards. The facility shall verify the authorization of the Board given to the Party before disposing its waste to the External Party.	Complied
4	The facility shall maintain proper records for Hazardous Wastes disposal and its concurrence with authorization In case of variation in generation, facility shall submit explanation and obtain amendment CFE/CFO in this regard.	Complied
5	The facility shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal. Waste oil shall be disposed to the authorized Reprocessors / Recyclers and Used Lead Acid Batteries shall be disposed to the steps for prevention of oil spillages and carry-over of oil from the premises. The facility shall check the Certificate / Authorization of MoEF issued to the Re-user/Recycler units while disposing the waste oil.	Being Complied, and submitted return to PCB through Form IV
6	The facility shall dispose of e-waste to the authorized recyclers only.	Being complied, and submitted returns to PCB through Form III
7	The facility shall submit the condition wise compliance report of the conditions stipulated in Schedule B & C of this Order on half yearly basis to Board Office. Hyderabad and concerned Regional Office.	Noted



[Handwritten signature]

Laboratory
Approved by
MOEF

Laboratory
Accredited by
NABL
(ISO/IEC 17025)
Certificate No.
TC-5067



Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



Annexure R-3

50

HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDf at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Page 1 of 2

Report No: HWMP/ COM /ENV/21-0853

Name and address of the client

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 18.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Registration no : AAQ-211763/1-13 to AAQ-211765/1-13
Sample Description : Ambient Air Quality Samples (Core Zone)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

M/s. HI-MSW Division,
Jawahar Nagar Site,
Hyderabad.

Locations:

1. AAQ-211763/1: SO₂ Sample (Near Weigh Bridge)
2. AAQ-211763/2: NO₂ Sample (Near Weigh Bridge)
3. AAQ-211763/3: PM₁₀ Sample (Near Weigh Bridge)
4. AAQ-211763/4: PM_{2.5} Sample (Near Weigh Bridge)
5. AAQ-211763/5: O₃ Sample (Near Weigh Bridge)
6. AAQ-211763/6: Pb Sample (Near Weigh Bridge)
7. AAQ-211763/7: CO Sample (Near Weigh Bridge)
8. AAQ-211763/8: NH₃ Sample (Near Weigh Bridge)
9. AAQ-211763/9: C₆H₆ Sample (Near Weigh Bridge)
10. AAQ-211763/10: BaP Sample (Near Weigh Bridge)
11. AAQ-211763/11: As Sample (Near Weigh Bridge)
12. AAQ-211763/12: Ni Sample (Near Weigh Bridge)
13. AAQ-211763/13: CH₄ Sample (Near Weigh Bridge)
14. AAQ-211764/1: SO₂ Sample (Near Landfill)
15. AAQ-211764/2: NO₂ Sample (Near Landfill)
16. AAQ-211764/3: PM₁₀ Sample (Near Landfill)
17. AAQ-211764/4: PM_{2.5} Sample (Near Landfill)
18. AAQ-211764/5: O₃ Sample (Near Landfill)
19. AAQ-211764/6: Pb Sample (Near Landfill)
20. AAQ-211764/7: CO Sample (Near Landfill)
21. AAQ-211764/8: NH₃ Sample (Near Landfill)
22. AAQ-211764/9: C₆H₆ Sample (Near Landfill)
23. AAQ-211764/10: BaP Sample (Near Landfill)
24. AAQ-211764/11: As Sample (Near Landfill)
25. AAQ-211764/12: Ni Sample (Near Landfill)
- 26.. AAQ-211764/13: CH₄ Sample (Near Landfill)
27. AAQ-211765/1: SO₂ Sample (Near RDF Storage)
28. AAQ-211765/2: NO₂ Sample (Near RDF Storage)
29. AAQ-211765/3: PM₁₀ Sample (Near RDF Storage)
30. AAQ-211765/4: PM_{2.5} Sample (Near RDF Storage)
31. AAQ-211765/5: O₃ Sample (Near RDF Storage)
32. AAQ-211765/6: Pb Sample (Near RDF Storage)
33. AAQ-211765/7: CO Sample (Near RDF Storage)
34. AAQ-211765/8: NH₃ Sample (Near RDF Storage)
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36. AAQ-211765/10: BaP Sample (Near RDF Storage)
37. AAQ-211765/11: As Sample (Near RDF Storage)
38. AAQ-211765/12: Ni Sample (Near RDF Storage)
39. AAQ-211765/13: CH₄ Sample (Near RDF Storage)

Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0853

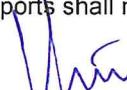
TEST RESULTS FOR AMBIENT AIR QUALITY MONITORING SAMPLES

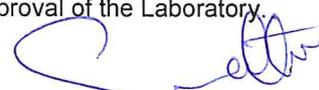
Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results			NAAQS Vol.-(2012-13)
				211763/1-13	211764/1-13	211765/1-13	
				Near Weigh Bridge	Near Landfill Area	Near RDF Storage	
1.	Sulfur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	19.5	16.7	18.4	80
2.	Oxides of Nitrogen (NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	35	32	30	80
3.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part23): 2006	70	64	59	100
4.	Particulate Matter (PM _{2.5})	µg/m ³	SOP Based on CPCB Guidelines	35.8	32.4	33.7	60
5.	Ozone (O ₃)*	µg/m ³	IS 5182 (Part 9): 1974	12.4	9.8	11.3	180
6.	Lead (Pb)	µg/m ³	ICP-OES	<0.1	<0.1	<0.1	1.0
7.	Carbon Monoxide (CO)*	mg/m ³	Multi Gas Analyzer	1.3	0.8	0.7	4.0
8.	Ammonia (NH ₃)*	µg/m ³	Indo Phenol Method	20.5	14.2	18.7	400
9.	Arsenic (As)	ng/m ³	ICP-OES	<0.1	<0.1	<0.1	6.0
10.	Nickel (Ni)	ng/m ³	ICP-OES	<0.5	<0.5	<0.5	20.0
11.	Benzene (C ₆ H ₆)*	µg/m ³	GC-MS	BDL	BDL	BDL	5.0
12.	Benzo(a)Pyrene(BaP)*	ng/m ³	GC-MS	BDL	BDL	BDL	1.0
13.	Methane(CH ₄)*	%	Multi Gas Analyzer	4.2	3.4	6.8	Should not exceed 25% of LEL (650mg/l)

Note: BDL limits for Benzene & Benzo (a) Pyrene (<0.2)

- SO₂, NO₂, PM₁₀, PM_{2.5}, and NH₃ are 24 hourly and CO & O₃ is 1 hour monitored values
- Parameters marked with * are not covered under NABL scope
- Reports pertained only to the collected sample.
- Test reports shall not be reproduced except in full, without written approval of the Laboratory.


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

1. Respirable Dust Sampler Model: APM 860, Sl. No.264-DTD-2017, PM10/2.5 Sampler, Model APM154 – S. No 248-DTD-2017
 2. Respirable Dust Sampler Model: APM 860, Sl. No.263-DTD-2017, PM10/2.5 Sampler, Model APM154 – S. No 247-DTD-2017
 3. Respirable Dust Sampler Model: APM 860, Sl. No.262-DTD-2017, PM10/2.5 Sampler, Model APM154 – S. No 246-DTD-2017
 Calibrated by –LATA ENVIROTECH SERVICES: Calibration on 10.12.2020; Due 09.12.2021

Towards sustainable growth

Laboratory
Approved by
MOEF

Laboratory
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TC-5067



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Page 1 of 2

To wards sustainable growth

Report No: HWMP/COM/ENV/21-0854

Name and address of the client

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 19.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Registration no : AAQ-211766/1-13 to AAQ-211768/1-13
Sample Description : Ambient Air Quality Samples (Core Zone)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

M/s. HI-MSW Division,
Jawahar Nagar Site,
Hyderabad.

Locations:

1. AAQ-211766/1: SO₂ Sample (Near Malkaram Pond)
2. AAQ-211766/2: NO₂ Sample (Near Malkaram Pond)
3. AAQ-211766/3: PM₁₀ Sample (Near Malkaram Pond)
4. AAQ-211766/4: PM_{2.5} Sample (Near Malkaram Pond)
5. AAQ-211766/5: O₃ Sample (Near Malkaram Pond)
6. AAQ-211766/6: Pb Sample (Near Malkaram Pond)
7. AAQ-211766/7: CO Sample (Near Malkaram Pond)
8. AAQ-211766/8: NH₃ Sample (Near Malkaram Pond)
9. AAQ-211766/9: C₆H₆ Sample (Near Malkaram Pond)
10. AAQ-211766/10: BaP Sample (Near Malkaram Pond)
11. AAQ-211766/11: As Sample (Near Malkaram Pond)
12. AAQ-211766/12: Ni Sample (Near Malkaram Pond)
13. AAQ-211766/13: CH₄ Sample (Near Malkaram Pond)
14. AAQ-211767/1: SO₂ Sample (Near MSW Pit)
15. AAQ-211767/2: NO₂ Sample (Near MSW Pit)
16. AAQ-211767/3: PM₁₀ Sample (Near MSW Pit)
17. AAQ-211767/4: PM_{2.5} Sample (Near MSW Pit)
18. AAQ-211767/5: O₃ Sample (Near MSW Pit)
19. AAQ-211767/6: Pb Sample (Near MSW Pit)
20. AAQ-211767/7: CO Sample (Near MSW Pit)
21. AAQ-211767/8: NH₃ Sample (Near MSW Pit)
22. AAQ-211767/9: C₆H₆ Sample (Near MSW Pit)
23. AAQ-211767/10: BaP Sample (Near MSW Pit)
24. AAQ-211767/11: As Sample (Near MSW Pit)
25. AAQ-211767/12: Ni Sample (Near MSW Pit)
26. AAQ-211767/13: CH₄ Sample (Near MSW Pit)
14. AAQ-211768/1: SO₂ Sample (Near Air Cooling Condenser)
15. AAQ-211768/2: NO₂ Sample (Near Air Cooling Condenser)
16. AAQ-211768/3: PM₁₀ Sample (Near Air Cooling Condenser)
17. AAQ-211768/4: PM_{2.5} Sample (Near Air Cooling Condenser)
18. AAQ-211768/5: O₃ Sample (Near Air Cooling Condenser)
19. AAQ-211768/6: Pb Sample (Near Air Cooling Condenser)
20. AAQ-211768/7: CO Sample (Near Air Cooling Condenser)
21. AAQ-211768/8: NH₃ Sample (Near Air Cooling Condenser)
22. AAQ-211768/9: C₆H₆ Sample (Near Air Cooling Condenser)
23. AAQ-211768/10: BaP Sample (Near Air Cooling Condenser)
24. AAQ-211768/11: As Sample (Near Air Cooling Condenser)
25. AAQ-211768/12: Ni Sample (Near Air Cooling Condenser)
26. AAQ-211768/13: CH₄ Sample (Near Air Cooling Condenser)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0854

TEST RESULTS FOR AMBIENT AIR QUALITY MONITORING SAMPLES

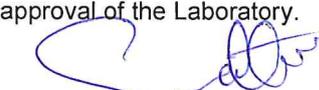
Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results			NAAQS Vol.-(2012-13)
				211766/1-13	211767/1-13	211768/1-13	
				Near Malkaram Pond	Near MSW Pit	Near Air Cooling Condenser	
1.	Sulfur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	12.9	14.8	14.2	80
2.	Oxides of Nitrogen(NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	32	28	23	80
3.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part23): 2006	65	69	70	100
4.	Particulate Matter (PM _{2.5})	µg/m ³	SOP Based on CPCB Guidelines	32.8	34.2	29.6	60
5.	Ozone (O ₃)*	µg/m ³	IS 5182 (Part 9): 1974	3.5	2.7	3.2	180
6.	Lead (Pb)	µg/m ³	ICP-OES	<0.1	<0.1	<0.1	1.0
7.	Carbon Monoxide (CO)*	mg/m ³	Multi Gas Analyzer	0.8	1.8	0.6	4.0
8.	Ammonia (NH ₃)*	µg/m ³	Indo Phenol Method	10.8	13.2	10.2	400
9.	Arsenic (As)	ng/m ³	ICP-OES	<0.1	<0.1	<0.1	6.0
10.	Nickel (Ni)	ng/m ³	ICP-OES	<0.5	<0.5	<0.5	20.0
11.	Benzene (C ₆ H ₆)*	µg/m ³	GC-MS	BDL	BDL	BDL	5.0
12.	Benzo(a)Pyrene(BaP)*	ng/m ³	GC-MS	BDL	BDL	BDL	1.0
13.	Methane(CH ₄)*	%	Multi Gas Analyzer	3.4	4.2	2.3	Should not exceed 25% of LEL (650mg/l)

Note: BDL limits for Benzene & Benzo (a) Pyrene (<0.2)

- SO₂, NO₂, PM₁₀, PM_{2.5}, and NH₃ are 24 hourly and CO & O₃ is 1 hour monitored values
- Parameters marked with * are not covered under NABL scope
- Reports pertained only to the collected sample.
- Test reports shall not be reproduced except in full, without written approval of the Laboratory.


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

1. Respirable Dust Sampler Model: APM 860 Sl. No.274-DTF-2017, PM10/2.5Sampler, Model APM154 – S. No 252-DTF-2017
 2. Respirable Dust Sampler Model: APM 860, Sl. No.279-DTD-2017, PM10/2.5Sampler, Model APM154 – S. No 254-DTD-2017
 3. Respirable Dust Sampler Model: APM 860, Sl. No.280-DTD-2017, PM10/2.5Sampler, Model APM154 – S. No 253-DTD-2017
 Calibrated by –LATA ENVIROTECH SERVICES: Calibration on 10.12.2020; Due 09.12.2021

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HYDERABAD WASTE MANAGEMENT PROJECT

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TSDf at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Pages 1 of 5

Report No: HWMP/COM/ENV/21-0855

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

To wards sustainable growth

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date: 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Condition : Sample was collected in 2 liters P.P Bottle
Sample Registration No : GW-211769/1-14
Sample Description : Ground Water (Core Zone)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

- 1.GW-211769/1 : GW (I)-1 Near LTP, Landfill Road Junction
- 2.GW-211769/2 : GW (I)-2 Near Landfill, Beside Electrical Panel Room-2
- 3.GW-211769/3 : GW (I)-3 North East Corner of Landfill, (Near Tamarind Tree)
- 4.GW-211769/4 : GW (I)-5 North East Corner of Passive Dump Capping Area, (Near Malkaram Pond)
- 5.GW-211769/5 : GW (I)-6 North Side of Passive Dump Capping Area (Near Admin Building)
- 6.GW-211769/6 : GW (I)-7 Near Weigh Bridge Junction
- 7.GW-211769/7 : GW (I)-8 Near Main Security Gate Back Side
- 8.GW-211769/8 : GW (I)-9 Near Compost Plant Junction (Back Side Material Stores)
- 9.GW-211769/9 : GW (I)-10 Compost Plant South East Corner (Near Leachate Sumps)
- 10.GW-211769/10 : GW (I)-11 South Side Active Dump Capping (Near PS-3)
- 11.GW-211769/11 : GW (I)-12 Near Cute Drains Manufacturing Unit
- 12.GW-211769/12 : GW (I)-13 Near Labor Camp of WTE Plant
- 13.GW-211769/13 : GW (I)-14 Near Scrap Yard of Power Plant
- 14.GW-211769/14 : GW (I)-15 Near Batching Plant of Power Plant


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0855-(Section-1)

TEST RESULTS FOR GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results			
				211769/1	211769/2	211769/3	211769/4
1	pH	--	APHA 4500 H ⁺ B	7.42	7.02	7.36	7.25
2	Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	2542	3624	4512	6328
3	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	1	1
4	Taste	FTN	APHA 2160 B	No Flavor Observed	No Flavor Observed	Not Performed	Not Performed
5	Turbidity	NTU	APHA2130 B	2.1	3.2	2.5	3.9
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	596	738	794	824
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	1281	2332	2837	2940
8	Calcium as Ca	mg/L	APHA 3500 Ca B	279	782	836	742
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	2.8	8.6	5.6	8.3
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	3.2	5.6	7.2
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	872	1320	1786	2373
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	251	277	386	1258
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C, E	<0.1	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	0.12	0.21
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	0.09	0.18	0.07
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	0.24	<0.1	0.52
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	0.19	1.02	1.43
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	0.48	<0.1	0.32
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
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(Ch. Kishore)
Sr. Asst. Manager (Lab.)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Towards Sustainable Growth

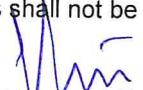
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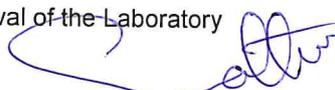
TEST RESULTS FOR GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results			
				211769/5	211769/6	211769/7	211769/8
1	pH	-	APHA 4500 H ⁺ B	6.86	7.23	7.12	7.08
2	Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	3652	4985	2946	3032
3	Odor	TON	APHA 2150 B	1	1	No Odor Observed	No Odor Observed
4	Taste	FTN	APHA 2160 B	No Flavor Observed	Not Performed	No Flavor Observed	No Flavor Observed
5	Turbidity	NTU	APHA2130 B	2.9	3.2	2.3	2.8
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	726	832	238	421
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	2397	3614	841	2160
8	Calcium as Ca	mg/L	APHA 3500 Ca B	798	626	218	512
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	10.8	7.2	8.6	5.6
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	3.6	4.6	<1.0	3.2
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	1390	1835	1058	1312
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	268	564	609	290
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	0.007	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	0.05	0.03	<0.01	0.02
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	0.26	0.12	0.24	0.13
23	Iron as Fe	mg/L	APHA 3500 Fe B	3.12	2.34	0.52	0.92
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	0.86	1.62	<0.1	0.32
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0855-(Section-1)

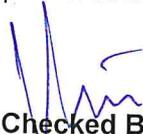
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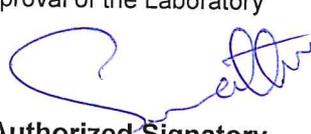
TEST RESULTS FOR GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results		
				211769/9	211769/10	211769/11
1	pH	--	APHA 4500 H ⁺ B	7.02	7.28	7.16
2	Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	6264	11982	1524
3	Odor	TON	APHA 2150 B	1	2	No Odor Observed
4	Taste	FTN	APHA 2160 B	Not Performed	Not Performed	No Flavor Observed
5	Turbidity	NTU	APHA2130 B	3.5	4.3	1.5
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	924	1624	398
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	3014	5358	778
8	Calcium as Ca	mg/L	APHA 3500 Ca B	752	1417	158
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	18	21	3.2
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	2.3	5.2	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	2084	4978	438
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	862	986	198
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	0.008	0.005	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	0.12	0.07	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	0.28	0.36	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	0.10	0.17	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	1.42	1.29	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	2.76	3.76	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	1.24	0.52	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
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 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)

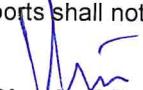

 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

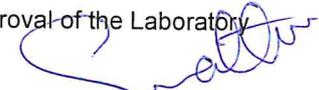
TEST RESULTS FOR GROUND WATER SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results		
				211769/12	211769/13	211769/14
1	pH	-	APHA 4500 H ⁺ B	7.35	7.12	6.96
2	Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	1486	1062	4862
3	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	2
4	Taste	FTN	APHA 2160 B	No Flavor Observed	No Flavor Observed	No Flavor Observed
5	Turbidity	NTU	APHA2130 B	2.3	1.2	3.2
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	294	284	896
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	204	327	2856
8	Calcium as Ca	mg/L	APHA 3500 Ca B	52	78	738
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ -B	11.2	5.8	10.8
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	492	310	1960
13	Sulphates as SO ₄ ⁻²	mg/L	APHA 4500 SO ₄ ⁻² D	123	125	178
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1	0.86
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	0.52
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	1.08
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Report No: HWMP/COM/ENV/21-0856

Pages 1 of 2

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

To wards sustainable growth

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Condition : Sample was collected in 2 liters P.P Bottle
Sample Registration no : WW-211770/1-4
Sample Description : Waste Water (Leachate)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations : 1) WW-211770/1: Near Compost Plant
2) WW-211770/2: Solar Evaporation Pond
3) WW-211770/3: Near Land Fill Area
4) WW-211770/4: Malkaram Pond


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)

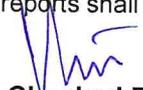

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

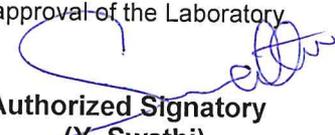
TEST RESULTS FOR WASTE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results			
				211770/1	211770/2	211770/3	211770/4
1	pH	--	APHA 4500 H ⁺ B	7.12	7.28	7.02	7.32
2	Electrical Conductivity	μMhos/cm	APHA 2510 B	38862	48846	40126	41946
3	Total Dissolved Solids at 180°C	mg/L	APHA 2540 C	21762	26842	22471	23909
4	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	7486	8726	6982	8426
5	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	1846	1782	1986	1670
6	Kjaldhal Nitrogen	mg/L	APHA 4500 N (Org) B	512	412	326	312
7	Ammonical Nitrogen	mg/L	APHA 4500 NH ₃ B, C	396	296	412	286
8	Nitrates as NO ₃ ⁻ N	mg/L	APHA 4500 NO ₃ ⁻ B	29	34	24	27
9	Nitrite as NO ₂ ⁻ N	mg/L	APHA 4500 NO ₂ ⁻ B	<1.0	<1.0	<1.0	<1.0
10	Alkalinity as CaCO ₃	mg/L	APHA 2320 B	6728	7542	6983	7556
11	Calcium as Ca	mg/L	APHA 3500 Ca B	896	982	946	994
12	Magnesium as Mg	mg/L	APHA 3500 Mg B	428	342	456	324
13	Sodium as Na	mg/L	APHA 3500 Na B	5462	6432	5786	6432
14	Potassium as K	mg/L	APHA 3500 K B	2689	2762	2863	2689
15	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	5.2	4.6	7.2	5.8
16	Chemical Oxygen Demand	mg/L	APHA 5220 B	4156	5024	4862	3246
17	Biological Oxygen Demand (3 day at 27°C)	mg/L	IS 3025 (P-44)	1186	1482	1478	986
18	Oil & Grease	mg/L	APHA 5743 B	1.2	<1.0	2.3	1.7
19	Lead as Pb	mg/L	APHA 3120 B	0.16	0.21	0.29	0.32
20	Cadmium as Cd	mg/L	APHA 3120 B	0.012	0.007	0.010	0.008
21	Total Chromium as Cr	mg/L	APHA 3120 B	0.05	0.09	0.07	0.09
22	Chromium as Cr ⁺⁶	mg/L	APHA 3500 Cr B	<0.05	<0.05	<0.05	<0.05
23	Nickel as Ni	mg/L	APHA 3120 B	0.19	0.25	0.14	0.29
24	Zinc as Zn	mg/L	APHA 3120 B	0.25	0.16	0.11	0.17
25	Manganese as Mn	mg/L	APHA 3120 B	0.27	0.32	0.23	0.34
26	Copper as Cu	mg/L	APHA 3120 B	0.24	0.19	0.12	0.18
27	Mercury as Hg	μg/L	APHA 3120 B	<0.1	<0.1	<0.1	<0.1
28	Arsenic as As	mg/L	APHA 3120 B	<0.2	<0.2	<0.2	<0.2
29	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ E	<0.1	<0.1	<0.1	<0.1
30	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001	<0.001
31	Dry Matter at 105°C	mg/L	In-house	23462	28058	24586	25124
32	Iron as Fe	mg/L	APHA 3500 Fe B	28	38	23	19
33	Iron as Fe ⁺³	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2	<0.2
34	Sulphide as S ²⁻	mg/L	APHA 4500 S ²⁻ F	3.2	2.4	2.9	1.8

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Towards sustainable growth

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Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : DHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

To wards sustainable growth

Report No: HWMP/ COM /ENV/21-0857

Page 1 of 3

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 18.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Registration no : SM-211771/1-2
Sample Description : Stack Emission Monitoring
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Location: 1. SM-211771/1: 320 kVA D.G. Set.
2. SM-211771/2: Boiler


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/ COM /ENV/21-0857

TEST REPORTS FOR STACK EMISSION MONITORING SAMPLE

Samples are analyzed "as is where basis is"

Towards sustainable growth

Sl. No's.	Parameters	Units	Methods	Results	CPCB Guidelines as per G.S.R. 520 (E)
				211771/1	
	Stack Diameter	m	--	0.116	--
	Stack Cross Sectional Area	Sq. m	--	0.0105	--
	Stack Connected to	--	--	320 kVA D.G. Set.	--
	Fuel	--	--	Diesel	--
	Temperature (Ts)	K	IS-11255 (Part-1):1985	334	--
	Velocity	m/sec	IS-11255 (Part-1):1985	8.72	--
	Flow Rate	m ³ /hr	IS 11255 (Part-3):1985	330	--
TEST RESULTS FOR FLUE GAS EMISSION CHARACTERISTICS					
1.	Particulate Matter	(g/kW-hr)	IS:8178 Part 4	0.14	<0.3
2.	Sulfur Dioxide	mg/Nm ³	IS-11255(Part-2):1985	17	--
3.	Oxides of Nitrogen	(g/kW-hr)	IS:8178 Part 4	4.2	<9.2

- Opinion and interpretation: Nil
 - Reports pertained only to the collected samples while monitoring
 - Test reports shall not be reproduced except in full, without written approval of the Laboratory
- Note: Stack Monitoring Kit- VSS 1/383/DTL 13, Vayubodhan; Calibrated On: 12.12.2020 & Due Date: 11.12.2021


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/ COM / ENV /21-0857

TEST REPORT FOR STACK EMISSION MONITORING

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results	GSR 489 (E) Standards
				211771/2	
	Stack Connected to	--	--	Boiler	--
	Height	Mtrs.	--	30.5	--
	Stack Diameter	Mtrs.	--	0.60	--
	Cross Sectional Area	m ²	--	0.282	--
	Stack Gas Temperature (Ts)	K	IS-11255 (Part-1): 1985	386	--
	Velocity	m/sec	IS-11255 (Part-1): 1985	8.78	--
	Stack Gas Flow Rate	m ³ /hr	IS-11255 (Part-1): 1985	8913	--
	Oxygen as O ₂	%	Flue Gas Analyzer	11.7	

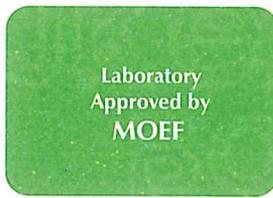
TEST RESULTS FOR FLUE GAS EMISSION CHARACTERISTICS

1.	Particulate Matter as (PM)	mg/Nm ³	IS-11255 (Part-1): 1985	34	<115
2.	Sulfur Dioxide as (SO ₂)	mg/Nm ³	IS-11255 (Part-2): 1985	78	<800
3.	Oxides of Nitrogen as (NO ₂)	mg/Nm ³	IS- 5182 (Part-6): 1975	112	<600
4.	Carbon Dioxide as (CO ₂)	%	Flue Gas Analyzer	3.6	--
5.	Carbon Monoxide as (CO)	PPM	Flue Gas Analyzer	72	--

- Opinion and interpretation: Nil
 - Above all parameters are not covered under NABL Scope.
 - Reports pertained only to the collected samples while monitoring
 - Test reports shall not be reproduced except in full, without written approval of the Laboratory
- Stack Monitoring Kit: Model No. VSS 1/383/DTL 13, Vayubodhan
Calibration Date: 12.12.2020 & Due Date: 11.12.2021


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

**HYDERABAD WASTE MANAGEMENT PROJECT**

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Report No: HWMP/COM/ENV/21-0858

Page 1 of 2

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

To wards sustainable growth

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Date of Sampling : 16.08.2021
Sample Condition : Samples Received in P. P. Cover
Sample Registration no : SW-211772/1-4
Sample Description : Solid Waste (Compost)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. SW-211772/1:118 (Jawahar Nagar Compost)
2. SW-211772/2:218 (Jawahar Nagar Compost)
3. SW-211772/3:318 (Jawahar Nagar Compost)
4. SW-211772/4:418 (Jawahar Nagar Compost)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

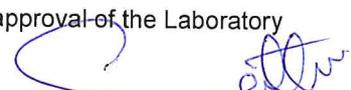
TEST RESULTS FOR SOILD WASTE SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Results				Standards
			211772/1	211772/2	211772/3	211772/4	
1.	Physical State	-	Solid	Solid	Solid	Solid	-
2.	Color	--	Dark Brown	Dark Brown	Dark Brown	Dark Brown	Dark Brown to Black
3	Particle Size	%	94.32	92.45	93.14	92.21	Min 90% Dry Weight Passing through 4 mm Sieve
4.	Odor	-	Absence of Foul Odor				
5.	pH (10% Solution)	-	7.08	6.84	6.97	7.02	6.5-7.5
6.	EC (10% Solution)	µmho/cm	3842	3932	3745	3874	4.0 dsm ⁻¹
7.	Bulk Density	gm/cc	0.78	0.80	0.84	0.72	<1.0
8.	Moisture Content	%	22.3	21.2	20.5	21.8	15-25
9.	C/N Ratio	-	11.6	8.8	9.9	11.2	<20:1
10.	Organic Carbon	%	12.8	13.2	12.9	13.5	>12.0
11.	Total Nitrogen	%	1.1	1.5	1.3	1.2	>0.8
12.	Potassium as K ₂ O	%	0.56	0.62	0.59	0.67	>0.4
13.	Phosphate as P ₂ O ₅	%	0.63	0.75	0.82	0.73	>0.4
14.	Total of Nitrogen as N, Phosphate as P ₂ O ₅ and Potash as K ₂ O	%	2.29	2.87	2.71	2.60	>1.2
15.	Arsenic as As	mg/kg	2.56	2.12	2.34	2.48	10.0
16.	Lead as Pb	mg/kg	20.2	24.9	27.8	23.7	100
17.	Cadmium as Cd	mg/kg	2.826	2.016	2.394	2.482	5.0
18.	Chromium as Cr	mg/kg	6.54	8.12	7.23	6.98	50.0
19.	Nickel as Ni	mg/kg	2.34	2.94	3.46	3.08	50.0
20.	Zinc as Zn	mg/kg	286	342	308	2.96	1000
21.	Copper as Cu	mg/kg	107	87	95	102	300
22.	Mercury as Hg	mg/kg	<0.01	<0.01	<0.01	<0.01	0.15

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


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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Report No: HWMP/COM/ENV/21-0859

Page 1 of 2

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Date of Sampling : 16.08.2021
Sample Condition : Samples Received in Polythene Covers
Sample Registration no : SW-211773/1-4
Sample Description : Solid Waste (RDF)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations: 1). SW-211773/1: RDF (J-108)
2). SW-211773/2: RDF (J-208)
3). SW-211773/3: RDF (J-308)
4). SW-211773/4: RDF (J-408)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0859

Page 2 of 2

TEST RESULTS FOR SOLID WASTE SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Results			
			211773/1	211773/2	211773/3	211773/4
1.	Moisture Content at 105 ⁰ C	%	21.86	21.03	22.48	21.64
2.	Ash Content at 850 ⁰ C	%	30.82	30.34	31.42	30.78
3.	Volatile Matter at 550 ⁰ C	%	47.32	48.63	46.10	47.58
4.	Carbon as C	%	27.62	28.54	29.45	30.24
5.	Hydrogen as H	%	7.84	8.25	7.96	8.67
6.	Nitrogen as N	%	1.64	1.52	1.43	1.82
7.	Sulfur as S	%	0.30	0.28	0.32	0.34
8.	Chlorides as Cl ⁻	%	0.62	0.59	0.54	0.67
9.	Gross Calorific Value	cal/g	3263	3068	3165	3376
10.	Net Calorific Value	cal/g	2979	2757	2878	3047

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


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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

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Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Page 1 of 1

Report No: HWMP/ COM /ENV/21-0860

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 16.08.2021
Analysis Completion Date : 16.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Registration no : NM-211774/1-2
Sample Description : Noise Level Measurement
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations: 1. Noise -211774/1: Near MSW Pit
2. Noise -211774/2: Near Air Cooling Condenser

TEST RESULTS FOR NOISE LEVEL MEASUREMENT

Sr. No's.	Reg. No's.	Units	Noise Level in dB(A)	
			Day Time	Night Time
1.	NM-211774/1 (Near MSW Pit)	dB(A)	67.2	54.5
2.	NM-211774/2 (Near Air Cooling Condenser)	dB(A)	69.8	62.4

Standards

Zone	Day Time	Night Time
Industrial and mixed use	75 dB(A)	70 dB(A)

- Opinion and interpretation: Nil
- Above all parameters are not covered under NABL Scope
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory
- Note: Noise Meter: Sl. No: 4030, Lutron; Calibrated On: 10.12.2020 & Due Date: 09.12.2021

Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

To wards sustainable growth

Report No: HWMP/ COM /ENV/21-0861

Pages 1 of 2

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 16.08.2021
Analysis Completion Date : 16.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Registration no : NM-211775/1-6
Sample Description : Noise Level Measurement
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. NM -211775/1: Near Weigh Bridge
2. NM -211775/2: Near Malkaram Pond
3. NM- 211775/3: Near Landfill Area
4. NM -211775/4: Near Rajiv Karmika Nagar
5. NM -211775/5: Near Compost Plant Junction
6. NM -211775/6: Near RDF Storage Area


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/ COM/ENV/21-0861

TEST RESULTS FOR NOISE LEVEL MEASUREMENT

Towards sustainable growth

Sl. No's.	Reg. No's & Locations.	Units	Results Noise Level in dB(A)	
			Day Time	Night Time
1.	NM-211775/1: Near Weigh Bridge	dB(A)	67.6	59.5
2.	NM-211775/2: Near Malkaram Pond	dB(A)	62.4	50.7
3.	NM-211775/3: Near Landfill Area	dB(A)	58.3	47.2
4.	NM-211775/4: Near Rajiv Karmika Nagar	dB(A)	54.8	43.5
5.	NM-211775/5: Near Compost Plant Junction	dB(A)	69.5	46.9
6	NM-211775/6: Near RDF Storage Area	dB(A)	65.7	44.3

Standards

Zone	Day Time	Night Time
Industrial and mixed use	75 dB(A)	70 dB(A)

- Opinion and interpretation: Nil
- Above all parameters are not covered under NABL Scope
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory
- Note: Noise Meter: Sl. No: 4030, Lutron; Calibrated On: 10.12.2020 & Due Date: 09.12.2021


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

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Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Report No: HWMP/COM/ENV/21-0862

Page 1 of 2

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

To wards sustainable growth

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Condition : Samples Received in 2 liters P.P. Bottles.
Sample Registration no : WW-211776/1-3
Sample Description : Waste Water (Leachate Treatment Plant -I OLD)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. WW-211776/1: Leachate Treatment Plant-I (Inlet)
2. WW-211776/2: Leachate Treatment Plant-I (Outlet - Rejects)
3. WW-211776/3: Leachate Treatment Plant-I (Out let - Permeate)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

TEST RESULTS FOR WASTE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results		
				211776/1	211776/2	211776/3
1	pH	--	APHA 4500 H ⁺ B	7.42	7.12	7.79
2	Total Suspended Solids at 105 ^o C	mg/L	APHA 2540 D	752	1264	28
3	Total Dissolved Solids at 180 ^o C	mg/L	APHA 2540 C	23649	30745	812
4	Calcium as Ca	mg/L	APHA 3500 Ca B	312	384	78
5	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	1468	1964	364
6	Alkalinity as CaCO ₃	mg/L	APHA 2320 B	8372	13984	132
7	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	9148	13082	94
8	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	1452	2946	38
9	Nitrates as NO ₃ ⁻ N	mg/L	APHA 4500 NO ₃ ⁻ B	23	29	1.4
10	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	4.2	6.8	<1.0
11	Chemical Oxygen Demand (COD)	mg/L	APHA 5220 B	7862	14120	32
12	Biological Oxygen Demand (3 day at 27 ^o C)	mg/L	IS 3025 (P-44)	2158	4248	<4.0
13	Oil & Grease	mg/L	APHA 5520 B	3.8	4.5	<1.0
14	Total Chromium as Cr	mg/L	APHA 3120 B	0.32	0.39	<0.05
15	Ammonical Nitrogen NH ₃ ⁻ N	mg/L	APHA 4500 NH ₃ B, C	216	324	2.3
16	Phenolic Compounds as C ₆ H ₅ OH	mg/L	APHA 5530 D	0.005	0.008	<0.001
17	Arsenic as As	mg/L	APHA 3120 B	0.48	0.59	<0.05
18	Lead as Pb	mg/L	APHA 3120 B	0.32	0.37	<0.01
19	Cadmium as Cd	mg/L	APHA 3120 B	0.042	0.049	<0.003
20	Hexavalent Chromium as Cr ⁺⁶	mg/L	APHA 3500 Cr B	<0.05	<0.05	<0.05
21	Copper as Cu	mg/L	APHA 3120 B	0.42	0.52	<0.05
22	Nickel as Ni	mg/L	APHA 3120 B	0.39	0.46	<0.02
23	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
24	Zinc as Zn	mg/L	APHA 3120 B	0.78	0.87	<0.5
25	Cyanides as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
26	Iron as Fe	mg/L	APHA 3500 Fe B	12	21	1.58
27	Manganese as Mn	mg/L	APHA 3120 B	1.58	2.84	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Towards sustainable growth

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TC-5067

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Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Page 1 of 2

Report No: HWMP/COM/ENV/21-0863

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Condition : Samples Received in 2 liters P.P. Bottles
Sample Registration no : WW-211777/1-3
Sample Description : Waste Water (Leachate Treatment Plant -II NEW)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. WW-211777/1: Leachate Treatment Plant-II (Inlet)
2. WW-211777/2: Leachate Treatment Plant-II (Outlet - Rejects)
3. WW-211777/3: Leachate Treatment Plant-II (Out let - Permeate)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

TEST RESULTS FOR WASTE WATER QUALITY SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results		
				211777/1	211777/2	211777/3
1	pH	--	APHA 4500 H+B	7.42	7.94	7.26
2	Total Suspended Solids at 105 ⁰ C	mg/L	APHA 2540 D	752	1024	24
3	Total Dissolved Solids at 180 ⁰ C	mg/L	APHA 2540 C	23649	29864	726
4	Calcium as Ca	mg/L	APHA 3500 Ca B	312	362	72
5	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	1468	1986	318
6	Alkalinity as CaCO ₃	mg/L	APHA 2320 B	8372	11542	226
7	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	9148	10214	186
8	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	1452	2024	15
9	Nitrates as NO ₃ ⁻ N	mg/L	APHA 4500 NO ₃ ⁻ B	23	32	2.3
10	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	4.2	6.4	<1.0
11	Chemical Oxygen Demand(COD)	mg/L	APHA 5220 B	7862	10248	38
12	Biological Oxygen Demand (BOD) (3 day at 27 ⁰ C)	mg/L	IS 3025 (P-44)	2158	3064	<4
13	Oil & Grease	mg/L	APHA 5520 B	3.8	4.9	<1.0
14	Total Chromium as Cr	mg/L	APHA 3120 B	0.32	0.86	<0.05
15	Ammonical Nitrogen NH ₃ ⁻ N	mg/L	APHA 4500 NH ₃ B,C	216	352	1.4
16	Phenolic Compounds as C ₆ H ₅ OH	mg/L	APHA 5530 D	0.005	0.008	<0.001
17	Arsenic as As	mg/L	APHA 3120 B	0.48	0.72	<0.05
18	Lead as Pb	mg/L	APHA 3120 B	0.32	0.76	<0.01
19	Cadmium as Cd	mg/L	APHA 3120 B	0.042	0.082	<0.003
20	Hexavalent Chromium as Cr ⁺⁶	mg/L	APHA 3500 Cr B	<0.05	<0.05	<0.05
21	Copper as Cu	mg/L	APHA 3120 B	0.42	0.59	<0.05
22	Nickel as Ni	mg/L	APHA 3120 B	0.39	0.46	<0.05
23	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
24	Zinc as Zn	mg/L	APHA 3120 B	0.78	0.92	<0.5
25	Cyanides as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
26	Iron as Fe	mg/L	APHA 3500 Fe B	12	24	2.14
27	Manganese as Mn	mg/L	APHA 3120 B	1.58	2.68	0.58

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Laboratory
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Laboratory
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Certificate No.
TC-5067

  
Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)

TSDf at : Survey No. 684/1, Dundigal Village,

Dundigal - Gandimaisamma Mandal,

Medchal - Malkajgiri Dist. - 500043, Telangana. India.

Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Pages 1 of 2

Report No: HWMP/COM/ENV/21-0864

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

To wards sustainable growth

Date of Report : 21.08.2021
Analysis Starting Date : 17.08.2021
Analysis Completion Date : 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 16.08.2021
Sample Condition : Samples Received in 2 Litters P.P. Bottles
Sample Registration no : WW-211778/1-3
Sample Description : Waste Water (Leachate Treatment Plant -III 300 KLD)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. WW-211778/1: Inlet
2. WW-211778/2: Outlet - Rejects
3. WW-211778/3: Out let- Permeate


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0864

TEST RESULTS FOR WASTE WATER SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results		
				211778/1	211778/2	211778/3
1	pH	--	APHA 4500 H ⁺ B	7.42	7.85	7.28
2	Total Suspended Solids at 105 ^o C	mg/L	APHA 2540 D	752	1042	39
3	Total Dissolved Solids at 180 ^o C	mg/L	APHA 2540 C	23649	31524	684
4	Calcium as Ca	mg/L	APHA 3500 Ca B	312	524	76
5	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	1468	2054	426
6	Alkalinity as CaCO ₃	mg/L	APHA 2320 B	8372	11462	294
7	Chloride as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	9148	12418	386
8	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	1452	2162	15
9	Nitrates as NO ₃ ⁻ N	mg/L	APHA 4500 NO ₃ ⁻ B	23	39	1.8
10	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	4.2	8.6	1.6
11	Chemical Oxygen Demand	mg/L	APHA 5220 B	7862	10246	24
12	Biological Oxygen Demand (3 day at 27 ^o C)	mg/L	IS 3025 (P-44)	2158	2986	<4
13	Oil & Grease	mg/L	APHA 5520 B	3.8	4.9	<1.0
14	Total Chromium as Cr	mg/L	APHA 3120 B	0.32	1.08	<0.05
15	Ammonical Nitrogen NH ₃ ⁻ N	mg/L	APHA 4500 NH ₃ B, C	216	362	1.9
16	Phenolic Compounds as C ₆ H ₅ OH	mg/L	APHA 5530 D	0.005	0.010	<0.001
17	Arsenic as As	mg/L	APHA 3120 B	0.48	0.69	<0.05
18	Lead as Pb	mg/L	APHA 3120 B	0.32	0.46	<0.01
19	Cadmium as Cd	mg/L	APHA 3120 B	0.042	0.054	<0.003
20	Hexavalent Chromium as Cr ⁺⁶	mg/L	APHA 3500 Cr B	<0.05	0.08	<0.05
21	Copper as Cu	mg/L	APHA 3120 B	0.42	0.59	<0.05
22	Nickel as Ni	mg/L	APHA 3120 B	0.39	0.47	<0.05
23	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
24	Zinc as Zn	mg/L	APHA 3120 B	0.78	0.89	<0.5
25	Cyanides as CN ⁻	mg/L	APHA 4500 CN ⁻ C, E	<0.1	<0.1	<0.1
26	Iron as Fe	mg/L	APHA 3500 Fe B	27	36	0.58
27	Manganese as Mn	mg/L	APHA 3120 B	1.58	2.36	0.34

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

**HYDERABAD WASTE MANAGEMENT PROJECT**

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

August 21st, 2021

To
M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

We are here with enclosing the Comprehensive analysis report of Solid Waste Sample- ATFD Salt received on Date: 17.08.2021. The disposal method for the above sample is Incineration. We are also enclosing the invoice for analysis.

The disposal method purely based on the characteristics of the sample sent to us. When the waste is sent to us it is again analyzed and if the characteristics change the disposal method may change.

Please send your suggestions for improving laboratory services by filling customer feedback form attached herewith.

Thanking you for your business. Please Contact us again if we can be of service in the future. Our fullest Co-Operation and best service assured always.

Yours faithfully

For Hyderabad Waste Management Project
(A division of Ramky Enviro Engineers Ltd)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager Laboratory

HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Ltd.)



LABORATORY



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CERTIFICATE No. T. 0769 ANALYSIS REPORT

Test Report No: HWMP/COM/ENV/21-0865-Section-1

Page 1 of 3

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Report Date : 21.08.2021 Sample Condition : Sample Received in Polythene Cover
Analysis Completion Date : 21.08.2021 Sampling Procedure : NA
Analysis Starting Date : 17.08.2021 Sample Registration no : 211779
Sampling Date : 16.08.2021 Sample Description : ATFD Salt
Sample Received Date : 17.08.2021 Sample Collected by : Client
Sub-Contracting of Tests : HWMP LAB was not given subcontracted to any party

Physical Observations:

Parameters	Results
Physical State(Liquid/Slurry/Solid/Semi Solid)	Solid
Color	Black
Texture	Lumps
Waste is multi layered (Yes/No)	NO
Is there any violent chemical change (in air) (Normally unstable) (Yes/No)	NO
Reacts violent with water (Yes/No)	NO
Generating of toxic fumes with water/acid/basic (Yes/No)	NO
Forms potentially explosive mixture with water (Yes/No)	NO
Explosion when subjected to a strong initiating force (Yes/No)	NO
Explosion at normal temperature & pressure (Yes/No)	NO
Obnoxiously odors release (Yes/No)	NO

TEST RESULTS

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Paint Filter Liquid Test	-	SW-846 9095A	Pass	Pass
2	Bulk Density	gm/cc	ASTM D 5057-90	0.84	---
3	pH at 27.3°C	-	SW - 846 9045C	7.28	4 to12
4	Flash Point	°C	SW - 846 1020A	>60	60°C
5	Loss on Drying at 105°C	%	IS 326:2001	12.4	---

Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)



CERTIFICATE NO.T.0769

NABL Scope Parameters

Test Report No: HWMP/COM/ENV/21-0865-Section-1

Page 2 of 3

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
6	Loss on Ignition at 550°C (Dry Basis)	%	APHA 2540	43.52	<= 20% Non biodegradable<= 5%: Biodegradable
7	Calorific Value	cal/gm	IS: 1350-1970	2967	<2500
8	Extractable Organics	%	SW-846 3540 C	<1.0	<4.0
9	Water Soluble Inorganic	%	APHA 2540 E	31.26	≤ 10% Except Salts
10	Water Soluble Organics	%	APHA 2540 E	9.64	
11	Total Cyanide	mg/Kg	SW - 846 9014	<1.0	---
12	Reactive Cyanide	mg/Kg	SW - 846 9014	<1.0	<250
13	Total Sulfide	mg/Kg	SW - 846 9215	<1.0	---
14	Reactive Sulfide	mg/Kg	SW - 846 9034	<1.0	<500
15	Total Phenols (WLT)	mg/L	APHA-5530B&D	<1.0	<100
16	Ammonia as N (WLT)	mg/L	APHA-4500NH ₃ B,C	<1.0	<1000
17	Fluoride as F ⁻ (WLT)	mg/L	APHA-4500 F ⁻ D	<0.1	<50
18	Nitrate Nitrogen as N (WLT)	mg/L	APHA 4500 NO ₃ ⁻ B	3.58	<30
19	Arsenic as As (Total)	mg/Kg	APHA-3500 As B	2.58	---
20	Arsenic as As (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.12	<5.0
21	Arsenic as As (WLT)	mg/L	APHA 3120B	<0.05	<1.0
22	Lead (Total)	mg/Kg	SW-846:7420	4.86	---
23	Lead (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.29	<5.0
24	Lead (WLT)	mg/L	APHA 3120 B	<0.01	<2.0
25	Cadmium (Total)	mg/Kg	SW 846 - 7130	1.27	---
26	Cadmium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.1	<1.0
27	Cadmium (WLT)	mg/L	APHA 3120 B	0.013	<0.2

- Reports pertained only to the submitted sample.
- Test reports shall not be reproduced except in full, without written approval of the laboratory.


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)



CERTIFICATE NO.T.0769

NABL Scope Parameters

Page 3 of 3

Towards sustainable growth

Test Report No: HWMP/COM/ENV/21-0865-Section-1

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
28	Total Chromium (Total)	mg/Kg	SW846 -7190	9.86	---
29	Total Chromium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.54	<5.0
30	Hexavalent Chromium(Total)	mg/Kg	SW846-7196A	<5.0	---
31	Hexavalent Chromium(WLT)	mg/L	APHA 3500 Cr B	<0.05	<0.5
32	Nickel (Total)	mg/Kg	SW846 -7520	28.4	---
33	Nickel (WLT)	mg/L	APHA 3120 B	0.34	<3.0
34	Zinc (Total)	mg/Kg	SW846 -7950	23.7	---
35	Zinc (WLT)	mg/L	APHA 3120 B	0.26	<10
36	Copper (Total)	mg/Kg	SW846 -7210	3.84	---
37	Copper (WLT)	mg/L	APHA 3120 B	0.32	<10
38	Mercury as Hg (Total)	µg/Kg	SW-846 7471A	<0.2	---
39	Mercury as Hg (TCLP)	µg/L	(USEPA1311) APHA 3120 B	<0.01	<0.2
40	Mercury as Hg (WLT)	µg/L	SW-846 7470A	<0.1	<0.1
41	Total Chlorides as Cl ⁻	%	SW 846 5050	NA	---
42	Total Fluoride as F ⁻	%	SW 846 5050	<0.1	---

NA: Not Applicable

- Reports pertained only to the submitted sample.
- Test reports shall not be reproduced except in full, without written approval of the laboratory.


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Non-NABL Scope Parameters

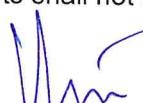
Test Report No: HWMP/COM/ENV/21-0865-Section-2

Page 1 of 1

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Total Carbon as C	%	CHNS	12.64	---
2	Total Hydrogen as H	%	CHNS	0.86	---
3	Total Nitrogen as N	%	CHNS	6.32	---
4	Total Sulfur as S	%	CHNS	3.24	---
5	Selenium (Total)	mg/Kg	SW-846: 6010 C	<5	---
6	Selenium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.1	<1.0
7	Chloroform	mg/L	GC-MS	ND	6.0 mg/L (TCLP)
8	Carbon Tetra Chloride	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
9	Benzene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
10	Chloro Benzene	mg/L	GC-MS	ND	100 mg/L(TCLP)
11	1,4 - Dichloro Benzene	mg/L	GC-MS	ND	7.5 mg/L (TCLP)
12	Hexachloro benzene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
13	Nitro Benzene	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
14	1,2 – Dichloro Ethane	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
15	Hexachloro ethane	mg/L	GC-MS	ND	3.0 mg/L (TCLP)
16	Tetrachloro Ethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
17	Trichloro Ethylene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
18	1,1 – Dichloroethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
19	Pentachlorophenol	mg/L	GC-MS	ND	100 mg/L(TCLP)
20	2,4,5 – Tri Chlorophenol	mg/L	GC-MS	ND	400 mg/L(TCLP)
21	2,4,6 – Trichlorophenol	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
22	Toxaphene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
23	Ethyl Methyl Ketone	mg/L	GC-MS	ND	200 mg/L(TCLP)
24	Hexachlorobutadiene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
25	Pyridine	mg/L	GC-MS	ND	5.0 mg/L (TCLP)
26	Lindane	mg/L	GC-MS	ND	0.4 mg/L (TCLP)
27	Methoxychlor	mg/L	GC-MS	ND	10 mg/L (TCLP)
28	2,4 – Dinitrotoluene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
29	Heptachlor(and its epaoxide)	mg/L	GC-MS	ND	0.008 mg/L(TCLP)
30	Endrin	mg/L	GC-MS	ND	0.02 mg/L (TCLP)
31	2,4,5 – TP (Silvex)	mg/L	GC-MS	ND	1.0 mg/L (TCLP)
32	Vinyl Chloride	mg/L	GC-MS	ND	0.2 mg/L (TCLP)
33	2,4 - D	mg/L	GC-MS	ND	10 mg/L (TCLP)
34	Chlordane	mg/L	GC-MS	ND	0.03 mg/L (TCLP)
35	Cresols	mg/L	GC-MS	ND	200 mg/L(TCLP)
36	Xylene	mg/L	GC-MS	ND	0.32 mg/L(TCLP)

ND: Not Detected

- Reports pertained only to the submitted sample.
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 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

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Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

August 21st, 2021

To
M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

We are here with enclosing the Comprehensive analysis report of Solid Waste Sample- Boiler Ash received on Date: 17.08.2021. The disposal method for the above sample is Direct Land Fill. We are also enclosing the invoice for analysis.

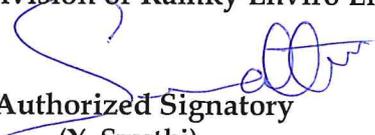
The disposal method purely based on the characteristics of the sample sent to us. When the waste is sent to us it is again analyzed and if the characteristics change the disposal method may change.

Please send your suggestions for improving laboratory services by filling customer feedback form attached herewith.

Thanking you for your business. Please Contact us again if we can be of service in the future. Our fullest Co-Operation and best service assured always.

Yours faithfully

For Hyderabad Waste Management Project
(A division of Ramky Enviro Engineers Ltd)


Authorized Signatory
(Y. Swathi)

Sr. Dy. Manager Laboratory

HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Ltd.)



LABORATORY



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CERTIFICATE No. T. 0769 ANALYSIS REPORT

Page 1 of 3

Test Report No: *HWMP/COM/ENV/21-0866-Section-1*

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Report Date : 21.08.2021 Sample Condition : Sample Received in Polythene Cover
Analysis Completion Date : 21.08.2021 Sampling Procedure : HWMP/LAB/SOP-218
Analysis Starting Date : 17.08.2021 Sample Registration no : 211780
Sampling Date : 16.08.2021 Sample Description : Boiler Ash
Sample Received Date : 17.08.2021 Sample Collected by : HWMP LAB
Sub-Contracting of Tests : HWMP LAB was not given subcontracted to any party

Physical Observations:

Parameters	Results
Physical State(Liquid/Slurry/Solid/Semi Solid)	Solid
Color	Light Grey
Texture	Powder
Waste is Multi layered (Yes/No)	NO
Is there any violent chemical change (in air) (Normally unstable) (Yes/No)	NO
Reacts violent with water (Yes/No)	NO
Generating of toxic fumes with water/acid/basic (Yes/No)	NO
Forms potentially explosive mixture with water (Yes/No)	NO
Explosion when subjected to a strong initiating force (Yes/No)	NO
Explosion at normal temperature & pressure (Yes/No)	NO
Obnoxiously odors release (Yes/No)	NO

TEST RESULTS

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Paint Filter Liquid Test	-	SW-846 9095A	Pass	Pass
2	Bulk Density	gm/cc	ASTM D 5057-90	1.27	---
3	pH at 30.1°C	-	SW - 846 9045C	9.86	4 to12
4	Flash Point	°C	SW - 846 1020A	>60	60°C
5	Loss on Drying at 105°C	%	APHA 2540	11.86	---

Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)



CERTIFICATE NO.T.0769

NABL Scope Parameters

Page 2 of 3

Test Report No: HWMP/COM/ENV/21-0866-Section-1

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
6	Loss on Ignition at 550°C (Dry Basis)	%	APHA 2540	9.68	<= 20% Non biodegradable<= 5%: Biodegradable
7	Calorific Value	cal/gm	IS: 1350-1970	<200	<2500
8	Extractable Organics	%	SW-846 3540 C	<1.0	<4.0
9	Water Soluble Inorganic	%	APHA 2540 E	<1.0	≤ 10% Except Salts
10	Water Soluble Organics	%	APHA 2540 E	<1.0	
11	Total Cyanide	mg/Kg	SW - 846 9014	<1.0	---
12	Reactive Cyanide	mg/Kg	SW - 846 9014	<1.0	<250
13	Total Sulfide	mg/Kg	SW - 846 9215	<1.0	---
14	Reactive Sulfide	mg/Kg	SW - 846 9034	<1.0	<500
15	Total Phenols(WLT)	mg/L	APHA-5530B&D	<1.0	<100
16	Ammonia as N (WLT)	mg/L	APHA-4500NH ₃ B,C	<1.0	<1000
17	Fluoride as F ⁻ (WLT)	mg/L	APHA-4500 F ⁻ D	<0.1	<50
18	Nitrate Nitrogen as N (WLT)	mg/L	APHA 4500 NO ₃ ⁻ B	1.78	<30
19	Arsenic as As (Total)	mg/Kg	APHA-3500 As B	2.46	---
20	Arsenic as As (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.2	<5.0
21	Arsenic as As (WLT)	mg/L	APHA 3120B	<0.05	<1.0
22	Lead (Total)	mg/Kg	SW-846:7420	1.2	---
23	Lead (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.12	<5.0
24	Lead (WLT)	mg/L	APHA 3120 B	<0.01	<2.0
25	Cadmium (Total)	mg/Kg	SW 846 - 7130	5.624	---
26	Cadmium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.1	<1.0
27	Cadmium (WLT)	mg/L	APHA 3120 B	<0.003	<0.2

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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Towards sustainable growth



CERTIFICATE NO.T.0769

NABL Scope Parameters

Page 3 of 3

Test Report No: HWMP/COM/ENV/21-0866-Section-1

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
28	Total Chromium (Total)	mg/Kg	SW 846 -7190	14.23	---
29	Total Chromium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.14	<5.0
30	Hexavalent Chromium(Total)	mg/Kg	SW846-7196A	<5.0	---
31	Hexavalent Chromium(WLT)	mg/L	APHA 3500 Cr B	<0.1	<0.5
32	Nickel (Total)	mg/Kg	SW846 - 7520	14.3	---
33	Nickel (WLT)	mg/L	APHA 3120 B	<0.2	<3.0
34	Zinc (Total)	mg/Kg	SW846 - 7950	224	---
35	Zinc (WLT)	mg/L	APHA 3120 B	<0.5	<10
36	Copper (Total)	mg/Kg	SW846 - 7210	272	---
37	Copper (WLT)	mg/L	APHA 3120 B	0.27	<10
38	Mercury as Hg (Total)	µg/Kg	SW-846 7471A	<0.2	---
39	Mercury as Hg (TCLP)	µg/L	(USEPA1311) APHA 3120 B	<0.01	<0.2
40	Mercury as Hg (WLT)	µg/L	SW-846 7470A	<0.1	<0.1
41	Total Chlorides as Cl ⁻	%	SW 846 5050	NA	---
42	Total Fluoride as F ⁻	%	SW 846 5050	<0.1	---

NA: Not Applicable

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Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

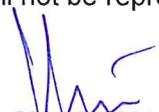
Non-NABL Scope Parameters

Test Report No: HWMP/COM/ENV/21-0866-Section-2

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Total Carbon as C	%	CHNS	2.76	---
2	Total Hydrogen as H	%	CHNS	4.94	---
3	Total Nitrogen as N	%	CHNS	1.78	---
4	Total Sulfur as S	%	CHNS	<0.5	---
5	Selenium (Total)	mg/Kg	SW-846: 6010 C	<5	---
6	Selenium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.1	<1.0
7	Chloroform	mg/L	GC-MS	ND	6.0 mg/L (TCLP)
8	Carbon tetra chloride	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
9	Benzene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
10	Chloro Benzene	mg/L	GC-MS	ND	100 mg/L(TCLP)
11	1,4 - Dichloro Benzene	mg/L	GC-MS	ND	7.5 mg/L (TCLP)
12	Hexachloro benzene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
13	Nitro Benzene	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
14	1,2 – Dichloro Ethane	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
15	Hexachloro ethane	mg/L	GC-MS	ND	3.0 mg/L (TCLP)
16	Tetrachloro Ethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
17	Trichloro Ethylene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
18	1,1 – Dichloroethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
19	Pentachlorophenol	mg/L	GC-MS	ND	100 mg/L(TCLP)
20	2,4,5 – Tri Chlorophenol	mg/L	GC-MS	ND	400 mg/L(TCLP)
21	2,4,6 – Trichlorophenol	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
22	Toxaphene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
23	Ethyl Methyl Ketone	mg/L	GC-MS	ND	200 mg/L(TCLP)
24	Hexachlorobutadiene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
25	Pyridine	mg/L	GC-MS	ND	5.0 mg/L (TCLP)
26	Lindane	mg/L	GC-MS	ND	0.4 mg/L (TCLP)
27	Methoxychlor	mg/L	GC-MS	ND	10 mg/L (TCLP)
28	2,4 – Dinitrotoluene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
29	Heptachlor(and its epaoxide)	mg/L	GC-MS	ND	0.008 mg/L(TCLP)
30	Endrin	mg/L	GC-MS	ND	0.02 mg/L (TCLP)
31	2,4,5 – TP (Silvex)	mg/L	GC-MS	ND	1.0 mg/L (TCLP)
32	Vinyl Chloride	mg/L	GC-MS	ND	0.2 mg/L (TCLP)
33	2,4 - D	mg/L	GC-MS	ND	10 mg/L (TCLP)
34	Chlordane	mg/L	GC-MS	ND	0.03 mg/L (TCLP)
35	Cresols	mg/L	GC-MS	ND	200 mg/L(TCLP)
36	Xylene	mg/L	GC-MS	ND	0.32 mg/L(TCLP)

ND: Not Detected

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Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

August 21st, 2021

To
M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

We are here with enclosing the Comprehensive analysis report of Solid Waste Sample- Fly Ash received on Date: 17.08.2021. The disposal method for the above sample is Direct Land Fill. We are also enclosing the invoice for analysis.

The disposal method purely based on the characteristics of the sample sent to us. When the waste is sent to us it is again analyzed and if the characteristics change the disposal method may change.

Please send your suggestions for improving laboratory services by filling customer feedback form attached herewith.

Thanking you for your business. Please Contact us again if we can be of service in the future. Our fullest Co-Operation and best service assured always.

Yours faithfully

For Hyderabad Waste Management Project
(A division of Ramky Enviro Engineers Ltd)

Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager Laboratory

HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Ltd.)



LABORATORY



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CERTIFICATE No. T. 0769 ANALYSIS REPORT

Page 1 of 3

Test Report No: HWMP/COM/ENV/21-0867-Section-1

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Report Date : 21.08.2021 Sample Condition : Sample Received in Polythene Cover
Analysis Completion Date : 21.08.2021 Sampling Procedure : HWMP/LAB/SOP-218
Analysis Starting Date : 17.08.2021 Sample Registration no : 211781
Sampling Date : 16.08.2021 Sample Description : Fly Ash
Sample Received Date : 17.08.2021 Sample Collected by : HWMP LAB
Sub Contracting of Tests : HWMP LAB was not given subcontracted to any party

Physical Observations:

Parameters	Results
Physical State(Liquid/Slurry/Solid/Semi Solid)	Solid
Color	Light Grey
Texture	Powder
Waste is Multi layered (Yes/No)	NO
Is there any violent chemical change (in air) (Normally unstable) (Yes/No)	NO
Reacts violent with water (Yes/No)	NO
Generating of toxic fumes with water/acid/basic (Yes/No)	NO
Forms potentially explosive mixture with water (Yes/No)	NO
Explosion when subjected to a strong initiating force (Yes/No)	NO
Explosion at normal temperature & pressure (Yes/No)	NO
Obnoxiously odors release (Yes/No)	NO

TEST RESULTS

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Paint Filter Liquid Test	-	SW-846 9095A	Pass	Pass
2	Bulk Density	gm/cc	ASTM D 5057-90	0.82	---
3	pH at 28.7°C	-	SW - 846 9045C	9.87	4 to12
4	Flash Point	°C	SW - 846 1020A	>60	60°C
5	Loss on Drying at 105°C	%	APHA 2540	<1.0	---


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)



CERTIFICATE NO.T.0769

NABL Scope Parameters

Page 2 of 3

Test Report No: HWMP/COM/ENV/21-0867-Section-1

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
6	Loss on Ignition at 550°C (Dry Basis)	%	APHA 2540	11.24	<= 20% Non biodegradable<= 5%: Biodegradable
7	Calorific Value	cal/gm	IS: 1350-1970	<200	<2500
8	Extractable Organics	%	SW-846 3540 C	<1.0	<4.0
9	Water Soluble Inorganic	%	APHA 2540 E	4.36	≤ 10% Except Salts
10	Water Soluble Organics	%	APHA 2540 E	<1.0	
11	Total Cyanide	mg/Kg	SW - 846 9014	<1.0	---
12	Reactive Cyanide	mg/Kg	SW - 846 9014	<1.0	<250
13	Total Sulfide	mg/Kg	SW - 846 9215	<1.0	---
14	Reactive Sulfide	mg/Kg	SW - 846 9034	<1.0	<500
15	Total Phenols(WLT)	mg/L	APHA-5530B&D	<1.0	<100
16	Ammonia as N (WLT)	mg/L	APHA-4500NH ₃ B,C	<1.0	<1000
17	Fluoride as F ⁻ (WLT)	mg/L	APHA-4500 F'D	<1.0	<50
18	Nitrate Nitrogen as N (WLT)	mg/L	APHA 4500 NO ₃ ⁻ B	<1.0	<30
19	Arsenic as As (Total)	mg/Kg	APHA-3500 As B	3.64	---
20	Arsenic as As (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.2	<5.0
21	Arsenic as As (WLT)	mg/L	APHA 3120B	<0.05	<1.0
22	Lead (Total)	mg/Kg	SW-846:7420	768	---
23	Lead (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.29	<5.0
24	Lead (WLT)	mg/L	APHA 3120 B	1.84	<2.0
25	Cadmium (Total)	mg/Kg	SW 846 - 7130	162	---
26	Cadmium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.232	<1.0
27	Cadmium (WLT)	mg/L	APHA 3120 B	0.015	<0.2

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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Towards sustainable growth



CERTIFICATE NO.T.0769

NABL Scope Parameters

Page 3 of 3

Test Report No: HWMP/COM/ENV/21-0867-Section-1

Towards sustainable growth

Sl. No's	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
28	Total Chromium (Total)	mg/Kg	SW846 - 7190	24.6	---
29	Total Chromium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	0.38	<5.0
30	Hexavalent Chromium(Total)	mg/Kg	SW846-7196A	<5.0	---
31	Hexavalent Chromium(WLT)	mg/L	APHA 3500 Cr B	<0.1	<0.5
32	Nickel (Total)	mg/Kg	SW846 - 7520	17.6	---
33	Nickel (WLT)	mg/L	APHA 3120 B	<0.2	<3.0
34	Zinc (Total)	mg/Kg	SW846 - 7950	864	---
35	Zinc (WLT)	mg/L	APHA 3120 B	<0.5	<10
36	Copper (Total)	mg/Kg	SW846 - 7210	352	---
37	Copper (WLT)	mg/L	APHA 3120 B	<0.05	<10
38	Mercury as Hg (Total)	µg/Kg	SW-846 7471A	<0.2	---
39	Mercury as Hg (TCLP)	µg/L	(USEPA1311) APHA 3120 B	<0.01	<0.2
40	Mercury as Hg (WLT)	µg/L	SW-846 7470A	<0.1	<0.1
41	Total Chlorides as Cl ⁻	%	SW 846 5050	NA	---
42	Total Fluoride as F ⁻	%	SW 846 5050	<0.1	---

NA: Not Applicable

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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Non-NABL Scope Parameters

Test Report No: HWMP/COM/ENV/21-0867-Section-2

Sl. No's.	Parameters	Units	Methods	Results	Std. for Secure Landfill Disposal
1	Total Carbon as C	%	CHNS	1.42	---
2	Total Hydrogen as H	%	CHNS	<1.0	---
3	Total Nitrogen as N	%	CHNS	1.91	---
4	Total Sulfur as S	%	CHNS	0.64	---
5	Selenium (Total)	mg/Kg	SW-846: 6010 C	<5.0	---
6	Selenium (TCLP)	mg/L	(USEPA1311) APHA 3120 B	<0.1	<1.0
7	Chloroform	mg/L	GC-MS	ND	6.0 mg/L (TCLP)
8	Carbon tetra chloride	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
9	Benzene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
10	Chloro Benzene	mg/L	GC-MS	ND	100 mg/L(TCLP)
11	1,4-Dichloro Benzene	mg/L	GC-MS	ND	7.5 mg/L (TCLP)
12	Hexachloro benzene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
13	Nitro Benzene	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
14	1,2-Dichloro Ethane	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
15	Hexachloro ethane	mg/L	GC-MS	ND	3.0 mg/L (TCLP)
16	Tetrachloro Ethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
17	Trichloro Ethylene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
18	1,1-Dichloroethylene	mg/L	GC-MS	ND	0.7 mg/L (TCLP)
19	Pentachlorophenol	mg/L	GC-MS	ND	100 mg/L(TCLP)
20	2,4,5-Tri Chlorophenol	mg/L	GC-MS	ND	400 mg/L(TCLP)
21	2,4,6-Trichlorophenol	mg/L	GC-MS	ND	2.0 mg/L (TCLP)
22	Toxaphene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
23	Ethyl Methyl Ketone	mg/L	GC-MS	ND	200 mg/L(TCLP)
24	Hexachlorobutadiene	mg/L	GC-MS	ND	0.5 mg/L (TCLP)
25	Pyridine	mg/L	GC-MS	ND	5.0 mg/L (TCLP)
26	Lindane	mg/L	GC-MS	ND	0.4 mg/L (TCLP)
27	Methoxychlor	mg/L	GC-MS	ND	10 mg/L (TCLP)
28	2,4-Dinitrotoluene	mg/L	GC-MS	ND	0.13 mg/L (TCLP)
29	Heptachlor(and its epaoxide)	mg/L	GC-MS	ND	0.008 mg/L(TCLP)
30	Endrin	mg/L	GC-MS	ND	0.02 mg/L (TCLP)
31	2,4,5-TP (Silvex)	mg/L	GC-MS	ND	1.0 mg/L (TCLP)
32	Vinyl Chloride	mg/L	GC-MS	ND	0.2 mg/L (TCLP)
33	2,4-D	mg/L	GC-MS	ND	10 mg/L (TCLP)
34	Chlordane	mg/L	GC-MS	ND	0.03 mg/L (TCLP)
35	Cresols	mg/L	GC-MS	ND	200 mg/L(TCLP)
36	Xylene	mg/L	GC-MS	ND	0.32 mg/L(TCLP)

ND: Not Detected

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 Checked By
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 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

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Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Page 1 of 2

To wards sustainable growth

Report No: HWMP/ COM /ENV/21-0868

Name and address of the client

Date of Report : 21.08.2021
Analysis Starting Date : 18.08.2021
Analysis Completion Date : 19.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 17.08.2021
Sample Registration no : AAQ-211782/1-13 to AAQ-211784/1-13
Sample Description : Ambient Air Quality Samples
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Locations:

1. AAQ-211782/1 :SO₂ Sample (Near Army Dental College)
2. AAQ-211782/2: NO₂ Sample (Near Army Dental College)
3. AAQ-211782/3: PM₁₀ Sample (Near Army Dental College)
4. AAQ-211782/4: PM_{2.5} Sample (Near Army Dental College)
5. AAQ-211782/5: NH₃ Sample (Near Army Dental College)
6. AAQ-211782/6: O₃ Sample (Near Army Dental College)
7. AAQ-211782/7: Pb Sample (Near Army Dental College)
8. AAQ-211782/8: As Sample (Near Army Dental College)
9. AAQ-211782/9: Ni Sample (Army Dental College)
10. AAQ-211782/10: C₆H₆ Sample (Army Dental College)
11. AAQ-211782/11: BaP Sample (Army Dental College)
12. AAQ-211782/12: CO Sample (Army Dental College)
13. AAQ-211782/13: CH₄ Sample (Army Dental College)
1. AAQ-211783/1 :SO₂ Sample (Near Rajiv Gruha Kalpa)
2. AAQ-211783/2: NO₂ Sample (Near Rajiv Gruha Kalpa)
3. AAQ-211783/3: PM₁₀ Sample (Near Rajiv Gruha Kalpa)
4. AAQ-211783/4: PM_{2.5} Sample (Near Rajiv Gruha Kalpa)
5. AAQ-211783/5: NH₃ Sample (Near Rajiv Gruha Kalpa)
6. AAQ-211783/6: O₃ Sample (Near Rajiv Gruha Kalpa)
7. AAQ-211783/7: Pb Sample (Near Rajiv Gruha Kalpa)
8. AAQ-211783/8: As Sample (Near Rajiv Gruha Kalpa)
9. AAQ-211783/9: Ni Sample (Near Rajiv Gruha Kalpa)
10. AAQ-211783/10: C₆H₆ Sample (Near Rajiv Gruha Kalpa)
11. AAQ-211783/11: BaP Sample (Near Rajiv Gruha Kalpa)
12. AAQ-211783/12: CO Sample (Near Rajiv Gruha Kalpa)
13. AAQ-211783/13: CH₄ Sample (Near Rajiv Gruha Kalpa)
1. AAQ-211784/1: SO₂ Sample (Near Karmika Nagar)
2. AAQ-211784/2: NO₂ Sample (Near Karmika Nagar)
3. AAQ-211784/3: PM₁₀ Sample (Near Karmika Nagar)
4. AAQ-211784/4: PM_{2.5} Sample (Near Karmika Nagar)
5. AAQ-211784/5: NH₃ Sample (Near Karmika Nagar)
6. AAQ-211784/6: O₃ Sample (Near Karmika Nagar)
7. AAQ-211784/7: Pb Sample (Near Karmika Nagar)
8. AAQ-211784/8: As Sample (Near Karmika Nagar)
9. AAQ-211784/9: Ni Sample (Near Karmika Nagar)
10. AAQ-211784/10: C₆H₆ Sample (Near Karmika Nagar)
11. AAQ-211784/11: BaP Sample (Near Karmika Nagar)
12. AAQ-211784/12: CO Sample (Near Karmika Nagar)
13. AAQ-211784/13: CH₄ Sample (Near Karmika Nagar)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

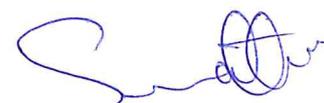
TEST RESULTS FOR AMBIENT AIR QUALITY MONITORING SAMPLES

Samples are analyzed "as is where basis is"

Sl. No's.	Parameters	Units	Methods	Results			NAAQS Vol.-I (2012-13)
				211782/1-13 Near Army Dental College	211783/1-13 Near Rajiv GruhaKalpa	211784/1-13 Near Karmika Nagar	
1.	Sulfur Dioxide (SO ₂)	µg/m ³	IS 5182 (Part 2): 2001	16.2	12.4	10.2	80
2.	Nitrogen Dioxide(NO ₂)	µg/m ³	IS 5182 (Part 6): 2006	28	24	20	80
3.	Particulate Matter (PM ₁₀)	µg/m ³	IS 5182 (Part 23): 2006	63	50	57	100
4.	Particulate Matter (PM _{2.5})	µg/m ³	SOP Based on CPCB Guidelines	35.6	30.2	27.5	60
5.	Ammonia* (NH ₃)	µg/m ³	Indo Phenol Method	12.4	8.2	6.3	400
6.	Ozone(O ₃)*	µg/m ³	IS 5182 (Part 9): 1974	4.6	6.8	4.3	180
7.	Lead (Pb)	µg/m ³	ICP-OES	<0.1	<0.1	<0.1	1.0
8.	Arsenic (As)	ng/m ³	ICP-OES	<0.1	<0.1	<0.1	6.0
9.	Nickel (Ni)	ng/m ³	ICP-OES	<0.5	<0.5	<0.5	20.0
10.	Benzene (C ₆ H ₆)*	µg/m ³	GC-MS	BDL	BDL	BDL	5.0
11.	Benzo (a) Pyrene (BaP)*	ng/m ³	GC-MS	BDL	BDL	BDL	1.0
12.	Carbon Monoxide* (CO)	mg/m ³	Multi Gas Analyzer	0.6	0.4	0.2	4
13.	Methane (CH ₄)*	%	Multi Gas Analyzer	ND	ND	ND	Should not exceed 25% of LEL (650mg/m ³)

- ND: Not Detected
- Parameters marked with*are not covered under NABL scope
- SO₂,NO₂, PM₁₀,PM_{2.5},and NH₃are 24 hourly and CO& O₃ is1 hour monitored values
- The Parameter (CH₄) was given to as per CFO.
- Test reports shall not be reproduced except in full, without written approval of the Laboratory.
- Calibrated by –LATA ENVIROTECH SERVICES: Calibration on 10.12.2020; Due 09.12.2021


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

1. Respirable Dust Sampler Model: APM 860, Sl. No.264-DTD-2017, PM10/2.5Sampler, Model APM154 – S. No 248-DTD-2017
 2. Respirable Dust Sampler Model: APM 860, Sl. No.263-DTD-2017, PM10/2.5Sampler, Model APM154 – S. No 247-DTD-2017
 3. Respirable Dust Sampler Model: APM 860, Sl. No.262-DTD-2017, PM10/2.5Sampler, Model APM154 – S. No 246-DTD-2017
 Calibrated by –LATA ENVIROTECH SERVICES: Calibration on 10.12.2020; Due 09.12.2021

Laboratory
Approved by
MOEF

Laboratory
Accredited by
NABL
(ISO/IEC 17025)
Certificate No.
TC-5067



Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDF at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
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Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Pages 1 of 4

To wards sustainable growth

Report No: HWMP/COM/ENV/21-0869

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 18.08.2021
Analysis Completion Date: 21.08.2021
Date of Sampling on : 17.08.2021
Sample Collected by : HWMP-Laboratory
Sample Condition : Sample was collected in 2 liters P.P Bottle
Sample Registration No : GW-211785/1-9
Sample Description : Ground Water Samples (Buffer Zone)
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations:

1. GW-211785/1: Near Play Ground, Shanti Nagar
2. GW-211785/2: Near Burial Ground, Ayyappa Society
3. GW-211785/3: Church Premises, YSR Nagar
4. GW-211785/4: YSR Statue Road, YSR Nagar
5. GW-211785/5: Rajiv Karmika Nagar
6. GW-211785/6: Dammaiguda
7. GW-211785/7: HaridasPalli
8. GW-211785/8: Rajiv GruhaKalpa
9. GW-211785/9: Malkaram


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

TEST RESULTS FOR GROUND WATER QUALITY SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results		
				211785/1	211785/2	211785/3
1	pH	--	APHA 4500 H ⁺ B	7.38	7.05	7.68
2	Total Dissolved Solids at 180 ⁰ C	mg/L	APHA 2540 C	2024	1862	1546
3	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	No Odor Observed
4	Taste	FTN	APHA 2160 B	No Flavor Observed	No Flavor Observed	No Flavor Observed
5	Turbidity	NTU	APHA 2130 B	2.8	1.8	1.5
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	308	582	352
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	823	1133	836
8	Calcium as Ca ⁺²	mg/L	APHA 3500 Ca B	172	251	198
9	Residual Free Chlorine as Cl ₂	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	3.2	3.2	3.9
11	Fluoride as F ⁻	mg/L	APHA 4500 F D	<1.0	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	584	486	494
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	386	246	196
14	Phenolic Compounds as Phenols	mg/L	APHA 5752 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0869-(Section-1)

Pages 3 of 4

TEST RESULTS FOR GROUND WATER QUALITY SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results		
				211785/4	211785/5	211785/6
1	pH	-	APHA 4500 H ⁺ B	7.18	7.24	7.35
2	Total Dissolved Solids at 180 ^o C	mg/L	APHA 2540 C	1862	1486	1324
3	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	No Odor Observed
4	Taste	FTN	APHA 2160 B	No Flavor Observed	No Flavor Observed	No Flavor Observed
5	Turbidity	NTU	APHA 2130 B	1.5	1.9	2.4
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	672	432	362
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	872	342	310
8	Calcium as Ca ⁺²	mg/L	APHA 3500 Ca B	214	84	78
9	Residual Free Chlorine as Cl ₂	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ -B	2.7	2.4	2.6
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	492	386	396
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	124	192	138
14	Phenolic Compounds as Phenols	mg/L	APHA 5752 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<1.0	<1.0	<1.0
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
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 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)

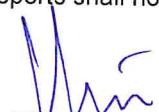

 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

TEST RESULTS FOR GROUND WATER QUALITY SAMPLES

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results		
				211785/7	211785/8	211785/9
1	pH	--	APHA 4500 H ⁺ B	7.24	7.68	7.35
2	Total Dissolved Solids at 180 ⁰ C	mg/L	APHA 2540 C	1352	1416	1234
3	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	No Odor Observed
4	Taste	FTN	APHA 2160 B	No Flavor Observed	No Flavor Observed	No Flavor Observed
5	Turbidity	NTU	APHA 2130 B	1.9	1.2	1.5
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	336	412	298
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	391	342	403
8	Calcium as Ca	mg/L	APHA 3500 Ca B	94	92	102
9	Residual Free Chlorine as Cl ₂	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃	mg/L	APHA 4500 NO ₃ ⁻ B	3.2	4.2	2.7
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	406	386	378
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	112	156	169
14	Phenolic Compounds as Phenols	mg/L	APHA 5752 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
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 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

Laboratory
Approved by
MOEF

Laboratory
Accredited by
NABL
(ISO/IEC 17025)
Certificate No.
TC-5067

BSI
TAF
ANAB
Certificate NO : EMS 570497 (ISO 14001 : 2015)
Certificate NO : FS 570487 (ISO 9001 : 2015)
Certificate NO : OHS 570500 (ISO 45001 : 2018)



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HYDERABAD WASTE MANAGEMENT PROJECT

(A Division of Ramky Enviro Engineers Limited)
TSDf at : Survey No. 684/1, Dundigal Village,
Dundigal - Gandimaisamma Mandal,
Medchal - Malkajgiri Dist. - 500043, Telangana. India.
Tel. : 9393644222, E-mail : mbd_hwmp@ramky.com,
laboratoryhwmp@ramky.com

Report No: HWMP/ COM /ENV/21-0870

Page 1 of 3

Name and address of the client

M/s. HI-MSW Division
Jawahar Nagar Site,
Hyderabad.

Date of Report : 21.08.2021
Analysis Starting Date : 18.08.2021
Analysis Completion Date : 21.08.2021
Sample Collected by : HWMP-Laboratory
Date of Sampling on : 17.08.2021
Sample Condition : Samples Received in 2 Liters P.P Bottles
Sample Registration no : SW-211786/1-5
Sample Description : Surface Water
Subcontract Tests : HWMP LAB was not given any subcontracting work to other parties

Locations : 1) SW-211786/1: Ambedkar Nagar Cheruvu (South side of the Plant)
2) SW-211786/2: Dammaiguda Village Cheruvu (South East side of the Plant)
3) SW-211786/3: Cheriya Village Cheruvu (North side of the Plant)
4) SW-211786/4: Bandlaguda Cheruvu (North East side of the Plant)
5) SW-211786/5: Malkaram Cheruvu (North West side of the Plant)


Checked By
(Ch. Kishore)
Sr. Asst. Manager (Lab.)


Authorized Signatory
(Y. Swathi)
Sr. Dy. Manager (Lab.)

Report No: HWMP/COM/ENV/21-0870-(Section-1)

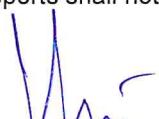
TEST RESULTS FOR SURFACE WATER QUALITY SAMPLES

Towards sustainable growth

Samples are analyzed "as is where basis is"

Sr. No's.	Parameters	Units	Methods	Results		
				211786/1	211786/2	211786/3
1	pH	--	APHA 4500 H ⁺ B	7.13	7.28	7.36
2	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed	No Odor Observed
3	Color	Pt-Co Scale	APHA 2120 C	<10	<10	<10
4	Turbidity	NTU	APHA 2130 B	2.6	3.9	4.5
5	Total Dissolved Solids at 180 ^o C as TDS	mg/L	APHA 2540 C	1982	1634	1482
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	656	382	478
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	1112	783	666
8	Calcium as Ca	mg/L	APHA 3500 Ca B	287	162	138
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil	Nil
10	Nitrates as NO ₃ ⁻	mg/L	APHA 4500 NO ₃ ⁻ B	3.2	2.6	3.8
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	524	492	394
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	214	286	198
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05	<0.05
25	Hexavalent Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0	<1.0
28	Mercury as Hg	mg/	APHA 3120 B	<0.1	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

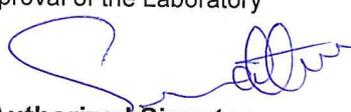
TEST RESULTS FOR SURFACE WATER QUALITY SAMPLES

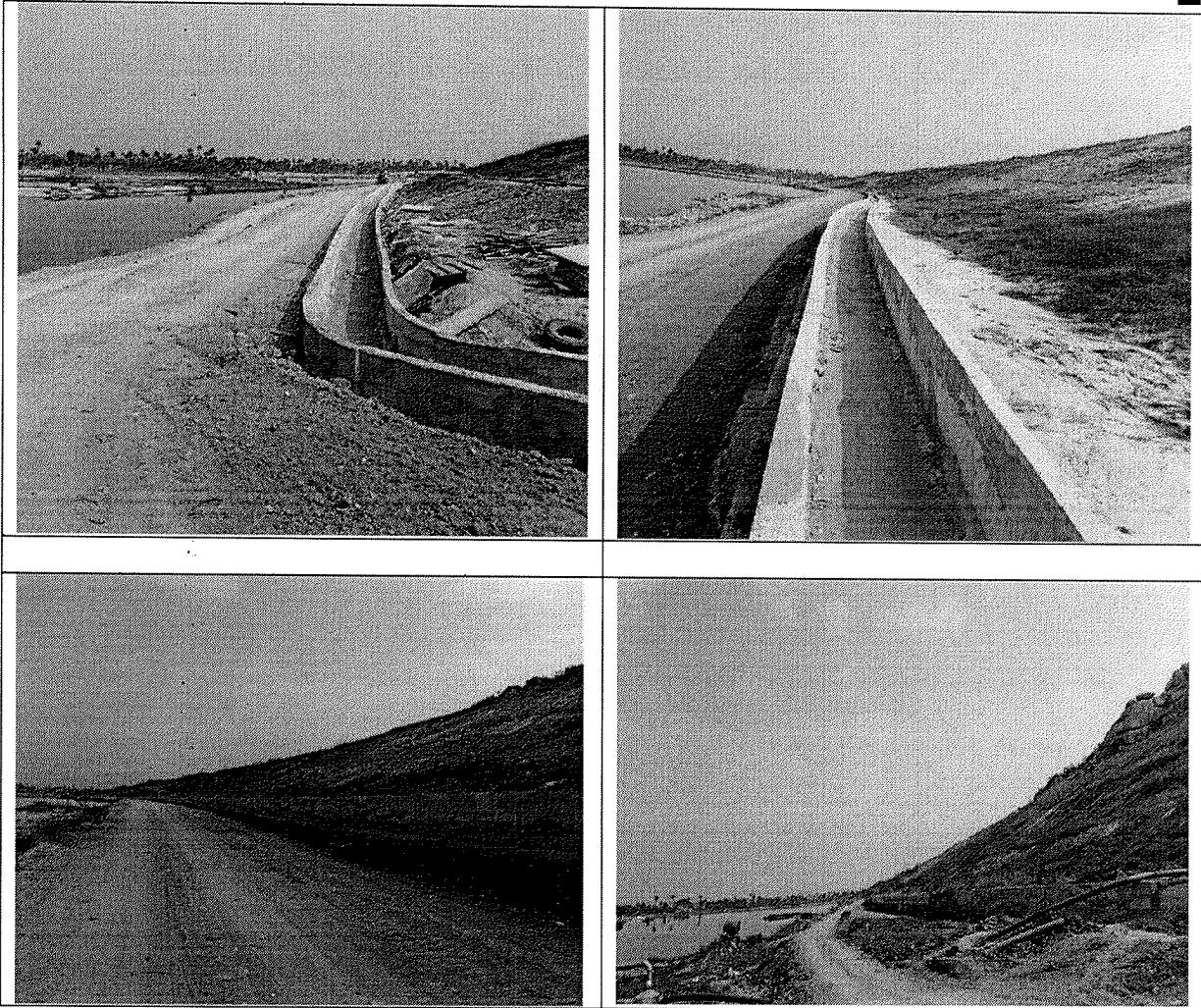
Samples are analyzed "as is where basis is"

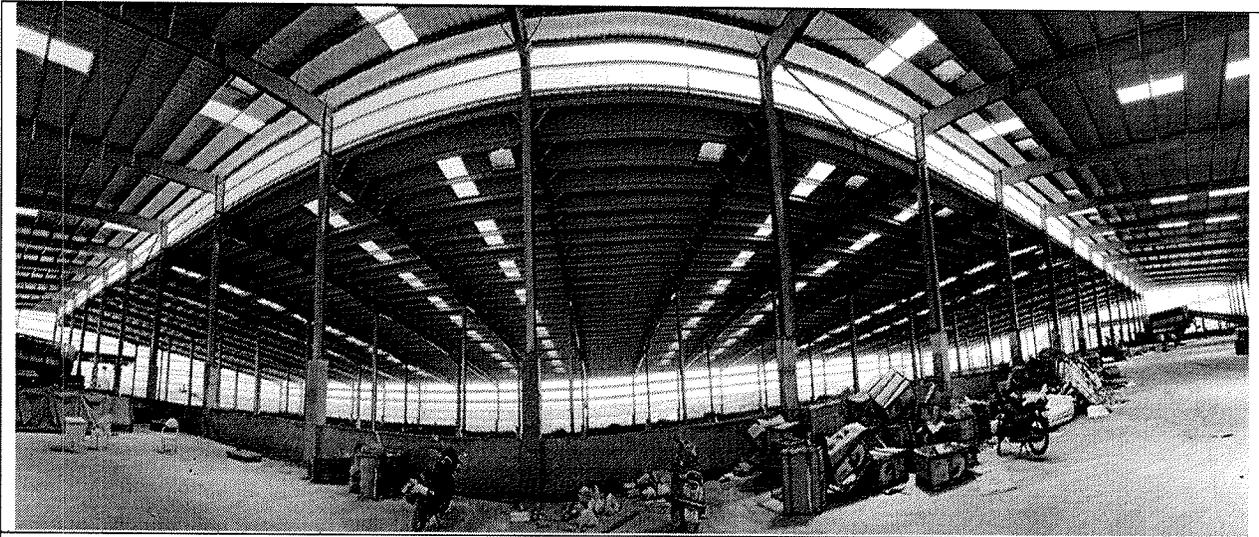
Sr. No's.	Parameters	Units	Methods	Results	
				211786/4	211786/5
1	pH	--	APHA 4500 H ⁺ B	7.43	7.08
2	Odor	TON	APHA 2150 B	No Odor Observed	No Odor Observed
3	Color	Pt-Co Scale	APHA 2120 C	<10	<10
4	Turbidity	NTU	APHA 2130 B	3.8	2.3
5	Total Dissolved Solids at 180 ^o C as TDS	mg/L	APHA 2540 C	1342	1426
6	Total Alkalinity as CaCO ₃	mg/L	APHA 2320 B	294	452
7	Total Hardness as CaCO ₃	mg/L	APHA 2340 C	708	342
8	Calcium as Ca	mg/L	APHA 3500 Ca B	186	82
9	Residual Free Chlorine as Cl	mg/L	APHA 4500 Cl B	Nil	Nil
10	Nitrates as NO ₃ ⁻	mg/L	APHA 4500 NO ₃ ⁻ B	3.2	5.4
11	Fluoride as F ⁻	mg/L	APHA 4500 F ⁻ D	<1.0	<1.0
12	Chlorides as Cl ⁻	mg/L	APHA 4500 Cl ⁻ C	372	396
13	Sulphates as SO ₄ ²⁻	mg/L	APHA 4500 SO ₄ ²⁻ D	186	118
14	Phenolic Compounds as Phenols	mg/L	APHA 5530 D	<0.001	<0.001
15	Cyanide as CN ⁻	mg/L	APHA 4500 CN ⁻ C,E	<0.1	<0.1
16	Arsenic as As	mg/L	APHA 3120 B	<0.05	<0.05
17	Cadmium as Cd	mg/L	APHA 3120 B	<0.003	<0.003
18	Copper as Cu	mg/L	APHA 3120 B	<0.05	<0.05
19	Lead as Pb	mg/L	APHA 3120 B	<0.01	<0.01
20	Zinc as Zn	mg/L	APHA 3120 B	<0.5	<0.5
21	Nickel as Ni	mg/L	APHA 3120 B	<0.02	<0.02
22	Manganese as Mn	mg/L	APHA 3120 B	<0.1	<0.1
23	Iron as Fe	mg/L	APHA 3500 Fe B	<0.2	<0.2
24	Total Chromium as Cr	mg/L	APHA 3120 B	<0.05	<0.05
25	Chromium as Cr ⁺⁶	mg/L	APHA 3120 Cr B	<0.05	<0.05
26	Boron as B	mg/L	APHA 3120 B	<0.1	<0.1
27	Oil & Grease	mg/L	APHA 5520 B	<1.0	<1.0
28	Mercury as Hg	mg/L	APHA 3120 B	<0.1	<0.1

- Opinion and interpretation: Nil
- Reports pertained only to the collected samples when monitoring
- Test reports shall not be reproduced except in full, without written approval of the Laboratory


 Checked By
 (Ch. Kishore)
 Sr. Asst. Manager (Lab.)


 Authorized Signatory
 (Y. Swathi)
 Sr. Dy. Manager (Lab.)

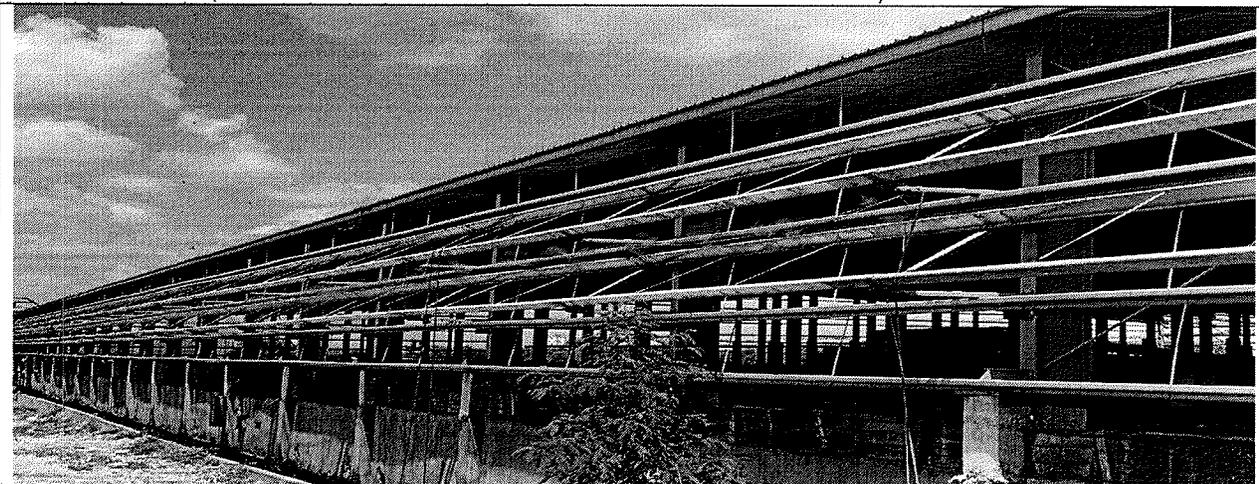




New compost shed which cover 165X92 Sqm



Windrow compost area with in New Shed with Odor control system



New shed with Periphery misting system to address the odor



Annexure R-6

Hyderabad Integrated MSW Ltd.

(Wholly owned subsidiary of REEL) **103**

Survey No. 173, Jawahar Nagar Dump Site,
CRPF Road, Near Army Dental College,
Kapra Mandal Medchal District - 500087,
Telangana State.

CIN : U90001TG2009PLC063407

Lr.No.HIMSW/TSPCB/18-19/1480

Dated: 22-09-2018

To

The Environmental Engineer,
Telangana State Pollution Control Board,
The Regional Office, Medchal,
Begumpet,
Hyderabad - 500 037

Dear Sir,

Sub : Measures taken to address Smell Nuisance - Reg.

Ref 1 Notice No. 174/SMP/TSPCB/RO-MDC/2018 - 761

2 Board Order No TSPCB/TFBO/RO-RR-II/HO/2017-3075 dated 13/12/2017

3 Consent order No: TSPCB/128/CFO/RO-RR-II/HO/2018-1695 dated 30/07/2018

4 Inspection of the facility and surrounding areas by the Board Officials on
18/09/2018 & 19/09/2018

With reference to above subject, following are measures taken by Hyderabad Integrated MSW Limited to control smell nuisance around the plant vicinity.

1. We are using odour neutralizing bio-enzymes solution to control odour. Mist spraying of this solution is being carried out in all operational areas in the facility. Photos enclosed.
2. Due to climatic inversions during damp weather conditions, there are chances of odour spread; hence turnings during damp weather conditions and nights shifts are completely stopped.
3. We are Avoiding waste profiling of the old dump during damp weather conditions and capping the uncovered area with soil/HDPE liner.
4. We have covered windrow heaps and RDF storage areas with tarpaulins/HDPE liners to avoid spread of foul odour.
5. Further to above actions, we have installed wind soak to monitor direction of wind so that daily operational activities can be planned accordingly.
6. As advised sides of the sheds are covered with green net and continuously sprinkled with odour neutralizers.



Page 1 of 2



7. Additionally, spreading bleaching power, misting of odour neutralizers, fogging of mosquito repellants are being undertaken in the downwind areas to minimize public perception of odour related problems. Photos enclosed.

Thanking You,

Yours,Sincerely,
For Hyderabad Integrated MSW Ltd.,

Authorized Signatory

Encl.: as above



Mist Spraying for Odour Control 105



Temporary covering of Landfill 106



Soil Covering Old Dump 107



Covering of Windrow Heaps & RDF

108

Windrow



RDF



Sides of Shed covered with Green Net



Status of 300 KLD RO Plant 110



Status of 300 KLD RO Plant 111



**PROCEEDINGS OF THE COMMISSIONER,
GREATER HYDERABAD MUNICIPAL CORPORATION****Present : Lokesh Kumar, D.S. I.A.S.,
Commissioner, GHMC****Proc.No. 0083/SWM/GHMC/2018****Date : 29.12.2020**

Sub : GHMC-SWM- ISWM Project – M/s. HIMSW – Handing over of the Transfer Station management and Transportation of waste from transfer stations to the processing facilities (Tertiary Transportation) to the Concessionaire as per CA- Reg.

Ref : 1) G.O.Rt.No.583 dt.24.07.2018 of the MA&UD Dept.,
2) Lr No. Nil of the Commissioner, GHMC dt:01.07.2020
3) Lr No.502/Comm/GHMC/2020-21 Dt.04.08.2020

***********ORDER:**

1. Vide G.O at reference 1st cited, the Government permitted GHMC to hand over the component of transfer station management and transportation of waste from transfer stations to processing facility (tertiary transportation) (as per clause 7.1 (b)(ii)) of the Concession Agreement between GHMC & REEL) in a phased manner as per terms and conditions of the Concession Agreement.
2. Further, as per the instruction of the Hon'ble Minister for MA & UD in review meeting dated 26.03.2020 and after further discussions with the Concessionaire, the Concessionaire was asked vide reference 2nd cited to take over the existing transfer stations (17 no's) for transfer station development & management and tertiary transportation by 30.09.2020. Vide reference 3rd cited, second intimation was also given to the Concessionaire. Thereafter, the Concessionaire has submitted proposals and schedule for development of transfer stations in phased manner and requested GHMC for support in obtaining utility connections such as power, water and sewerage connections from line departments for which GHMC has facilitated to obtain the same from the concerned departments.
3. Hence, GHMC is hereby handing over the component (ii) of the Concession Agreement "Transfer station management and transportation of waste from

transfer station to the processing facilities" (as per Clause 7.1(b)(ii) of the CA between GHMC & REEL) and hence you are requested to takeover the same immediately with effect from **01.01.2021** on as is where is basis with already developed infrastructure and tertiary transportation vehicles already procured and to complete the remaining works at the earliest and also procure the balance requirement of tertiary vehicles and other equipment at the shortest possible time under applicable terms and conditions of the Concession Agreement. Until such time, you may continue the present system of tertiary transportation in 25 tonner tippers by covering them properly using temporary covers of tarpaulin in secured manner.

   23/4
Commissioner
GHMC

To

The Project Head,
HIMSW Ltd.,
Survey No 173, Jawaharnagar
CRPF road, near Army Dental College,
Kapra (M), Medchal Malkajgiri (D)
500087

Copy to :

- 1) The Addl. Commissioner (Transport), GHMC
- 2) All the Zonal Commissioners of GHMC

-2-

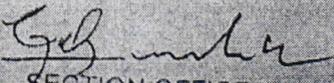
3. RC puram & Ashoknagar transfer stations: to develop a Modern transfer station at TSIC land adjacent to Asian paints in Patancheruvu to eliminate the existing 2 small transfer stations on the Bombay National Highway.
4. He has stated that, the GHMC is now proposing to handover the transfer station management and tertiary transportation (transportation of MSW from transfer stations to Treatment facility) to the Concessionaire i.e. M/s.HIMSW as per the terms and conditions of the Concession Agreement, in a phased manner.
5. The Commissioner, Greater Hyderabad Municipal Corporation, Hyderabad is therefore, requested the Government to issue suitable orders in this regard on following points so as to maintain the transfer station management and tertiary transportation as per MSW Rules, 2016 in environmentally sound manner.
 1. Ratification of the decision taken by GHMC to develop new / redevelopment of Transfer stations at Nagole, Yousufguda and Patancheruvu in the first phase through the Concessionaire M/s HIMSW as per terms and conditions of CA.
 2. To hand over the component of transfer station management, development and transportation of waste from transfer stations to treatment facility (tertiary transportation) in a phased manner as per terms and conditions of the Concession Agreement, duly undertaking re-deployment of GHMC vehicles and workers working in the present arrangement.
 6. Government after careful examination of the matter, hereby ratified the action taken by the GHMC to develop New / Redevelopment of Transfer stations at Nagole, Yousufguda and Patancheruvu in the first phase through the Concessionaire M/s HIMSW as per terms and conditions of Concessionaire Agreement and also permitted to hand over the component of transfer station management, development and transportation of waste from transfer stations to treatment facility (tertiary transportation) in a phased manner as per terms and conditions of the Concession Agreement, duly undertaking re-deployment of GHMC vehicles and workers working in the present arrangement
 7. The Commissioner, Greater Hyderabad Municipal Corporation, Hyderabad shall take necessary action accordingly.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF TELANGANA)

ARVIND KUMAR
PRINCIPAL SECRETARY TO GOVERNMENT

To
The Commissioner,
Greater Hyderabad Municipal Corporation, Hyderabad.
Copy to:
The OSD to Minister for MA&UD
The P.S to Principal Secretary to Govt. MA&UD Dept.
Sc/ Sf.

// FORWARDED BY ORDER //


SECTION OFFICER

GOVERNMENT OF TELANGANA
ABSTRACT

MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT DEPARTMENT -
GREATER HYDERABAD MUNICIPAL CORPORATION Development of New /
Redevelopment of Transfer stations at Nagole, Yousufguda, and Patancheru in the first phase
through the Concessionaire M/s HIMSW as per terms and conditions of Concessionaire
Agreement - Action taken by GHMC - Ratification - Orders Issued

MUNICIPAL ADMINISTRATION & URBAN DEVELOPMENT (GHMC II) DEPARTMENT

G.O.RI No.583

Dated: 24.07.2018
Read.

From the Commissioner, Greater Hyderabad Municipal Corporation,
Hyderabad, Lr No.0083/SWM/GHMC/2018-19, dated 02.07.2018.

ORDER

o0o

In the reference read above, the Commissioner, Greater Hyderabad Municipal Corporation, Hyderabad has stated that the GHMC entered a Concessionaire agreement (CA) with M/s. HIMSW which is the Special Purpose Vehicle (SPV) to M/s REEL on 21.02.2009 for the project of "Integrated Solid waste management" to manage the Solid waste generated in the city of Hyderabad. As per the Concession Agreement the following (3) components have to be carried out by the Concessionaire as per Article 7.1(b) of C.A.

- i. Primary and Secondary collection & transportation of waste up to 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.

2. He stated that, due to unforeseen/unavoidable circumstances that arose after entering into the agreement with Concessionaire viz. agitation by worker's unions, court case filed by the labour union leaders, the components (i) & (ii) above could not be handed over to the Concessionaire and GHMC is operating and maintaining by employing its own/outsourcing employees and with own/hired vehicles. The Concessionaire has carried out the component (iii) i.e. Treatment & Disposal of MSW at Jawaharnagar centralized facility since February, 2012. The issue of "Handing over of the Transfer Station management and Transportation of waste from transfer stations to the processing facility (Tertiary Transportation) to the Concessionaire" was discussed in various occasions by the GHMC with the Independent Engineer (EPTRI) and the Concessionaire (M/s HIMSW Ltd.). During the discussion all the issues were examined i.e. Concessionaire Agreement and clauses there in and the Hon'ble NGT orders and implementation of SWM Rules, 2016.

3. The Commissioner, GHMC stated that, the detailed and focused discussions with all the stakeholders i.e., GHMC, Independent Engineer i.e., EPTRI and M/s HIMSW was held on 12.06.2018 and decided to emphasized the need to improve the Solid Waste Management practices in GHMC to match the National Standards and in view of the above, GHMC has taken the decision to handover the following transfer stations to the concessionaire -

1. Nagole transfer station; to develop a modern transfer station as an alternative to the existing transfer station, at Nagole HMDA land at Uppal Bhagayath (or) at an-appropriate site after finalization, as per the Government directions, in view of the Metro Rail station development adjacent to the existing transfer station.
2. Yousufguda Transfer station: To re-develop the existing transfer station into a modern transfer station as the existing one is closely surrounded with habitation and Krishnakanth park, one of the biggest parks in the city. Further it was also adopted by the Hon'ble Minister MA&UD to redevelop it into a modern and scientific transfer station.

GREATER HYDERABAD MUNICIPAL CORPORATION

From
The Commissioner,
1st floor, Head Office,
GHMC.

To
The Project Head,
HIMSW Ltd.,
Survey No 173, Jawaharnagar
CRPF road, near Army Dental College,
Kapra Mandal, Medchal District-500087.

01.07.2020

CTO (Zonal)
For necessary action
P/H

Sub: GHMC – Handing over of Transfer Stations for Transfer station management and transportation of municipal solid waste from transfer station to the processing facilities to M/s. HIMSW Ltd – Intimation - Regarding.

- Ref: 1) Concession agreement between GHMC and M/s. HIMSW Dt:21.02.2009.
2) Review meeting under chairmanship of Hon'ble Minister for MA&UD on 26.03.2020 at Pragati Bhavan, Begumpet Camp Office.
3) U.O. No. 215/SE(SWM)/GHMC/2020 dt: 21.04.2020
4) Minutes of the Meeting held in the Chambers of Addl. Commissioner (Transport) on 18.05.2020.
5) Note approval of the Commissioner, GHMC Dt: .06.2020.

<<<>>

Vide reference 1st cited, the Greater Hyderabad Municipal Corporation (GHMC) had entered into a concession agreement with M/s. HIMSW Ltd. on 21.02.2009 for the project of "Integrated Solid Waste Management" to manage solid waste generated in the city of Hyderabad.

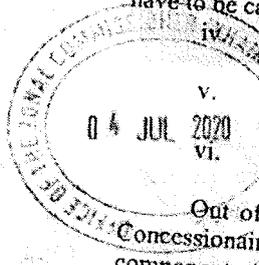
As per the article 7.1(b) of the Concession Agreement, the following (3) components have to be carried out by the Concessionaire:

- i. Primary and secondary collection & transportation of waste upto transfer station – 40% of the tipping fee.
v. Transfer station management and transportation of waste from transfer station to the processing facilities – 20% of the tipping fee.
vi. Treatment & disposal – 40% of the tipping fee.

Out of the above 3 components, only component (iii) is being carried out by the Concessionaire since February, 2012 at Jawaharnagar centralized facility. Whereas the components (i) & (ii) are not yet handed over to the Concessionaire as there is no major progress regarding handing over of tertiary transportation to the Concessionaire despite numerous discussions in several Project review meetings with M/s. HIMSW Ltd. and EPTRI.

Further, in the review meeting held vide reference 2nd cited it was instructed by the Hon'ble Minister of MA&UD to ensure that the handing over of all the existing transfer stations to M/s. HIMSW Ltd. be carried out on an expedited basis for effective and scientific management of these stations as per the agreement condition. As such the Commissioner, GHMC issued a U.O. Note vide reference 3rd cited regarding the handing over of the physical possession of the existing transfer stations to M/s. HIMSW Ltd. on "as is where is basis".

Further, vide reference 4th cited, it was discussed to handover the Tertiary transportation of MSW including Transfer Stations management to M/s. HIMSW Ltd. by 30.06.2020 i.e. within 90 days from the date of meeting with the Hon'ble Minister for



MA&UD. However, in response, M/s HIMSW Ltd. stated that it would not be able to confirm the taking over of Tertiary transportation of MSW including Transfer Stations management by 30.06.2020 but they would make all efforts to reach the target as soon as possible.

As such, it was stated that the process of modernization of Transfer Stations and Tertiary Transportation, i.e. bringing in New, modern vehicles as per MSW Rules, would be requiring atleast Ninety (90) days from the date of intimation for handing over of component (ii) of article 7.1(b) of the Concession Agreement. Thus, it is hereby informed that this may be considered as Intimation of handing over and thereby ensure deployment of new vehicles for Tertiary transportation & modernization of Transfer Stations by 30.09.2020.

Therefore, after several discussions, GHMC is willing to handover component (ii) of Article 7.1(b) of the Concession Agreement to M/s. HIMSW Ltd. i.e. *Transfer station management and transportation of waste from transfer station to the processing facilities* (20% of the tipping fee) in addition to the component (iii) of article 7.1(b) of the Concession Agreement i.e. *Treatment & disposal* (40% of the tipping fee) which is already being carried out by M/s. HIMSW Ltd.

In this regard, M/s. HIMSW Ltd. shall takeover the Tertiary transportation of MSW including Transfer Stations management and also ensure that modernization of Transfer Stations is completed by 30.09.2020. The tertiary transportation of MSW and the modernization of the Transfer Stations should be as per the MSW guidelines.

Further, the modernization of the Transfer Stations and transportation of waste from transfer station to the processing facilities shall adhere to the following:

- xii. The vehicles and machinery utilized for transportation of MSW from Transfer Stations to the processing facilities should adhere to the relevant clauses under Schedule 2 of the Concession Agreement and as per the vehicle norms prescribed by the Government of India & the Government of Telangana State.
- xiii. The routing of waste i.e., transportation shall be in accordance to the rules of the Police & Traffic department and as per Article 5.13 of the Concession Agreement.
- xiv. Measurement of MSW should be done through weigh bridges and proper records shall be maintained as mentioned under Article 5.18 of Concession Agreement.
- xv. Maintenance of records and operations plan should be as per the guidelines stated under Article 5.19 of Concession Agreement.
- xvi. Modernization of the Transfer Stations should adhere to the existing environmental laws duly following the conditions laid down in the Concession Agreement (Article 5.9 and clause 5 of Schedule 2 in particular)
- xvii. Workshops for vehicle repair and maintenance shall be maintained at the locations as agreed by GHMC clause 5 of Schedule 3 of the Concession Agreement.
- xviii. The operation and maintenance of the Transfer Stations and the vehicle & machinery should follow the conditions as stipulated in the Concession Agreement especially under clause 6, 7 and 9 of Schedule 3.
- xix. The Transfer Station sites should not be utilized for any purpose which are not related to the project (Article 5.10 of Concession Agreement)
- xx. All the plans related to modernization of Transfer Stations should be reviewed by the Independent Engineer and submitted to GHMC for approval. "Not withstanding any review or failure to review the operation plan with GHMC/Independent Engineer, the Concessionaire shall be solely responsible for the adequacy of the operational 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" (as per Article 5.19).

- xxi. Further, any negligence in maintaining the quality of material(s) and machinery used for modernization of Transfer Stations and transportation will be viewed seriously and action will be taken as per rules in vogue.
- xxii. All other obligations with respect to project facilities will be as per Article 5.25 and all other relevant terms & conditions as per the Concession Agreement will be applicable.

Therefore, out of the three components mentioned under Article 7.1(b) of the Concession Agreement, the concessionaire is carrying out component (iii) : *Treatment & disposal (40% of the tipping fee)* and in addition to this, it shall takeover, component (ii) : *Transfer station management and transportation of waste from transfer station to the processing facilities (20% of the tipping fee)*.

Further, all works shall be taken up in adherence to the Concession agreement along with the guidelines mentioned under various schedules of the Concession agreement and any deviation/negligence in carrying out the works, non-compliance with the O&M requirements of the agreement or Concessionaire's event of default with respect to performance - will attract penalties and/or the contract shall be terminated as per the Concession Agreement.


 Commissioner,
 GHMC

Copy to the Principal Secretary, MA&UD, Telangana State for favour of information

Copy submitted to :

- ✓ 1. The OSD to Hon'ble Minister (MA&UD), Telangana State for favour of information
2. The OSD to Hon'ble Mayor, GHMC for favour of information
3. The Additional Commissioner (Sanitation), GHMC for favour of information
- ✓ 4. All the Zonal Commissioners, GHMC for favour of information

GREATER HYDERABAD MUNICIPAL CORPORATION

The Commissioner,
Head Office,
GHMC

To
The Project Head,
HIMSW Ltd.,
Survey No 173, Jawaharnagar
CRPF road, near Army Dental College,
Kapra Mandal, Medchal District-500087,

Lr. No: 502/Comm/GHMC/2020-21

Date: 04.08.2020

Sub: GHMC – Transport- Taking up of Transfer Stations for Transfer station management and transportation of municipal solid waste from transfer station to the processing facilities by M/s. HIMSW Ltd - Certain information furnished – 2nd intimation - Regarding.

Ref: 1) Lr. No.HIMSW/GHMC/20-21/1800 Date:15.07.2020

2) Lr addressed to the Project Head, HMSW Ltd., from the Commissioner,

GHMC Date: 01.07.2020

3) Lr. No 88/AC(Tr.)/CTO(HO)/GHMC/2020-21 Date: 01.06.2020

4) Lr. No.HIMSW/GHMC/20-21/1808 Date: 23.07.2020

<<<>>>

Vide reference 1st cited the Project Head, HIMSW Ltd. in response to the letter of the GHMC vide reference 2nd cited has expressed willingness to take over component (ii) of Article 7.1(b) of the Concessionaire Agreement i.e., Transfer station management and transportation of waste from transfer station to the processing facilities – 20% of the tipping fee. Though only 8 locations are indicated in the Concessionaire Agreement for Transfer Station development, M/s. HIMSW Ltd expressed willingness to take up the development of (17)Transfer Stations.

In this regard, the following requisitions were proposed by M/s. HIMSW Ltd. in-order to finalize the handover plan:

a) Provide legal/ownership status of the 17 operational transfer stations sites/land parcels:

As per Article 10.1(a) of the Concessionaire Agreement, the ownership of the Project including all improvements made therein by Concessionaire, during the terms of the Concession shall at all times remain as mentioned: All immovable assets including site and civil structures created for compost plant, project facility and landfill site shall remain with GHMC.

The Concessionaire on several occasions was informed about the legal status/ownership of the 17 Transfer Stations during its several meetings with GHMC.

b). Provide a scaled site plan in AutoCAD with clear demarcation of survey numbers and boundaries and handover the Transfer Station land parcels, duly marking the boundaries

The O/o. the Addl. Commissioner (Transport), GHMC vide reference 3rd cited has permitted the Concessionaire to conduct field survey which would enable it to study and design an efficient collection and transportation system.

Further, as per Schedule 2 (5) of the Concessionaire Agreement, 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. QA/QC plan procedures and requirement should be as per guidelines mentioned under schedule 2 (5).

With reference to Schedule 2 (7.1) of the Concessionaire Agreement, “at a minimum, require that the Concessionaire provide the following engineering drawings

- Location and Vicinity Maps
- Site boundary Surveys
- Site layout with topographic Contours

- Construction Phasing Plan (in-line with the guidelines under Schedule 2 (7.4))
- Layout Plans
- Structural Drawings
- Evacuations and grading Plans
- Cell Construction Details
- Leachate Management Plan
- Landfill Gas Management Plan
- Odor Control Management Plans
- Final Cover Contours
- Construction Details
- Cross sections

The Concessionaire shall provide the requisite drawings to GHMC through the independent Engineer along with other details as per the field survey conducted by them in adherence to the permission accorded vide reference 3rd cited. Hence it is requested to take necessary action from your side.

c). Perform inventory of the existing infrastructure available at the transfer stations along with fleet deployed for tertiary transport and handover the same to M/s. HIMSW Ltd as per CA

The Concessionaire was accorded permission to conduct its survey in the field for collection and transportation of garbage and it includes the Transfer Stations as well. Also, the Zonal Commissioners, GHMC were requested to permit the Zonal Chief Transport Officers, GHMC to coordinate with the Concessionaire and provide necessary details.

Despite conducting field surveys pertaining to transportation of garbage at various Transfer Stations of GHMC, the Concessionaire is requesting GHMC to provide the inventory of existing infrastructure and fleet, which can be deemed not in adherence to the orders issued vide reference 3rd cited.

The Concessionaire shall obtain the requisite details through the field survey being conducted at various Transfer Stations of GHMC and the reports of the same shall be forwarded to the Commissioner, GHMC for information. However, in order to facilitate smooth handover of Transfer Stations to the Concessionaire, the inventory of the existing infrastructure and fleet at Transfer Stations is herewith enclosed.

d). Enter into a license agreement for the term of the concession to help M/s. HIMSW Ltd in getting the necessary permissions and utility connections

As mentioned at Article 3.4 of the Concessionaire Agreement "The Concessionaire shall obtain and maintain the applicable approvals 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."

Further in adherence to Article 6.1 (a) of the Concessionaire Agreement, wherever authorization is required for availing permits, the same shall be provided by GHMC within 120 days from receipt of request from Concessionaire subject to the conditions of the applications/details submitted being complete and correct.

GHMC would provide authorization to M/s. HIMSW Ltd. in obtaining the requisite permissions as per existing Govt. norms and no license agreement will be entered into in obtaining the necessary permissions and utility connections.

e). Provide peaceful, unhindered and encumbrance free access to the sites to begin development activities

On receiving an intimation letter from M/s. HIMSW Ltd. regarding the dates pertaining to initiation of the works at Transfer Stations, GHMC shall ensure unhindered and peaceful access to M/s. HIMSW Ltd. to carry out the requisite works towards mechanization and modernization of Transfer Stations

f). Designate one dedicated Nodal Officer from GHMC for the above tasks so that M/s. HISWM Ltd can interact with the said officer on daily basis to complete the tasks assigned

The O/o. Addl. Commissioner (Transport), GHMC has already addressed to this requisition through a circular issued vide reference 3rd cited, requesting the Zonal Commissioners to instruct the Zonal CTOs, GHMC to coordinate with M/s. HIMSW Ltd. duly permitting M/s. HIMSW Ltd. to conduct field survey for collection of data pertaining to collection and transportation of MSW which

ld enable it to study and design an efficient collection and transportation system. It is once again noted that the Zonal Chief Transport Officers are the Nodal officers at their respective Zones.

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In addition to the above, a submission was made by M/s. HIMSW Ltd. vide reference 1st cited wherein it was stated that partial mechanized and containerized transfer of waste will be ensured at Transfer Stations. In this regard it is instructed to adhere to the standard guidelines stated in the Concessionaire Agreement as per Schedule 2 & 3 and other Articles & schedules as mentioned in the Concessionaire Agreement and also adhere to the vehicle norms prescribed by the Government of India & the Government of Telangana State. Any deviation from the MSW rules in transportation of the waste from the Transfer Stations to the processing facilities will be viewed seriously and action may be taken as per rules in vogue.

Apart from the above, the following components were stated as a requisition to comply with MSW rules and to efficiently deliver a visible and sustained transformation in cleanliness and sanitation:

- *Effective deployment and monitoring of Swachh Autos has to be ensured for effective source segregation*

At present, GHMC is handling primary collection of garbage through Swachh Auto Tippers and in order to carry out uninterrupted sanitation works in GHMC limits, GHMC shall ensure that proper coordination is established between primary, secondary collection in-line with the modernization and mechanization taken up by M/s. HIMSW Ltd at respective Transfer Stations.

- *Numerous well designed and constructed Collection & Transfer Points (CTP) that work 24/7 (in addition to modernizing the existing transfer stations), such that primary collection vehicles unload within a maximum distance of 3 kms from their collection area*

At present there are 17 Nos of Transfer Stations which work 24x7 at various circles of GHMC and are handling the garbage collected from the surrounding areas. Accordingly, GHMC wants to ensure that the existing (17) Transfer Stations are modernized so as to enable mechanized handling and effective transportation of waste to the processing facility. Further, on observation of the working condition of the modernized Transfer Stations, the Concessionaire can propose for construction of Collection & Transfer Points (CTP) as per the requirements at the modernized Transfer Stations.

- *Each of these CTP's need to be equipped with waste compaction and containerization equipment such that, in addition to ensuring cleanliness and hygiene, operational de-centralization and de-congestion is also ensured*

As stated above, the Concessionaire on observation of the works carried out through modernized Transfer Stations can propose for requirement of CTPs equipped with waste compaction and containerization equipment but in compliance with Schedule 2 and 3 and other relevant articles of the Concessionaire Agreement. GHMC, abiding by its policy decisions, shall extend coordination to those works which aim at providing cleanliness and hygiene to the public.

- *Elimination of all open waste collection points and provision of adequate number of bins to collect street sweepings and litter*

As a policy decision, GHMC is in the process of opting for a bin-free city and as such is looking forward to increase the number of Swachh Auto Tippers and introduction of closed containers. However, for efficient collection and transportation through containers, each Transfer Station should be large enough to accommodate and handle the containers. Therefore, the Concessionaire shall opt for a design for Transfer Stations wherein there is a feasibility in easy handling and accommodation of closed containers.

- *Replacement of Dumper Placers and open Mini Tippers currently being with a fleet of modern, IT enabled vehicles with fully closed bin/container lifting vehicles. Complete elimination of manual/repeated handling of waste*

The existing fleet are installed with GPS devices for efficient monitoring and also Refuse Compactor Vehicles are utilized for automatic bin lifting. Further, there was a proposal for introduction of Refuse Compactor Vehicles/closed container vehicles as a replacement for the existing open Tipper vehicles. Further, as the Transfer Stations are being handed over to M/s. HIMSW Ltd., a suitable fleet for

- *Implementation of an integrated technology platform, supported by a 24/7 Command & Control Centre, to plan, track, optimize and report on performance of the entire waste collection and transport system, as well as to provide a platform for citizens participation and grievance redressal*

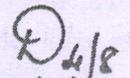
GHMC has introduced My GHMC app which provides a single platform for grievance redressal pertaining to various works other than collection and transportation of waste. The vehicle fleet used for collection and transportation are installed with GPS tracking mechanism for effective monitoring. Further, other technological aspects will be introduced duly observing the pros and cons of the mechanization of Tertiary Transportation along with the modernization of the (17) Transfer Stations in order to establish a continuous link in collection and transportation of waste in GHMC.

Further, it is evident that, though M/s. HISWM Ltd was intimated vide reference 2nd cited to take over the Transfer station management and tertiary transportation of waste to the processing facilities by 30.06.2020 along with completion of modernization of the Transfer Stations by 15.08.2020, but no action plan was submitted to GHMC so far in this regard and instead, a requisition was submitted, for handing over of the primary & secondary collection of waste by GHMC to M/s. HIMSWM Ltd.

In this regard it is to inform that the handing over of component (i) of Article 7.1(b) of the Concessionaire Agreement i.e., "Primary and secondary collection & transportation of waste up-to transfer station" will be discussed in a phase wise manner with the policy making authorities and a decision will be taken duly observing the progress in the works which should be carried out by M/s. HIMSWM Ltd. with respect to component (ii) of Article 7.1(b) of the Concessionaire Agreement which was intimated to be handed over to M/s. HIMSWM Ltd. vide reference 2nd cited.

Further, vide reference 4th cited, M/s. HIMSWM Ltd. have mentioned about handing over the Transfer Station lands with boundaries, in an encumbrance free state, to the personnel designated to its company. In this regard, it is to inform that any future correspondence regarding the data/works related to Transfer station management and transportation of municipal solid waste from transfer station to the processing facilities shall be addressed/communicated to the Project Head, M/s. HIMSWM Ltd who can internally forward/allot the data/works to its officers/personnel concerned.

Therefore, M/s. HIMSWM Ltd is hereby reminded with respect to the previous intimation vide reference 2nd cited that out of the three components mentioned under Article 7.1(b) of the Concessionaire Agreement, the concessionaire is carrying out component (iii) : *Treatment & disposal (40% of the tipping fee)* and in addition to this, it shall immediately takeover, component (ii) : *Transfer station management and transportation of waste from transfer station to the processing facilities (20% of the tipping fee)* and also ensure completion of modernization of the Transfer Stations by 15.08.2020


Commissioner,
GHMC

Encl: Details of fleet and infrastructure at 17 Transfer Stations of GHMC.

Copy to the Principal Secretary, MA&UD, Telangana State for favour of information

Copy to :

1. The OSD to Hon'ble Minister (MA&UD), Telangana State for favour of information
2. The OSD to Hon'ble Mayor, GHMC, for favour of information
3. The Additional Commissioner (Transport), GHMC for favour of information
4. The Additional Commissioner (Sanitation), GHMC for favour of information
5. All the Zonal Commissioners, GHMC for favour of information

Tertiary Fleet							
Sl. No	Transfer Station	25 Ton Tipper		JCB		Bobcat	Excavator
		GHMC	Hired	GHMC	Hired	GHMC	Hired
1	2	3	4	5	6	7	8
1	Mallapur TS		2		1		0
2	Saket TS		2		1		0
3	Devender Nagar		3		1		0
4	Nagole TS		10		2		0
	LB Nagar Zone	0	17	0	5	0	0
5	Imlibun TS	8	20	1	2	1	0
6	Rajendranagar TS		6		2		0
	Charminar Zone	8	26	1	4	1	0
7	Yousufguda TS	7	12		2		2
8	Jiyaguda TS		14		2		1
	Khairathabad Zone	7	26	0	4	0	3
9	Deepti Sri Nagar TS	4	8	1	2		0
10	RC Puram TS		3		1		0
	Serilingampally Zone	4	11	1	3	0	0
11	Khaitlapur TS		19		3		1
12	HMT Pipeline TS		8		2		0
13	Machabollaram TS		5		1		0
	Kukatpally Zone	0	32	0	6	0	1
14	Tankbund TS	7	9	1	2	0	1
15	Amberpet TS	0	5	0	2	0	0
16	Neredmet TS	3	2	0	1	0	0
17	Sanjeevaiah Park TS	0	8	0	1	0	0
	Secunderabad Zone	10	24	1	6	0	1
	Total	29	136	3	28	1	5

P. Anusha

Chief Transport Officer,

GHMC

1.

Transfer Station Details									
Sl. No	Zone	Name of Transfer Station	Circle covered	Title of land	Extent Area in Acre	Present Load (in MT)	Distance from Jawahar Nagar Dumping Yard (Km)	Boundary type around TS	Type of approach road to TS
1	L. B Nagar Zone	Mallapur TS	1	GHMC	1.00	90 - 100	24	Compound wall	BT road
2		Saket TS	1	Private land - disputed land	0.50	90 - 100	23	no boundary	Earthen road
3		Devendranagar TS	2	ILA Land	0.65	125 - 135	34	no boundary	CC road
4		Nagole TS	3, 4 & 5	HMDA	1.50	500	33	Compound wall	CC Road No Platform
5	Charminar Zone	Irifibun TS	6, 7, 8, 9 & 10	GHMC	0.50	1100 - 1200	36	Brick masonry wall	CC road
6		Katedan TS	11	ILA Land	5.25	220	55	Wall Boundary	CC road
7	Khairatabad Zone	Ilyaguda	12 & 13	GHMC (TS in bank of Musi)	1.38	400	40	Blue sheet Boundary but damaged	BT road
8		Yousufguda	17, 18 & 19	GHMC	0.62	700	38	CRS basement & Galvalum Sheeting only two side	CC road
9	Serilingampally Zone	Deepthirinaragar TS	21	HMDA (Court Case b/w heirs of The Nizam)	3.50	450	55	Basement & Galvanized sheeting	BT road and WMM Road
10		RC Puram TS	22	GHMC (Handed over from ILA)	2.60	80	58	3 side brick wall with 2 gates & one side CRS basement	CC Road with Damaged Condition
11	Kukatpally Zone	Khaithalapur TS	23 & 24	GHMC	4.90	250	85	CRS Brick Masonery wall	CC Road
12		HMT Pipeline TS, Chintal	25 & 26	HMT land	6.00	300	38	No fencing	Paved
13		Machha Bollaram TS Alval	27	Society land (Grave yard)	2.00	80	32	Barbed wire fencing	Earthen road
14	Secunderabad Zone	Neredmet, Malkajgiri	28	GHMC land (vs defence society land)	0.50	180	23	CRS basement & Galvalum Sheeting	CC Road & BT Road
15		Sanjeevaiah Park	29 & 30	GHMC	1.00	220	36	Fencing with GI sheets	CC Road
16		Tank Bund	15	GHMC	1.50	700	36	CRS basement & Galvalum Sheeting	BT road
17		Amberpet TS	16	GHMC	2.50	250	36	CRS basement & Galvalum Sheeting present not worthy	Earthen road

P. Suryakumar
 Chief Transport Officer,
 GHMC



Annexure R-8

Hyderabad Integrated MSW Ltd.,

(Wholly owned subsidiary of REEL)

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Survey No. 173, Jawahar Nagar Dump Site,
CRPF Road, Near Army Dental College,
Kapra Mandal Medchal District - 500087.
Telangana State.

CIN : U90001TG2009PLC063407

o/c

Lr No.HIMSW/GHMC/21-22/2011

Date: 29/06/2021

To,

The Commissioner,
Greater Hyderabad Municipal Corporation,
Tank Bund Road,
Hyderabad – 500 063

Dear Sir,

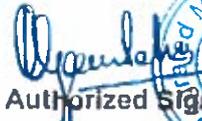
Sub : Submission of Form – III - Format of Annual Report by Solid Waste Processing and Disposal Facility to the Local Body for the FY 2020-21. – Reg.

Ref : Solid Waste Management Rules, 2016

With reference to subject aforementioned, we are herewith submitting Form-III to GHMC i.e., Annual Report of Solid Waste Processing and Disposal Facility at Jawaharnagar for the financial year 2020-21.

Thanking You,

Yours Sincerely,
For Hyderabad Integrated MSW Limited


Authorized Signatory


Encl.: As above

CC: The Director General, EPTRI, Gachibowli, Hyderabad


30 JUN 2021




Lr.No.HIMSW/GHMC/21-22/2011

Date: 29/06/2021

To,

The Commissioner,
Greater Hyderabad Municipal Corporation,
Tank Bund Road,
Hyderabad – 500 063

Dear Sir,

Sub : Submission of Form – III - Format of Annual Report by Solid Waste Processing and Disposal Facility to the Local Body for the FY 2020-21. – **Reg.**

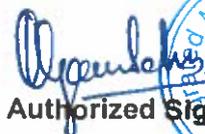
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Thanking You,

Yours Sincerely,

For Hyderabad Integrated MSW Limited


Authorized Signatory



Encl.: As above

CC: The Director General, EPTRI, Gachibowli, Hyderabad

Form – III

[See rule 19(6), 24(1)]

Format of annual report to be submitted by the operator facility to the local body

1	Name of the City/Town and State	Hyderabad
2	Population	9.74 Million
3	Area in sq. kilometers	650 km ²
4	Name & Address of the local body Telephone No. Fax No. E-mail:	Greater Hyderabad Municipal Corporation, M.C Complex, Lower tankbund, Hyderabad-500063.
5	Name and address of operator of the facility	Hyderabad Integrated Municipal Solid Waste Ltd, Survey No. 173, Jawaharnagar, Kapra Mandal, Medchal Dist.
6	Name of officer in-charge of the facility Phone No: Fax No: E-mail:	Nigam Sahoo, Head – P&D Facility +91 9022662311 nigam.sahoo@ramky.com
7	Number of households in the city/town, Number of non-residential premises in the city Number of election/administrative wards in the city/town	
8	Quantity of Solid waste	21,92,926 MT/PA
	Estimated Quantity of solid waste generated in the local body area per day in metric tones	6008/TPD
	Quantity of solid waste collected per day	6008/TPD
	Per capita waste collected per day	0.616 kg
	Quantity of solid waste processed	5948/TPD
	Quantity of solid waste disposed at landfill	1039/TPD
9	Status of Solid Waste Management (SWM) service	Active
	Segregation and storage of waste at source Whether solid waste is stored at source in domestic/commercial/institutional bins If yes Percentage of households practice storage of waste source at source in domestic waste Percentage of non-residential premises practice storage of waste at source in commercial/institutional bins Percentage of households dispose of throw solid waste on the streets Percentage of non-residential premises dispose of throw solid waste on the streets Whether solid waste is stored at source	Yes/No GHMC GHMC GHMC GHMC Yes/No GHMC

in a segregated form If yes, Percentage of premises segregating the waste at source											
Door to door collection of solid waste											
Whether door to door collection (D2D) of solid waste is being done in the city/town	Yes/No GHMC										
If yes	GHMC										
Number of wards covered in D2D collection of waste	GHMC										
No. of households covered	GHMC										
No. of non-residential premises including commercial establishments, hotels, restaurants, educational institutions/offices etc covered	GHMC										
Percentage of residential and non-residential premises covered in door to door collection through:	GHMC										
Motorized vehicle	%										
Containerized tricycle/handcart	%										
Other device	%										
If not, method of primary collection adopted	GHMC										
Sweeping of streets	GHMC										
Length of roads, streets, lanes, byelanes in the city that need to be cleaned	GHMC Km										
Frequency of street sweepings and percentage of population covered	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Daily</th> <th>Alternate days</th> <th>Twice a week</th> <th>Occasionally</th> </tr> </thead> <tbody> <tr> <td>% of population covered</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Frequency	Daily	Alternate days	Twice a week	Occasionally	% of population covered				
Frequency	Daily	Alternate days	Twice a week	Occasionally							
% of population covered											
Tools used											
Manual sweeping	%										
Mechanical sweeping	%										
Whether long handle broom used by sanitation workers	Yes/No										
Whether each sanitation worker is given handcart/tricycle for collection of waste	Yes/No										
Whether handcart/tricycle is containerized	Yes/No										
Whether the collection tool synchronizes with collection/waste storage containers utilized	Yes/No										
Secondary waste storage facilities											
No. and type of waste storage depots in the city/town	No. Capacity in m ³										
Open waste storage sites											
Masonry bins											
Cement concrete cylinder bins											
Dhalao/covered rooms/space											
Covered metal/plastic containers											

	Up to 1.1 m ³ bins 2 to 5 m ³ bins Above 5 m ³ containers Bin-less city																
	Bin/population ratio																
	Ward wise details of waste storage depots (attach): Ward No: Area: Population: No of bins placed: Total volume of bins placed: Total storage capacity of waste storage facilities in cubic meters:	GHMC															
	Total waste actually stored at the waste storage depots daily: Give frequency of collection of waste from the depots: No of bins cleared: Whether storage depots have facility for storage of segregated waste in green, blue and black bins	<table border="1"> <thead> <tr> <th>Frequency</th> <th>Daily</th> <th>No. of bins</th> </tr> </thead> <tbody> <tr> <td>Alternate day</td> <td></td> <td></td> </tr> <tr> <td>Twice a week</td> <td></td> <td></td> </tr> <tr> <td>Once a week</td> <td></td> <td></td> </tr> <tr> <td>Occasionally</td> <td></td> <td></td> </tr> </tbody> </table> Yes/No If Yes add details No of green bins: No of blue bins: No of black bins:	Frequency	Daily	No. of bins	Alternate day			Twice a week			Once a week			Occasionally		
Frequency	Daily	No. of bins															
Alternate day																	
Twice a week																	
Once a week																	
Occasionally																	
	Whether lifting of solid waste from storage depots is manual or mechanical. Give percentage	% of manual lifting of SOLID WASTE – % of mechanical lifting -															
	If mechanical – specify the method used Whether solid waste is lifted from door to door and transported to treatment plant directly in a segregated form	Front-end loaders/ Top loaders Yes/No (If yes, specify)															
	Waste transportation per day Type and number of vehicles used (pl tick or add) Animal cart Tractors Non tipping truck Tipping truck Dumper placers Refuse collectors Compactors Others JCB/Loader Frequency of transportation of waste	No of trips made: 694 Waste Transported Frequency Daily Alternate day Twice a week Once a week Occasionally % of waste transported															
	Quantity of waste transported each day % of total waste transported daily Waste treatment technologies used	6008/tpd 100% Mechanical & Biological Treatment with Sanitary															

Whether solid waste is processed	Engineered Landfill Yes
If yes, quantity of waste transported daily Land(s) available with the local body for waste processing (in Hectares)	6008 /tpd Yes
Land currently utilized for waste processing Solid waste processing facilities in operation	351 Acres
Solid waste processing facilities under construction Distance of processing facilities from city/town boundary Details of technologies adopted	NA 28 Km Mechanical Biological Treatment, inert disposing by Scientific landfilling.
Composting Vermicomposting	Quantity raw material processed: 21,71,348 MT Quantity final product produced: 54,823 MT Quantity of residual waste landfilled:3,79,214 MT Quantity raw material processed: Not Applicable Quantity final product produced: Not Applicable Quantity of residual waste landfilled: Not Applicable
Biomethanation Refuse Derived fuel Waste to energy technology Such as incineration, gasification, pyrolysis or any other technology (give detail) Co processing	Quantity raw material processed: 0 MT Quantity final product produced: 0 KWH Quantity of residual waste landfilled: Not Applicable Quantity raw material processed: 21,18,981 MT Quantity final product produced: 9,17,826 MT Quantity of residual waste landfilled: 0 MT Quantity raw material processed: NA Quantity final product produced: NA Quantity of residual waste landfilled: NA Quantity raw material processed: Nil
Combustible waste supplied to cement plant Combustible waste supplied to Solid waste based power plants Others	Quantity: Nil Quantity : 2,26,092 Quantity: Nil
Solid waste disposal facilities	
No. of dump sites available with local body	1
No. of sanitary landfill sites available with the local body	1

	Area of each such sites available for waste disposal	280 Acres
	Area of land currently used for waste disposal	13.4 Acres
	Distance of dump site/landfill facility from city/town	28 Km
	Distance from the nearest habitation	0.5 Km
	Distance from water body	0.5 Km
	Distance from state/ national highway	15 Km
	Distance from airport	70 Km
	Distance from important religious places or historical monuments	6 Km
	Whether it falls in earthquake fault line area	No
	Quantity of waste landfilled each day	1048 MTD
	Whether landfill site is fenced	Yes
	Whether lighting facility is available on site	Yes
	Whether weighbridge facility available	Yes
	Vehicles and equipment's used at landfill (specify)	Bulldozers, compacters & Excavators etc. available
	Manpower deployed at landfill site	Yes Following manpower deployed: Engineer – 1 person, Supervisors – 3 persons, Labor – 7 persons, Drivers – 2 persons for dozer & roller.
	Whether covering is done on daily basis	Yes
	If not, frequency of covering the waste deposited at the landfill	
	Cover material used	Soil & HDPE
	Whether adequate covering material is available	Yes
	Provisions for gas venting provided	Yes
	Provisions for leachate collection	Yes
10	Whether an action plan has been prepared for improving solid waste management practices in the city	Yes/No
11	What separate provisions are made for: Daily related activities: Slaughter houses waste: C&D waste (construction debris):	Steps taken, Yes/No Yes/No
12	Details of post closure plan	Not Applicable
13	How many slums are identified and whether these are provided with Solid Waste Management facilities:	No
14	Give details of man power deployed for collection including street sweeping, secondary storage, transportation, processing and disposal of waste	GHMC
15	Mention briefly, the difficulties being	GHMC

	experienced by the local body in complying with provisions of these rules	
16	Mention briefly, if any innovative idea is implemented to tackle a problem related to solid waste, which could be replicated by other local bodies.	GHMC

Date: 29-06-2021

Place: Hyderabad


Signature of Operator

