GOVERNMENT OF TELANGANA

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE :: MEDCHAL-MALKAJGIRI DISTRICT

From
Sri D.Amoy Kumar, I.A.S,
Collector & District Magistrate,
Medchal-Malkajgiri District.

To
The Registrar, Hon'ble NGT
Southern Zonal Branch,
Chennai.

Lr.No ACLB/ULB/5071/2023 Date: 24.08.2023

Sir,

Sub: Medchal Malkajgiri District – Urban Local Bodies – Hon'ble NGT, New Delhi – Original Application No 167 of 2023 registered on a letter petition dated: 25.10.2022 received from Mrs K.Himabindu, R/o Dammaiguda, Hyderabad – Disposal order dated: 24.05.2023 – Request to nominate an official for Joint Committee as per the directions of the Hon'ble NGT – Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation is nominated as representative of the District Collector, Medchal-Malkajgiri District – Orders – Issued – Joint Inspection report submitted by the representative of TSPCB and MC, Jawaharnagar – Certain suggestions made in the report – Forwarded to the Commissioner, Greater Hyderabad Municipal Corporation for taking further necessary action in the matter as Commissioner, GHMC is the Competent authority as per SWM Rules, 2016 – Submission of Action Taken Report – Reg.

Ref: 1) Lr.No 3/NGT-New Delhi/TSPCB/Legal/2023-32 of the Member Secretary, Telangana State Pollution Control Board dated: 12.06.2023.
2) Proc.No ACLB/ULB/5071/2023 of the District Collector, Medchal-Malkajgiri District dated: 12.07.2023.
3) Joint report submitted by Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation and Sri D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad, TSPCB submitted on 22.07.2023.
4) Lr.No ACLB/ULB/5071/2023 of the Collector & District Magistrate, Medchal-Malkajgiri District dated: 09.08.2023

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The kind attention of the Registrar, Hon'ble National Green Tribunal, Southern Zonal Branch, Chennai is invited to the subject and reference 1st cited above through which the Member-Secretary, TSPCB has addressed a letter to the District Collector, Medchal-Malkajgiri District informing about the directions issued by the Hon'ble NGT in O.A.No 167 of 2023 filed by Smt K.Himabindu, R/o Dammaiguda regarding piling up of huge Municipal Solid Waste in Jawaharnagar Dumpyard which is causing huge damage to environment besides creating health hazardous to the local people.

The Hon'ble NGT disposed the case on 24.05.2023 stating that the issue raised in the application, at the first instance can be looked into by the local authorities and in this

regard, the Hon'ble NGT constituted a Joint Committee comprising Telangana Pollution Control Board and District Magistrate, Hyderabad who shall look into the matter, collect relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months.

The Hon'ble NGT also directed that the committee may further file status of compliance with the directions of Tribunal in order dated: 14.02.2020 in O.A.No 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated: 18.02.2021.

Further it is to submit that the Sri D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad is nominated as representative of TSPCB and requested the District Collector, Medchal-Malkajgiri District to nominate an official for the joint committee as per the directions of the Hon'ble NGT.

Accordingly, vide reference 2nd cited above, orders have been issued nominating Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation, Medchal-Malkajgiri District as the representative of the Collector & District Magistrate, Medchal-Malkajgiri District and he was directed to examine the content in coordination with the member nominated by the TSPCB and to submit Action Taken Report.

Further it is to submit that vide reference 3rd cited above, the representatives of the TSPCB and District Collector, Medchal-Malkajgiri District have submitted their joint inspection report and their report is reproduced hereunder for kind perusal:

" It is to submit that the Hon'ble NGT, Principal Bench registered an Original Application (OA) in OA No. 167 of 2023 registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, R/o.Dammaiguda, Hyderabad.

It is alleged the local authorities at Dammaiguda Hyderabad have piled up huge municipal solid waste in Jawahar Nagar Dump Yard which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

It is further alleged that bio-mining activities have not yet started, not yet started 3 alternative sites to reduce the load at Jawaharnagar dumpsite and capping of 12 M tons of waste is a failed project.

It is to submit that the above case came up for hearing before the Hon'ble NGT on 24.05.2023 and the Hon'ble NGT ordered to constitute a Joint Committee comprising of following: -

1. District Magistrate, Hyderabad District.
2. Telangana State Pollution Control Board

The Hon'ble NGT directed the Joint Committee shall look into the matter, collect relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months. The Committee may further file status of compliance with the directions of Tribunal in order dated 14.02.2020 in OA No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021.

Accordingly, a Joint Committee was constituted with following members:

1. Shri G.Ramalingam, Commissioner, Jawaharnagar Municipal Corporation (Representative of District Collector, Medchal-Malkajgiri District).
2. Shri D.Narender, SEE, Zonal Office, Hyderabad,TSPCB (Representative from TSPCB).

As per the instructions, the Joint Committee has conducted inspection of the Jawaharnagar dumpsite and surrounding areas on 19.07.2023 to ascertain whether the Solid Waste Management Rules, 2016 as well as the directions issued by the Hon'ble NGT, Principal Bench, New Delhi in OA No.606 of 2018 are being implemented by the GHMC and Jawaharnagar dumpsite and the following report is submitted:

- Jawaharnagar Dumping yard is located at Sy.No. 173, Jawaharnagar (V), Kapra (M), Medchal-Malkajgiri District. The Municipal dumpsite is located on a highly elevated rocky terrain (Hills) and at a height of about 620 feet above mean sea level i.e. 120 feet above from the surrounding area. The dumpsite is spread in an area of about 339 acres.

  The surroundings of the Municipal dumpsite are as follows:

  East : Houses of Rajeev Gruhakalpa at about 500 mtrs distance

  West: Gabbilalpet village is at a distance of about 500 mtrs.

  North: Haridaspalli village is at a distance of about 500 mtrs.

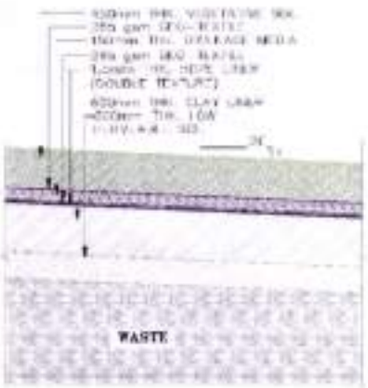
  South: Dammiguda village is at a distance of about 2 KMs.

- Earlier, the municipal solid waste generated from Kapra, Alwal & Moulali Municipality areas was used to be carried through trucks and dumped haphazardly in the abandoned stone quarries located at Jawaharnagar. The GHMC dozed all the waste spread in 339 Acres and subsequently, consolidated in 125 Acres of about 10–12 Million tons.
- *Now, the Jawaharnagar dump site has two components i.e.,* ***existing old dump site and new integrated processing facility.***

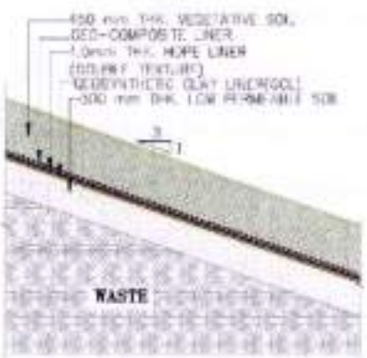
I. STATUS OF EXISTING LEGACY OLD DUMPSITE:

- The old dump contains 10-12 million tons of Municipal Waste dumped un-scientifically which is leading to air, surface water and ground water pollution.
- As part of the site rehabilitation planning, waste spread across 339 acres was compacted into a smaller foot print of 125 Acres, thereby releasing the balance land for development of scientific processing & disposal facilities.
- The GHMC has taken up capping of legacy waste of 12 million tons and completed the capping and submitted the following with regard to capping of the legacy dumpsite.
- The capping at Jawaharnagar of the legacy waste was taken up by the GHMC with a project cost of Rs.144.0 Crores. The design and engineering was provided by a consultant from UK which was validated by a team of experts from IIT, Delhi.
- The Jawharnagar capping design also conforms to Central Public Health & Environmental Engineering Organization (CPHEEO) manual on the MSW Management guidelines for capping of old dump sites as well as SWM Rules, 2016.
- A design of 1:3 (one vertical to 3 horizontal) slopes has been adopted for the Jawahar Nagar site in conformance.
- Hyderabad Institute of Municipal Solid Waste (HIMSW) proposed 300 mm thick low permeable soils with GCL (geo synthetic clay liner) to act as solid waste cover. The low permeable soils are cohesive in nature and will act as regulating layer over the waste mass.
- Double side textured HDPE liner of 1.5mm thickness has been adopted in the design to conform to the above guidelines in the Jawaharnagar Capping Design. HDPE liner will prevent any infiltration of rainwater into the waste mass thus reducing the Leachate within the capped landfill progressively.

- 450mm thick restoration soils are placed on top of the Geo Composite Liner in the Jawaharnagar Design in conformance to the above guidelines. The vegetative soil layer supports vegetative as well as supports housing of storm water drainage.
- The bund formation works of capping has been formed for profiling and stability of old dump and a total of 2300 Rmt. bund with a base width of 21 meter was constructed. The Bund was designed along with outer drain so as to extract and drain the excess leachate existed in the legacy dump and the inner lining and pipe network allows the leachate to drain out and keeps the bund stable.
- A surface area of 5.5 lakh Sq Mts was profiled using excavators. The designed slopes of 1V:3H are achieved and a 4.0 m berm has been laid between the upper and lower slopes for the vehicle movement.
- About 152 gas bore wellswere drilled to extract the gas from the capped site. The bore wells are drilled up to an average depth of 20 Mts. and are designed in such a way that the gas can only escape from the HDPE pipe laid inside the drilled length.
- Series of bore wells are connected to a manifold system and from there to a Ring Main and finally connected to a gas compound housing infrastructure for flaring, conversion to compressed bio gas or energy.



DUMP CAPPING COVER SYSTEM (TYP.)
AT CLOSER TOP (SLOPE 20:1)



DUMP CAPPING COVER SYSTEM (TYP.)
AT SLOPE (3:1)

Capping of legacy waste at JN Dump site with soil erosion protection

LEGACY LANDFILL GAS MANAGEMENT:

- It is to submit that Landfill gas generated within the capped landfill is regularly extracted out of the landfill through strategically placed gas wells. These gas wells are connected through a piping network to a flaring station. The closed network of landfill gas collection system is subjected to vacuum for extracting the generated gas out of the landfill. Land Fill Gas (LFG) Management has been initiated with the below components:
  i. Up-gradation to Compressed Bio Gas (CBG) – LFG upgraded to meet saleable CBG quality. The initial capacity of the plant is 600 nm3/hr.
  ii. Flaring – Three flare stations of capacity 500 nm3/hr each installed to combust LFG to reduce GHG emission and reduce odor.

- The GHMC has explored drilling in waste dump using robust drilling rig (Soil MEC SR 40) with augur bucket attachment and drilled 152 numbers of gas collection wells of 600 mm diameter to a maximum depth of 35 m for collection of landfill gases. Gas wells are designed in such a way that the gas can only escape through the perforated HDPE pipes placed inside the wells.

- The gas vents are connected with HDPE lateral pipe lines which are further connected to manifold and is linked with knockout drum to address the condensate moisture of landfill gas. Gas collection line is connected to main gas pipeline to reach the Compressed Bio Gas (CBG) plant of 750 cubic meter per hour input capacity where CBG is produced by cleaning, enrichment and bottling. In addition to CBG plant 3 no's. of gas flaring systems are installed to flare the surplus gas, if any generated beyond the capacity of CBG plant.

5 TPD CBG Plant for Capped legacy waste

- The Landfill Gas Extraction and Purification Details:

Year	Extracted (cum)	Flared (cum)	Purified (cum)
2020-21	122336	122336	-
2021-22	274543	217552	56991
2022-23	299832	196966	102866
2023-24	144358	111405	32,953
Total	**841069**	**648259**	**159857**

- The facility has also procured the dedicated CBG storage and mobile filling vehicle of capacity 1.4 tons to fill the gas into the vehicles.

Status of Capping:

- The Hon'ble NGT in O.A.No. 606 of 2018 vide order dated 29.09.2022 directed to CPCB to examine the aspect of Bio Mining of the capped legacy waste in consultation with concerned experts and determine whether capping can be retained and if not what further course of action is to be taken for protection of environment. The State is expected to follow the advise of the CPCB in the matter, subject to any grievance against such advise being raised before the Tribunal.

- GHMC has engaged IIT, Bombay to study the readiness of the capped dumpsite for bio-mining and also to advice GHMC in the bid process evaluation, wherein Prof DN Singh of IIT Bombay in his interim report dated July 2022 stated that "...going ahead with Bio-mining, by opening the existing scientifically capped dumpsite, otherwise might turn out to be dangerous and environmentally hazardous". IIT, Bombay submitted its final report and the summary is as follows:

i. The segregation of DMSW samples indicates the dominance of plastics and fine fractions (<10 mm) of the waste matrix up to ≈40 % (each) by weight.

ii. The organic matter (up to 35%) and moisture content (>100%) of the fine fraction are high, which indicates its potential to decompose in the long run.

iii. The specific gravity of the fine fractions is around 2.30, which makes it an un-preferred, if not unsuitable, material for structural filling purposes.

iv. As observed during the sampling process and testing of DMWS, the leachate, foam generation, and landfill gas emission indicates the ongoing active decomposition of MSW in JLH. Hence, biomining at this point in time is not recommended.

v. Though the calorific value of most samples of coarse fractions is above >1500 kCal/kg, their ash content is as high as 60%, which is not permissible to use as refuse-derived fuel in industries.

vi. Higher Na+ concentration in fine fractions would result in sodic soil formation when applied as a soil amending agent for agricultural applications.

vii. Higher TOC, TN and S concentrations in leachate generated from fine fractions indicate their potential for degradation even when present in landfills. Hence, it is suggested to treat the leachates generated from JHL appropriately.

viii. Based on the present state of the decomposed MSW and foam observed during borehole drilling, it can be concluded that the waste is yet to decompose. Hence, the JHL is not ready for bio mining.

- Further, in compliance to the orders of the Hon'ble NGT, New Delhi dated 29.09.2022 in OA 606 of 2018, CPCB constituted a Committee of Experts to finalize its viewpoint on whether capping can be retained and the Committee through video conference on 30.12.2022 critically examined the capping work vis a vis the measures being taken by GHMC to protect the environment while keeping in view the fact that the daily generated MSW of GHMC is also being treated and disposed scientifically in the same site. The report of the Expert Committee is awaited.

LEGACY LEACHATE MANAGEMENT:

- The leachate which is being generated from the existing (legacy) dump site into the Malkaram cheruvu. Earlier, the GHMC engaged M/s RO Chem for treatment of legacy leachate. The RO Chem facility has provided 2 x 2 MLD capacity RO Plants. The facility is feeding @ 100 KL/hr. (20 hrs. operation) and about 63% of permeate generated in each RO system. The total permeate of about 2400 KLD is being disposed through pipeline to Cheriyal channel and RO reject was being pumped back into the Malkaram cheruvu.

Due to treatment of legacy leachate by the RO plants, leachate quantity has come down and the addition of fresh leachate from the old dump has also reduced drastically as steps were taken for capping. The GHMC stopped the operation of RO plants after they planned for comprehensive treatment of legacy leachate project.

- Subsequently, GHMC has taken up the project of Comprehensive Treatment of Legacy Leach ate to clear entire legacy leachate impounded in the Malkaram tank and other artificial ponds adjacent to the legacy dumpsite with a project cost of Rs.251 Cr.

- GHMC has awarded contract for establishment of the Legacy leachate treatment plant to M/s Ramky Infrastructure Ltd and agreement was concluded on 02.09.2021. The RIL proposed to establish 2.0 MLD capacity MVRE Low Temperature Evaporation plant to treat the legacy leachate.

- TSPCB issued CFE to the facility to establish LTE Mechanical Vapour recompression Evaporation (MVRE) of capacity 2000.0 KLD.

- The objective of the Project is time bound treatment and disposal of legacy leachate to the standards acceptable for safe and scientific disposal of treated leachates and the sediments and final rejects with no residue left at site and to reclaim the land occupied by the artificial ponds and to restore and stabilize the Malkaram Tank by bringing it to natural lake standards.

- The scope of this project includes, apart from complete treatment and disposal of legacy leachate from Malkaram tank and other artificial ponds in (02) years, restoration and stabilization of Malkaram tank in the subsequent (03) years. Further, in case the stabilization (rejuvenation) of Malkaram lake is not achieved within (03) years, the obligation of treatment and disposal of the leachate for further period until restoration rests with the Concessionaire under Extended Operation period.

- The Legacy Leachate Treatment project was commissioned with 2 MLD capacity from 21.10.2022. GHMC has set target to complete treatment of the Malkaram tank before onset of monsoon 2023. Further, HDPE floats were also placed in malkaram tank to prevent the mixing of rainfall with the leachate in the tank. Rain water collected in the floats is pumped out at regular intervals.

- However, during inspection it was noticed that the GHMC completed the treatment of leachate in Malkaram tanks and the leachate in temporary storage tanks is yet to be completed. The representative informed that they will complete the treatment of complete leachate by December, 2023.

- The details of leachate treatment carried out by facility are as follows:

Legacy Leachate Project Area with Leachate Ponds				
Sl. No.	Month	Date	MVRE Feed intake	
			Month Flow	Cumulative Flow KL
1	July-22	31-07-2022	791.59	791.59
2	August-22	31-08-2022	3638.01	4429.6
3	September-22	30-09-2022	4154.30	8583.9
4	October-22	31-10-2022	7790.30	16374.2
5	November-22	30-11-2022	13481.14	29855.34
6	December-22	31-12-2022	18169.53	48024.87
7	January-23	31-01-2023	33461.53	81486.40
8	February-23	28-02-2023	34421.49	115907.89
9	March-23	31-03-2023	34400.45	150308.34
10	April-23	30-04-2023	32062.15	182370.49
11	May-23	31-05-2023	25666.37	208036.86
12	Jun-23	30-06-2023	31880.31	239917.17
13	Jul -23	18-07-2023	15548.85	255466.02
As on date Treated Leachate qty.				**255466.02**

Legacy Leachate Ponds:

	
Legacy Leachate Ponds June 2022	**Legacy Leachate Ponds July 2023**

II. SCIENTIFIC INTEGRATED PROCESSING FACILITY INCLUDING SECURED LANDFILL AT JAWAHAR NAGAR:

- The Integrated MSW Processing Facility located at Jawaharnagar is operated through the private operator namely M/s. Hyderabad Integrated Municipal Solid Waste Ltd., under Public Private Partnership in Built, Operate and Transfer(BOT) mode.
- The GHMC entered into MoU with M/s. Ramky Integrated Solid Waste Management facility in the year 2009 and started its operation of processing & disposal facility in February 2012.

- The facility has obtained Environmental Clearance on 20.06.2012 to establish MSW processing facility at Sy.No.173, Jawaharnagar (V), Shameerpet (M), Medchal-Malkajgiri District with total processing capacity of 6000 TPD having following processing facilities:

Sl. No.	Description of the facility	Capacity
1.	RDF Plant (2X 1200 TPD)	2400 TPD
2.	Compost Plant (3X680 TPD)	2040 TPD
3.	Recycling Complex (Plastic, Paper, Metal, Rubber, Glass etc.)	600 TPD
4.	Land fill with leachate collection and treatment system	735 TPD
5.	Waste to Energy plant	24 MW

- The facility obtained CFE &CFO and MSW authorization of the Board vide order dated 19.02.2019 with validity upto 31.07.2023.
- The facility also obtained CFE/CFO of the Board for establishing Waste to Energy Plant of capacity 24 MW in the name of M/s. Hyderabad MSW Energy Solutions and subsequently obtained CFO vide order dated 15.07.2020 with validity upto 31.03.2025. Presently, the facility is under operation and utilizing around 1500 TPD of RDF.
- The facility obtained EC for expansion of Waste to Energy Plant from 19.8 MW to 48 MW. The facility obtained CFE of the Board for 48 MW capacity of WtE plant.
- Another 24 MW capacity is under construction and observed that construction works are under progress.
- The GHMC has also proposed to establish another Waste to Energy plant of capacity 14.5 MW at Dundigal, Medchal-Malkajigiri District to utilise the RDF generated from the integrated processing facility of Jawaharnagar. The Board issued CFE to the facility vide order dt.01.07.2020 to utilize 1000 TPD of RDF. The facility is under erection and proposed to commission by July,2023.
- The facility provided sanitary Landfill and is operated to accommodate inerts/rejects generated during process of treatment of MSW. Landfill constitutes of series of layers viz., Clay liner, HDPE liner, Drain media (for leachate collection), Geo-textile media to resist any contamination of leachate with ground water.

- The facility has provided H_2S & Methane gas collection, utilization / incineration system to minimize odor generation and mist spraying systems for spraying de-odorizing agents at the compost yards.
- The facility has provided ZLD System consisting of leachate treatment plant of capacity 600 KLD followed by double stage RO systems. The facility provided MEE followed by ATFD to treat the RO rejects generated from the leachate treatment plant.
- The Municipal waste collected from GHMC and surrounding ULBs are transported in closed containers to the processing site. The waste is processed at the integrated site and the Processing plant includes Presorting, Compost Plant and RDF plant.
- The facility provided mechanical screens with 70mm sorting screen to segregate the material based on size, the oversized material is called as RDF it will be used in Waste to energy power plants and Cement industry for co-processing purpose. The facility has provided 21 trommels to carryout presorting. The facility proposed to install Disc screening with 40 TPH capacity for better screening and efficiency.
- The under sized<70mm material from presorting section will be sent to windrow aerobic composting for degradation purpose, during this time the EM culture is be applied on windrows for rapid composting and it will take 25 days for complete composting. During inspection, it was noticed that due to open windrow composting leachate generation may be more during rainy days. The facility may explore the possibility of providing sheds to all the windrow composting areas as well as Municipal waste storage heaps.
- The facility has provided closed shed for the additional windrow composting yard and provided bio enzymes & odor neutralizing spray misting lines at the tipping floor and Windrow composting yard. The facility is also carrying out spraying of odour neutralizing bio enzymes on the municipal waste/bio-composting heaps with drones to control the odour.
- A network of garland drain along the compost plant is connected to leachate collection system apart from the above all other sources from landfill and RDF storage units is connected to leachate collection tanks and treated in leachate treatment plant.
- The facility is also having separate storm water drains to collect the rain water in the area and connected to the down stream natural drains. However, during the inspection it was noticed that contaminated rain water was flowing in the storm water drains which may contaminate the water bodies in the down stream. The facility shall provide first cut runoff rain water collection tanks to all the storm

water drains to collect the contaminated first cut runoff rain water and treat the same in Leachate treatment Plant.

- The facility has completed the capping of old landfill with soil cover and the grass cover is under progress.
- As per the CFO condition, the facility shall provide H_2S & Methane gas collection, utilization / incineration system to minimize odour generation. The facility has provided methane gas collection and flaring system to the closed first secured landfill and at the existing (legacy) dump site near the RO system.

Fresh waste leachate management:

The lateral pipeline network is created for leachate collection in the capped Secured landfill of the fresh waste and the leachate generated from the processing plants are connected to the nearest low lying underground HDPE tanks from where it is delivered to leachate treatment system with 600 KL per day capacity, which is having primary treatment containing coarse and fine screen followed by Diffused aeration and High rate sludge clarifier to address the suspended solid and hardness. Later the pre-treated leachate is passed through 2 stage reverse osmosis unit. The reject from RO system is treated at Multiple Effect Evaporator (MEE) followed by Agitated Thin Film Dryer (ATFD) systems to convert the reject into salt. The ATFD sludge is used as fuel along with RDF in the Waste to Energy plant of capacity 24 MW. The RO permeate along with condensate of MEE and ATFD after meeting the standards as per SWM Rules 2016 is used for greenery development within the premises.

The facility proposed to upgrade the ZLD system to 750 KLD.

Weigh bridge – Jawharnagar P & D facility

trommels

4mm screening – Compost

Waste to Energy plant (24 MW)

Leachate treatment plant

Reverse Osmosis plant

Leachate Treatment Plant

Status of Alternative sites:

- The GHMC has proposed to develop alternative sites for processing of Municipal Waste generated in GHMC area on decentralised mode.
- The GHMC informed that they have identified 3 alternate sites at (1). Pyaranagar(v) Gummadidala (M), Medak District (2). Khanapur (V), Talakondapally (M), Ranga Reddy District and (3). Lakdaram(v) Patancheruvu(M), Sangareddy Dist to reduce the load at the Jawaharnagar Integrated Scientific Processing plant. Due to decentralization of the processing plant the burden on the Jawaharnagar site will be considerably reduced.

- As per the latest information furnished by the GHMC, decentralized processing facilities are being developed at Pyaranagar, Dundigal and Yacharam. Status of 3 decentralized sites are as follows:

1. The site at Pyaranagar(v) Gummadidala (M), Sangareddy District was handed over to the Concessionaire, but as there is no approach road to the site GHMC requested Forest Dept for diversion of 0.6228 ha of forest land in the Nallavelly Reserve Forest for approach road for which Stage-I approval was given by the MoEF&CC on 05.05.2022 and GHMC has submitted compliance report to the concerned District Forest Officer on 29.11.2022.

   TSPCB issued Consent for Establishment (CFE) to establish processing plant of capacity 4000 TPD with following facilities:

   - Raw Biogas 260 Tons/day
   - Electricity 15 MW
   - Recycled plastic 90 Tons/day
   - Compost 200 Tons/day
   - RDF 2035 Tons/day .

2. **Dundigal:** 15 MW waste to energy project is proposed here for which CFE was granted by TSPCB on 01.07.2020 with input waste (RDF) of 1,000 tons per Day. At present the waste to power project construction works have reached final stage and ready for commissioning.
3. **Yacharam:** 12 MW capacity Waste to Energy project is proposed here for which CFE was granted by TSPCB on 11.03.2020. As per the information provided by GHMC, the agency has requested for granting permission for enhancement of the project capacity from 12 MW to 14 MW for the reason of financial viability and the request is under the consideration of the Government of Telangana at Dundigal/ Lakdaram shall be made operational at the earliest.

Concluding remarks :

Based on the field observations and status of implementation of SWM rules in the Jawaharnagar Processing site, the following concluding remarks are submitted:

1. The facility has provided 21 trommels to carryout presorting of the municipal waste at the processing facility. With increasing waste received day by day, the facility shall install/increase the presorting units with Disc screening systems as proposed for better screening and efficiency.
2. It was noticed that due to open windrow composting leachate generation may be more during rainy days. The facility may explore the possibility of providing sheds to all the

windrow composting areas as well as Municipal waste storage heaps to reduce the leachate generation as well as proper handling of waste.

3. It was noticed that contaminated rain water was flowing in the storm water drains which may contaminate the water bodies in the downstream. The facility shall provide first cut runoff rain water collection tanks to all the storm water drains to collect the contaminated first cut runoff rain water and treat the same in Leachate treatment Plant. The facility shall upgrade the leachate treatment plant to treat the above or treat in the Legacy Leachate treatment plant."

Further it is to submit that the Greater Hyderabad Municipal Corporation (GHMC) being the Urban Local Body for the city of Hyderabad is responsible for the management of the Municipal Solid Waste (MSW) as per the Solid Waste Management Rules 2016 issued by the MoEF & CC, GoI including collection, transportation, treatment and scientific disposal of the same.

As such, the Joint Committee report submitted by the representatives of Telangana State Pollution Control Board and District Collector, Medchal-Malkajgiri District has been submitted to the Commissioner, Greater Hyderabad Municipal Corporation for taking further necessary action on the recommendations made by the committee.

Hence, submitted for kind information.

Yours faithfully

Collector & District Magistrate,
Medchal-Malkajgiri District

Encl: 1) Copy of Lr.No 3/NGT-New Delhi/TSPCB/Legal/2023-32 of the Member Secretary, Telangana State Pollution Control Board dated: 12.06.2023.
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ACLB/4B/5071/2023

TELANGANA STATE POLLUTION CONTROL BOARD

Paryavarana Bhavan, A-3, Industrial Estate, Sanathnagar, Hyderabad – 500018
Phone: 040 – 23887500

Lr.No. 3/NGT-New Delhi/TSPCB/Legal/2023-32 **Date: 12-06-2023**

To

The District Collector,
Medchal – Malkajgiri District.

74
ACLB
24/7/23

Sir,

Sub: TSPCB – Legal – Hon'ble NGT, New Delhi – Original Application No. 167 of 2023 registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, R/o.Dammaiguda, Hyderabad – Disposal Order dated 24.05.2023 -- Reg.

Ref: 1. OA No. 167 of 2023.
2. Hon'ble NGT, New Delhi Disposal Order dated 24.05.2023.

* * *

It is to submit that Original Application No. 167 of 2023 was registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, R/o.Dammaiguda, Hyderabad.

Prayer:

The grievance of the complainant is that the local authorities at Dammaiguda, Hyderabad have piled up huge Municipal Solid Waste in Jawahar Nagar Dump Yard, which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

The above case was heard on 24.05.2023 and the Hon'ble Tribunal disposed the case ordering as follows: -

"

ORDER

1. This original application under Sections 14 and 15 of National Green Tribunal Act, 2010 has been registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, resident of Dammaiguda, Hyderabad.

2. The grievance of the complainant is that the local authorities at Dammaiguda Hyderabad have piled up huge municipal solid waste in Jawahar Nagar Dump Yard which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

Contd...2

3. In our view, the issue raised in the application, at the first instance can be looked into by the local authorities and in this regard, we constitute a Joint Committee comprising Telangana Pollution Control Board and District Magistrate, Hyderabad who shall look into the matter, collect relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months. The Committee may further file status of compliance with the directions of Tribunal in order dated 14.02.2020 in OA No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021.

4. District Magistrate, Hyderabad shall be the nodal agency for co-ordination and compliance of this order.

5. The copy of the action taken Report shall be filed by the said Committee before the Registrar of Southern Zonal Bench at Chennai by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF, who shall, if find necessary for any further order, place the matter before the Bench.

6. Subject to above directions/observations, the application is disposed of.

7. A copy of this order be forwarded to Telangana PCB and District Magistrate, Hyderabad by e-mail for compliance".

The copy of the above Order is also enclosed for information.

The Hon'ble Tribunal constituted a Joint Committee as follows: -

a) District Collector, Hyderabad – **Nodal agency for coordination & compliance.**
b) State PCB.

and directed to look into the matter, collect relevant information and if find any violation, should take appropriate, remedial and preventive action in accordance with law within two months.

Sri.D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad [Cell No. 9177303212, e-mail: see-zhyd-tspcb@telangana.gov.in] is nominated as representative of TSPCB.

The Committee to file further status of compliance with the directions of the Tribunal in Order dated 14.02.2020 in OA No. 606 of 2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021. The District Collector, Hyderabad is appointed as Nodal Agency for coordination and compliance of the Order.

Contd...3

The Tribunal further directed to file the Action Taken Report by the Joint Committee before the Registrar, Hon'ble NGT, Chennai.

In view of the above, it is kindly requested to nominate an Official from your department for the Joint Committee as per the directions of the Hon'ble NGT, which shall submit its report to the Honble NGT, Chennai, within two months.

Yours faithfully,
Sd/-
MEMBER SECRETARY

Encl: As above.

Copy to:

1. The JCEE, ZO, Hyderabad for information and immediate necessary action.
2. The SEE (TF), Unit-VI for information and necessary action.
3. The EE, RO, RR-II for information and necessary action.

// T.C.F.B.O //

JOINT CHIEF ENVIRONMENTAL ENGINEER,
TSPCB, HEAD OFFICE, HYD.

Email

2070/14/2022
01/11/22

Public Grievance

Fwd: Common man urge on Jawahar Nagar Dump Yard - An Havoc by GHMC

From : Registrar General <rg.ngt@nic.in> Thu, Oct 27, 2022 12:03 PM

Subject : Fwd: Common man urge on Jawahar Nagar Dump Yard - An Havoc by GHMC

To : Public Grievance <publicgrievance-ngt@gov.in>

From: himabinduk2000@gmail.com
To: "Registrar General" <rg.ngt@nic.in>, "ngtpb pg" <ngtpb.pg@gmail.com>
Sent: Tuesday, October 25, 2022 6:17:42 PM
Subject: Common man urge on Jawahar Nagar Dump Yard - An Havoc by GHMC

To
Shri. Adarsh Kumar Goel Ji – Hon'ble Justice Chairperson
National Green Tribunal, Faridkot House, Copernicus Marg,
New Delhi - 110 001

Respected Sir,

Mrs. K. Himabindu, resident of Dammaiguda, Hyderabad would like to present a few lines for your kind consideration and needful action. Request your intervention to resolve this long pending deadlier issue.

15 Million Metric Tonnes of Legacy Waste Piled up in Jawahar Nagar Dump yard, which made life miserable for nearby residents.

- **Violation of environmental norms by Ramky & GHMC:**
  - Bio mining activities not started yet
  - Not yet started operations in alternate 3 new sites to get down the overload at Jawaharnagar dump yard.
  - not following the solid and liquid waste management norms
  - Capping 12 MTs of legacy waste at Jawahar nagar is a failed project, this has not given any relief to the nearby residents. In-fact such capping was not permissible under the environment norms
  - for recent heavy rainfall, the polluted water which is being discharged from the dump yard is drained out into the colonies posing a risk of diseases to the people residing around the dump yard
  - No Vision & No permanent steps taken by GHMC to eliminate this long pending issue as we are seeking a permanent solution to the stench emanating from dump yard
  - Our surrounding areas Ground Water and Air completely polluted because of this dump yard, relief measures are not being taken
  - Even after filing many complaints and representations to the State Govt. in

order to shift the dump yard which has turned into a living hell for the residents living around, no action has been taken up yet. We are getting diseases of severe headache, breathlessness, skin rashes etc very often because of bad odor

- Already two decades passed, how many years have to wait to get a permanent solution, no concrete and permanent decision is being taken by the State Govt.
- We can't even bear the bad odour from Jawahar nagar dumping yard for 2 minutes" said by CPCB officials who had inspected the dump yard, then how could we civilians bear for decades.

CONCLUSION: Day by day we are losing faith in the Govt. / Govt. bodies. If Govt. not resolve the long pending havoc issues, then whom to contact, Maoists?? (Being a common public, We are vexed with violation of rules by Ramky/GHMC and with regret, making this statement)

Would highly appreciate your intervention to resolve this long pending issue.

Yours Sincerely,
K. Himabindu
H.No.7-90/1, Ayyappa Colony, Phase 2,
Dammaiguda – 500 083
Medchal Dist, Hyderabad, Telangana
Mobile# +91 9949788404

Item No. 10 Court No. 2

BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI

Original Application No. 167/2023

K. Himabindu Applicant

Versus

State of Telangana Respondent

Date of hearing: 24.05.2023

CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER

Application is registered based on a complaint received by post/e-mail

ORDER

1. This original application under Sections 14 and 15 of National Green Tribunal Act, 2010 has been registered on a letter petition dated 25.10.2022 received from Mrs. K. Himabindu, resident of Dammaiguda, Hyderabad.

2. The grievance of the complainant is that the local authorities at Dammaiguda Hyderabad have piled up huge municipal solid waste in Jawahar Nagar Dump Yard which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

3. In our view, the issue raised in the application, at the first instance can be looked into by the local authorities and in this regard, we constitute a Joint Committee comprising Telangana Pollution Control Board and District Magistrate, Hyderabad who shall look into the matter, collect relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months. The Committee may further file status of compliance with the directions of Tribunal in order dated 14.02.2020 in *OA No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016* and subsequent Review Order dated 18.02.2021.

4. District Magistrate, Hyderabad shall be the nodal agency for co-ordination and compliance of this order.

5. The copy of the action taken Report shall be filed by the said Committee before the Registrar of Southern Zonal Bench at Chennai by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF, who shall, if find necessary for any further order, place the matter before the Bench.

6. Subject to above directions/observations, the application is disposed of.

7. A copy of this order be forwarded to Telangana PCB and District Magistrate, Hyderabad by e-mail for compliance.

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

May 24, 2023
Original Application No. 167/2023
R

PROCEEDINGS OF THE COLLECTOR & DISTRICT MAGISTRATE :: MEDCHAL-MALKAJGIRI DISTRICT

PRESENT: Sri D.Amoy Kumar, I.A.S

Proc No: ACLB/ULB/5071/2023 **Date: 12.07.2023**

Sub: Medchal Malkajgiri District – Urban Local Bodies – Hon'ble NGT, New Delhi – Original Application No 167 of 2023 registered on a letter petition dated: 25.10.2022 received from Mrs K.Himabindu, R/o Dammaiguda, Hyderabad – Disposal order dated: 24.05.2023 – Request to nominate an official for Joint Committee as per the directions of the Hon'ble NGT – **Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation** is nominated as representative of the District Collector, Medchal-Malkajgiri District – Orders – Issued.

Ref: 1) Lr.No 3/NGT-New Delhi/TSPCB/Legal/2023-32 of the Member Secretary, Telangana State Pollution Control Board dated: 12.06.2023.

O R D E R:-

Through the reference read above, the Member Secretary, TSPCB, Hyderabad has addressed a letter to the District Collector, Medchal-Malkajgiri District and stated that the Original Application No. 167 of 2023 was registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, R/o.Dammalguda, Hyderabad.

The grievance of the complainant is that the local authorities at Dammaiguda, Hyderabad have piled up huge Municipal Solid Waste in Jawahar Nagar Dump Yard, which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

The above case was heard on 24.05.2023 and the Hon'ble Tribunal disposed the case ordering as follows:-

" In our view, the issue raised in the application, at the first instance can be looked into by the local authorities and in this regard, we constitute a Joint Committee comprising Telangana Pollution Control Board and District Magistrate, Hyderabad who shall look into the matter, collect relevant Information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months. The Committee may further file status of compliance with the directions of Tribunal in order dated 14.02.2020 in OA No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021.

District Magistrate, Hyderabad shall be the nodal agency for co-ordination and compliance of this order.

The copy of the action taken Report shall be filed by the said Committee before the Registrar of Southern Zonal Bench at Chennal by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/ OCR Support PDF and not in the form of Image PDF, who shall, if find necessary for any further order, place the matter before the Bench.

Subject to above directions/observations, the application is disposed of.

A copy of this order be forwarded to Telangana PCB and District Magistrate, Hyderabad by e-mail for compliance".

The Hon'ble Tribunal constituted a Joint Committee as follows:-

a) District Collector, Hyderabad - **Nodal agency for coordination & compliance**.

b) State PCB.

and directed to look into the matter, collect relevant Information and if find any violation, should take appropriate, remedial and preventive action in accordance with law within two months.

Accordingly, vide reference read above, the State PCB has nominated **Sri.D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad [Cell No. 9177303212, e-mail: see-zhyd-tspcb@telangana.gov.in] as representative of TSPCB** and further informed that the Committee to file further status of compliance with the directions of the Tribunal in Order dated 14.02.2020 in OA No. 606 of 2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021. The District Collector, Hyderabad is appointed as Nodal Agency for coordination and compliance of the Order.

The Tribunal further directed to file the Action Taken Report by the Joint Committee before the Registrar, Hon'ble NGT, Chennai.

In view of the above, **Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation, Medchal-Malkajgiri District [Cell No: 9951524815, e-mail: mcjawaharnagar@gmail.com] is nominated as representative of District Collector, Medchal-Malkajgiri District.**

The officers mentioned above are directed to look into the matter, collect relevant Information and if find any violation, should take appropriate, remedial and preventive action in accordance with law.

The Municipal Commissioner, Jawaharnagar Municipal Corporation is directed to examine the content in coordination with the member nominated by PCB and submit ATR within (7) days positively so as to file the same before the Registrar, Hon'ble NGT, Chennai within the time specified by the Hon'ble Tribunal in its order dated: 24.05.2023.

Collector & District Magistrate
Medchal-Malkajgiri District

To

1. Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation, Medchal-Malkajgiri District for necessary action.
2. Copy to Sri D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad, TSPCB for information and necessary action. (email: see-zhyd-tspcb@telangana.gov.in).
3. Copy to the Additional Collector (Local Bodies), Medchal-Malkajgiri District for information.
4. Copy submitted to the Member Secretary, Telangana State Pollution Control Board, Telangana State, Hyderabad for favour of kind information. (A-3, Paryavaran Bhavan, Sanath Nagar Road, Sanath Nagar Industrial Estate, Sanath Nagar, Hyderabad – 500018).

(304)

REPORT OF THE JOINT COMMITTEE CONSTITUTED BY THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH IN ORIGINAL APPLICATION NO. 167 OF 2023 REGISTERED ON A LETTER PETITION DATED 25.10.2022 RECEIVED FROM MRS.K.HIMABINDU, R/O.DAMMAIGUDA, HYDERABAD

It is to submit that the Hon'ble NGT, Principal Bench registered an Original Application (OA) in OA No. 167 of 2023 registered on a letter petition dated 25.10.2022 received from Mrs.K.Himabindu, R/o.Dammaiguda, Hyderabad.

It is alleged the local authorities at Dammaiguda Hyderabad have piled up huge municipal solid waste in Jawahar Nagar Dump Yard which has now gone to the extent of 15 million metric tonnes of legacy waste. No steps for its processing or treatment have been taken by local authorities. This is causing huge damage to environment besides creating health hazardous to the local people. This is also causing seepage of leachate, contaminating ground water also.

It is further alleged that bio-mining activities have not yet started, not yet started 3 alternative sites to reduce the load at Jawaharnagar dumpsite and capping of 12 M tons of waste is a failed project.

It is to submit that the above case came up for hearing before the Hon'ble NGT on 24.05.2023 and the Hon'ble NGT ordered to constitute a Joint Committee comprising of following: -

1. District Magistrate, Hyderabad District.
2. Telangana State Pollution Control Board

The Hon'ble NGT directed the Joint Committee shall look into the matter, collect relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months. The Committee may further file status of compliance with the directions of Tribunal in order dated 14.02.2020 in OA No. 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated 18.02.2021.

Accordingly, a Joint Committee was constituted with following members:

1. Shri G.Ramalingam, Commissioner, Jawaharnagar Municipal Corporation (Representative of District Collector, Medchal-Malkajgiri District).
2. Shri D.Narender, SEE, Zonal Office, Hyderabad,TSPCB (Representative from TSPCB).

As per the instructions, the Joint Committee has conducted inspection of the Jawaharnagar dumpsite and surrounding areas on 19.07.2023 to ascertain whether the Solid Waste Management Rules, 2016 as well as the directions issued by the Hon'ble NGT, Principal Bench, New Delhi in OA No.606 of 2018 are being implemented by the GHMC and Jawaharnagar dumpsite and the following report is submitted:

- Jawaharnagar Dumping yard is located at Sy.No. 173, Jawarharnagar (V), Kapra (M), Medchal-Malkajgiri District. The Municipal dumpsite is located on a highly elevated rocky terrain (Hills) and at a height of about 620 feet above mean sea level i.e. 120 feet above from the surrounding area. The dumpsite is spread in an area of about 339 acres.

  The surroundings of the Municipal dumpsite are as follows:

  East: Houses of Rajeev Gruhakalpa at about 500 mtrs distance

  West: Gabbilalpet village is at a distance of about 500 mtrs.

  North: Haridaspalli village is at a distance of about 500 mtrs.

  South: Dammiguda village is at a distance of about 2 KMs.

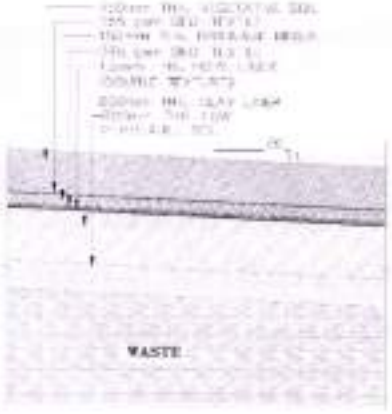
- Earlier, the municipal solid waste generated from Kapra, Alwal & Moulali Municipality areas was used to be carried through trucks and dumped haphazardly in the abandoned stone quarries located at Jawaharnagar. The GHMC dozed all the waste spread in 339 Acres and subsequently, consolidated in 125 Acres of about 10–12 Million tons.

- *Now, the Jawaharnagar dump site has two components i.e.,* ***existing old dump site and new integrated processing facility.***

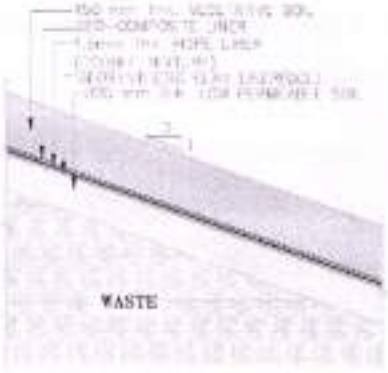
I. STATUS OF EXISTING LEGACY OLD DUMPSITE:

- The old dump contains 10-12 million tons of Municipal Waste dumped un-scientifically which is leading to air, surface water and ground water pollution.
- As part of the site rehabilitation planning, waste spread across 339 acres was compacted into a smaller foot print of 125 Acres, thereby releasing the balance land for development of scientific processing & disposal facilities.
- The GHMC has takenup capping of legacy waste of 12 million tons and completed the capping and submitted the following with regard to capping of the legacy dumpsite.
- The capping at Jawaharnagar of the legacy waste was taken up by the GHMC with a project cost of Rs.144.0 Crores. The design and engineering was provided by a consultant from UK which was validated by a team of experts from IIT, Delhi.
- The Jawharnagar capping design also conforms to Central Public Health & Environmental Engineering Organization (CPHEEO) manual on the MSW Management guidelines for capping of old dump sites as well as SWM Rules, 2016.
- A design of 1:3 (one vertical to 3 horizontal) slopes has been adopted for the Jawahar Nagar site in conformance.
- Hyderabad Institute of Municipal Solid Waste (HIMSW) proposed 300 mm thick low permeable soils with GCL (geo synthetic clay liner) to act as solid waste cover. The low permeable soils are cohesive in nature and will act as regulating layer over the waste mass.
- Double side textured HDPE liner of 1.5mm thickness has been adopted in the design to conform to the above guidelines in the Jawaharnagar Capping Design. HDPE liner will prevent any infiltration of rainwater into the waste mass thus reducing the Leachate within the capped landfill progressively.
- 450mm thick restoration soils are placed on top of the Geo Composite Liner in the Jawaharnagar Design in conformance to the above guidelines. The vegetative soil layer supports vegetative as well as supports housing of storm water drainage.

- The bund formation works of capping has been formed for profiling and stability of old dump and a total of 2300 Rmt. bund with a base width of 21 meter was constructed. The Bund was designed along with outer drain so as to extract and drain the excess leachate existed in the legacy dump and the inner lining and pipe network allows the leachate to drain out and keeps the bund stable.
- A surface area of 5.5 lakh Sq Mts was profiled using excavators. The designed slopes of 1V:3H are achieved and a 4.0 m berm has been laid between the upper and lower slopes for the vehicle movement.
- About 152 gas bore wellswere drilled to extract the gas from the capped site. The bore wells are drilled up to an average depth of 20 Mts. and are designed in such a way that the gas can only escape from the HDPE pipe laid inside the drilled length.
- Series of bore wells are connected to a manifold system and from there to a Ring Main and finally connected to a gas compound housing infrastructure for flaring, conversion to compressed bio gas or energy.



DUMP CAPPING COVER SYSTEM (TYP.)



DUMP CAPPING COVER SYSTEM (TYP.)
AT SLOPE (5:1)

Capping of legacy waste at JN Dump site with soil erosion protection

LEGACY LANDFILL GAS MANAGEMENT:

- It is to submit that Landfill gas generated within the capped landfill is regularly extracted out of the landfill through strategically placed gas wells. These gas wells are connected through a piping network to a flaring station. The closed network of landfill gas collection system is subjected to vacuum for extracting the generated gas out of the landfill. Land Fill Gas (LFG) Management has been initiated with the below components:

  i. Up-gradation to Compressed Bio Gas (CBG) – LFG upgraded to meet saleable CBG quality. The initial capacity of the plant is 600 nm3/hr.

  ii. Flaring – Three flare stations of capacity 500 nm3/hr each installed to combust LFG to reduce GHG emission and reduce odor.

- The GHMC has explored drilling in waste dump using robust drilling rig (Soil MEC SR 40) with augur bucket attachment and drilled 152 numbers of gas collection wells of 600 mm diameter to a maximum depth of 35 m for collection of landfill gases. Gas wells are designed in such a way that the gas can only escape through the perforated HDPE pipes placed inside the wells.

- The gas vents are connected with HDPE lateral pipe lines which are further connected to manifold and is linked with knockout drum to address the

condensate moisture of landfill gas. Gas collection line is connected to main gas pipeline to reach the Compressed Bio Gas (CBG) plant of 750 cubic meter per hour input capacity where CBG is produced by cleaning, enrichment and bottling. In addition to CBG plant 3 no's. of gas flaring systems are installed to flare the surplus gas, if any generated beyond the capacity of CBG plant.

5 TPD CBG Plant for Capped legacy waste

- The Landfill Gas Extraction and Purification Details:

Year	Extracted (cum)	Flared (cum)	Purified (cum)
2020-21	122336	122336	-
2021-22	274543	217552	56991
2022-23	299832	196966	102866
2023-24	144358	111405	32,953
Total	**841069**	**648259**	**159857**

- The facility has also procured the dedicated CBG storage and mobile filling vehicle of capacity 1.4 tons to fill the gas into the vehicles.

Status of Capping:

- The Hon'ble NGT in O.A.No. 606 of 2018 vide order dated 29.09.2022 directed to CPCB to examine the aspect of Bio Mining of the capped legacy waste in

consultation with concerned experts and determine whether capping can be retained and if not what further course of action is to be taken for protection of environment. The State is expected to follow the advise of the CPCB in the matter, subject to any grievance against such advise being raised before the Tribunal.

- GHMC has engaged IIT, Bombay to study the readiness of the capped dumpsite for bio-mining and also to advice GHMC in the bid process evaluation, wherein Prof DN Singh of IIT Bombay in his interim report dated July 2022 stated that "...going ahead with Bio-mining, by opening the existing scientifically capped dumpsite, otherwise might turn out to be dangerous and environmentally hazardous". IIT, Bombay submitted its final report and the summary is as follows:

  i. The segregation of DMSW samples indicates the dominance of plastics and fine fractions (<10 mm) of the waste matrix up to ≈40 % (each) by weight.
  ii. The organic matter (up to 35%) and moisture content (>100%) of the fine fraction are high, which indicates its potential to decompose in the long run.
  iii. The specific gravity of the fine fractions is around 2.30, which makes it an un-preferred, if not unsuitable, material for structural filling purposes.
  iv. As observed during the sampling process and testing of DMWS, the leachate, foam generation, and landfill gas emission indicates the ongoing active decomposition of MSW in JLH. Hence, biomining at this point in time is not recommended.
  v. Though the calorific value of most samples of coarse fractions is above >1500 kCal/kg, their ash content is as high as 60%, which is not permissible to use as refuse-derived fuel in industries.
  vi. Higher Na+ concentration in fine fractions would result in sodic soil formation when applied as a soil amending agent for agricultural applications.

vii. Higher TOC, TN and S concentrations in leachate generated from fine fractions indicate their potential for degradation even when present in landfills. Hence, it is suggested to treat the leachates generated from JHL appropriately.

viii. Based on the present state of the decomposed MSW and foam observed during borehole drilling, it can be concluded that the waste is yet to decompose. Hence, the JHL is not ready for biomining.

- Further, in compliance to the orders of the Hon'ble NGT, New Delhi dated 29.09.2022 in OA 606 of 2018, CPCB constituted a Committee of Experts to finalize its viewpoint on whether capping can be retained and the Committee through video conference on 30.12.2022 critically examined the capping work vis a vis the measures being taken by GHMC to protect the environment while keeping in view the fact that the daily generated MSW of GHMC is also being treated and disposed scientifically in the same site. The report of the Expert Committee is awaited.

LEGACY LEACHATE MANAGEMENT:

- The leachate which is being generated from the existing (legacy) dump site into the Malkaram cheruvu. Earlier, the GHMC engaged M/s RO Chem for treatment of legacy leachate. The RO Chem facility has provided 2 x 2 MLD capacity RO Plants. The facility is feeding @ 100 KL/hr. (20 hrs. operation) and about 63% of permeate generated in each RO system. The total permeate of about 2400 KLD is being disposed through pipeline to Cheriyal channel and RO reject was being pumped back into the Malkaram cheruvu. Due to treatment of legacy leachate by the RO plants, leachate quantity has come down and the addition of fresh leachate from the old dump has also reduced drastically as steps were taken for capping. The GHMC stopped the operation of RO plants after they planned for comprehensive treatment of legacy leachate project.

- Subsequently, GHMC has taken up the project of Comprehensive Treatment of Legacy Leachate to clear entire legacy leachate impounded in the Malkaram tank

and other artificial ponds adjacent to the legacy dumpsite with a project cost of Rs.251 Cr.

- GHMC has awarded contract for establishment of the Legacy leachate treatment plant to M/s Ramky Infrastructure Ltd and agreement was concluded on 02.09.2021. The RIL proposed to establish 2.0 MLD capacity MVRE Low Temperature Evaporation plant to treat the legacy leachate.

- TSPCB issued CFE to the facility to establish LTE Mechanical Vapour recompression Evaporation (MVRE) of capacity 2000.0 KLD.

- The objective of the Project is time bound treatment and disposal of legacy leachate to the standards acceptable for safe and scientific disposal of treated leachates and the sediments and final rejects with no residue left at site and to reclaim the land occupied by the artificial ponds and to restore and stabilize the Malkaram Tank by bringing it to natural lake standards.

- The scope of this project includes, apart from complete treatment and disposal of legacy leachate from Malkaram tank and other artificial ponds in (02) years, restoration and stabilization of Malkaram tank in the subsequent (03) years. Further, in case the stabilization (rejuvenation) of Malkaram lake is not achieved within (03) years, the obligation of treatment and disposal of the leachate for further period until restoration rests with the Concessionaire under Extended Operation period.

- The Legacy Leachate Treatment project was commissioned with 2 MLD capacity from 21.10.2022. GHMC has set target to complete treatment of the Malkaram tank before onset of monsoon 2023. Further, HDPE floats were also placed in malkaram tank to prevent the mixing of rainfall with the leachate in the tank. Rain water collected in the floats is pumped out at regular intervals.

- However, during inspection it was noticed that the GHMC completed the treatment of leachate in Malkaram tanks and the leachate in temporary storage tanks is yet to be completed. The representative informed that they will complete the treatment of complete leachate by December, 2023.

- The details of leachate treatment carried out by facility are as follows:

Legacy Leachate Project Area with Leachate Ponds

Sl. No.	Month	Date	MVRE Feed intake	
			Month Flow	Cumulative Flow KL
1	July-22	31-07-2022	791.59	791.59
2	August-22	31-08-2022	3638.01	4429.6
3	September-22	30-09-2022	4154.30	8583.9
4	October-22	31-10-2022	7790.30	16374.2
5	November-22	30-11-2022	13481.14	29855.34
6	December-22	31-12-2022	18169.53	48024.87
7	January-23	31-01-2023	33461.53	81486.40
8	February-23	28-02-2023	34421.49	115907.89
9	March-23	31-03-2023	34400.45	150308.34
10	April-23	30-04-2023	32062.15	182370.49
11	May-23	31-05-2023	25666.37	208036.86
12	Jun-23	30-06-2023	31880.31	239917.17
13	Jul -23	18-07-2023	15548.85	255466.02
As on date Treated Leachate qty.				**255466.02**

Legacy Leachate Ponds:

Legacy Leachate Ponds June 2022

Legacy Leachate Ponds July 2023

II. SCIENTIFIC INTEGRATED PROCESSING FACILITY INCLUDING SECURED LANDFILL AT JAWAHAR NAGAR:

- The Integrated MSW Processing Facility located at Jawaharnagar is operated through the private operator namely M/s. Hyderabad Integrated Municipal Solid

Waste Ltd., under Public Private Partnership in Built, Operate and Transfer(BOT) mode.

- The GHMC entered into MoU with M/s. Ramky Integrated Solid Waste Management facility in the year 2009 and started its operation of processing & disposal facility in February 2012.
- The facility has obtained Environmental Clearance on 20.06.2012 to establish MSW processing facility at Sy.No.173, Jawaharnagar (V), Shameerpet (M), Medchal-Malkajgiri District with total processing capacity of 6000 TPD having following processing facilities:

Sl. No.	Description of the facility	Capacity
1.	RDF Plant (2X 1200 TPD)	2400 TPD
2.	Compost Plant (3X680 TPD)	2040 TPD
3.	Recycling Complex (Plastic, Paper, Metal, Rubber, Glass etc.)	600 TPD
4.	Land fill with leachate collection and treatment system	735 TPD
5.	Waste to Energy plant	24 MW

- The facility obtained CFE &CFO and MSW authorization of the Board vide order dated 19.02.2019 with validity upto 31.07.2023.
- The facility also obtained CFE/CFO of the Board for establishing Waste to Energy Plant of capacity 24 MW in the name of M/s. Hyderabad MSW Energy Solutions and subsequently obtained CFO vide order dated 15.07.2020 with validity upto 31.03.2025. Presently, the facility is under operation and utilizing around 1500 TPD of RDF.
- The facility obtained EC for expansion of Waste to Energy Plant from 19.8 MW to 48 MW. The facility obtained CFE of the Board for 48 MW capacity of WtE plant.

- Another 24 MW capacity is under construction and observed that construction works are under progress.
- The GHMC has also proposed to establish another Waste to Energy plant of capacity 14.5 MW at Dundigal, Medchal-Malkajigiri District to utilise the RDF generated from the integrated processing facility of Jawaharnagar. The Board issued CFE to the facility vide order dt.01.07.2020 to utilize 1000 TPD of RDF. The facility is under erection and proposed to commission by July,2023.
- The facility provided sanitary Landfill and is operated to accommodate inerts/rejects generated during process of treatment of MSW. Landfill constitutes of series of layers viz., Clay liner, HDPE liner, Drain media (for leachate collection), Geo-textile media to resist any contamination of leachate with ground water.
- The facility has provided H_2S & Methane gas collection, utilization / incineration system to minimize odor generation and mist spraying systems for spraying de-odorizing agents at the compost yards.
- The facility has provided ZLD System consisting of leachate treatment plant of capacity 600 KLD followed by double stage RO systems. The facility provided MEE followed by ATFD to treat the RO rejects generated from the leachate treatment plant.
- The Municipal waste collected from GHMC and surrounding ULBs are transported in closed containers to the processing site. The waste is processed at the integrated site and the Processing plant includes Presorting, Compost Plant and RDF plant.
- The facility provided mechanical screens with 70mm sorting screen to segregate the material based on size, the oversized material is called as RDF it will be used in Waste to energy power plants and Cement industry for co-processing purpose. The facility has provided 21 trommels to carryout presorting. The facility proposed to install Disc screening with 40 TPH capacity for better screening and efficiency.
- The under sized<70mm material from presorting section will be sent to windrow aerobic composting for degradation purpose, during this time the EM culture is be applied on windrows for rapid composting and it will take 25

days for complete composting. During inspection, it was noticed that due to open windrow composting leachate generation may be more during rainy days. The facility may explore the possibility of providing sheds to all the windrow composting areas as well as Municipal waste storage heaps.

- The facility has provided closed shed for the additional windrow composting yard and provided bio enzymes & odor neutralizing spray misting lines at the tipping floor and Windrow composting yard. The facility is also carrying out spraying of odour neutralizing bio enzymes on the municipal waste/bio-composting heaps with drones to control the odour.
- A network of garland drain along the compost plant is connected to leachate collection system apart from the above all other sources from landfill and RDF storage units is connected to leachate collection tanks and treated in leachate treatment plant.
- The facility is also having separate storm water drains to collect the rain water in the area and connected to the down stream natural drains. However, during the inspection it was noticed that contaminated rain water was flowing in the storm water drains which may contaminate the water bodies in the down stream. The facility shall provide first cut runoff rain water collection tanks to all the storm water drains to collect the contaminated first cut runoff rain water and treat the same in Leachate treatment Plant.
- The facility has completed the capping of old landfill with soil cover and the grass cover is under progress.
- As per the CFO condition, the facility shall provide H_2S & Methane gas collection, utilization / incineration system to minimize odour generation. The facility has provided methane gas collection and flaring system to the closed first secured landfill and at the existing (legacy) dump site near the RO system.

Fresh waste leachate management:

The lateral pipeline network is created for leachate collection in the capped Secured landfill of the fresh waste and the leachate generated from the processing plants are connected to the nearest low lying underground HDPE tanks from where it is delivered to leachate treatment system with 600 KL per day capacity, which is

having primary treatment containing coarse and fine screen followed by Diffused aeration and High rate sludge clarifier to address the suspended solid and hardness. Later the pre-treated leachate is passed through 2 stage reverse osmosis unit. The reject from RO system is treated at Multiple Effect Evaporator (MEE) followed by Agitated Thin Film Dryer (ATFD) systems to convert the reject into salt. The ATFD sludge is used as fuel along with RDF in the Waste to Energy plant of capacity 24 MW. The RO permeate along with condensate of MEE and ATFD after meeting the standards as per SWM Rules 2016 is used for greenery development within the premises.

The facility proposed to upgrade the ZLD system to 750 KLD.

Weigh bridge – Jawharnagar P & D facility

trommels

4mm screening – Compost

Waste to Energy plant (24 MW)

Leachate treatment plant

Reverse Osmosis plant

Leachate Treatment Plant

Status of Alternative sites:

- The GHMC has proposed to develop alternative sites for processing of Municipal Waste generated in GHMC area on decentralised mode.
- The GHMC informed that they have identified 3 alternate sites at (1). Pyaranagar(v) Gummadidala (M), Medak District (2). Khanapur (V), Talakondapally (M), Ranga Reddy District and (3). Lakdaram(v) Patancheruvu(M), Sangareddy Dist to reduce the load at the Jawaharnagar Integrated Scientific Processing plant. Due to decentralization of the processing plant the burden on the Jawaharnagar site will be considerably reduced.
- As per the latest information furnished by the GHMC, decentralized processing facilities are being developed at Pyaranagar, Dundigal and Yacharam. Status of 3 decentralized sites are as follows:

1. The site at Pyaranagar(v) Gummadidala (M), Sangareddy District was handed over to the Concessionaire, but as there is no approach road to the site GHMC requested Forest Dept for diversion of 0.6228 ha of forest land in the Nallavelly Reserve Forest for approach road for which Stage-I approval was given by the MoEF&CC on 05.05.2022 and GHMC has submitted compliance report to the concerned District Forest Officer on 29.11.2022.

   TSPCB issued Consent for Establishment (CFE) to establish processing plant of capacity 4000 TPD with following facilities:

   - Raw Biogas 260 Tons/day
   - Electricity 15 MW
   - Recycled plastic 90 Tons/day
   - Compost 200 Tons/day
   - RDF 2035 Tons/day .

2. **Dundigal:** 15 MW waste to energy project is proposed here for which CFE was granted by TSPCB on 01.07.2020 with input waste (RDF) of 1,000 tons per Day. At present the waste to power project construction works have reached final stage and ready for commissioning.
3. **Yacharam:** 12 MW capacity Waste to Energy project is proposed here for which CFE was granted by TSPCB on 11.03.2020. As per the information provided by GHMC, the agency has requested for granting permission for enhancement of the project capacity from 12 MW to 14 MW for the reason of financial viability and the request is under the consideration of the Government of Telangana. at Dundigal/ Lakdaram shall be made operational at the earliest.

Concluding remarks :

Based on the field observations and status of implementation of SWM rules in the Jawaharnagar Processing site, the following concluding remarks are submitted:

1. The facility has provided 21 trommels to carryout presorting of the municipal waste at the processing facility. With increasing waste received day by day, the

facility shall install/increase the presorting units with Disc screening systems as proposed for better screening and efficiency.

2. It was noticed that due to open windrow composting leachate generation may be more during rainy days. The facility may explore the possibility of providing sheds to all the windrow composting areas as well as Municipal waste storage heaps to reduce the leachate generation as well as proper handling of waste.
3. It was noticed that contaminated rain water was flowing in the storm water drains which may contaminate the water bodies in the down stream. The facility shall provide first cut runoff rain water collection tanks to all the storm water drains to collect the contaminated first cut runoff rain water and treat the same in Leachate treatment Plant. The facility shall upgrade the leachate treatment plant to treat the above or treat in the Legacy Leachate treatment plant.

SEE, ZO, Hyderabad
TSPCB

Commissioner, Jawaharnagar
Municipal Corporation

o/c

GOVERNMENT OF TELANGANA

OFFICE OF THE COLLECTOR & DISTRICT MAGISTRATE :: MEDCHAL-MALKAJGIRI DISTRICT

From
Sri D.Amoy Kumar, I.A.S,
Collector & District Magistrate,
Medchal-Malkajgiri District.

To
The Commissioner,
Greater Hyderabad Municipal Corporation,
Telangana State, Hyderabad.

Lr.No ACLB/ULB/5071/2023 Date:09.08.2023

Sir,

Sub: Medchal Malkajgiri District – Urban Local Bodies – Hon'ble NGT, New Delhi – Original Application No 167 of 2023 registered on a letter petition dated: 25.10.2022 received from Mrs K.Himabindu, R/o Dammaiguda, Hyderabad – Disposal order dated: 24.05.2023 – Request to nominate an official for Joint Committee as per the directions of the Hon'ble NGT – Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation is nominated as representative of the District Collector, Medchal-Malkajgiri District – Orders – Issued – Joint Inspection report submitted by the representative of TSPCB and MC, Jawaharnagar – Certain suggestions made in the report – Forwarded for taking further necessary action in the matter – Reg.

Ref: 1) Lr.No 3/NGT-New Delhi/TSPCB/Legal/2023-32 of the Member Secretary, Telangana State Pollution Control Board dated: 12.06.2023.
2) Proc.No ACLB/ULB/5071/2023 of the District Collector, Medchal-Malkajgiri District dated: 12.07.2023.
3) Joint report submitted by Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation and Sri D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad, TSPCB submitted on 22.07.2023.

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The kind attention of the Commissioner, Greater Hyderabad Municipal Corporation is invited to the subject and reference 1st cited above through which the Member-Secretary, TSPCB has addressed a letter to the District Collector, Medchal-Malkajgiri District informing about the directions issued by the Hon'ble NGT in O.A.No 167 of 2023 filed by Smt K.Himabindu, R/o Dammaiguda regarding piling up of huge Municipal Solid Waste in Jawaharnagar Dumpyard which is causing huge damage to environment besides creating health hazardous to the local people.

The Hon'ble NGT disposed the case on 24.05.2023 stating that the issue raised in the application, at the first instance can be looked into by the local authorities and in this regard, the Hon'ble NGT constituted a Joint Committee comprising Telangana Pollution Control Board and District Magistrate, Hyderabad who shall look into the matter, collect

relevant information and if finds any violation, would take appropriate, remedial and preventive action in accordance with law within two months.

The Hon'ble NGT also directed that the committee may further file status of compliance with the directions of Tribunal in order dated: 14.02.2020 in O.A.No 606/2018, Compliance of Municipal Solid Waste Management Rules, 2016 and subsequent Review Order dated: 18.02.2021.

Further it is to submit that the Sri D.Narender, Senior Environmental Engineer, Zonal Office, Hyderabad is nominated a representative of TSPCB and requested the District Collector, Medchal-Malkajgiri District to nominate an official for the joint committee as per the directions of the Hon'ble NGT.

Accordingly, vide reference 2nd cited above, orders have been issued nominating Sri G.Ramalingam, Municipal Commissioner, Jawaharnagar Municipal Corporation, Medchal-Malkajgiri District as the representative of the Collector & District Magistrate, Medchal-Malkajgiri District and he was directed to examine the content in coordination with the member nominated by the TSPCB and to submit Action Taken Report.

Further it is to submit that vide reference 3rd cited above, the representatives of the TSPCB and District Collector, Medchal-Malkajgiri District have submitted their joint inspection report and their concluding remarks are as follow:

Concluding Remarks:

Based on the field observations and status of implementation of SWM rules in the Jawaharnagar Processing site, the following concluding remarks are submitted:

1. The facility has provided 21 trommels to carryout presorting of the municipal waste at the processing facility. With increasing waste received day by day, the facility shall install/increase the presorting units with Disc screening systems as proposed for better screening and efficiency.
2. It was noticed that due to open windrow composting leachate generation may be more during rainy days. The facility may explore the possibility of providing sheds to all the windrow composting areas as well as Municipal waste storage heaps to reduce the leachate generation as well as proper handling of waste.
3. It was noticed that contaminated rain water was flowing in the storm water drains which may contaminate the water bodies in the downstream. The facility shall provide first cut runoff rain water collection tanks to all the storm water drains to collect the contaminated first cut runoff rain water and treat the same

in Leachate treatment Plant. The facility shall upgrade the leachate treatment plant to treat the above or treat in the Legacy Leachate treatment plant."

Further it is to submit that the Greater Hyderabad Municipal Corporation (GHMC) being the Urban Local Body for the city of Hyderabad is responsible for the management of the Municipal Solid Waste (MSW) as per the Solid Waste Management Rules 2016 issued by the MoEF & CC, GoI including collection, transportation, treatment and scientific disposal of the same.

In view of the above, the Joint Inspection Report submitted by the representatives of the TSPCB and District Collector, Medchal-Malkajgiri District is herewith submitted for taking further necessary action on the recommendations made by the committee.

Yours faithfully

Collector & District Magistrate,
Medchal-Malkajgiri District

Encl: A.A

Copy submitted to the Member-Secretary, Telangana State Pollution Control Board for favour of kind information.

Greater Hyderabad Municipal Corporation

eOffice Acknowledgement

(Office Copy)

Inward No : GVT2023046737 Inward Date : 16/AUG/2023 02:01:02 PM

Letter No : Lr.No.ACLB/ULB /5071/2023 Letter on Date : 16/AUG/2023

File No : Nil No. of pages in File : 15

Received From:

Name Of Officer : Sri.D.Amoy Kumar,I.A.S. Designation : Collector& District Magistrate

Department : THE COLLECTOR & DISTRICT MAGISTRATE Department Address : MEDCHAL MALKAJGIRI

Subject : Original Application No.167 of 2023 registered on a letter petition dated 25.10.2022 received from Mrs K.Hima**bindu**, Request to nominate an official for joint Committee as per the directions of the Hon'ble NGT Certain suggestions made in the report - Forwarded for taking further necessary action in the matter- Reg

Remarks : FORWARDED TO COMMISSIONER

Forwarded To :

Forward To : Head Office Location : HEAD OFFICE

Section: Comm peshi

Name Of Officer : Commissioner Designation : Commissioner