

**BEFORE THE NATIONAL GREEN TRIBUNAL  
SOUTHERN ZONE, CHENNAI**

**ORIGINAL APPLICATION No. 199 OF 2021 (SZ)**

**IN THE MATTER OF:**

Sri. Shankar Narayanan Bala Krishnan  
R/o.Dammaiguda, Medchal – Malkajgiri District  
& others

....

Applicant(s)

Versus

State of Telangana,  
rep. by its Chief Secretary,  
Hyderabad & Ors.

....

Respondent(s)

**REPORT OF THE TELANGANA STATE POLLUTION CONTROL BOARD  
(RESPONDENT No. 4)**

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**Place: Hyderabad**

**Date: 05-10-2021.**



**Report of the Telangana State Pollution Control Board (Respondent No. 4) in Original Application No. 199 of 2021 filed by Sri. Shankar Narayana Bala Krishna & Others R/o.Dammaiguda, Keesara (M), Medchal-Malkajgiri District.**

It is to submit that Sri.Shankar Narayana Bala Krishna & others have filed an Original Application before the Hon'ble NGT, Chennai regarding non-implementation of Municipal Solid Waste (Management & Handling) Rules, 2000 and the Solid Waste Management Rules, 2016 in its letter & spirit in the State of Telangana, especially in Jawahar Nagar, Hyderabad. The above case taken up for hearing on 09.09.2021 and the Hon'ble NGT has directed to file independent report regarding the implementation of Solid Waste Management Rules, 2016 and further action taken report on the directions issued by the board vide letter dated 09.06.2020.

**In this regard, the following 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 on the Hills 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.

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 GHMC obtained Environmental Clearance from SEIAA dated 20.06.2012 for modernizing the existing Municipal Dump Yard. Subsequently, the GHMC obtained CFE & CFO valid upto 31.07.2023.

The facility has also obtained CFE and CFO for establishment of Municipal Solid Waste based power plant within the integrated facility with a capacity of 19.8 MW valid up to 31.03.2025(**Annexure-I**).

**STATUS OF EXISTING LEGACY OLD DUMPSITE:**

- The old dump contains 10-12 million tons of Municipal Waste dumped unscientifically 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 state-of-the art processing & disposal facilities.
- The GHMC has 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 an institute from UK which was validated by a team of experts from IIT, Delhi.
  - The Jawharnagar capping design also conforms to 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.
  - 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 stale.
  - 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 150 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.

#### **LANDFILL GAS MANAGEMENT:**

Landfill gases if untreated releases methane into the environment which has 23 times higher global warming potential than CO<sub>2</sub>. Based on this fact, Land Fill Gas Management has been initiated with the below components:

- i. Clean Energy – 500 kW captive generation plant is installed with auxiliaries.
- ii. Up-gradation to Compressed Bio Gas (CBG) – LFG upgraded to meet saleable CBG quality. The initial capacity of the plant is 600 nm<sup>3</sup>/hr.
- iii. Flaring – Three flare stations of capacity 500 nm<sup>3</sup>/hr each installed to combust LFG to reduce GHG emission and reduce odor.

#### **LEGACY LEACHATE MANAGEMENT:**

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

#### **STATUS OF THE SCIENTIFIC LANDFILL:**

- 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 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:

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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	19.8 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 obtained CFE of the Board for establishing Waste to Energy Plant of capacity 19.8 MW in the name of M/s. Hyderabad MSW Energy Solutions vide order dated 23.09.2017 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 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 December, 2021.
- 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<sub>2</sub>S & Methane gas collection, utilization / incineration system to minimize odor generation and mist spraying systems for spraying deodorizing 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 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 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<sub>2</sub>S & 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.

- TSPCB is continuously monitoring the facility on monthly basis for compliance of the SWM Rules.

**STATUS ON THE DIRECTIONS ISSUED BY THE HON'BLE NGT IN OA NO.606 OF 2018:**

The Hon'ble NGT vide order dt.14.02.2020 directed compliance of Solid Waste Management Rues, 2016 with Rule 22 and 24. The Hon'ble NGT further Rejected the plea of the Telangana Government for capping of Jawaharnagar dumpsite and directed to carry out bio-mining and bio-remediation in the interest of environment and to save valuable scarce public resource in the form of land. The land can be used for setting up integrated waste processing facilities and developing green belt or bio-diversity park.

Compliance made by GHMC on the directions of Hon'ble NGT in OA No.606 of 2018 with respect to Solid Waste Management Rues, 2016 with Rule 22 and 24 are as follows:

S. No.	Activity	Present status of compliance by the GHMC
1	Identification of suitable sites for setting up solid waste processing facilities	GHMC has provided one Integrated MSW processing facility at Jawahar nagar in 339 acres and carrying out processing of the MSW generated in the entire GHMC area at above site. GHMC has also identified additional three alternate sites for decentralizing the processing facilities at 1. Pyaranagar(v) Gummadidala (M), 2. Khanapur (V), Talakondapally (M), Ranga Reddy District and 3. Lakdaram(v) Patancheruvu(M), Sangareddy Dist. and the handing over of the sites are in process..
2	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source,	53% of segregation is achieved. IEC activities are regularly conducted to inform, educate and motivate waste generators to practice the segregation of waste.
3	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	Completed. 100% D2D is achieved in the GHMC area.
4	Ensure separate storage, collection and transportation of construction and demolition wastes	In GHMC area, two processing plants of capacity-500 TPD each at Jeedimetla and Fathulguda are commissioned and under operation.

S. No.	Activity	Present status of compliance by the GHMC
5	Setting up common or standalone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules.	The integrated facility is having sanitary landfills for the disposal of residual wastes from the processing facilities as well as untreatable inert wastes.
6	Bio-remediation or capping of old and abandoned dump sites.	After the maximum extent of bio-mining, scientific capping of Jawaharnagar dumpsite undertaken with a cost of Rs.144 Crores and completed.
7	Legal Frame Work	SWM Policy for the State as per clause 11 (a) of the SWM Rules has been Notified on 24 <sup>th</sup> September, 2018.
8	Annual Report	Annual Reports for the year 2020-21 submitted within the timelines and consolidated reports submitted to CPCB.

Hon'ble NGT directions	Compliance status
Rejected the plea of the Telangana Government for capping of Jawaharnagar dumpsite and directed to carry out bio-mining and bio-remediation.	GHMC filed a petition in Hon'ble Supreme Court on the orders dt.14.02.2020 of Hon'ble NGT regarding rejecting the plea of the Telangana Government for capping of Jawaharnagar dumpsite. The Hon'ble Supreme court vide order dt.15.06.2020 dismissed the appeal with a direction to approach the NGT by filing review application on the orders dt.14.02.2020. GHMC submitted a review petition in the Hon'ble NGT vide e-filing no. 0701102008352020, Dt. 15.07.2020 and the Hon'ble NGT, Principal Bench vide order dt.18.02.2021 in RA No. 02/2021 in OA No.606/2018 has dismissed the review application filed by GHMC. The GHMC has filed a review petition in Hon'ble Supreme Court on the orders of the Hon'ble NGT dt.18.02.2021.

**ACTION TAKEN BY THE BOARD:**

- Due to rapid urbanization, habitations have come very nearer to the facility. Most of the habitations are located in the South side of the open windrow composting yard. The additional windrow composting yard is located at the Southern side of the facility at the height of about 30m above the rest of the habitations located at the South-East, South, South-West, and West directions. The additional windrow composting yard is not provided with a shed and is operating openly.

During turning of the windrow piles, the gases trapped at the bottom of the pile are released to the atmosphere. This is a source of smell nuisance to the habitations located in the downwind of the facility. Due to the prevailing climatic conditions and elevation of the compost yard, the smell is being carried to the residential areas located in downwind directions.

- The Board is receiving complaints regarding smell nuisance and the status on complaints is being reviewed before the Task Force Committee consisting of members from the IICT, NIPER, IIT-Hyderabad and issuing directions for compliance.
- Again, complaints were received in the month of October, 2019 regarding odor nuisance from the Jawaharnagar facility. The issue was reviewed by the Board and directions were issued to GHMC to take immediate measures to control leachate generation from old dump site and control odor from the old dump site by mist spraying of odor reducing chemicals.
- Similarly, directions were issued to the facility to put into operation of MEE & ATFD to treat the RO rejects from leachate treatment plant immediately.
- The Board issued Show Cause Notice to the GHMC on 23.05.2020 on the complaints received from the residents of Dhammaiguda, Jawaharnagar, Nagaram regarding smell nuisance from the facility.
- Subsequently, the Board vide order dated: 06.06.2020 issued directions to GHMC and facility to take steps to control odor nuisance.
- The latest Status/ Compliance of the directions issued to the GHMC are as follows:

<b>S.N</b>	<b>Directions Issued</b>	<b>Compliance</b>
1	GHMC shall take immediate measures to control the leachate generation from the old dumpsite	GHMC has taken measures for capping the old dumpsite and the work is near completion. Generation of leachate has reduced due to capping.
2	The GHMC shall ensure that there shall not be any overflow of contaminated storm water/ leachate to the downstream tanks/ lakes.	Stormwater diversion channel was completed to divert the water from upstream lakes so that it does not enter into Malkaram Tank and other artificial leachate ponds and cause overflow. Treatment of legacy leachate through 2 mobile RO systems of 2000 KLD capacity each is being carried out.
3	GHMC shall not bring any slaughterhouse waste to Jawaharnagar site and send the same to rendering units	No Slaughter house waste is being brought to Jawaharnagar MSW Treatment & Disposal facility.

4	GHMC shall engage additional RO plants so that the entire legacy leachate is treated on priority. Action plan with specific timelines shall be submitted within 15 days.	GHMC is operating the 2 X 2000 KLD mobile RO plants for treatment of legacy leachate at Jawaharnagar. GHMC is planning for complete treatment of the legacy leachate at the site as a permanent solution and an Expression of Interest (EoI) was called on 20.02.2020
5	The GHMC shall provide liner Solar Evaporation ponds of sufficient capacity to store the RO rejects generated from treatment of legacy leachate without mixing with leachate ponds within 15 days. They shall submit an action plan for treatment of RO rejects generated due to treatment of legacy leachate within 15 days.	inviting interested firms for submitting proposals for treatment of legacy leachate at Jawaharnagar. In response (03) agencies viz., M/s. Rochem Separation Systems (P) Ltd., M/s. Ramky Infrastructure Ltd and M/s. Spray Engineering Devices Ltd., have submitted their proposals. The Govt. vide Memo no. 2031/GHMC-II/2020 of MA&UD Dept., the above said EOI was cancelled and global RFP was floated on 09.06.2020 for the work of "Legacy Leachate Treatment and ponds stabilization abutting Jawaharnagar MSW plant on Design, Build, Finance Own, Operate & Maintain (BOO Hybrid Annuity) basis". The GHMC is in the process of finalization of the project.
6	The vehicles transporting municipal solid waste shall be covered with tarpaulin covers/ closed vehicles and ensure that no spillages occur during the transportation	All the tertiary transportation vehicles are being operated by GHMC covering with tarpaulin sheet. Currently from Jan 2021, the integrated facility is handling transportation of waste from Transfer station to P&D facility and using closed compactors for waste transportation and proposed to replace entire fleet with closed compactors.
7	The alternative site at Dundigal/ Lakdaram shall be made operational at the earliest. Action plan with specific timelines shall be submitted within 15 days	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  The same are under process for acquisition by GHMC.
8	The facility shall ensure that the vehicles carrying waste does not ply from the colony or gated community roads	Being Complied and vehicles are diverted from colony/ gated community roads.

9	The facility shall provide gas collection and utilization system so as to avoid spreading of gases in the surrounding areas of the old dumpsite.	<p>The design for capping of the legacy waste includes provision for collection of landfill gas through perforated HDPE gas collection network connected to flaring system.</p> <p>The gases generated from the landfill are collected and passed through flaring system. As per the records, it is noticed that the facility is operating only one flaring system as per the availability of gases generated.</p>
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➤ The latest Status/ Compliance of the directions issued to the facility are as follows:

S.No	Directions	Compliance
1.	The facility shall comply with all the CFO conditions issued by the Board.	The facility is complying with the CFO conditions.
	The facility shall ensure that the waste shall not be stored openly. All the waste shall be covered with tarpaulin sheet	The facility is covering the MSW stored in the premises with soil / tarpaulin sheets. Only active area has been left open for receipt of waste. The facility has provided closed shed for windrow composting yard and provided bio enzymes & odor neutralizing spray misting lines at the tipping floor and Windrow composting yard. as per directions of the Board.
2.	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.	The facility provided bio enzymes & odor neutralizing spray misting lines at the tipping floor and Windrow composting yard.
3.	The facility shall provide shed to the additional bio-composting plant which is being used for windrow composting within one month.	The facility has provided additional closed shed for windrow composting yard.
4.	The facility shall ensure that the vehicles carrying waste does not	Being Complied and vehicles are diverted from colony/ gated

	ply from the colony / gated community roads.	community roads
5.	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 facility is carrying out pre-processing of the MSW into bio-composting, RDF and rejects. The wet waste is bio-composed through windrow composting, the RDF generated is used as fuel in the waste to energy plant (19.8 MW) and the non-recyclables are sent to sanitary landfill site located within the premises.
6.	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.	The facility has provided 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 the facility has taken measures to divert the surface water run-off away from the leachate network.
7.	The facility shall pass the gas through gas scrubbers to eliminate the H <sub>2</sub> S gas and shall operate flaring system to flare the gas generated.	Flaring system has been provided to flare all the gases generated from the Landfill.
8.	The facility shall continuously operate MEE & ATFD to treat the RO rejects from the leachate treatment plant.	The facility has provided Leachate Treatment Plant of capacity 600 KLD followed by double stage Reverse Osmosis system of capacity 300 KLD and 150 KLD. The facility has provided MEE of capacity 150 KLD and ATFD of capacity 45 KLD to treat the RO rejects from the LTP. The facility is continuously operating the MEE and ATFD.
9.	The facility shall not accept the waste generated from the	No waste from slaughter houses is

	slaughter houses.	being accepted
10.	The facility shall regularly operate gas collection and flaring/utilization system so as to avoid spreading of gases in the surrounding areas	The gases generated from the landfill are collected and passed through flaring system. As per the records, it is noticed that the facility is operating only one flaring system as per the availability of gases generated since majority of the gases are collected into the Compressed Bio Gas Plant of 600 cum per Hour installed recently.
11.	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.,	The facility has provided water flow meters at composting plant, RDF plant, Re-cycling complex, floor wash etc., and furnishing the records.

**Date: 05-10-2021.**

**Place: Hyderabad**

**Sd/-  
MEMBER SECRETARY**

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



**SENIOR ENVIRONMENTAL ENGINEER  
LEGAL, TSPCB, HEAD OFFICE, HYD.**





TELANGANA STATE POLLUTION CONTROL BOARD  
 PARYAVARAN BHAVAN, A - 3, INDUSTRIAL ESTATE,  
 SANATHNAGAR, HYDERABAD - 500 018

Phone: 23887500  
 Fax: 040 - 23815631

CONSENT FOR OPERATION (FRESH)

BY REGISTERED POST WITH ACKNOWLEDGEMENT DUE

Consent Order No. TSPCB/CFO/RO-Medchal/HO/2020 442 Date: 15.07.2020

(Consent Order for Existing/New or altered discharge of sewage and/or trade effluents/outlet under Section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and amendments thereof, Operation of the plant under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation / Renewal of Authorisation under Rule 6 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 & Amendments thereof

CONSENT is hereby granted under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974, under section 21/22 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof, and Authorisation under the provisions of HOW (M & TM) Rules, 2016 (hereinafter referred to as 'the Acts', 'the Rules') and amendments thereof and the rules and orders made there under to M/s. Hyderabad MSW Energy Solution Private Ltd., (by GHMC), Sy.No.173, Jawaharnagar(V), Shameerpet (M), Medchal-Malkajgiri District (hereinafter referred to as 'the Applicant /Facility') and the facility is authorized to operate the industrial plant to discharge the effluents from the outlets and the quantity of Emissions per hour from the chimneys, by operating pollution control equipment, as detailed below,

i) Out lets for discharge of effluents:

Outlet No.	Description of Outlet	Max Daily Discharge in KLD	Point of Disposal
1.	Boiler blow down	25 KLD	After neutralization in the ETP, the effluents shall be used for ash quenching / on land gardening.
2.	Cooling bleed off	65 KLD	
3.	DM regeneration /Ro rejects	15 KLD	
4.	Domestic	10 KLD	
<b>Total:</b>		<b>105 KLD</b>	

ii) Emissions from chimneys:

S.No.	Description of Chimney	Control equipment provided	Flow rate in m <sup>3</sup> /hr	Stack height in Mts – above GL
1	Attached to Boiler of capacity 2 x 56 TPH	Bag Filter followed by lime dosing and activated carbon	--	60 Mtrs
2 & 3	Attached to DG sets of capacity 2 x 500 KVA	Acoustic enclosures	--	8.5Mtrs

iii) HAZARDOUS WASTE AUTHORISATION (FORM – II) [See Rule 6 (2)] of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 & Amendments thereof):

HWA No. TSPCB/CFO/RO-Medchal/HO/2020

Date: 15.07.2020

M/s. Hyderabad MSW Energy Solution Private Ltd., (by GHMC), Sy.No.173, Jawaharnagar(V), Shameerpet (M), Medchal-Malkajgiri District is hereby granted an authorization to operate a facility for collection, reception, storage, treatment, transport and disposal of Hazardous Wastes namely:

• OTHER WASTES WITH DISPOSABLE OPTION:

S.No	Name of the Hazardous & Other Waste	Stream	Quantity of Solid Waste	Disposal option
1.	Ash	--	370 TPD	Secured land fill

• HAZARDOUS WASTES WITH RE-CYCLE OPTION:

S.No	Name of the Hazardous Waste	Stream	Quantity of Hazardous Waste	Disposal option
1	Waste oil	5.1 of Schedule -I	100 LPA	Authorized re-processors / recyclers

**This Consent order is valid for manufacture of the products along with quantity as mentioned below only.**

Sl. No.	Description of the facility	Capacity
1	Municipal Solid waste (RDF) based Power Plant for power generation	19.8MW

This order is subject to the provisions of 'the Acts' and the Rules' and amendments made there under and further subject to the terms and conditions incorporated in the schedule A, B and C enclosed to this order.

This combined order of Consents and Authorization is valid for a period ending with the 31<sup>st</sup> day of March, 2025.

Sd/-  
MEMBER SECRETARY

To  
M/s. Hyderabad MSW Energy Solution Private Ltd., (by GHMC),  
Sy.No.173, Jawaharnagar(V), Shameerpet (M),  
Medchal-Malkajgiri District.

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

  
SENIOR ENVIRONMENTAL ENGINEER (FAC)



**SCHEDULE - A**

1. The applicant shall make applications through online for renewal of Consent (under Water & Air Acts) and Authorisation 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 Authorisation of the Board.
2. This order is issued in line with Board's CFE order dated 23.09.2017. Concealing the factual data or submission of false information/ fabricated data and failure to comply with any of the conditions mentioned in this order may result in withdrawal of this order and attract action under the provisions of relevant pollution control Acts. The facility shall comply with all other conditions of CFE order dated 23.09.2017 still applicable.
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 28 of the Water (Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air (Prevention and Control of Pollution) Act, 1981.
4. The facility may explore the possibility of tapping the solar energy for their energy requirements.
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.

**SCHEDULE - B**

1. The facility shall take steps to reduce water consumption to the extent possible and consumption shall NOT exceed the quantities prescribed below:

S.No	Purpose	Quantity
1.	Boiler feed (DM plant /RO plant feed permeates)	170 KLD
2	Cooling tower make up	190 KLD
3	Domestic	15 KLD
	<b>Total:</b>	<b>375 KLD</b>

2. The effluent discharged should not contain constituents in excess of the tolerance limits prescribed below:

Outlet	Parameter	Limiting Standards
1.	pH	5.5-9.0
	Total Suspended Solids (at 103-105 <sup>0</sup> C)	200 mg/L
	Total Dissolved Solids(TDS)	2100 mg/L
	Oil & Grease	10 mg/L
	Chemical Oxygen Demand (COD)	250 mg/L
	Bio-chemical Oxygen Demand (BOD <sub>3</sub> at 27 <sup>0</sup> C)	100 mg/L

3. The emissions shall not contain constituents in excess of the prescribed limits mentioned below.

Chimney No.	Parameter and Emission Standards
1	Total organic carbon-20mg/Nm <sup>3</sup> , HF-4mg/Nm <sup>3</sup> , NOx-400

	mg/Nm <sup>3</sup> , Total dioxins and furans-0.1ngTEQ/Nm <sup>3</sup> , Cd + Th + their compounds-0.05mg/Nm <sup>3</sup> , Hg and its compounds-0.05mg/Nm <sup>3</sup> and Sb + As - Pb + Cr + Co + Cu + Mn + Ni + V + their compounds-0.05mg/Nm <sup>3</sup>
2 & 3	Particulate Matter 115 mg/Nm <sup>3</sup>

4. The facility shall comply with ambient air quality standards of PM<sub>10</sub>(Particulate Matter size less than 10µm) - 100 µg/ m<sup>3</sup>; PM<sub>2.5</sub>(Particulate Matter size less than 2.5 µm) - 60 µg/ m<sup>3</sup>; SO<sub>2</sub> - 80 µg/ m<sup>3</sup>; NO<sub>x</sub> - 80 µg/m<sup>3</sup>, outside the facility premises at the periphery of the facility.

Standards for Ambient Air quality at the MSW landfill site and at the vicinity shall be complied. SO<sub>2</sub> – 80 µg/m<sup>3</sup>; SAPM 100 µg/ m<sup>3</sup>; Methane not to exceed 25% of explosive limit (650 mg/m<sup>3</sup>), Ammonia - 0.4 mg/m<sup>3</sup>, CO - 2 mg/m<sup>3</sup> ( 1 hour average) & CO - 1 mg/m<sup>3</sup> (8 hours average) .

**Noise Levels:** Day time - (6 AM to 10 PM) - 75 dB (A)  
Night time - (10 PM to 6 AM) - 70 dB (A).

5. The facility shall provide and maintain water flow meters for recoding water consumption for various purposes and maintain the records for daily consumption.
6. The facility shall provide and operate ETP consisting of collection tank and neutralization tank for treatment of RO rejects, boiler blow down, cooling bleed off and after neutralization, the treated water shall be used for ash quenching.
7. The facility shall ensure that combustion process is carried out at 950°C and the flue gas shall have a residence time of 2 seconds minimum to destruct the dioxins and furans.
8. The facility shall use hydrated lime, activated carbon to remove dioxins and furans and heavy metals and finally by bag filter system for the treatment of flue gases.
9. The facility shall provide Online Continuous Emissions Monitoring System (OCEMS) for stack attached to Boilers for parameters SPM, SO<sub>2</sub>, NO<sub>x</sub>, HCl and CO.
10. The RDF shall be stored in closed tanker/pit. The bunker/pit shall be operated under negative pressure so as to control odourous gases and drawn into boiler.
11. The facility shall explore the possibility of burning the gases generated from legacy dumpsite in the boiler to control odour in the area.
12. 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 tall growing trees with wide leaf area.
13. The industry shall collect and store the ash generated in a closed shed and shall dispose into the secured landfill.
14. The facility shall maintain good house keeping.
15. The facility shall ensure that there shall not be any change in the process technology and scope of working without prior approval from the Board
16. The vehicle transporting municipal solid waste shall be covered with tarpaulin covers.
17. The facility shall comply with Task Force directions issued by the Board from time to time.
18. The facility shall comply with SWM Rules, 2016 for operation of the plant.
19. The applicant shall submit Environment statement in Form V to the Regional office before 30th September of every year as per Rule No.14 of E(P) Rules, 1986 & amendments thereof.

20. The conditions stipulated in this order are without any prejudice to rights and contentions of this Board in any Hon'ble court of Law.

**SCHEDULE - C**

**[see rule 6(2)]**

**[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]**

1. The facility shall give top priority for waste minimization and cleaner production practices.
2. The facility shall not store hazardous waste for more than 90 days as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and amendments thereof. The facility shall maintain 6 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 Authorisation in FORM-3 i.e., quantity of Incinerable 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 Waste 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.
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.
5. The facility shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal. Waste oils shall be disposed to the authorized Reprocessors/ Recyclers and Used Lead Acid Batteries shall be disposed to the manufacturers / dealers on buyback basis. The facility shall take necessary practical steps for prevention of oil spillages and carry over of oil from the premises. The facility shall check the Certificate/ Authorisation/order of MoEF issued to the Re-user/Recycle units while disposing the waste oil.
6. The facility shall dispose of e-waste to the authorised recyclers only.
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.

Sd/-

**MEMBER SECRETARY**

To

M/s. Hyderabad MSW Energy Solution Private Ltd., (by GHMC),  
Sy.No.173, Jawaharnagar(V), Shameerpet (M),  
Medchal-Malkajgiri District.

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

  
**SENIOR ENVIRONMENTAL ENGINEER (FAC)**

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