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)

RUNNING INDEX

Place: Hyderabad

Date: 17-12-2022.

Report dated 17.12.2022 of the Telangana State Pollution Control Board (TSPCB) (Respondent No. 4) in O.A. No. 199 of 2021 (SZ) on Municipal Solid Waste Management at Jawahar Nagar, Medchal-Malkajgiri District.

Jawaharnagar Dumping yard is locatec 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.***

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 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.

LANDFILL GAS MANAGEMENT:

Landfill gases if untreated releases methane into the environment which has 23 times higher global warming potential than CO2. Based on this fact, 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.

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". His final Report is still awaited.

The CPCB is also yet to constitute expert committee to study whether capping can be retained.

STATUS OF THE 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 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 facility obtained EC for expansion of Waste to Energy Plant from 19.8 MW to 24 MW. The facility obtained CFE of the Board for 48 MW capacity of WtE plant.
- Subsequently, the facility obtained CFO of the Board for 24 MW capacity and another 24 MW capacity is under construction.
- 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 March,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 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 shallprovide 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.
- TSPCB is continuously monitoring the facility on monthly basis for compliance of the SWM Rules.

LEACHATE MANAGEMENT:

Leachate is generated from integrated solid waste processing plant for fresh waste and legacy leachate generated due to the legacy dump site.

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.

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 K_/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.

The Board issued CFE to the facility to establish LTE Mechanical Vepar recompresation evaporator MVRE of capacity 2.0 MLD.

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

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	In GHMC area, two processing plants of capacity-500 TPD each at Jeedimetla and Fathulguda are commissioned and under

S. No.	Activity	Present status of compliance by the GHMC
	wastes	operation.
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 24th September, 2018.
8	Annual Report	Annual Reports for the year 2020-21 submitted within the timelines and consolidated reports submitted to CPCB.

The Jawharnagar capping design conforms to Central Public Health & Environmental Engineering Organisation (CPHEEO) manual on the MSW Management guidelines for capping of old dump sites as well as SWM Rules, 2016. Further, the work taken up as per the MSW Rules, 2000 and in compliance to EC conditions. The landfill gas management system is functional and is generating 750 m^3/Hr input capacity and producing compressed bio gas by cleaning, enrichment and bottling in cylinders and sold to M/s. BGL under Sustainable Alternative Towards Affordable Transportation (SATAT) scheme. Further, three CBG plants gas flaring systems were installed to flare up the surplus gas.

STATUS OF COMPLIANCE OF THE DIRECTIONS ISSUED 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 or complaints is being reviewed before the Task Force Committee consisting of members from the IICT, NIPER, IIT-Hyderabad and issuing directions for compliance from time to time.
- The latest Status/ Compliance of the directions issued to the GHMC are as follows:

S.No	Directions Issued	Compliance
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 completed as on 26.06.2021. 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.	Storm water 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.
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.	Earlier, GHMC was operating the 2 X 2000 KLD mobile RO plants for treatment of legacy leachate at Jawaharnagar. Presently, the GHMC stopped operation of the RO plants as it proposed project of comprehensive treatment of the legacy leachate with Rs.251.06 Cr. The GHMC awarded contract to M/s. Ramky Infrastructure Ltd vide agreement dated 09.2021 to treat the legacy leachate and for restoration of the lakes abutting the facility. 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.
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.	

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 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: 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. Application for Consent for Establishment (CFE) was submitted to TSPCB on 13.12.2022. It is proposed to divert MSW of 4,000 tonnes per day to this facility at Pyara Nagar reducing the load at Jawaharnagar site. Following facilities are proposed: 1. Raw Biogas 260 Tons/day

		2. Electricity 15 MW 3. Recycled plastic 90 Tons/day 4. Compost 200 Tons/day 5. RDF 2035 Tons/cay . 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. 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.
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.	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. The gases generated from the landfill are collected and passed through flaring system and used as Compressed Bio Gas (CBG).

- 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	The facility is covering the MSW stored in the premises with soil / tarpaulin sheets. Only active area has been left

S.No	Directions	Compliance
	tarpaulin sheet	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. The facility is also using drones for spraying the odour neutralizing liquids on the composting yards and on the leachate storage ponds.
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 ply from the colony / gated community roads.	Being Complied and vehicles are diverted from colony/ gated 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 (24 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	The facility has provided separate system for collection of storm water and leachate water in the processing

S.No	Directions	Compliance
	surface water and also for avoiding flooding and creation of marshy conditions.	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 H2S 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. For better utilisation of of landfill Gas the facility has established a Compressed Bio Gas (CBG) plant of 750 cubic meter per hour input capacity for producing CBG by cleaning, enrichment and bottling the landfill gas as alternative to CNG fuel.
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 slaughter houses.	No waste from slaughter houses is 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 CBG facility for collection and purification.
11.	The industry shall provide water flow meters for recording daily	The facility has provided water flow meters at composting plant, RDF plant,

S.No	Directions	Compliance
	water consumption for composting plant, RDF plant, recycling complex, floor wash and vehicle wash etc.,	Re-cycling complex, floor wash etc., and furnishing the records.
12.	The facility shall ensure that no leachate from the processing area of fresh waste joins legacy leachate.	The facility has connected all process areas with leachate collection system to collect the leachate from the fresh waste. Landfill & RDF storage are connected with the sumps to collect the leachate from the respective areas. Leachate from all these areas were pumped to the storage ponds located east side of the CBG plant, from where the leachate is then pumped to the waste water complex for further treatment.
13.	The facility shall explore the possibility of providing conveyor belts to transport RDF to Waste to Energy Plant from the processing area to avoid vehicular movement.	The facility has informed that they are exploring the possibility of RDF conveyor system along with the Phase - II works.
14.	The landfill sites shall have waste inspection facility to monitor wastes brought in for landfill, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipments.	The facility has waste inspection facility at the 4 weigh bridges at entrance gate for the incoming waste and at 5th weighbridge for process rejects reaching the SLF. The inspection is done with the help of CC cameras at the weigh bridges. The operational records are maintained at the operations building and keeping in safe possession of EPTRI who is the Independent Engineer for the project. The facility has full pledged laboratory with adequate air monitoring and waste characterisation facilities. Waste

S.No	Directions	Compliance
		characterisation is done on monthly basis and reports are shared with the Independent engineer and GHMC

The Board is regularly monitoring the Jawaharnagar Integrated Processing Facility for compliance of the directions issued by the Board.

Date: **17.12.2022**

Place: **Hyderabad**

B. Rajendi

ENVIRONMENTAL ENGINGEER
Environmental Engineer
T.S. Pollution Control Board
Regional Office, Medchal

ANNEXURE-I

16

Item No.08:

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Original Application No. 199 of 2021 (SZ)
&
I.A. No. 96 of 2022(SZ)

IN THE MATTER OF:

Sri Shankar Narayanan Bala Krishnan ...Applicant(s)

Vs

State of Telengana and Others. ....Respondent(s)

Date of hearing: 24.11.2022.

CORAM:

HON'BLE SMT. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER
HON'BLE DR. SATYAGOPAL KORLAPATI, EXPERT MEMBER

For Applicant(s): Mr. Sravan Kumar

For Respondent(s): Ms. R. Renuka for Ms. Yashmeen Alir for R1, R5, R7 and R8.
Mr. Era Meyappan for Ms. ME. Sarashwathy for R2.
Ms. Nathami for R3
Ms. Dayana for Mr. T. Sai Krishnan for R4.
Mr. Om Prakash, Sr. Adv. Along with Mr. D. Sreenivas and Mr. Jaihari Sudhan.V. for R6.
Mr. Avinash Desai and Ms. Ishita Thakur for R9 and 10
Mr. P. Venkaiah Naidu for IA.

ORDER

1. It appears that there is no progress after 07.03.2022 order. The entire matter revolves around removal of garbage from Balaji Nagar Village of Jawahar Nagar, Shameerpet Mandal and Malkajgiri, Alwal Municipalities where the municipal solid waste is being dumped.

2. It appears that the State Pollution Control Board had issued a communication regarding the complaint received from the local public regarding the death of fish in Dammaiguda and Narsimha Cheruvu due to discharge of leachate. In the said communication, it is mentioned that there are regular complaints from the residents of Dammaiguda, Jawahar Nagar, Sainik Puri, Tirumalagir, Bollaram and Kompally regarding the smell from the MSW facility. The report states that the leachate which is being generated from the existing legacy dumpsite into the Malkaram Cheruvu is being treated by M/s RO Chem, engaged by the GHMC. The RO permeate is also being disposed through pipeline to Cheriyal channel and RO reject is being pumped back into the Malkaram Cheruvu.
3. The Pollution Control Board has noted that the facility is not complying with the consent conditions of the Board. Hence, the Board had issued show-cause notice to the GHMC and the facility on 23.05.2020 for non-compliance of the directions issued. After hearing the officials of the GHMC and the representatives of the Hyderabad Integrated Municipal Solid Waste Management project certain directions were issued to the GHMC to comply with, which included the alternative site at Dundigal/Lakkadaram which shall be made operational at the earliest. Action plan with specific time lines shall be submitted within 15 days. This is the direction which was given by the Pollution Control Board is now sought to be enforced by the applicant.

4. Upon enquiry the Learned Counsel for the applicant would state that the waste is being dumped at the same place and the shifting has not taken up. The Learned Counsel for the GHMC also submitted that they have engaged IIT, Bombay for removal of the legacy waste and for biomining activities etc.

5. The Learned Counsel appearing for the Pollution Control Board also states that they have given certain time lines within which they will complete the biomining. The additional report of GHMC also states that a preliminary survey was taken up by the IIT, Bombay on 12.07.2022 and there is legacy waste which is about 12 million tonnes. In order to comply with the directions issued by this Tribunal regarding disposal of the legacy waste which was capped in the Jawaharnagar legacy waste dumpsite through biomining and bioremediation for land reclamation bids were called and as per bid schedule on the due date which was 13.07.2022, no bidders had participated and no tenders were received.

6. One could understand that there could be difficulties in securing bidder for such kind of activity because it is a herculean task of biomining 12 million tonnes of waste. Having engaged IIT, Bombay as a technical expert, it is for GHMC to get a report from them and act according to the expert advice.

7. In the meanwhile, if the solid waste that is being generated every day is dumped again at the same site it would be a never ending process. In this

regard, the Pollution Control Board has to follow up the directions given earlier to the GHMC as to why the identified alternate sites are not made operational is not known.

8. Even after the lapse of one year the inaction on the part of the respective authorities shows that the authorities lack interest in remediating and reclaiming the land. They are also negligent which can have a major impact on the health of the public. We, therefore, direct the authorities to file a report regarding the action taken and action to be taken in a chronological manner giving out the time line for each of the action that may be taken by them. If the reports are not available with us before the next date of hearing we would summon the appropriate authority to be present before this Tribunal and take instructions in person.

9. The leachate which is being sent to the Malkaram Cheruvu also has to be addressed and immediate steps to be taken to stop the same as the photographs produced show that there is formation of foam in those Cheruvus which happens only because of the contaminated water being discharged.

10. Post the matter on 19.12.2022.

.....J.M.
(Smt. Justice Pushpa Sathyanarayana)

.....E.M.
(Dr. Satyagopal Korlapati)

O.A. No. 199/2021(SZ)&
I.A.No. 96/2022(SZ)
24th November, 2022. (AM)