

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

**Original Application No. 199 of 2021 (SZ)**

**IN THE MATTER OF:**

Sri. Shankar Narayanan Bala Krishnan & 21 Ors

..... Applicants

Versus

State of Telangana & 9 Ors

.....Respondent(S)

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*H.D. Varalaxmi*

**DEPONENT**

**Place: Chennai**

**Date: 02.02.2022**



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SOUTHERN ZONE**

ORIGINAL APPLICATION NO. 199 OF 2021

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**AFFIDAVIT FILED ON BEHALF OF RESPONDENT NO. 3,  
CENTRAL POLLUTION CONTROL BOARD**

I, H. D. Varalaxmi, D/o Shri H.S. Devaiah, Hindu, aged about 51 years and having office at the Regional Directorate – Chennai, Central Pollution Control Board, 2<sup>nd</sup> Floor, 77-A, Ambattur Industrial Estate, Chennai – 600 058, do hereby solemnly affirm and sincerely state as follows:-

1. That I am presently working as Scientist ‘E’ & holding Charge of Regional Director, Regional Directorate, Chennai, Central Pollution Control Board (hereinafter called as CPCB) and have been authorized to file the affidavit on behalf of Respondent No. 3. I am fully conversant with the facts of the case and hence, competent and authorized to depose and swear the present as under:
2. It is submitted that CPCB received a complaint forwarded by MoEF&CC regarding surface & groundwater and odour pollution caused by solid waste dumpsite at Jawahar Nagar, Hyderabad. The dumpsite was jointly inspected by the officials of CPCB, Regional Directorate, Chennai and



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Telangana State Pollution Control Board (hereinafter called as TSPCB) officials on November 17, 2020. The copy of the inspection report is annexed as **Annexure 1**. The salient observations were:

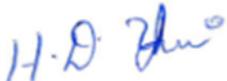
- i. The legacy waste dumpsite and M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP) at Jawahar nagar, Hyderabad was inspected on November 17, 2020 along with TSPCB and GHMC officials. The Hon'ble Minister of Parliament Sh. Anumula Revanth Reddy, along with publics/residents in the vicinity of the dumpsite & solid waste processing facility also visited and explained their grievances to the officials but could not accompany for the inspection.
- ii. The Jawahar nagar dumpsite has two components, the capped legacy waste in 130 acres of land and integrated solid waste processing facility constructed from the reclaimed land of legacy waste in an area of 200 acres. The capping & integrated solid waste processing plant is operated and maintained by M/s Ramky Enviro Engineer Ltd., under the name M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP).
- iii. It was informed that around 12 million metric tonnes of legacy waste is scientifically capped and around 80% of capping process is completed and same was noticed during inspection. The soil cover work was under process on the day of inspection.
- iv. Around 162 gas extraction wells are drilled and the gases from 100 gas wells are established and presently flaring is carried out. During inspection flaring was not operational.



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- v. The leachate generated from the legacy waste has find its way to the Malkaram -II cheruvu which is adjacent to the dumpsite. It is been estimated that around 750 Million Litre of leachate is being accumulated in the pond and the overflow of the lake can join five downstream lakes causing pollution.
- vi. M/s HIMSWMP has constructed nine artificial lagoons in the downstream with Geosynthetic liner to collect any overflow from the lake during monsoon season.
- vii. Due to overflow of leachate to the downstream lakes, there was always a public complaints, protest from the villagers and frequent fish kills. Hence GHMC has installed two RO plants of 2 MLD capacity to treat leachate in the lake. About 100 KL/hr. of leachate is fed into RO and generates about 63% of permeate in each RO system and operates 20 hours/day. The total permeate of about 2400 KLD is discharged into the storm water drain which joins Edula cheruvu and the remaining 1600 KLD rejects is again discharged into the leachate ponds (Malkaram -II cheruvu).
- viii. The integrated solid waste processing facility M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP) at Jawaharnagar has established compost plants, recycling complex, RDF plant, secured landfill with leachate treatment. At present the facility is processing 6000 TPD of solid waste
- ix. During inspection, it was noticed that around 60 tonnes of solid waste was stored in a separation point without shed and was emitting very strong odour. It was informed that due to heavy rainfall, around 10 days solid waste was not processed and informed will process at the earliest.



  
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- x. During inspection, the strong odour was emitting from the third compost plant while turning the windrows stacks. It was informed that odour control systems were operational but it was not effective to control. The workers at the plant were working with just a plane mask. The odour was so strong that the officials could not able to bear even for 2 minutes. The facility has to look this very seriously and provide the suitable odour control system and reusable respirator masks for people working in the compost plant.
- xi. During inspection it was noticed that huge quantity of about 45. 44 Lakh tons of RDF was stored in an area of 54.7 acres of land at the backside of plastic recycling plant, tipping floor and east side of the RDF plant. It was informed that the RDF is manufactured from the year 2012 is stored.
- xii. It was informed that it will be utilized in the waste to energy plant operational at the vicinity from August 2020. The quantity of 5% will be utilized per day as informed, which means that it will take more than 2 decades to completely utilize the stored RDF in waste to energy plant.
- xiii. The facility has installed leachate treatment plant (LTP) of capacity 1000 TPD adjacent to the tipping floor. The leachate of 700 KLD generated from the tipping floor, compost plants, landfill, RDF storage cell, some quantity from capping area is treated in LTP. The LTP consists of grit chamber, equalization, settling tank, DAF with pipe flocculator, clarifier followed by filtration. The filter is fed into RO plant stage I & II. The permeate is stored in a tank and the RO reject is fed into 4 stages MEE.



  
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The concentrate of MEE is fed into ATFD and sludge is generated. The RO permeate and MEE condensate is used for gardening and washing of vehicles. The thick sludge of about 25 - 30 tons generated from ATFD is disposed in sanitary landfill.

- xiv. Before the installation of MEE & ATFD, the RO reject was taken in solar evaporation ponds for generation of salts. This was one of the reasons for odour nuisance and public protests. However during inspection, the odour was still felt in the LTP area emitting from the sludge. The facility may take necessary steps to eliminate complete moisture and generate salts to reduce odour.
- xv. The Jawahar nagar facility has waste to energy (WTE) plant of 19.8 MW capacity and is operational from August 2020. During inspection, it was under trial run and operating at 9.8 MW capacity by feeding 1200 TPD of RDF.
- xvi. The WTE plant is operating in the name of M/s Hyderabad MSW Energy Solutions Pvt. Ltd. and a separate consent to operate under Air and Water Act and authorisation issued from TSPCB.

3. That the recommendations made in the inspection report for issuing direction to Greater Hyderabad Municipal Corporation (hereinafter called as GHMC) for the effective implementation of the Solid Waste Management, Rules 2016 is as follows:

- i. To initiate necessary steps for day to day collection of solid waste generated and to achieve 100% of segregation for the effective treatment & disposal.



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- ii. To immediately remediate & restore the Malkaram –II Cheruvu and also to explore the possibility of treating the RO reject generated by treating the leachate accumulated in the lake by MEE & ATFD in the Leachate Treatment Plant instead of putting back in the lake.
- iii. The leachate generated by the capped legacy waste shall be diverted to the leachate treatment plant by completing the construction of garland drains around the capped area.
- iv. The GHMC may initiate quick & suitable steps to clean the surrounding area accumulated with leachate near the Malkaram –II Cheruvu for avoiding ground water contamination.
- v. GHMC will ensure that the waste around 60 tonnes stored in the compost area will be treated within two months period so that it will not become another dumpsite.
- vi. To effectively use the odour control system and right amount of neutralizer to eliminate the odour problem in the compost plants. The workers shall be provided with reusable respirators while in the compost plants and impart hands on training with PPEs to work in the compost plant.
- vii. To effectively trap the gases produces from the sanitary landfill either to flare or explore possible technology to utilize the collected gases. To also operate the sanitary landfill according the CPCB guidelines.
- viii. To immediately explore possible ways to clear the RDF stored in 54.7 acres of land either by sending to cement industries or utilizing in the Waste to energy.



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- ix. The sludge generated from the leachate treatment plant shall be utilized in waste to energy plant or send to cement industries for co-processing instead of landfill, so as to avoid the unnecessary load.
  - x. To obtain the consent to operate under Water & Air Act & authorisation under Solid waste Management Rules, 2016 for the plastic waste recycling plant.
  - xi. To ensure that the three alternative sites identified for the treatment & disposal of solid waste shall be operated immediately so that the load on the Jawahar nagar facility can be reduced.
  - xii. To immediately take necessary steps for remediation and restoration of the ground water quality in and around the facility & capped site.
4. Based on the recommendations, CPCB issued letter to TSPCB to ensure that Greater Hyderabad Municipal Corporation (GHMC) takes necessary actions to control odour and remediation of surface & groundwater. A copy of the letter addressed to TSPCB dated 02.05.2021 is annexed as **Annexure 2.**

Hence in view of above, it is respectfully prayed that this Answering Respondent No. 3 will abide by the order(s)/direction(s) passed by this Hon'ble Tribunal.



**Deponent**

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### VERIFICATION

It is verified that the content of this Affidavit is based on official record and information available in the office are true and correct. Nothing has been concealed therein.

Signed and verified on this 2<sup>nd</sup> day of February, 2022 at Chennai



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Counsel for CPCB





**CENTRAL POLLUTION CONTROL BOARD  
REGIONAL DIRECTORATE - CHENNAI**

**Inspection report under VIP reference - Solid Waste dump site at  
Jawahar Nagar, Hyderabad, Telangana**

**1.0 Background**

A letter was addressed to Hon'ble Minister of Environment, Forests & Climate Change by Hon'ble MP, Shri Anumula Revanth Reddy, Malkajgiri regarding pollution caused by solid waste dump site at Jawahar Nagar, Hyderabad. In turn, MoEF&CC forwarded the complaint to CPCB through e-mail requesting to take necessary action under Solid Waste Management Rules, 2016. The complainant has alleged that the existing dump yard at Jawahar Nagar is a cause for alarming levels of contaminants like dissolved solids, nitrates & Chlorides in the groundwater in villages located in a radius of 5km from the landfill. The dump yard also generates enormous amount of leachate contaminating 14 lakes in Jawahar Nagar area. The complainant states that, the Hon'ble NGT, Principal Bench passed an order in December 2017, directing Telangana Government to find alternative sites for dumping municipal wastes somewhere outside the city limits in compliance with the Solid Waste Management Rules, 2016 and to submit the compliance report within three months.

In this regard CPCB H.O. requested Regional Directorate (South) -Bengaluru vide letter no. F. No. B-11011/UPC-II/MSW/PC/2019-20/7971 dated October 15, 2020 received on October 27, 2020 to inspect the site and submit report for further necessary action. In continuation to this, Regional Directorate Chennai deputed Smt. Poornima B M,

Scientist D for the inspection of the site. The official inspected the site along with Telangana State Pollution Control Board (TSPCB) and Greater Hyderabad Municipal Corporation (GHMC) officials on November 17, 2020. During inspection, Hon'ble MP i.e. complainant along with the public's residing in the vicinity of the site met the officials and informed the grievances & also submitted the representation. However could not involve in the inspection and sample collections. The officials present during inspection are:

- i. Smt. Poornima B M, Scientist D, CPCB RD (Chennai)
- ii. Sh. Narendra Babu, SEE, TSPCB, Hyderabad
- iii. Ms. Gouthami, AEE, RO Medchal
- iv. Sh. M. Koteswar Rao, Superintending Engineer, SWM, GHMC, Hyderabad
- v. Sh. Srinivas Reddy, EE, GHMC, Hyderabad
- vi. Sh. B. Koteswar Rao, Team Leader, EPTRI, Hyderabad
- vii. Sh. Krishna Rao Thota, Project Head, Ramky Enviro engineers



*Meeting with Hon'ble MP and residents of the vicinity along with officials of TSPCB & GHMC of the*

During inspection the surface & ground water samples in and around the dump site & integrated waste processing facility, leachate samples were collected. The samples were handed over to TSPCB, Hyderabad for analysis.

## 2.0 Management of Solid Waste (SW) in GHMC, Telangana

The Hyderabad Corporation and the Secunderabad Corporation were established in 1950 via the Hyderabad Corporation Act and in the year 1955, both the municipal corporations of Hyderabad and Secunderabad were merged to form Municipal Corporation of Hyderabad (MCH). In 1956, after the formation of Andhra Pradesh State, Hyderabad became capital of Andhra Pradesh. The Greater Hyderabad Municipal Corporation was formed on April 16, 2007 by merging 12 municipalities (Rangareddy & Medak district) and 8 gram panchayats with the Municipal Corporation of Hyderabad.

### 2.1 Generation of Solid Waste in GHMC

Upon new urban agglomeration, GHMC sprawls across 625 Square Kilometres with a population of nearly 1 Crore. It was informed that GHMC generates about 6000 TPD of solid waste and sometimes reaches to 7000 TPD due to floating population. Out of 6000 TPD, 55% is a wet waste which is bio-compostable, 44% dry waste which is non-compostable in nature and 1% of the waste is inert material generated from the street sweeping and cleaning of storm water drains. Table below shows that solid waste generation and processed annually and per day from the year 2012 to 2020:

*Table 1: Solid waste generation and processed annually and per day from the year 2012 to 2020*

S. No	Year	SW Generation		SW Processed	
		Annual Average	Per day	Annual Average	Per day
1	2012-13	758839	2079.01	748549	2050.82
2	2013-14	1149037	3148.05	1120939	3071.07
3	2014-15	1176628	3223.64	1151686	3155.30
4	2015-16	1357621	3719.51	1324719	3629.37
5	2016-17	1632920	4473.75	1423180	3899.12
6	2017-18	1827573	5007.05	1787657	4897.69
7	2018-19	2000120	5479.78	1999971	5479.37

8	2019-20	2223793	6092.58	2118981	5805.43
9	2020-21 up to Oct'20	1230818	5751.49	1180935	5518.39

Source: GHMC

## 2.2 Collection of Solid Waste in GHMC

The GHMC has adopted every day door to door collection system from households in entire city limits and alternate day's door to door collection system for the panchayats area. It was informed by GHMC that, colour coded dust bins were distributed to households of some area for segregation of waste at the source and around 55% of segregation is being achieved. The Solid Waste is collected from different sources in different methods. The wastes from the households and commercial establishments are covered under door to door collection of waste through Auto Tippers. Market and Chicken & mutton waste are being collected separately by Auto tippers and mini trucks.

## 2.3 Transportation of Solid Waste in GHMC

Transportation of solid waste to the processing/treatment facility is carried out by GHMC. The solid waste collected from the households (primary collection) and commercial establishment (secondary collections) in auto tippers are transported to transfer stations and from the transfer stations, GHMC transfers the waste through trucks to the integrated solid waste processing facility at Jawahar Nagar. The auto tippers and trucks carrying waste do not have a cover and during the transportation of waste from collection point to treatment & disposal site, waste tends to spill on the roads.

### 2.3 Treatment of Solid Waste

The GHMC has entered MoU with M/s. Ramky Enviro Engineers Ltd., Hyderabad for establishing Integrated Solid Waste Management (ISWM) Project under PPP mode in the year 2009 and started its operation of processing/treatment & disposal facility on February, 2012. The entire solid waste generated (6000TPD) from the GHMC area is treated & disposed at M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP) located at Survey No: 173, Jawaharnagar, Shameerpet Mandal, Medchal-Malkajgiri District. The integrated processing facility is constructed in 201.5 acres of reclaimed land from the legacy dump site of Jawaharnagar.

M/s HIMSWMP has constructed compost plant, recycling complex (plastic, paper, metal, rubber, glass etc.) RDF processing plant, and scientific landfill with Leachate Treatment Plant (LTP) for the processing/treatment of solid waste generated in the GHMC area. The capacity of the facility is given in table below:

**Table 2: Treatment capacity of each plant in the facility**

<b>S. No.</b>	<b>Facility</b>	<b>Capacity in TPD</b>
1	Compost plant (3x680)	2040
2	RDF plant (2x 1200)	2400
3	Recycling complex (metals, plastic, paper, glass, rubber etc.)	600
4	Sanitary landfill with LTP	735

### 2.4 Final disposal of Solid Waste

M/s HIMSWMP has constructed sanitary landfill for disposing the 735 TPD of inert materials & rejects generated from the compost, RDF and recycling complex. The

landfill cell no. I, II & II was operational from the year 2012 up to 2017 and built in an area of 11.20 acres. The rejects of quantity around 9 Lakh Tons were filled and closed. At present cell no. I & II at the southern side is operational from 2017 onwards in an area of 13.64 acres and disposed around 10 Lakh tons of rejects till now.

### **3.0 Status of legacy waste dump site at Jawahar Nagar, Hyderabad**

It was informed that before the formation of GHMC, municipal solid waste generated from the municipal of Kapra, Alwal & Moulali areas and also from the Municipal Corporation of Hyderabad areas through trucks and dumped haphazardly in the abandoned stone quarry in Jawahar Nagar. The waste started to accumulate from the year 2000 till 2007 in area of 339 acres of abandoned stone quarry site. The SW dumpsite is on a highly elevated rocky terrain (Hills) at a height of about 620 feet above main sea level.

After the formation of GHMC, MoU was entered with M/s Ramky Enviro Engineers Ltd., Hyderabad in the year 2009 for the solid waste generated from GHMC area with the following scope of work:

- Primary (from House Holds) & Secondary (Commercial) Collection and transportation up to transfer station - (40%)
- Tertiary Transportation i.e., from Transfer Station (TS) to Treatment & Disposal (T&D) facility - (20%) and
- T&D of MSW including reclamation of dumpsites - (40%)

It was informed that the project was delayed and could not commenced till the year 2012, due to the protests and filing of cases by workers unions in Hon'ble High Court of Hyderabad. The Hon'ble High Court disposed the case in November 2011, project was commenced in February 2012 only the Treatment and Disposal part (40% of project scope) by M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP). It was informed that till 2012, around 12 MMT of waste was accumulated and the capping project of the legacy waste was halted as the HIMSWMP, requested

GHMC to share the project cost, as only 40% of the project was allocated. Hence the Telangana Government agreed to bear capping cost of Rs.147 Cr at 50:50 ratio and issued G.O: Rt. No.189 MA&UD (GHMC-II) Dept. Dt. 22.03.2018. In the year 2016, the capping works was started by HIMSWMP and till date about 80% is completed.

**The details of Scientific Capping of Jawaharnagar legacy dumpsite is:**

- Waste shifting & Profiling : 100% complete
- 300 mm thick Bottom soil cover : 100% complete
- Geosynthetic Clay Liner of 6mm thickness : 100% complete
- HDPE Double Textured with 1.5 mm thick : 100% complete
- Geo Composite liner of 6 mm thickness : 100% completed
- 450 mm thick top soil cover : 85% complete
- Storm water (toe & chute drains) : 30 % complete
- Dibbling/ green cover : 30% complete
- Gas bore wells (152 no's) : 100% complete



*Capping of legacy waste*



*Pipeline for carrying the gases trapped from capped legacy waste*

The solid waste of around 12 million tonnes dumped haphazardly in 339 Acres of land was reheaped by waste shifting & waste profiling thereby restricting dump area to 137.5 acres. About 200 Acres of land was reclaimed and was used for developing treatment

and disposal facilities (compost plant, recycling complex & RDF processing plant), SLF and Waste to Energy projects. Presently, the facility is processing 6000 TPD of solid waste generated by GHMC. The Jawaharnagar dump site at present is having two components i.e., the capped old dump site and the new integrated processing facility.

The facility is surrounded by:

Eastern side: Houses of Rajeev Gruhakalpa at distance of about 250m

Western side: Gabbilalpet village at a distance of about 500m

Northern side: Haridaspalli village at a distance of about 500m

Southern side: Dammiguda village at a distance of about 2Km

### ***3.1 Status of legacy leachate***

The Jawaharnagar dumpsite and M/s HIMSWMP facility is surrounded by lakes and ponds (cheruvu) at the upstream & downstream of the facility. These lakes and ponds are interconnected and finally join Musi River. The HUDA cheruvu is located on the upstream side of the facility in the North-Western direction. The overflow from the HUDA cheruvu joins Malkaram-I Cheruvu and the overflow of this lake joins Malkaram-II (Gundlakamma Cheruvu) which is just adjacent to the dumpsite. The overflow from Malkaram-II joins Cheriya Cheruvu, Rampally-I Cheruvu and finally joins to Edulabad Cheruvu at Ghatkesar.

The Dammai cheruvu located at the downstream of the dumpsite flows towards the Southern side and the overflow joins Narsimlu Cheruvu followed by Rampally-II Cheruvu and finally joins Edulabad Cheruvu at Ghatkesar.

The Malkaram-II Cheruvu (Gundlakamma Cheruvu) which is adjacent to the legacy waste dumpsite is totally contaminated with the leachate generated from dumpsite. The contaminants from the overflow of Malkaram-II Cheruvu polluted the downstream lakes. It was estimated that about 4.5 Lakh KL of leachate was collected and

accumulated in the lake. Due to the untreated leachate flowing to the lake caused frequent fish kills and protest from the public. Hence, GHMC decided to construct diversion channel across Malkaram -II cheruvu to contain and stop the pollution of the downstream lake. M/s HIMSWMP created nine artificial lagoons in the downstream Malkaram -II cheruvu to collect the leachate from the overflow of the lake during monsoon season. The legacy leachate collected in the artificial lagoons was utilized for spraying and dosing fires in the old dumpsite till 2018.



*The leachate filled in Malkaram -II and surrounding area*

### ***Treatment of the legacy leachate***

Due to the nearby villagers protested on the over flowing leachate during incessant rains during Sept & Oct 2016; GHMC decided to treat legacy leachate by installing mobile R.O plant as temporary measure to contain overflow. The HIMSWMP representative informed that at present around 7.5 Lakh KLD of legacy leachate is accumulated in the Malkaram-II Cheruvu and nine artificial lagoons thus severely polluting the lake & ground water.

GHMC engaged M/s RO Chem to treat the leachate generated from legacy dumpsite and accumulating in Malkaram -II cheruvu. M/s RO Chem installed 2 x 2 MLD

capacities of RO Plants near to the Malkaram -II cheruvu. It was informed that M/s RO Chem feeds about 100 KL/hr. and operates 20 hours/day and generates about 63% of permeate in each RO system. The total permeate of about 2400 KLD is discharged into the storm water drain which joins Edula cheruvu and the remaining 1600 KLD rejects are again discharged into the leachate ponds (Malkaram -II cheruvu). The RO permeate is being disposed through pipeline to Cheriyaal channel and RO reject is being pumped back in to the Malkaram - II Cheruvu.

It was informed that due to treatment of legacy leachate by RO plants; the quantity of leachate has reduced to 6.0 Lakh KLD and the generation of leachate from the old dumpsite has also reduced with the completion of 85% capping.

#### **4.0 Status of NGT cases and compliance**

The applicant Sh. Peddi Mohan Reddy & Ors. filed a case OA No. 780 of 2017 titled: Peddi Mohan Reddy & Ors Vs. The State of Telangana at NGT, Principal Bench, Delhi regarding that the respondents should identify a proper landfill site and should not dump the waste indiscriminately in Jawaharnagar and violation of Solid Waste Management Rules, 2016. NGT, PB disposed the application on December 7, 2017 directing that:

*“.....The State of Telangana to identify waste landfill site in the entire state and to ensure that municipal solid waste is deposited in such sites strictly in accordance with the solid waste rules, 2016. The action should be time bound. Therefore, we direct that within a period of three months from today the state and all concerned authorities should take action and submit compliance report to the tribunal immediately thereafter.....”*

In compliance to the NGT direction, GHMC identified three sites at Pyaranagar, Lakdaram and Khanapur for processing the solid waste generated from GHMC area and to minimise the load on Jawaharnagar facility. The information provided by

GHMC on status of three feasible alternate lands identified for the purpose of decentralization of waste processing & disposal facilities are as below:

**Table 3: Status of the alternative sites identified for the treatment of SW**

<i>Sl. No</i>	<i>Lands identified</i>	<i>Status</i>
1.	Pyaranagar (V), Sangareddy (Dist.) [Area: 152.00 acres]	<ul style="list-style-type: none"> <li>• Revenue dept. handed over the land to GHMC, pending alienation by the Government.</li> <li>• The site is surrounded with forest land, hence letter is addressed by GHMC to the Forest department for handing over about 2.5 acres of land for development of approach road and also to the Collector, Sangareddy (D) to conduct ROFR survey for the approach road land.</li> <li>• GHMC has planned to divert the solid waste from Northern &amp; North Western parts of the city to this site thus reducing 2,000 TPD of waste from Jawaharnagar facility.</li> </ul>
2.	Sy.No.256/1, Khanapur(v), Talakondapally (M), Ranga Reddy(Dist.) [Area: 42 acres & 22 guntas]	<ul style="list-style-type: none"> <li>• Pending finalization of alienation proposal, permission is accorded by the District Collector to take over the land by GHMC on 12.12.2019.</li> <li>• The revenue department is yet to handover the land to GHMC as the locals are protesting for setting up of waste processing facility at the identified site.</li> <li>• Planning to develop green buffer before taking up any activity. If public protest persists, establishment of 25 MW WtE plant instead of establishing full scale waste processing plant.</li> <li>• This can ease out about 1000 TPD of MSW reaching Jawaharnagar as this caters to the</li> </ul>

		waste collected from Southern part of the City.
3.	Sy.no:747 Lakdaram (V) Patancheruvu (M), Sanga Reddy(Dist.) [Area: 150.00 acres]	<ul style="list-style-type: none"> <li>• Alienation proposal was submitted to the Dist. Collector of Sangareddy and the same is under process.</li> <li>• This site will ease out the burden on Jawaharnagar site by about 2,000 TPD as most of the waste from Western part of the city shall be diverted to this site.</li> </ul>

In case of OA No. 606 of 2018 in the matter of compliance of municipal solid waste management rules, 2016 a SUO MOTO case by NGT (PB) Delhi, passed an order on February 14, 2020 for State of Telangana and the main portion of the order is reproduced below:

*“...To take up bio-mining and bioremediation instead of capping of the dumpsite 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. If the State/Corporation does not have funds, the State may consider monetizing a part of land to raise revenue for the purpose, after following due process of law. In any case, capping cannot be permitted...”*

It was informed by GHMC that a Review Application No. 01 of 2020 has been filed on June, 2020 at Principal Bench, Delhi stating that GHMC commenced the capping project way back in the year 2012-13 before the solid waste management rules, 2016 and has completed 80% of capping and cannot be stopped at the advanced stage. The case is due for hearing and is pending before NGT (PB), Delhi.

## 6.0 Status of action taken by TSPCB to public complaints

It was informed by TSPCB officials that frequent public complaints were received at TSPCB on the legacy waste and action initiated by TSPCB against GHMC is detailed below:

1. Complaints received against the dumpsites regarding smell nuisance and fish death in Dammaiguda and Narshima Cheruvu on 21.10.2017. The issue was reviewed by the Board in the Task Force Committee meeting held on 08.12.2017 and TSPCB issued directions to the GHMC and the facility to take immediate measures to control the odour nuisance and leachate generation from the old dump site and further directed to furnish an Action Plan for treatment of RO rejects within 15 days. The GHMC vide letter dated: 08.01.2018 furnished reply on the directions issued by the Board. However, the Action Plan to treat the Legacy leachate was not furnished
2. Subsequently, the TSPCB again issued directions to GHMC on 23.01.2018 directing to furnish compliance to the directions issued vide order dated: 13.12.2017 with specific time lines for taking further necessary action.
3. The complaints were again received in the month of October, 2019 regarding odour nuisance from the Jawaharnagar facility. The issue was reviewed by TSPCB and issued directions to GHMC to take immediate measures to control leachate generation from old dump site and control odour from the old dump site by mist spraying of odour reducing chemicals.
4. Similarly directions were issued to the facility to put into operation of MEE & ATFD to treat the RO rejects from leachate treatment plant immediately.
5. TSPCB issued Show Cause Notice to the GHMC on 23.05.2020 on the complaints received from the residents of Dammaiguda, Jawaharnagar, regarding odour nuisance from the facility.

6. Subsequently, TSPCB vide order dated: 06.06.2020 issued direction to GHMC to take steps to control odour nuisance.

## 6.0 Sampling and analysis of Surface & Ground water

The TSPCB is regularly monitoring surface & ground water samples in and around the legacy waste dumpsite. On the day of inspection/ site visit, the samples from lakes, piezometric wells, Leachate samples, RO samples were collected, the samples collected were handed over to TSPCB, Zonal Laboratory, Hyderabad for analysis and the results are tabulated in the table 4, 5 6 & 7.

From the table 4 of the analysis results for the lake samples, the lake falls in either class D or E except for Bandlaguda Cheruvu (Class B) which is located in north east side of the legacy waste capped site. For the ground water samples collected from the vicinity and inside of the facility is not meeting the standards for drinking water for parameters TDS, chlorides, total alkalinity, total hardness, calcium, magnesium and nitrates. The results clearly indicate the contamination of groundwater due to legacy waste. From the analysis results in table 7 it conforms the leachate collection in the Malkaram II Cheruvu.

B1: Borewell near LTP, Landfill road junction	B9: Borewell near compost plant south east corner (near leachate sumps)
B2: Borewell near landfill, beside electrical panel room 2	B10: Borewell near south side of active dump capping
B3: Borewell near east corner of landfill	B11: Borewell near chute drains
B4: Borewell near north-east corner of passive dump capping area (near Malkaram pond)	B12: Borewell near labour camp of WTE plant
B5: Borewell near north -east corner of passive dump capping area (near admin building)	B13: Borewell near scrap yard of WTE plant
B6: Borewell near weigh bridge junction	B14: Borewell near batching plant of WTE
B7: Borewell near main security gate	B15: Borewell from Shantinagar
B8: Borewell near compost plant	B16: Borewell from Malkaram

**Table 4: Surface water samples collected from Lake around the legacy waste capped site**

<i>Parameters</i>	<i>Unit</i>	<i>Ambedkar Cheruvu (South side of dumpsite)</i>	<i>Dammiguda Cheruvu (South east side)</i>	<i>Chiryala Cheruvu (North side)</i>	<i>Bandlaguda Cheruvu (North east side)</i>	<i>Malkaram I Cheruvu (North west side)</i>
pH	-	7.87	7.87	7.92	8.07	8.04
EC	µS/cm	2336	1556	2928	302	806
DO	mg/L	-	5.3	2.7	5.4	5.1
COD	mg/L	220	73	220	12	37
BOD	mg/L	52	15	42	3	6
TSS	mg/L	52	<5	64	<5	<5
TDS	mg/L	1296	945	1592	172	448
Calcium as Ca	mg/L	50	69	43	29	90
Magnesium as Mg	mg/L	63	61	82	7	29
Nitrates	mg/L	39	19	44	10	11
Sodium as Na	mg/L	12	103	13	18	70
Potassium as K	mg/L	102	51	34	5	7
SAR	-	6.8	4.2	6.6	0.6	2.4
Free Ammonia	mg/L	0.45	0.11	0.55	BDL	BDL
Total Coliform	MPN/100 ml	>1600	>1600	920	540	430
Faecal Coliform	MPN/100 ml	510	350	350	170	130
Copper	mg/L	BDL	BDL	BDL	BDL	BDL
Nickel	mg/L	0.13	BDL	BDL	BDL	BDL
Zinc	mg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Cadmium	mg/L	BDL	BDL	BDL	BDL	BDL
Lead	mg/L	BDL	BDL	BDL	BDL	<0.1
Total Chromium	mg/L	BDL	BDL	BDL	BDL	BDL
<b><i>CPCB water quality criteria class</i></b>		<b><i>E</i></b>	<b><i>D</i></b>	<b><i>E</i></b>	<b><i>B</i></b>	<b><i>D</i></b>

**Table 5: Bore well water samples inside the facility**

<b>Parameters</b>	<b>Unit</b>	<b>Drinking water Standards as per IS 10500: 2012</b>	<b>B1</b>	<b>B2</b>	<b>B3</b>	<b>B4</b>	<b>B5</b>	<b>B6</b>	<b>B7</b>	<b>B8</b>
pH	-	6.5-8.5	7.10	7.35	7.29	7.73	7.66	7.64	7.64	7.36
EC	µS/cm	-	8100	2718	6538	24500	7540	20870	3320	4720
TSS	mg/L	-	<5	<5	<5	199	56	143	<5	42
TDS	mg/L	500	<b>5032</b>	<b>1992</b>	<b>4677</b>	<b>13486</b>	<b>4554</b>	<b>11525</b>	<b>2192</b>	<b>3597</b>
Chlorides as Cl <sup>-</sup>	mg/L	250	<b>2232</b>	<b>565</b>	<b>1964</b>	<b>6447</b>	<b>2759</b>	<b>5441</b>	<b>853</b>	<b>642</b>
Sulphates as SO <sub>4</sub>	mg/L	200	93	39	26	86	33	68	112	115
Total Alkalinity as CaCO <sub>3</sub>	mg/L	200	<b>436</b>	<b>456</b>	<b>224</b>	<b>3750</b>	<b>640</b>	<b>2000</b>	<b>220</b>	<b>760</b>
Total Hardness	mg/L	200	<b>2156</b>	<b>700</b>	<b>2040</b>	<b>920</b>	<b>960</b>	<b>1600</b>	<b>1130</b>	<b>970</b>
Calcium as Ca	mg/L	75	<b>744</b>	<b>200</b>	<b>548</b>	<b>288</b>	<b>216</b>	<b>236</b>	<b>216</b>	<b>188</b>
Magnesium as Mg	mg/L	30	<b>72</b>	<b>49</b>	<b>163</b>	<b>49</b>	<b>102</b>	<b>168</b>	<b>143</b>	<b>122</b>
Nitrates	mg/L	45	<b>76</b>	<b>120</b>	<b>48</b>	<b>180</b>	<b>80</b>	<b>385</b>	<b>65</b>	<b>52</b>
Fluorides	mg/L	1.0	0.96	BDL	0.12	<b>2.88</b>	0.08	<b>1.20</b>	0.009	0.021
Phosphates	mg/L	-	BDL	BDL	BDL	BDL	1.5	BDL	BDL	3.05
Sodium as Na	-	-	472	322	329	1560	258	576	332	411
Potassium as K	-	-	6.5	110	8.0	970	409	444	32	32
% Sodium	%	-	32	45	26	61	27	36	38	47
SAR	-	-	4.4	5.3	3.2	22.3	3.6	6.2	4.3	5.7
Copper	mg/L	0.05	BDL	BDL	BDL	BDL	BDL	0.018	BDL	BDL
Nickel	mg/L	0.02	<b>0.18</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>2.55</b>	<b>1.67</b>	<b>2.01</b>	<b>2.5</b>	0.45
Zinc	mg/L	5	0.05	0.05	0.04	0.03	0.42	0.03	0.33	0.34
Cadmium	mg/L	0.003	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	BDL	BDL
Lead	mg/L	0.01	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Chromium	mg/L	0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

**Table 6: Bore well water samples from the vicinity and inside the facility**

<b>Parameters</b>	<b>Unit</b>	<b>Drinking water Standards as per IS 10500: 2012</b>	<b>B9</b>	<b>B10</b>	<b>B11</b>	<b>B12</b>	<b>B13</b>	<b>B14</b>	<b>B15</b>	<b>B16</b>
pH	-	6.5-8.5	7.78	7.41	7.44	7.52	7.28	6.98	7.40	7.35
EC	µS/cm	-	34270	23880	1530	988	2340	8440	980	916
TSS	mg/L	-	181	210	12	16	14	106	<5	7
TDS	mg/L	500	<b>19959</b>	<b>13284</b>	<b>944</b>	<b>765</b>	<b>1700</b>	<b>5458</b>	<b>542</b>	<b>654</b>
Chlorides as Cl <sup>-</sup>	mg/L	250	<b>6696</b>	<b>5461</b>	230	172	<b>517</b>	<b>2625</b>	96	153
Sulphates as SO <sub>4</sub>	mg/L	200	-	28	36	38	56	65	35	37
Total Alkalinity as CaCO <sub>3</sub>	mg/L	200	<b>7900</b>	<b>7500</b>	<b>340</b>	188	<b>260</b>	<b>1180</b>	<b>260</b>	104
Total Hardness	mg/L	200	<b>890</b>	<b>1410</b>	<b>324</b>	<b>224</b>	<b>428</b>	<b>1492</b>	<b>432</b>	<b>292</b>
Calcium as Ca	mg/L	75	<b>180</b>	<b>308</b>	34	74	72	<b>187</b>	<b>78</b>	<b>96</b>
Magnesium as Mg	mg/L	30	<b>60</b>	<b>156</b>	<b>58</b>	10	<b>60</b>	<b>249</b>	<b>57</b>	13
Nitrates	mg/L	45	<b>122</b>	<b>108</b>	<b>48</b>	<b>58</b>	<b>127</b>	<b>120</b>	19	<b>55</b>
Fluorides	mg/L	1.0	0.612	0.214	BDL	BDL	0.09	<b>1.2</b>	1.0	0.8
Phosphates	mg/L	-	BDL	BDL	BDL	0.1	0.13	BDL	BDL	BDL
Sodium as Na	-	-	2829	1640	180	182	322	775	88	75
Potassium as K	-	-	192	779	3	2	2	112	4.0	99
% Sodium	%	-	84	60	54	63	62	51	30	59
SAR	-	-	41	18.9	4.3	5.3	6.8	8.7	1.8	7.0
Copper	mg/L	0.05	0.006	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nickel	mg/L	0.02	0.50	0.27	BDL	<0.1	3.10	0.07	<0.1	1.58
Zinc	mg/L	5	0.40	0.35	0.33	0.32	0.33	0.38	<0.1	<0.1
Cadmium	mg/L	0.003	<0.1	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Lead	mg/L	0.01	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Chromium	mg/L	0.05	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

*Table 7: Samples from Malkaram II Cheruvu and permeate from LTP*

<i>Parameter (s)</i>	<i>Units</i>	<i>General discharge standard as per MSW Rules, 2016 for land disposal</i>	<i>Malkaram II Cheruvu</i>	<i>Permeate from LTP</i>
Colour	-	-	Black	Colourless
State	-	-	Liquid	Liquid
pH	-	5.5-9.0	8.18	7.68
TSS	mg/L	200	<b>661</b>	26
Dissolved solids	mg/L	2100	<b>10674</b>	620
COD	mg/L	-	<b>14228</b>	195
BOD	mg/L	100	--	40.4
Ammonical Nitrogen (as N)	mg/L	-	924	28
Phenolic compounds	mg/L	-	0.2	0.466
Copper as Cu	mg/L	-	BDL	BDL
Zinc as Zn	mg/L	-	1.28	0.1
Nickel as Ni	mg/L	-	0.9	BDL
Lead as Pb	mg/L	-	0.24	<0.1
Cadmium as Cd	mg/L	-	<0.1	BDL



*10 days of waste dumped near compost plant*



*Windrow stacks in compost plant -II*



*Screening section*



*Compost plant III*



*LTP and Sludge from ATFD*



## 7.0 Observations

- i. The legacy waste dumpsite and M/s HIMSWMP at Jawaharnagar, Hyderabad was inspected on November 17, 2020 along with TSPCB and GHMC officials. The complainant Sh. Anumula Revanth Reddy, Hon'ble Minister of Parliament along with publics/residents in the vicinity of the dumpsite & solid waste processing facility also visited and explained their grievances to the officials but could not accompany for the inspection.
- ii. As per the annual report of 2019-20 submitted by TSPCB, GHMC area generates about 6000 TPD of solid waste and the quantification of waste is based on estimation. It was informed that sometimes due to floating population, the generation of SW also reaches 6500-7000 TPD.
- iii. M/s HIMSWMP has obtained consent to operate under Water Act, 1974 and Air Act, 1981 for discharge of effluents & emissions from TSPCB and is valid up to July 31, 2023. The Authorisation issued under Solid Waste Management Rules, 2016 for processing recycling, treatment and disposal of solid waste is valid up to July 31, 2023.
- iv. The Jawaharnagar dumpsite has two components, the capped legacy waste in 130 acres of land and integrated solid waste processing facility constructed from the reclaimed land of legacy waste in an area of 200 acres. The capping & integrated solid waste processing plant is operated and maintained by M/s Ramky Enviro Engineer Ltd., under the name M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP).
- v. It was informed that around 12 million metric tonnes of legacy waste is scientifically capped and around 80% of capping process is completed and same was noticed during inspection. The soil cover work was under process on the day of inspection.
- vi. In case of OA NO. 606 of 2018 in the matter of compliance of municipal solid waste management rules, 2016, Hon'ble NGT (PB) in its order dated February 14,

2020 directed State of Telangana to stop capping works and take up biomining and bio-remediation. It was informed that GHMC has filed a review application in June, 2020 stating that the capping work cannot be stopped at the advanced stage and to reconsider. The case is pending at NGT (PB), Delhi for hearing.

- vii. Around 162 gas extraction wells are drilled and the gases from 100 gas wells are established and presently flaring is carried out. During inspection flaring was not operational.
- viii. The leachate generated from the legacy waste has find its way to the Malkaram - II cheruvu which is adjacent to the dumpsite. It is been estimated that around 750 Million Litre of leachate is being accumulated in the pond and the overflow of the lake can join five downstream lakes causing pollution.
- ix. M/s HIMSWMP has constructed nine artificial lagoons in the downstream with Geosynthetic liner to collect any overflow from the lake during monsoon season.
- x. Due to overflow of leachate to the downstream lakes, there was always a public complaints, protest from the villagers and frequent fish kills. Hence GHMC has installed two RO plants of 2 MLD capacity to treat leachate in the lake. About 100 KL/hr. of leachate is fed into RO and generates about 63% of permeate in each RO system and operates 20 hours/day. The total permeate of about 2400 KLD is discharged into the storm water drain which joins Edula cheruvu and the remaining 1600 KLD rejects is again discharged into the leachate ponds (Malkaram -II cheruvu).
- xi. The integrated solid waste processing facility M/s Hyderabad Integrated Municipal Solid Waste Management Project (HIMSWMP) at Jawaharnagar has established compost plants, recycling complex, RDF plant, secured landfill with leachate treatment. At present the facility is processing 6000 TPD of solid waste.
- xii. The trucks carrying solid waste from the GHMC area are first weighed at the weigh bridge and taken to a separation shed, where the solid waste is separated by rotary sieving ( $\pm$  400mm) into compostable and non- compostable waste. The

- compostable waste is taken to compost plant and the non-biodegradable to RDF plant.
- xiii. The facility has three compost preparation sheds, each of capacity 680 TPD (total - 2040 TPD) to produce compost by windrows method. During inspection, two compost plants were not operational and the new compost plant was operational. The compost sheds are provided with odour control system to control odour by using odour neutralizers.
  - xiv. During inspection, it was noticed that around 60 tonnes of solid waste was stored in a separation point without shed and was emitting very strong odour. It was informed that due to heavy rainfall, around 10 days solid waste was not processed and informed will process at the earliest.
  - xv. During inspection, the strong odour was emitting from the third compost plant while turning the windrows stacks. It was informed that odour control systems were operational but it was not effective to control. The workers at the plant were working with just a plane mask. The odour was so strong that the officials could not able to bear even for 2 minutes. The facility has to look this very seriously and provide the suitable odour control system and reusable respirator masks for people working in the compost plant.
  - xvi. The recycling complex of 600 TPD capacity, segregates the glass, paper, metals, rubber and send to the TSPCB authorized recyclers. However during inspection accumulations of these materials were observed and needs to be disposed frequently to avoid stock pile of waste.
  - xvii. About 735 TPD of inerts material generated from the compost plant is disposed in secured landfill and at present, 5<sup>th</sup> cell is operational. The gases produced from the landfill is collected and flared, however it was informed that there is a reduction in quantity of gases produced hence flaring is been reduced. The landfill is also another reason for the odour nuisance, due to irregular collection & flaring.

- xviii. The facility has a two RDF plant each of capacity 1200 TPD and the plant was operational during inspection. It was informed that the combustible waste separated from the solid waste is taken to this plant for the preparation of RDF and was sent to cement plant.
- xix. During inspection it was noticed that huge quantity of about 45.44 Lakh tons of RDF was stored in an area of 54.7 acres of land at the backside of plastic recycling plant, tipping floor and east side of the RDF plant. It was informed that the RDF is manufactured from the year 2012 is stored. This shows that only meager quantity of RDF was sent to cement industries. The details are as below:

*Table 7: Status of the RDF stored in the facility*

Sl. No.	RDF Cell No.	Area in 'acre'	RDF Operation Date	Qty. RDF Filled in 'ton'	Remarks
1	I, II, III, IV & V - Opposite to Tipping Floor	18.05	2012 - 2015	1,089,050	Closed
2	I, II, III, IV, V & VI - Back Side of Plastic Recycling Shed I, II & III - RDF at East Side	36.65	2015 - 2020	3,455,640	Under Operation

*Source: GHMC*

- xx. It was informed that it will be utilized in the waste to energy plant operational at the vicinity from August 2020. The quantity of 5% will be utilized per day as informed, which means that it will take more than 2 decades to completely utilize the stored RDF in waste to energy plant.
- xxi. The facility has installed leachate treatment plant (LTP) of capacity 1000 TPD adjacent to the tipping floor. The leachate of 700 KLD generated from the tipping floor, compost plants, landfill, RDF storage cell, some quantity from capping area is treated in LTP. The LTP consists of grit chamber, equalization, settling tank, DAF with pipe flocculator, clarifier followed by filtration. The filter is fed into RO plant stage I & II. The permeate is stored in a tank and the RO reject is fed into 4 stages MEE. The concentrate of MEE is fed into ATFD and sludge is

generated. The RO permeate and MEE condensate is used for gardening and washing of vehicles. The thick sludge of about 25 - 30 tons generated from ATFD is disposed in sanitary landfill.

- xxii. Before the installation of MEE & ATFD, the RO reject was taken in solar evaporation ponds for generation of salts. This was one of the reasons for odour nuisance and public protests. However during inspection, the odour was still felt in the LTP area emitting from the sludge. The facility may take necessary steps to eliminate complete moisture and generate salts to reduce odour.
- xxiii. The facility has plastic recycling plant producing 0.5 micron colour coded plastic covers used for the disposal of biomedical waste. This plastic covers are used in the Ramky Common Biomedical Waste Treatment facility. This plastic recycling plant is not mentioned in the consent to operate or in authorisation. GHMC may take necessary action and obtain consent to operate & authorisation from TSPCB.
- xxiv. The Jawaharnagar facility has waste to energy (WTE) plant of 19.8 MW capacity and is operational from August 2020. During inspection, it was under trail run and operating at 9.8 MW capacity by feeding 1200 TPD of RDF.
- xxv. The WTE plant is operating in the name of M/s Hyderabad MSW Energy Solutions Pvt. Ltd. and a separate consent to operate under Air and Water Act and authorisation issued from TSPCB.
- xxvi. M/s Hyderabad MSW Energy Solutions Pvt. Ltd. has applied for the expansion of the unit from 19.8 MW to 48 MW and the approval from Government is accorded on December 5, 2020. The necessary approval from the TSPCB is awaited.
- xxvii. As per the annual report 2019-20, it was informed that segregation of waste is 45%, but the ground reality is totally different and only 10% of waste is been segregated. When enquired, it was told that the segregation of waste is done in some areas and when waste is collected it is been mixed and not collected in separate bins. The GHMC has to impart training to waste collectors about the segregation of waste and to encourage the publics for segregation.

- xxviii. It was also came to light that in some areas, the waste is collected 2 or 3 days once and by the time the waste reaches the T&D facility, the waste will be putrefied and this may be also one of the reason for the odour problem in the Jawaharnagar facility.
- xxix. During inspection, it was observed that the Jawaharnagar integrated solid waste management facility cannot treat solid waste of capacity 6000-7000 TPD. If it is operated like this the wastes get accumulated and develop another legacy waste dumpsite.

## **8.0 Recommendations**

The GHMC may be directed to implement the following for the effective implementation of the Solid Waste Management, Rules 2016:

- i. To initiate necessary steps for day to day collection of solid waste generated and to achieve 100% of segregation for the effective treatment & disposal.
- ii. To immediately remediate & restore the Malkaram -II Cheruvu and also to explore the possibility of treating the RO reject generated by treating the leachate accumulated in the lake by MEE & ATFD in the Leachate Treatment Plant instead of putting back in the lake.
- iii. The leachate generated by the capped legacy waste shall be diverted to the leachate treatment plant by completing the construction of garland drains around the capped area.
- iv. The GHMC may initiate quick & suitable steps to clean the surrounding area accumulated with leachate near the Malkaram -II Cheruvu for avoiding ground water contamination.
- v. GHMC will ensure that the waste around 60 tonnes stored in the compost area will be treated within two months period so that it will not become another dumpsite.

- vi. To effectively use the odour control system and right amount of neutralizer to eliminate the odour problem in the compost plants. The workers shall be provided with reusable respirators while in the compost plants and impart hands on training with PPEs to work in the compost plant.
- vii. To effectively trap the gases produces from the sanitary landfill either to flare or explore possible technology to utilize the collected gases. To also operate the sanitary landfill according the CPCB guidelines.
- viii. To immediately explore possible ways to clear the RDF stored in 54.7 acres of land either by sending to cement industries or utilizing in the Waste to energy.
- ix. The sludge generated from the leachate treatment plant shall be utilized in waste to energy plant or send to cement industries for co-processing instead of landfill, so as to avoid the unnecessary load.
- x. To obtain the consent to operate under Water & Air Act & authorisation under Solid waste Management Rules, 2016 for the plastic waste recycling plant.
- xi. To ensure that the three alternative sites identified for the treatment & disposal of solid waste shall be operated immediately so that the load on the Jawaharnagar facility can be reduced.
- xii. To immediately take necessary steps for remediation and restoration of the ground water quality in and around the facility & capped site.



**(Poornima B M)**  
**Scientist D**



**SPEED POST**

**केन्द्रीय प्रदूषण नियंत्रण बोर्ड**  
**CENTRAL POLLUTION CONTROL BOARD**  
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार  
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

F.No. B-11011/UPC-II/MSW/2020-21/

Dated: 02.05.2021

To,

**The Member Secretary**  
**Telangana State Pollution Control Board,**  
Paryavaran Bhawan, A-3, I.E. Sanath Nagar,  
Hyderabad-500 018

**Sub: - Complaint regarding violation of SWM Rules, 2016 by Greater Hyderabad Municipal Corporation-reg**

**Ref: - Letter of Hon'ble MP, Shri Anumula Revanth Reddy dated 15-09-2020**

Sir,

With reference to above-mentioned letter addressed to Hon'ble MEF, CPCB had conducted a joint inspection along with SPCB of the Jawahar Nagar site under consideration and the inspection report is enclosed herewith. The following are the major observations:

1. Jawahar Nagar waste management site has two components – capped legacy waste in 130 acres and integrated solid waste management facility in an area of 200 acres.
2. Total capacity of waste processing facility is 5775 TPD. (Compost plant – 2040 TPD, RDF- 2400 TPD, Recycling – 600 TPD and Sanitary Landfill – 735 TPD).
3. 12 million tonnes of Legacy Waste is capped and capping is 80% complete.
4. The site is surrounded by lakes and ponds upstream and downstream of the facility.
5. Leachate generated from Legacy Waste dumpsite finds its way to Malkaram which is adjacent to the site. The lake is heavily contaminated and overflow from this lake contaminates the downstream lakes.
6. Samples of Surface and Ground Water collected from the site report high level of pollution in terms of BOD, COD, TDS, TSS, Chloride, Nitrates, Ca & Mg.
7. Strong odour observed in the area of the waste processing site.
8. Complaints have been received against Jawahar Nagar facility regarding odour nuisance and leachate generation from legacy waste dumpsite since 2017.
9. Telangana SPCB has issued Directions dated 13-12-2017; 23-01-2018, 23-05-2020 & 06-06-2020 to take necessary measures to control odour nuisance and pollution due to leachate generation from the Legacy Waste Dumpsite.

**Cont.**

10. In OA No. 606/2018, Hon'ble NGT has directed to take up biomining/bio-remediation of the site instead of capping. GHMC has filed a review petition.

11. Three alternative sites outside the city limits have been identified for waste management in compliance with Directions of Hon'ble NGT.

It is to be noted that CPCB has issued Directions dated January 27, 2021 under Sec 5 of EPA, 1986 to all SPCBs/PCCs for Legacy Waste management in their respective States/UTs.

In view of above, it is requested that necessary action be taken to ensure that requisite measures for odour control and remediation of Ground & Surface water is taken by Greater Hyderabad Municipal Corporation and the Action Taken Report be submitted to this office within 15 days of issue of this letter.

This issues with approval of Competent Authority.

Yours faithfully



(Divya Sinha)

Additional Director & I/c UPC-II