

**BEFORE THE NATIONAL GREEN  
TRIBUNAL SOUTHERN BENCH, CHENNAI  
Original Application No. 14 of 2021**

In the matter of:

In Re: **"Water Pollution: will Vizag be another Eluru"**.

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**Joint Chief Environmental Engineer  
A.P.POLLUTION CONTROL BOARD  
ZONAL OFFICE  
VISAKHAPATNAM**

**Report submitted by Andhra Pradesh Pollution Control Board in O.A No 14 of 2021 as Suo Motu based on e - magazine, BBC, 21<sup>st</sup> December 2020 on “Water Pollution: will Vizag be another Eluru”.**

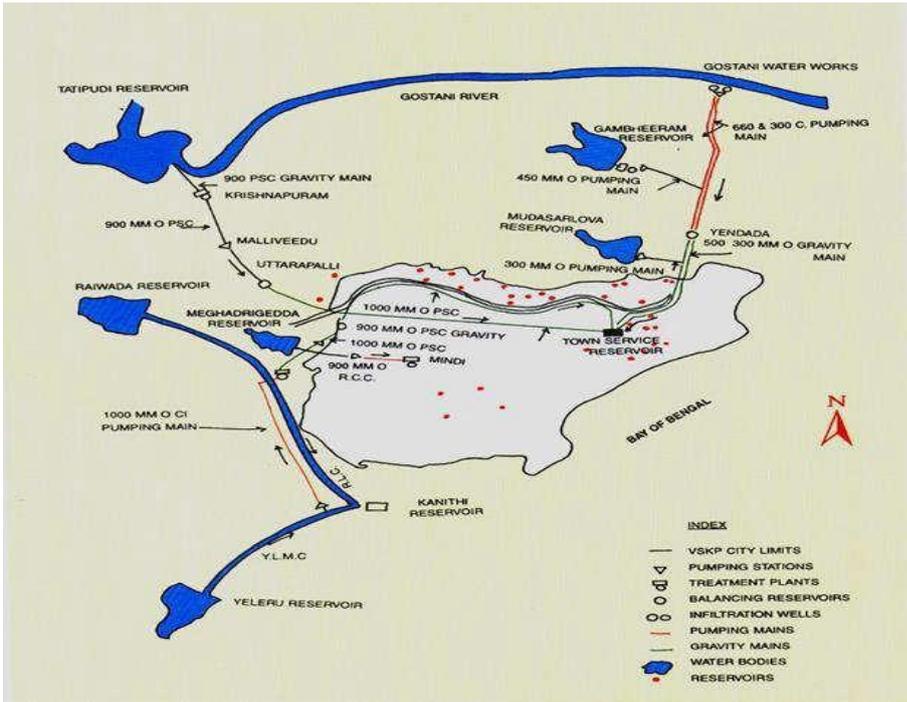
1. Greater Visakhapatnam Municipal Corporation (GVMC) is a Local Body under the Ministry of Administration and Urban Development (MA&UD), Government of Andhra Pradesh (GoAP) with the responsibility of providing basic civic services like roads, water supply & sewerage, health & sanitation and storm water disposal for the Visakhapatnam city.
2. The main sources of water for the people of Visakhapatnam are from Meghadri Gedda Reservoir, Mudasarlova Reservoir, Raiwada Reservoir, Tatipudi reservoir and Gambhiramgedda reservoir.
3. The details of the reservoirs and water supply capacity and water Sources Map for GVMC Area is submitted below:

Name of the Reservoir	Water drawl from Reservoir in MLD
Raiwada Reservoir: The Raiwada Reservoir was constructed across River	65.0

<p>Sarada in Devarapalli Village and Mandal of Visakhapatnam District. This Reservoir was designed to irrigate an ayacut of 21,344 Acres. The Project irrigates an ayacut of 15,344 Acres of 44 Villages in Devarapalli, K.Kotapadu, Chodavaram Mandals of Visakhapatnam District and being supplying water to GVMC for the civic needs of Visakhapatnam.</p>	
<p>Thatipudi Reservoir (Vizianagaram): The Thatipudi Reservoir is located across Gosthani River Near, Thatipudi Village of Gantyada Mandal in Vizianagaram District. The Reservoir envisages stabilizing the existing ayacut of 13,861 Acres (5611.7 Hect) and providing drinking water supply to Visakhapatnam Municipal Corporation.</p>	26.05
<p>Meghadrigedda Reservoir: The Meghadrigedda reservoir catchment that occupies 374 Sq.mtr falls under Visakhapatnam District and a small upper catchment comes under the jurisdiction of Vizianagaram District, Andhra Pradesh. The topography of the reservoir catchment is characterized by hills, valleys and plains.</p>	41.0
<p>Gambheeramgedda Reservoir:</p>	8.18

<p>Gambhiramedda Reservoir Project was constructed across Gambheeram gedda at Boyapalem (V) in Anandapuram (M) Visakhapatnam District is having 640 Acres of Ayacut. Water is being supplied to G.V.M.C from 1<sup>st</sup> March to 30<sup>th</sup> June of every year. Even though Major portion of the ayacut is urbanized, still about 250 acres of Ayacut is being irrigated under 4 Nos of groynes through open-head channel system.</p>	
<p>Mudasarlova Reservoir: The catchment area of the Mudasarlova reservoir basin is 16.4 sq km and this catchment is located between Kailasagiri, Kambala Konda and Simhachalam hill.</p>	<p>1.82</p>

**Water Sources Map for GVMC Area**



*Source: Visakhapatnam Chennai Industrial Corridor Development Program – 24 x 7 Water Supply in North West area of Visakhapatnam Prepared by Greater Visakhapatnam Municipal Corporation, Government of Andhra Pradesh for the Asian Development Bank.*

4. The Board officials collected the water samples from Meghadri Gedda, Mudasarlova, Raiwadar, Tatipudi and Gambhirangedda reservoirs on 25.01.2021, 28.01.2021 & 29.01.2021. The Board has carried out the testing of quality of water in these reservoirs and following are submitted:

Sl. No.	Parameters	Thati pudu Reservoir	Sri Varada Narayana Murty Raiwada Reservoir	Gambhiraram Reservoir	Mudasarlova Reservoir	Meghadri gedda Reservoir	Drinking Water Specification: IS: 10500: 2012 Requirement	
							Acceptable Limit	Permissible Limit
1.	pH	7.01	7.24	7.32	7.53	7.30	6.5-8.5	NR
2.	Conductivity (as	226	182	352	325	340	--	--

	μS/cm )							
3.	Dissolved Oxygen	7.2	7.3	6.5	7.1	6.3	--	--
4.	Total Dissolved Solids at 105°C	148	120	232	212	220	500 mg/l	2000 mg/l
5.	Biochemical Oxygen Demand	1.4	1.2	1.6	1.4	1.6	--	--
6.	Chlorides (as Cl <sup>-</sup> )	19.5	14.6	48.9	39.1	44.0	250 mg/l	1000 mg/l
7.	Total Alkalinity (as CaCO <sub>3</sub> )	100	80	152	144	148	200 mg/l	600 mg/l
8.	Total Hardness (as CaCO <sub>3</sub> )	104	72	124	112	120	200 mg/l	600 mg/l
9.	Calcium	22.4	16	22.4	20.8	25.6	75	200

	m (as Ca <sup>2+</sup> )						mg/l	mg/l
10.	Magne sium (as Mg <sup>2+</sup> )	11.66	7.77	16.52	14.58	13.60	30 mg/l	100 mg/l
11.	Nitrate s (as NO <sub>3</sub> )	1.15	0.70	2.30	4.51	2.03	45 mg/l	NR
12.	Nitrite s Nitrog en (as NO <sub>2</sub> -N)	0.01	0.01	0.03	0.17	0.07	--	--
13.	Ammo nical Nitrog en (as NH <sub>3</sub> -N)	0.10	0.07	0.04	0.38	0.05	--	--
14.	Phosp hates (as PO <sub>4</sub> <sup>3-</sup> )	BDL	BDL	BDL	0.02	0.07	--	--
15.	Sulpha tes (as SO <sub>4</sub> <sup>2-</sup> )	4.48	4.20	20.87	18.84	16.21	200 mg/l	400 mg/l
16.	Fluorid es (as F <sup>-</sup> )	0.09	0.02	0.42	0.37	0.55	1.0 mg/l	1.5 mg/l
17.	Lead (as Pb)	BDL	BDL	BDL	BDL	BDL	0.01 mg/l	NR

18.	Iron (as Fe)	0.017	0.030	0.009	0.005	0.006	0.3 mg/l	NR
19.	Copper (as Cu)	0.001	0.001	BDL	BDL	0.001	0.05 m/l	1.5 mg/l
20.	Zinc (as Zn)	0.001	0.001	BDL	BDL	BDL	5 mg/l	15 mg/l
21.	Nickel (as Ni)	BDL	BDL	BDL	BDL	BDL	0.02 mg/l	NR
22.	Cadmi um (as Cd)	BDL	BDL	BDL	BDL	BDL	0.003 mg/l	NR
23.	Chrom ium (as Cr)	BDL	BDL	BDL	BDL	BDL	0.05 mg/l	NR
24.	Arseni c (as As)	BDL	BDL	BDL	BDL	BDL	0.01 mg/l	0.05 mg/l
25.	Manga nese (as Mn)	BDL	BDL	BDL	BDL	BDL	0.1 mg/l	0.3 mg/l
26.	Mercur y (as Hg)	0.001	BDL	0.001	0.001	BDL	0.001 mg/l	NR
27.	Fecal Colifor m (MPN/ 100 ml)	7	NIL	7	7	9	--	--

28.	Total Coliform (MPN/100 ml)	28	4	39	43	39	--	--
29	<b>Pesticides:</b> The Organo-chloro Pesticides viz., Alpha - BHC, Beta- BHC , Gamma - BHC , 4,4' - DDD , 4,4' - DDD, 4,4' - DDT, Aldrin, Dieldrin, Endosulfan - I, Endosulfan Sulfate, Endrin, Heptachlor, Heptachlorapoxide, Methoxychlor , Endosulfan - II, Delta - BHC & Endrin Aldehyde were not detected in all the above reservoir samples.(The Detectable Limit is <b>0.05 µg/l</b> )							

**Note:** - All values are expressed in mg/l except pH, Conductivity, T.Coli & F. Coli; BDL: Below Detectable Limit; NR: No relaxation.

It is submitted that various parameters are meeting the Drinking Water Specification: IS: 10500: 2012 limits except for the presence of fecal and T.coliform indicating sewage contamination. However, the GVMC supplying the water to the Visakhapatnam City only after treatment and disinfection.

5. No water polluting industries are existing in catchment area of the above reservoirs.

No municipal sewage or industrial effluents are joining into Raiwada, Thatipudi, Gambheeram and Mudasaralova reservoirs. The sewage generated in Pendurthy residential area is joining Meghadrigedda

reservoir through the drain passing under Bridge (Vepagunta to Sabbvaram road) near Sathemmathalli temple. The GVMC operating water treatment plants continuously and supplying the water to the Visakhapatnam City only after treatment and disinfection.

6. In the year 2019 Dr. Rajendra Singh, Founder Jal Biradiri, has given a complaint addressed to the Hon'ble Chief Minister of AP through the Collector, Vizianagaram regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District and pollution of Gosthani River & Megadrigedda Reservoir. A news item was published in daily news paper "The Hindu" on 02.07.2019 titled "Check industrial pollution, Dr. Rajendra Singh urges CM". The major issues raised in the press report (The Hindu dt.02.07.2019) pertaining to APPCB are:

- Pollution of Mudasarlova reservoir.
- Release of untreated industrial waste into water bodies including Meghadri Gedda reservoir.

- Pollution to water bodies in three villages in Vizianagaram District due to dumping of highly toxic industrial waste.

7. A.P. Pollution Control Board immediately responded to all the related issues mentioned in the representation of the Dr. Rajendra Singh, Founder Jal Biradiri and also the print & electronic media and inspected the catchment areas of Mudasarlova and Meghadri gedda reservoirs. The Board issued showcause notice to the GVMC on 30.07.2019 for non-compliance of Board directions and for disposal of sewage into the water body. The Board issued directions to the GVMC on 23.09.2019 with regard to the implementation of measures to treat the sewage to the full installed capacities of the STPs and to meet the discharge standards.

8. Dr. Rajendra Singh & Bolisetty Satyanarayana has filed a Writ Petition (PIL)No. 248/2020 before the Hon'ble High Court of A.P. with a request to issue a writ or direction more particularly one in the nature of Writ of Mandamus by remedial actions of not

allowing untreated industrial effluents and toxic sewerage water being through in the nearby sea water and adjacent water bodies. A copy of the Counter affidavit filed by APPCB for W.P. 248 is herewith submitted as Annexure.

9. In respect of Eluru mystery disease i.e., sudden convulsion of unknown origin in people residing in Eluru, APPCB conducted water quality monitoring and Air quality monitoring in Eluru Town and carried out physico chemical analysis, Heavy metal analysis, organo chlorine pesticides and bacteriological analysis for surface water and ground water. As per analysis results, there is no contamination of physico chemical, heavy metals, organochlorine & bacteriological parameters observed. The above monitoring indicated that there is no water and air pollution. The Government of A.P. constituted a multi disciplinary committee headed by the Chief Secretary to the Government to investigate source of episode and suggest remedial measures to prevent any occurrence of such events in future. The organizations

like NEERI, AIIMS and IICT conducted investigation and submitted reports to the committee. The reports submitted by various organizations are under examination by the committee.

10. APPCB and NEERI submitted analysis reports to the multi disciplinary committee. The committee was also observed that there is no industrial effluent contamination in surface water and ground water in Eluru Town.

11. The Hon'ble NGT has periodically been reviewing the compliance status of implementation of various waste management rules and other Environmental issues in the country in OA No. 606/2018, 673/2018, 519/2019, 593/2017 and issuing directions from time to time for effective implementation. The Board addressed letters to the Secretary, MA&UD department, Commissioner & Director of Municipal Administration and all district collectors on 25.08.2020 informing about compensation regime for non-compliance of waste management rules and seriousness involved in implementation of waste

management rules and orders of the tribunal and requested to expedite for implementation of the same in local bodies and submit the action taken reports at the earliest.

The above report is placed before the Hon'ble Tribunal for its kind consideration to pass appropriate directions.



**JOINT CHIEF ENVIRONMENTAL ENGINEER**

**AP POLLUTION CONTROL BOARD**

**ZONAL OFFICE**

**VISAKHAPATNAM**

**HIGH COURT OF ANDHRA PRADESH AT AMARAVATHI**

**W.P. (PIL).NO. 248 OF 2020**

Between:

1 Dr. Rajendra Singh, son of Sukveer Singh, Hindu, aged about 61 years, Environmentalist Waterman of India, Raman Megasessy Awardee, Resident of Ward No.-8, The Tanagazi, Tarun Bharat Sangh, Bhikampura, Alwar, Rajasthan-301002, Aadhar No.7432 4176 0362, eMail:rajen59singh@gmail.com, Phone No.#919414066765

2. Bolisetty Satyanarayana, son of Srimannarayana, Hindu, aged about 62 years, Environmentalist, Resident of HIG-50, MVP Colony, Sector-I, Visakhapatnam-530017, Aadhar No.3594 1483 9729, eMail [bolisettisatyanarayana@gmail.com](mailto:bolisettisatyanarayana@gmail.com), Phone: 9849152757, Bank Account No.00501530013772, HDFC Bank, Dwaraka Nagar Branch, Visakhapatnam.

...Petitioners

AND

1 The State of Andhra Pradesh rep. by its Special Chief Secretary, Environment and Forest, Government of Andhra Pradesh, Secretariat, Velagapudi, Amaravathi.

2. The Chairman, AP Pollution Control Board, D.No.33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre, Chalamalavari Street, Kasturibaipet, Vijayawada-520010.

3. The Chairman, AP State Bio-Diversity Board. State of Andhra Pradesh.

4. The Secretary, Ministry of Environment, Forest & Climate Change (MoEF & CC), Union of India, Indira Paryavaran Bhavwan, Jor Bagh Road, New Delhi-110003.

5. The District Collector, O/o. Collectorate, Visakhapatnam District, Visakhapatnam.

6. The Commissioner, O/o. Commissioner of GVMC, Greater Visakhapatnam Municipal Corporation, Visakhapatnam.

...Respondents

  
 Joint Chief Environmental Engineer  
 A.P.POLLUTION CONTROL BOARD  
 ZONAL OFFICE  
 VISAKHAPATNAM

COUNTER AFFIDAVIT  
Filed by the Respondent No.2

I, Thuraka Rajendra Reddy, son of T. Ramachandra Reddy aged about 57 years, working as Joint Chief Environmental Engineer, A.P. Pollution Control Board, Zonal Office, Visakhapatnam, having temporarily come down to Vijayawada do hereby solemnly affirm and sincerely state on oath as follows.

1. I am the deponent herein as such well acquainted with the facts of the case. I am authorized to file this counter/reply affidavit on behalf of 2<sup>nd</sup> respondent in the above said matter, since I am the proper and necessary party on the ground.

2. I submit that, I deny all the allegations made in the affidavit filed in the support of the above said writ petition (Public Interest Litigation) herein after called as PIL, except those that are specifically admitted hereunder. In reply to Para Nos.1 to 3 of the affidavit is concerned, I deny the allegations in Para No.1.1 of the affidavit filed in support of the writ petition, the other allegations in Para No.1.1 is answered in Para Nos.3 & 4 of the counter affidavit. The other facts placed in para No.2 and 3 are concerned and those are mandatory under PIL Rules.

3.1. I submit that in reply to para No.4.1 of the affidavit filed in support of the above said PIL is denied. The fact remains, the estimated sewage generation based on population of 23.0 lakhs @ 126 Liters per Capita per Day in GVMC area is about 289.80MLD. The GVMC has provided 17 sewage treatment plants of total capacity 161.50 MLD. But the actual sewage reaching the STPs for treatment is about 100 MLD only. The remaining untreated sewage is joining the Sea through open drains. The rest of the allegations are made against the 6<sup>th</sup> respondent herein.

3.2. The Andhra Pradesh Pollution Control Board herein after called as Board, has issued a show cause notice to the 6<sup>th</sup> respondent GVMC on 30.07.2019 for non-compliance of Board directions and for disposal of sewage into the water body. The Board issued directions to the GVMC

  
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on 23.09.2019 (**Annexure-I**) with regard to implementation of measures to treat the sewage to the full installed capacities of STPs and to meet the discharge standards and also directed to comply with Plastic Waste Management Rules, 2016.

3.3 I submit that, the Board is monitoring sewage treatment plants operating by GVMC and issuing notices to GVMC regarding non-compliance of standards. The analysis reports of the samples collected from STPs outlets and copies of the notices issued to GVMC for effective operation of STP to meet the standards are submitted as (**Annexure-II**) herein.

3.4 I submit that, the Hon'ble National Green Tribunal herein after called as NGT has periodically been reviewing the compliance status of implementation of various waste management rules and other environmental issues in the country in OA.Nos. 148/2016, 593/2017, 606/2018, 673/2018 & 829/2019 and issuing directions from time to time for effective implementation. The Board addressed a letter to the Secretary, MA & UD Department, Commissioner & Director of Municipal Administration and also to the District Collectors on 25.08.2020 informing about compensation regime for non complianane of waste management rules and requested to show seriousness in implementation of waste management rules and orders of the NGT and requested to expedite for implementation of the same in local bodies and submit the action taken reports at the earliest.

3.5. It is further submitted that, the Board is monitoring confluence points of municipal drains joining sea. The analysis reports for the year 2020 (upto September, 2020) are enclosed at (**Annexure-III**) and may be perused. As per analysis reports the average values of BOD are slightly higher than the standard for coastal water as per class-SW-II waters (Bathing, contact water sports and commercial fishing) at 4 locations out of 5 and DO level is less than the standard at 1 location, which may be due to confluence of un-treated sewage.

4.1. I submit that, in reply to Para No.4.2 of the affidavit filed in support of the writ petition is denied. The Pharmacity in question is

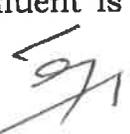
  
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M/s Ramky Pharmacity (India) Ltd., is located in Parawada Village, Visakhapatnam District over an area of 862 Ha of land with facilities encompassing common infrastructure (Roads, Power, Water, Drainage etc.), environment infrastructure (effluent conveyance) system, CETP marine outfall, common hazardous waste management facility etc., and other facilities (solvent recovery facilities, bulk container depots, etc.).

4.2. I further place that Andhra Pradesh Industrial Infrastructure Corporation herein after called as APIIC allocated an area of 2127.0 Acres, out of which 1330.0 Acres have been developed as Industrial area and the balance of 770 acres is allocated for the common infrastructures like Roads, Water storage, common utilities etc.,.

4.3. I further place that at present 90 units are in operation at Pharmacity in which 80 units are Bulk Drugs and intermediates and remaining 10 units belongs to other categories viz., Chemical, isolated storages etc.,.

4.4. The source of water for the Pharmacity is Yeleru canal and being supplied by APIIC. The Pharmacity is provided with required Waste Management facilities:- Common effluent treatment plant (CETP); Treatment Storage and Disposal Facility (TSDF) and incinerator. All the member industries located in Pharmacity are sending their effluents to CETP through closed conveyance pipelines from member units to the CETP. The Pharmacity is having 5.0 Million Litres per Day (MLD) Common Effluent Treatment Plant to treat the effluents and marine discharge outlet to dispose treated effluents confirming to the standards into the sea. The marine outfall is provided with Online Continuous Effluent Monitoring System (CEMS) which is connected to Andhra Pradesh Pollution Control Board (APPCB) & Central Pollution Control Board (CPCB) websites. As on date, the Ramky Pharmacity is receiving 4.8 MLD of effluents from the industries. The Low Total Dissolved Solids (LTDS) treated effluents are stored in guard ponds and after meeting the standards of APPCB, the treated effluents are discharged into sea through marine outfall under the field supervision of APPCB officials and online CEMS. The High Total Dissolved Solids (HTDS) effluent is

  
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evaporated in Multiple-Effect Evaporator (MEE) followed by Agitated Thin Film Dryer (ATFD).

4.5. I further state that, the marine outfall were established as per the design approvals provided by the National Institute of Oceanography (NIO) after carrying out study on suitability of location of disposal of effluents in the sea, with regard to their impact on the Marine Environment duly considering the available dilution and physical, chemical & biological characteristics of the Coastal Environment. The Marine outfalls are provided as per the design criteria i.e., depth at which the discharge is to be carried out and the length of the pipe line into sea specified by the National Institute of Oceanography. The design of the marine outfalls provided in the industries is approved by the Ministry of Environment, Forest & Climate Change (MoEF & CC), Government of India (GoI).

4.6. I further submit that, the discharge of treated effluents through marine outfall is taken up under the direct supervision of A.P.Pollution Control Board officials following the set of Standard Operating Procedures (SOPs) prepared by the Board for this purpose. The SOPs are submitted as **(Annexure-IV)**. The important criterion in the SOPs is placed hereunder for appreciation:

- i. The Board has developed a mobile application for marine discharge supervision and all the information regarding marine discharge is taken up only through the application.
- ii. The marine outfall pipeline, pump, the inlet and outlet of the guard ponds are under the lock & key controlled by APPCB.
- iii. The guard ponds are under continuous surveillance through CC cameras covering the entire area of guard ponds and connected to the Board website.
- iv. The treated effluents are allowed to store in the guard ponds. The inlet of the guard pond and the outlet of the guard pond are locked by APPCB, Sample of the treated effluents from the guard pond is collected, sealed and uploaded into application (apk) through QR Code and submitted to laboratory without any identification.
- v. The analysis report of the sample is again uploaded to the mobile application and the discharge supervision duties are allotted to the APPCB staff for supervising and monitoring the discharge of effluents from the particular guard pond which have met the APPCB criteria for marine discharge.
- vi. The APPCB staff are allotted duties to monitor and supervise the opening of locks for the guard ponds confirming to the Board Standards, marine pumps and marine pipeline after noting various onsite parameters like flow meter readings, levels of

  
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measuring staff provided in the guard ponds and uploading the respective photographs in to the mobile apk. The marine discharge is allowed under the personal supervision of the concerned officer and the online CEMS.

- vii. Once the discharge from the guard pond is completed, the outlet of guard pond, marine pump and the marine pipeline are locked and sealed with signature of the duty officer. The inlet of the guard pond is open to facilitate the receipt and storage of treated effluents.

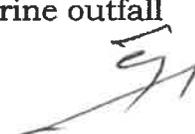
The APPCB is following strict protocol with a well defined SOP to ensure that only treated effluents meeting the prescribed standards are permitted for discharge into Sea. The following equipment and procedure ensure that only treated effluents meeting the Board standards are discharged into the Sea:

- a) Provision of CC cameras at the guard ponds.
- b) Online CEMS with Internet of Things (IoT) devices directly uploading the quality of effluents being discharged without any interphase.
- c) Sample collection & analysis uploaded into mobile apk without any physical identification of the samples collected so that the source of samples cannot be identified either by the sample collecting officer or the laboratory staff analyzing the samples.
- d) Other checks & balances provided in the SOPs

The analysis results of the samples of the effluent permitted for discharge, collected before discharging into the Sea, from the CETP of M/s Ramky Pharmacy (I) Pvt., Ltd., are submitted as **(Annexure-V)** and may be perused.

4.7. It is further to place on record, that, M/s Ramky Pharmacy (I) Pvt. Ltd., is also operating M/s. Coastal Waste Management Project for treatment, storage and disposal facility (TSDF) for hazardous waste. The member industries send the hazardous waste generated in the industries either to the Coastal Waste Management Project or any other disposal point as authorized by the APPCB in their consent order. The waste handling and the waste exchange is carried out online through Andhra Pradesh Environment Management Corporation Limited (APEMCL).

4.8. The A.P Pollution Control Board conducted studies through National Institute of Oceanography (NIO), Visakhapatnam for assessment of the marine environment at and around the marine outfall

  
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points (MOP) of different industries established in the areas between Pydibheemavaram and Nakkapalli of North Andhra Coast in the year 2011. The NIO submitted a report in the year 2014 and it is reported that "it is concluded from the present results that the coastal water studied are not affected by the discharge of industrial effluents through marine outfalls and the small changes noticed may be due to the seasonal variations of chemical constituents caused through run off and other local activities". The executive summary of the report of 2014 is enclosed as **(Annexure-VI)**, for appreciation.

4.9. The APPCB again conducted the study through NIO to carry out an assessment of the marine environment in and around the marine outfall points (MOP) of industries between Pydibhimavaram (Srikakulam District) and Kesavaram (Visakhapatnam District) of North Andhra Coast to ascertain cumulative effects, if any on the ecology, water and sediment quality due to the discharge of treated effluents in to the coastal waters. Accordingly CSIR-NIO has carried out field campaigns during pre-monsoon (February-March-2018) and post monsoon (December 2018) seasons in the coastal waters of north Andhra coast between Pydibhimavaram and Kesavaram for *in-situ* observations and sample collections for physic-chemical, biological, microbiological and sedimentological parameters. Eco-toxicology (bioassay) tests were conducted and treated effluents collected from guard ponds of the industries using Black tiger shrimp, *Peaeus monodon* (Fabricius) and grey mullet (Mugil cephalous). NIO submitted the report in October 2020. The report is under examination and further follow up action will be taken up by the Board.

5. I submit that in reply to Para No.4.3 of the affidavit filed in support of the PIL is denied. No untreated industrial effluents are allowed to discharge directly into the Sea. The other query is answered in the precedent at para Nos. 4.1 to 4.9 so elaborately. The APPCB is taking up regular awareness programs on Plastic Waste Management for effective implementation of rules. The awareness programmes organized by APPCB in recent past are enclosed at **(Annexure-VII)**.

  
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6. I submit that, I deny the allegations made in para No.4.4 of the affidavit filed in support of the above said PIL. The 1<sup>st</sup> Petitioner herein Dr.Rajendra Singh, Founder Jal Biradiri has given a complaint to the Hon'ble Chief Minister through the District Collector, Vizianagaram regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District and pollution of Gosthani River & Megadrigedda Reservoir. A news item was published in the newspaper namely "The Hindu" on 02.07.2019 and the news item says, Dr. Rajendra Singh requested the Hon'ble Chief Minister to "Check Industrial pollution". The issues raised are placed hereunder:

- i. Pollution of Mudasarlova reservoir
- ii. Release of untreated industrial waste into water bodies including Meghadri Gedda reservoir.
- iii. Pollution to water bodies in three villages in Vizianagaram District due to dumping of highly toxic industrial waste.

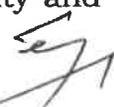
In this regard, the APPCB inspected the catchment areas of Mudasarlova & Megadrigedda reservoirs. The details are placed hereunder.

**i) Mudasarlova reservoir:**

The APPCB officials visited the said reservoir and observed the following the issues.

- 5 colonies are existing within a radius from 200 meters to 500 meters in the catchment of the Mudasarlova reservoir.
- GVMC has provided UGD facility for the 4 colonies and is in the process of providing UGD facility for the remaining colony, Sri Krishnapuram Colony,
- No water is observed in the storm water runoff canal.
- No industries are operating in the catchment of the Mudasarlova Reservoir.

**Status of Mudasarlova STP:** The GVMC has constructed STP of capacity 13 MLD at Mudasarlova which is located in the downstream of Mudasarlova reservoir. GVMC has provided UGD facility for some of the colonies located nearby and also pumping the Sewage from the Hanumanthavka for treatment and after treatment about 1.0 MLD water is being disposed to Golf club adjacent to the STP and remaining treated water joining the Mudasarlova surplus drain and finally enters into the Sea through Pedajalari peta drain after travelling a distance of 5Km. Pedajalari peta drain also receives sewage from other neighboring areas other than MVP colony which is provided with UGD facility and

  
 Joint Chief Environmental Engineer  
 A.P.POLLUTION CONTROL BOARD  
 ZONAL OFFICE  
 VISAKHAPATNAM

connected to Appughar STP. The Pedajalari peta drain also carries storm water run-off from MVP colony area and other areas in the catchment to sea.

**ii) Meghadri Gedda Reservoir:**

- i. The domestic sewage generated from Pendurthi town is entering into open drains leading to Megadrigedda drain which ultimately join Megadrigedda reservoir. A letter was addressed to the Commissioner, GVMC on 05.08.2019 to initiate immediate action for provision of sewage treatment system for treating the sewage generated from Pendurthi town. The copy of the letter is herewith submitted as **(Annexure-VIII)**.
- ii. No water polluting industries are existing in the catchment area of Meghadri Gedda reservoir.
- iii. APPCB carried out assessment of water quality of Megadri gedda reservoir through CSIR-National Environmental Engineering Research Institute (NEERI) in June, 2020, the NEERI reported as follows:
  - a) Styrene concentrations in water samples were observed to be below detection level in all the samples.
  - b) The DO levels indicated good aquatic activity in the reservoir water.
  - c) The BOD values of <2 mg/l indicated less biological activity in the reservoir water.
  - d) Low nutrient values indicate less possibility of eutrophication in the reservoir.
  - e) The bio-assay test indicates that the water needs to be treated before it is used for drinking water purposes.

**iii) Industries located at L.Kota Mandal, Vizianagaram District:**

- i. The APPCB inspected the industries mentioned in the complaint viz., i) M/s Steel Exchange India Limited., Mallivedu & Shreerampuram Village, L.Kota (M), Vizianagaram District ii) M/s Maa Mahamaya Industries Limited, R.G.Peta Village, L.Kota, Vizianagaram district and iii) M/s. JSL Stainless Limited., (Ferro Alloys division), Jindal Nagar, Kottavalasa, Vizianagaram District.
- ii. The pollution control status of above industries were reviewed by the External Advisory Committee of Head Office, APPCB, Vijayawada on 06.11.2019 on the findings of the inspections carried out and directions were issued. Copies of the directions are enclosed as **(Annexure-IX-A)**.
- iii. These industries are covered under Ease of Doing Business (EoDB) and a software based tool of "Computerized Inspection Allocation" is designed for compliance inspections of Red Category industries once in 6 months. The senior level offices from APPCB will carry out the inspection of industries as per the Computer based Randomized allocation. The above

  
 Joint Chief Environmental Engineer  
 A.P. POLLUTION CONTROL BOARD  
 ZONAL OFFICE  
 VISAKHAPATNAM

industries were being monitored by the Board under Ease of Doing Business.

- iv. The ground and surface water samples were collected at Anganwadi school and at Rachabanda, Kothapalem (V), L.Kota (M), Vizianagaram District and Pydamma cheruvu, Kothapalem (V), L.Kota (M), Vizianagaram District on 18.07.2019 and analyzed. As per analysis results there is no indication of industrial pollution and most of the parameters except hardness are meeting the drinking water specification (IS 10500:2012). The analysis results are enclosed as **Annexure-IX (B)**.

7. In reply to Para No.4.5 of the affidavit filed in support of the above said PIL is denied. The APPCB immediately acted upon to the letter of the writ petitioners related to the issues raised in the representation and taken follow up action by addressing them. They are (1) the catchment areas of Mudasarlova and Meghdri gedda reservoirs were inspected. (2) Notices and directions were issued to the industries and followed by half years inspections are taken up for monitoring the industries. (3) Notices were issued to GVMC and status was reviewed by APPCB and directions were issued for redressal of the issues pertaining to sewage treatment & disposal and plastic waste management. (4) More than that, the NGT has periodically been reviewing the compliance status of implementation of various waste management rules and other environmental issues in the country in OA.Nos. 148/2016, 593/2017, 606/2018, 673/2018 & 829/2019 and the NGT is monitoring from time to time for effective implementation of directions issued. The Board also addressed letters to the Secretary, MA & UD Department, Commissioner & Director of Municipal Administration and all District Collectors on 25.08.2020 informing about the compensation regime for non compliance of waste management rules and seriousness involved in implementation of waste management rules and orders of the NGT and requested to expedite for implementation of the same in local bodies and submit the action reports at the earliest.

8. I submit that, in reply to Para Nos.4.6, 4.9 & 4.10 of the affidavit filed in support of the PIL is denied. The Board answered the allegations made in this para so elaborately in the precedent paras more precisely in Para Nos. 3 & 4 above. The fact remains, no untreated industrial

  
Joint Chief Environmental Engineer  
A.P.POLLUTION CONTROL BOARD  
ZONAL OFFICE  
VISAKHAPATNAM

effluents are allowed to be discharged directly into Sea and as stated above. With regard to death of fish on the shore of Rushikonda beach, it is submitted that the Fisheries Development Officer, Bheemunipatnam addressed a letter to Joint Director of Fisheries, Visakhapatnam on 19.08.2020 stating that the dead fish had been identified as silver bellies (local name Karalu) and the reason for fish mortality might be due to stress conditions arose as result of three days continuous rainfall lead to declinity in Sea surface temperature and Dissolved Oxygen (DO). The copy of the letter dated 19.08.2020 is enclosed as **(Annexure-X)**.

9. I submit that the allegations made in Para No.4.7 & 4.8 are denied and answered so elaborately in Para No.3 & 4 of the counter affidavit.

10. I submit that, in reply to Para No.4.11 of the affidavit in support of the above PIL, the 6<sup>th</sup> respondent has to answer the same. In reply paragraph No.4.12 is denied repeatedly mentioned the dead fish, the same is already answered in the precedent paras.

11. I submit that in reply to para No.4.13 of the affidavit is denied. As I stated in the precedent paras, the Board has issued show cause notice to the 6<sup>th</sup> respondent GVMC on 30.07.2019 for non-compliance of Board directions and for disposal of sewage into the water body and followed by that notice, the Board has issued directions to the 6<sup>th</sup> respondent GVMC on 23.09.2019 with regard to the implementation of measures to treat the sewage to the full installed capacities of the STPs and to meet the discharge standards. The GVMC was further directed to comply with Plastic Management Rules, 2016.

12.1. I submit that in reply to the allegations made in paras Nos. 4.14 and 4.15 is denied and these issues were answered so elaborately in the instant counter at Para Nos.3 & 4 of this counter affidavit.

12.2. In reply to Para No.4.15 of the affidavit is concerned, as I placed earlier, the APPCB has conducted the studies in the years 2011 and 2018 through NIO to carry out an assessment of the marine

  
Joint Chief Environmental Engineer  
A.P.POLLUTION CONTROL BOARD  
ZONAL OFFICE  
VISAKHAPATNAM

environment in and around the marine outfall points (MOP) of industries between Pydibhimavaram (Srikakulam District) and Kesavaram (Visakhapatnam District) of north Andhra Coast to ascertain cumulative effects, if any, on the ecology, water and sediment quality due to the discharge of treated effluents into the coastal waters. NIO is CSIR organization and competent Government Agency to carryout oceanography studies. Thus, this respondent is following the orders of the NGT and also on its own motion or on an application like the petitioners herein monitoring the situation all through with utmost respect. Hence this writ petition is devoid of merits and may be dismissed against this respondent.

For the reasons stated above it is prayed that this Hon'ble Court may be pleased to dismiss the above said writ petition against this respondent on the foot of the facts placed in the entire counter affidavit and pass such other order or orders as deem fit and proper in the circumstances of the case.

Sworn and signed on this .... day of  
November, 2020 at Vijayawada.

  
**DEPONENT**  
Joint Chief Environmental Engineer  
A.P. POLLUTION CONTROL BOARD  
ZONAL OFFICE  
VISAKHAPATNAM

Before Me

Advocate ::: Amaravathi

VERIFICATION STATEMENT

I, Thuraka Rajendra Reddy, son of T. Ramachandra Reddy aged about 57 years, working as Joint Chief Environmental Engineer, A.P. Pollution Control Board, Zonal Office, Visakhapatnam and being well acquainted with the facts do hereby verify and state that the averments made in the affidavit are based on records and believed to be correct. Verified at Vijayawada on this the ..... day of November, 2020.

Advocate

  
DEPONENT  
Joint Chief Environmental Engineer  
A.P. POLLUTION CONTROL BOARD  
ZONAL OFFICE  
VISAKHAPATNAM



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
D.No.33-26-14, D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari street, Kasturibaipat, Vijayawada – 520 010

Phone:0866-2436200.  
Grams : Kalusya Nilvarana  
Website :www.appcb.ap.nic.in

Regd. Post with Ack Due

Order.No.397/APPCB/UH-II/TF/VSP/2019-1119

Dt. 23.09.2019.

DIRECTIONS

- Sub:** PCB – UH-II – TF - Greater Visakhapatnam Municipal Corporation (GVMC) Visakhapatnam – Adverse News item in DC on 23.07.2019 – Disposal of sewage into the water body – Legal hearing held on 05.09.2019 – **Directions - Issued - Reg.**
- Ref:**
1. Directions vide Order.No.397/APPCB/UH-II/TF/VSP/2018, Dt.14.06.2018.
  2. Adverse New Item in Deccan Chronicle dt.23.07.2019.
  3. The RO, Visakhapatnam inspection report dated 24.07.2019.
  4. Showcuase notice no.397/APPCB/UH-II/TF/VSP/2019-654, dated 30.07.2019.
  5. Lr.No.Complaint/PCB/RO-VSP/2019, dated 03.09.2019 of RO, Visakhapatnam.
  6. External Advisory Committee (Task Force) Meeting held on 05.09.2019.

*o/c*

23.09.19  
DESPATCHED  
VMS

\*\*\*

**WHEREAS** M/s.Greater Visakhapatnam Municipal Corporation (GVMC), Visakhapatnam is a local Governing body, Visakhapatnam Corporation area.

**WHEREAS** it is the responsibility of the local body to setup facilities for collection, transportation and treatment of sewage for abatement of pollution of water bodies.

**WHEREAS** MOEF & CC, Govt of India has issued a notification on Solid Waste Management Rules 2016 for the collection, transportation and disposal of Municipal waste generated in the local body.

**WHEREAS** MOEF & CC, Govt of India has issued a notification on Plastic Waste (Management & Handling) Rules 2016 for the collection, transportation and disposal of Plastic waste generated in the local body.

**WHEREAS** MOEF & CC, Govt of India has issued a notification on Construction and Demolition waste Management Rules 2016 for the collection, transportation and disposal of construction and demolition waste such as building materials , debris, rubble etc., generating in the local body.

**WHEREAS** MOEF & CC, Govt. of India has issued notification dated 13.10.2017 modifying the discharge standards for the Sewage Treatment plants (STP's).

**WHEREAS** the Board has received complaints on disposal of untreated effluents into Sea and on the burning of solid / plastic waste and Board has issued directions to GVMC dated 14.06.2018 vide reference 1<sup>st</sup> cited.

**WHEREAS** vide reference 2<sup>nd</sup> cited, an adverse news item was published in Deccan Chronicle dated 23.07.2019 regarding discharge of effluent by the industries located at Akkireddypalem, Visakhapatnam into village tank causing water pollution.

**WHEREAS** vide reference 3<sup>rd</sup> cited, the Board officials during the inspection on 24.07.2019 observed dead fish in a small pond, located adjacent to the Akkireddypalem village due to the joining the sewage mixed with industrial effluent from Autonagar Industrial Estate. During inspection it was observed that the GVMC is carrying out works at Minda Cheruvu and diverted the flow partly into the fields, which is finding its way into Akkireddypalem tank (Mallamma Cheruvu) thereby causing the fish death. The sample of the sewage collected from the drain shows the BOD is very high 72.0 mg/l.

**WHEREAS** the Board vide reference 4<sup>th</sup> cited, issued showcause notice on 30.07.2019 in connection with adverse news item in DC on 23.07.2019 regarding disposal of sewage into the waterbody and non-compliance of Board directions. The GVMC has not submitted reply to the showcause notice till date.

**WHEREAS** vide reference 5<sup>th</sup> cited, the EE, RO, Visakhapatnam has furnished latest status report on 03.09.2019.

**WHEREAS**, legal hearing was conducted before the External Advisory Committee (Task Force) of A.P. Pollution Control Board held on 05.09.2019. The representative of the GVMC Sri P. Venkata Rao, Executive Engineer attended the legal hearing. He informed that they are taking necessary precautions to ensure sewage is not bypassed. The EE, RO, Visakhapatnam has informed that the GVMC is letting the untreated sewage into the Sea and the Navy authorities have complained about the same. Also, the GVMC is not treating the sewage to the discharge standards, further informed that the progress of waste to energy plant is slow. The committee noted that the Denmark's Blue flag ship is proposed at the Rushikonda Beach for which E-coli limits are to be well within the standards.

The Committee after detailed discussions, recommended to issue certain directions. The Board hereby issue the following directions under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31(A) of Air (Prevention & Control of Pollution) Amendment Act, 1987:

1. **The GVMC shall submit reply to the Show Cause Notice dated 30.07.2019.**
2. **The GVMC shall obtain CFOs for all the 18 STPs of capacity 176.5 MLD.**
3. **The GVMC shall find out all the sewage outlet joining the sea and shall provide suitable treatment.**
4. **The GVMC shall take measures to treat the sewage to the full capabilities of the STPs i.e 176.5 MLD against the current sewage treatment of 102.35 MLD.**
5. **The treated sewage of 102.35 MLD shall be treated to the discharge standards and shall explore the possibilities of reuse.**
6. **The GVMC shall pay the cess arrears of Rs.4,61,27,372/- upto 30.06.2017 immediately.**
7. **The GVMC shall ensure that any untreated sewage is not letting to the Sea.**
8. **The GVMC shall pursue with M/s. Jindal Energy to expedite the construction of the 15 MW Waste to Energy Plant at Kapuluppuda.**
9. **The GVMC shall comply with the Construction & Demolition Waste Rules, 2016, Plastic Waste Management Rules, 2016.**
10. **The GVMC shall submit the implement the Construction & Demolition Waste Rules, 2016.**
  - a. **Shall submit the Annual Reports in Form-III by 30<sup>th</sup> June of every year.**
  - b. **Issue detailed directions with regard to proper management of construction and demolition waste within its jurisdiction in accordance with the provisions of these rules and the local authority shall seek detailed plan or undertaking as applicable, from generator of construction and demolition waste;**
  - c. **chalk out stages, methodology and equipment, material involved in the overall activity and final clean up after completion of the construction and demolition ;**
  - d. **seek assistance from concerned authorities for safe disposal of construction and demolition waste contaminated with industrial hazardous or toxic material or nuclear waste if any;**
  - e. **shall make arrangements and place appropriate containers for collection of waste and shall remove at regular intervals or when they are filled, either through own resources or by appointing private operators;**
  - f. **shall get the collected waste transported to appropriate sites for processing and disposal either through own resources or by appointing private operators;**
  - g. **shall give appropriate incentives to generator for salvaging, processing and or recycling preferably in-situ;**
  - h. **shall examine and sanction the waste management plan of the generators within a period of one month or from the date of approval of building plan, whichever is earlier from the date of its submission;**
  - i. **shall keep track of the generation of construction and demolition waste within its jurisdiction and establish a data base and update once in a year;**
  - j. **shall devise appropriate measures in consultation with expert institutions for management of construction and demolition waste generated including processing facility and for using the recycled products in the best possible manner;**
  - k. **shall create a sustained system of information, education and communication for construction and demolition waste through collaboration with expert institutions and civil societies and also disseminate through their own website;**
  - l. **shall make provision for giving incentives for use of material made out of construction and demolition waste in the construction activity including in non-structural concrete, paving blocks, lower layers of road pavements, colony and rural roads.**
11. **The GVMC in compliance of Plastic Waste Management Rules, 2016 shall submit the annual returns in Form V by 30<sup>th</sup> June of every year and shall also.**

- a. Ensure channelization of recyclable plastic waste fraction to recyclers;
- b. Ensure processing and disposal on non-recyclable fraction of plastic waste in accordance with the guidelines issued by the Central Pollution Control Board;
- c. Create awareness among all stakeholders about their responsibilities; (f) engaging civil societies or groups working with waste pickers;
- d. Ensure that open burning of plastic waste does not take place.

12. The GVMC shall submit the annual returns in Form IV for Solid Waste Management Rules, 2016 before 31<sup>st</sup> May every year.

13. The GVMC shall submit reply to the show-cause notice and also to submit status report on issues raised in the legal hearing within 15 days.

You are hereby directed to note that, should you violate any one of the directions mentioned above, action will be initiated under Sec.33(A) of Water (Prevention & Control of Pollution) Amendment Act, 1988 and Sec.31(A) of Air (Prevention & Control of Pollution) Amendment Act, 1987 without any further notice, in the interest of Public Health and Environment.

*This above directions are in effect from today i.e., 23.09.2019.*

Sd/-  
CHAIRMAN

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation (GVMC),  
Tenneti Bhavan, Ram Nagar,  
Visakhapatnam.

Copy to:

1. The JCEE, APPCB, Zonal Office, Visakhapatnam for information and necessary action.
2. The EE, APPCB, Regional Office, Visakhapatnam for information and shall follow-up with GVMC on above directions.

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

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
UH-II



**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

Dr. P. PRASAD RAO,  
ENVIRONMENTAL ENGINEER

Beside RTA Office,  
Madhavadhara Vuda Colony,  
Visakhapatnam - 530018  
Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7 /03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STPs at Madinabagh (2 MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 16.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Madinabagh (2 MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 at Madinabagh (2 MLD) Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	BOD Value (mg/l)
1	Madinabagh	16.12.2019	32.0
<b>Standard</b>			<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

*P. Prasad Rao*  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
Regional Office, Visakhapatnam



**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

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Beside RTA Office,  
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Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020- 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STPs Mantripalem (1 MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 16.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Mantripalem (1 MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

TSS& BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 at Mantripalem (1 MLD) Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	TSS Value (mg/l)	BOD Value (mg/l)
1	Mantripalem	16.12.2019	406	130.0
	<b>Standard</b>		<b>100</b>	<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
**ENVIRONMENTAL ENGINEER**

Environmental Engineer  
 A.P. Pollution Control Board  
 Regional Office, Visakhapatnam.



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**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

Dr. P. PRASAD RAO,  
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Visakhapatnam - 530018  
Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s Greater Visakhapatnam Municipal Corporation - Operating STP Bakkannapalem(1MLD), Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Bakkannapalem(1MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

TSS& BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Bakkannapalem(1MLD), Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	TSS Value (mg/l)	BOD Value (mg/l)
1	Bakkannapalem	21.12.2019	136.0	80.0
	<b>Standard</b>		<b>100</b>	<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
Regional Office, Visakhapatnam



**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

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Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STP Boyapalem(1MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Boyapalem(1MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

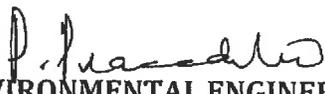
BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Boyapalem(1MLD), Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	BOD Value (mg/l)
1	Boyapalem(1MLD)	21.12.2019	44.0
	<b>Standard</b>		<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
 ENVIRONMENTAL ENGINEER

Environmental Engineer  
 A.P. Pollution Control Board  
 Regional Office, Visakhapatnam.



34  
**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**REGIONAL OFFICE, VISAKHAPATNAM**

Dr. P. PRASAD RAO,  
ENVIRONMENTAL ENGINEER

Beside RTA Office,  
Madhavadhara Vuda Colony,  
Visakhapatnam - 530018  
Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STP Marikavalasa(2MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Marikavalasa(2MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

TSS& BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Marikavalasa(2MLD) Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	TSS Value (mg/l)	BOD Value (mg/l)
1	Marikavalasa	21.12.2019	164.0	110.0
Standard			100	30.0

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
Regional Office, Visakhapatnam.



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**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

Dr. P. PRASAD RAO,  
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Beside RTA Office,  
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Visakhapatnam - 530018  
Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7 /03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STP YSR Nagar(2MLD)Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at YSR Nagar(2MLD)for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

TSS& BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 YSR Nagar(2MLD)Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	TSS Value (mg/l)	BOD Value (mg/l)
1	YSR Nagar	21.12.2019	105.0	54.0
<b>Standard</b>			<b>100</b>	<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
Regional Office, Visakhapatnam.



**ANDHRA PRADESH POLLUTION CONTROL BOARD  
REGIONAL OFFICE, VISAKHAPATNAM**

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ENVIRONMENTAL ENGINEER

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Madhavadhara Vuda Colony,  
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Ph: 0891 - 2755356

Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7 /03/2020

**To**  
**The Commissioner,**  
**Greater Visakhapatnam Municipal Corporation**  
**Visakhapatnam.**

**Sir,**

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STP Vambaycolony(3MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Vambaycolony(3MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Vambaycolony (3MLD), Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	BOD Value (mg/l)
1	Vambaycolony	21.12.2019	33.0
Standard			30.0

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
**ENVIRONMENTAL ENGINEER**  
 Environmental Engineer  
 A.P. Pollution Control Board  
 Regional Office, Visakhapatnam



**ANDHRA PRADESH POLLUTION CONTROL BOARD  
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Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation -  
Operating STP Srinagar (0.5MLD) Non compliance of Board discharge  
standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 21.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Srinagar (0.5MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

TSS& BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Srinagar(0.5MLD)Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	TSS Value (mg/l)	BOD Value (mg/l)
1	Srinagar	21.12.2019	119.0	165.0
Standard			100	30.0

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

*P. Prasad Rao*  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
Regional Office, Visakhapatnam



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**ANDHRA PRADESH POLLUTION CONTROL BOARD  
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Lr.No.PCB/RO-VSP/2020 - 6717

Date: 7/03/2020

To  
The Commissioner,  
Greater Visakhapatnam Municipal Corporation  
Visakhapatnam.

Sir,

**Sub:** APPCB, RO, VSP - M/s. Greater Visakhapatnam Municipal Corporation - Operating STP Rathi Cheruvu(2MLD) Non compliance of Board discharge standards - Information - Submitted - Reg.

**Ref:** Board office, Official Inspection Schedules on- 31.12.2019

@@@

The Greater Visakhapatnam Municipal Corporation (GVMC) is operating sewage Treatment Plant (STP) at Rathi Cheruvu(2MLD) for treating the domestic sewage generated.

The APPCB is regularly inspecting the STP and collecting the water samples at inlet and outlet of STP on monthly basis and analyzing parameters prescribed by CPCB.

BOD Values reported as per the analysis reports of the water samples collected in the month of December 2019 Rathi Cheruvu(2MLD) Sewage Treatment Plant (STP) are exceeded the standards.

S No.	Name of the STP	Date of Sampling	BOD Value (mg/l)
1	Rathi Cheruvu	31.12.2019	58.0
<b>Standard</b>			<b>30.0</b>

In view of the above, it is requested to issue necessary directions to the concerned officials for effective operation of the STP to meet to the specified standards.

Submitted

Yours faithfully,

  
ENVIRONMENTAL ENGINEER

Environmental Engineer  
A.P. Pollution Control Board  
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ANALYSIS REPORT

Sample No. : 2020 - 08 - E - 186 & 187  
Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Mudasarlova, Visakhapatnam.  
Sample Source : 186: STP Inlet  
187: STP Outlet  
Sample collected on : 18.08.2020  
Sample received on : 18.08.2020  
Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	E-186	E-187
1.	pH	7.39	7.96
2.	Total Suspended Solids at 105° C	93	32
3.	Chemical Oxygen Demand	140	48
4.	Biochemical Oxygen Demand	52	14

Note: - All values are expressed in mg/l except pH

*M. Ravi*  
18/8/20  
SENIOR ENVIRONMENTAL SCIENTIST



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ANALYSIS REPORT

Sample No. : 2020 - 08 - E- 190 & 191

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation ,  
Sewage Treatment Plant, Appughar ,  
Visakhapatnam.

Sample Source : 190: STP Inlet  
191: STP Outlet

Sample collected on : 17.08.2020

Sample received on : 18.08.2020

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	E-190	E-191
1.	pH	6.96	7.30
2.	Total Suspended Solids at 105 <sup>o</sup> C	52	20
3.	Chemical Oxygen Demand	224	56
4.	Biochemical Oxygen Demand	86	16
5.	Oil & Grease	BDL	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

*M. Ravi*  
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ANALYSIS REPORT

Sample No. : 2020-07 -E-284 & 285

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant, Old Town,  
Visakhapatnam.

Sample Source : 284: STP Inlet  
285: STP Outlet

Sample collected on : 31.07.2020

Sample received on : 31.07.2020

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	E-284	E-285
1.	pH	6.22	7.14
2.	Total Suspended Solids at 105°C	126	42
3.	Chemical Oxygen Demand	192	96
4.	Biochemical Oxygen Demand	78	28
5.	Oil & Grease	2.4	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

M. Ravi  
SENIOR ENVIRONMENTAL SCIENTIST  
29/8/20

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ANALYSIS REPORT

Sample No. : 2020 - 08 - E - 372 & 373

Sample location/Address : M/s. Visakhapatnam Port Trust,  
Sewage Treatment Plant,  
Visakhapatnam.

Sample Source : 372: STP Inlet  
373: STP Outlet

Sample collected on : 27.08.2020

Sample received on : 28.08.2020

Sample collected by : AEE, Regional Office, Visakhapatnam

Sl. No.	Parameters	E-372	E-373
1.	pH	7.31	7.73
2.	Total Suspended Solids at 105 <sup>o</sup> C	115	40
3.	Chemical Oxygen Demand	144	72
4.	Biochemical Oxygen Demand	43	20
5.	Oil & Grease	BDL	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

*M. Ravi*  
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**ANALYSIS REPORT**

Sample No. : **2019 – 12 – E – 170 & 171**

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
 Sewage Treatment Plant, Madinabagh Adjacent at  
 Steel Plant, Visakhapatnam.

Sample Source : 2019 – 12 – E – 170: STP Inlet  
 2019 – 12 – E – 171: STP Outlet

Sample collected on : 16.12.2019

Sample received on : 17.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-170	2019-12 E-171
1.	pH	7.67	7.93
2.	Total Suspended Solids at 105 <sup>0</sup> C	162	20
3.	Chemical Oxygen Demand	276	128
4.	Biochemical Oxygen Demand	108	32
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
 BDL: Below Detectable Limit

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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 168 & 169

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant, Mantripalem JNR Colony,  
Near Lankelapalem, Visakhapatnam.

Sample Source : 2019 – 12 – E – 168: STP Inlet  
2019 – 12 – E – 169: STP Outlet

Sample collected on : 16.12.2019

Sample received on : 17.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-168	2019-12 E-169
1.	pH	7.19	7.90
2.	Total Suspended Solids at 105 <sup>o</sup> C	430	406
3.	Chemical Oxygen Demand	580	372
4.	Biochemical Oxygen Demand	230	110
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

  
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**ANALYSIS REPORT**

Sample No. : **2019 – 12 – E – 220 & 221**

Sample location/Address : **M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant(1 MLD) Bakkannapalem,  
Madhurawada, Visakhapatnam.**

Sample Source : **2019 – 12 – E – 220: STP Inlet  
2019 – 12 – E – 221: STP Outlet**

Sample collected on : **21.12.2019**

Sample received on : **23.12.2019**

Sample collected by : **Analyst (C), Regional Office, Visakhapatnam**

Sl. No.	Parameters	2019-12 E-220	2019-12 E-221
1.	pH	6.77	7.26
2.	Total Suspended Solids at 105 <sup>o</sup> C	264	136
3.	Chemical Oxygen Demand	1008	272
4.	Biochemical Oxygen Demand	350	80
5.	Oil & Grease	BDL	BDL

**Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit**

  
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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 218 & 219

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant(4MLD) Kommadi,  
Madhurawada, Visakhapatnam.

Sample Source : 2019 – 12 – E – 218: STP Inlet  
2019 – 12 – E – 219: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-218	2019-12 E-219
1.	pH	7.16	7.25
2.	Total Suspended Solids at 105 <sup>0</sup> C	312	28
3.	Chemical Oxygen Demand	460	64
4.	Biochemical Oxygen Demand	165	20
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

*M. Ravi*

**SENIOR ENVIRONMENTAL SCIENTIST**



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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 214 & 215

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant (1MLD), Boyapalem,  
Paradesipalem, Madhurawada, Visakhapatnam.

Sample Source : 2019 – 12 – E – 214: STP Inlet  
2019 – 12 – E – 215: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-214	2019-12 E-215
1.	pH	6.96	7.27
2.	Total Suspended Solids at 105 <sup>o</sup> C	815	75
3.	Chemical Oxygen Demand	1200	152
4.	Biochemical Oxygen Demand	420	44
5.	Oil & Grease	BDL	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

  
 SENIOR ENVIRONMENTAL SCIENTIST



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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 212 & 213

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant (2 MLD) , Marikavalasa,  
Madhurawada, Zone-I, Visakhapatnam.

Sample Source : 2019 – 12 – E – 212: STP Inlet  
2019 – 12 – E – 213: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-212	2019-12 E-213
1.	pH	7.00	7.02
2.	Total Suspended Solids at 105 <sup>o</sup> C	445	164
3.	Chemical Oxygen Demand	704	368
4.	Biochemical Oxygen Demand	250	110
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

  
SENIOR ENVIRONMENTAL SCIENTIST



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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 224 & 225

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant(2 MLD), YSR Nagar (2 MLD),  
Madhurawada, Visakhapatnam.

Sample Source : 2019 – 12 – E – 224: STP Inlet  
2019 – 12 – E – 225: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-224	2019-12 E-225
1.	pH	6.84	7.24
2.	Total Suspended Solids at 105 <sup>0</sup> C	1275	105
3.	Chemical Oxygen Demand	660	180
4.	Biochemical Oxygen Demand	230	54
5.	Oil & Grease	BDL	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

*M. Ravi*  
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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 210 & 211

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant (3 MLD)Vambay Colony,  
Visakhapatnam.

Sample Source : 2019 – 12 – E – 210: STP Inlet  
2019 – 12 – E – 211: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-210	2019-12 E-211
1.	pH	7.07	7.21
2.	Total Suspended Solids at 105 <sup>o</sup> C	178	70
3.	Chemical Oxygen Demand	388	112
4.	Biochemical Oxygen Demand	135	33
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

  
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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 216 & 217

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
 Sewage Treatment Plant (0.5 MLD) Srinagar,  
 Gajuwaka Area, Visakhapatnam.

Sample Source : 2019 – 12 – E – 216: STP Inlet  
 2019 – 12 – E – 217: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-216	2019-12 E-217
1.	pH	7.12	7.15
2.	Total Suspended Solids at 105 <sup>o</sup> C	392	119
3.	Chemical Oxygen Demand	468	196
4.	Biochemical Oxygen Demand	165	58
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
 BDL: Below Detectable Limit

*M. Ravi*  
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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 379 & 380

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant-2MLD, Rathi Cheruvu,  
Pendurthi, Visakhapatnam.

Sample Source : 2019 – 12 – E – 379: STP Inlet  
2019 – 12 – E – 380: STP Outlet

Sample collected on : 31.12.2019

Sample received on : 01.01.2020

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-379	2019-12 E-380
1.	pH	6.48	7.27
2.	Total Suspended Solids at 105 <sup>0</sup> C	596	90
3.	Chemical Oxygen Demand	640	212
4.	Biochemical Oxygen Demand	250	58
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

*M. Ravi* 13/1/20  
SENIOR ENVIRONMENTAL SCIENTIST



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**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 381 & 382

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
 Sewage Treatment Plant-108 MLD,  
 STP Narava Area, back side of NH-16,  
 Ayyappaswamy Temple, Visakhapatnam.

Sample Source : 2019 – 12 – E – 381: STP Inlet  
 2019 – 12 – E – 382: STP Outlet

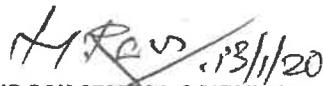
Sample collected on : 31.12.2019

Sample received on : 01.01.2020

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-381	2019-12 E-382
1.	pH	6.92	7.84
2.	Total Suspended Solids at 105 <sup>0</sup> C	139	76
3.	Chemical Oxygen Demand	144	48
4.	Biochemical Oxygen Demand	52	12.5
5.	Oil & Grease	BDL	BDL

**Note:** - All values are expressed in mg/l except pH  
 BDL: Below Detectable Limit

  
 SENIOR ENVIRONMENTAL SCIENTIST



ANDHRA PRADESH POLLUTION CONTROL BOARD  
ZONAL LABORATORY, VISAKHAPATNAM

D.No. 39-33-20/1/4, Behind RTA Office,  
Madhavadhara VUDA Colony, Visakhapatnam-530 018.

M. RAVI, M.Sc  
SENIOR ENVIRONMENTAL SCIENTIST

Ph: 0891-2719480/380/481 Fax: 2719480

e-mail:zovsplab-ses2@ appcb.gov.in

**ANALYSIS REPORT**

Sample No. : 2019 – 12 – E – 222 & 223

Sample location/Address : M/s. Greater Visakhapatnam Municipal Corporation,  
Sewage Treatment Plant(15 MLD) Anakapalli,  
Visakhapatnam.

Sample Source : 2019 – 12 – E – 222: STP Inlet  
2019 – 12 – E – 223: STP Outlet

Sample collected on : 21.12.2019

Sample received on : 23.12.2019

Sample collected by : Analyst (C), Regional Office, Visakhapatnam

Sl. No.	Parameters	2019-12 E-222	2019-12 E-223
1.	pH	7.45	7.53
2.	Total Suspended Solids at 105 <sup>o</sup> C	122	20
3.	Chemical Oxygen Demand	144	72
4.	Biochemical Oxygen Demand	50	21
5.	Oil & Grease	BDL	BDL

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit

  
SENIOR ENVIRONMENTAL SCIENTIST

A.P. POLLUTION CONTROL BOARD  
ZONAL LABORATORY ::VISAKHAPATNAM

Average values of Water Quality Parameters for the year 2020 (Up to September)

S.No.	Location	TEMP°C	DO	Salinity	pH	TSS	COD	BOD	NO <sub>3</sub> -N	NH <sub>3</sub> -N	Phosphates
1	Confluence point of Gosthani river joining the sea near Bheemili municipal office.	26.3	5.6	25.3	7.4	33	17	3.2	4.131	0.04	0.38
2	Confluence point of Gambheeram Gedda joining the sea near Excel Hatcheries, Mangamma varipeta, Bheemili Road.	26.0	4.9	11.6	7.3	32.1	28	3.1	8.5	0.1	0.67
3	Confluence point of Sewage joining the sea at Shanti Ashramam	26.3	4.8	24.1	7.0	44.0	28	4.3	2.0	0.4	0.53
4	Confluence point of Sewage joining the sea at Fishing Harbour.	26.7	2.0	25.7	7.2	55.6	27	4.1	1.4	0.2	0.17
5	Sea water collected at Visakhapatnam Port Trust jetty near Marine Department.	30.4	6.1	23.3	7.4	36.7	13	1.5	1.0	0.3	0.11
<b>Water Quality Standards for Coast Water as for Class-SW-II Waters</b>			>4 mg/l		6.5-8.5			<3 mg/l			

Note: All Values are expressed in mg/l except pH, Temperature and Salinity

Remarks The pH values are in the range of 6.5 -8.5  
The BOD values are slightly higher than the standards at location 1 to 4.  
The DO Level less than the standard at location 4

  
SENIOR ENVIRONMENTAL SCIENTIST



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**D.No. 33-26-14 D/2, Near Sunrise Hospital, Pushpa Hotel Centre,**  
**Chalamalavari Street, Kasturibaipet, Vijayawada – 520010.**

Website :www.appcb.ap.nic.in

**Memo No. 32/APPGB/CFE/ZO-VSP/HO/2000**

**Dt. 16.09.2019**

Sub: APPCB – Standard operating procedures (SOPs) for monitoring marine outfalls in the State – Issued – Reg.

Ref: Lr. dt. 06.09.2019 received from the JCEE, ZO: Visakhapatnam.

\* \* \*

In the reference cited, the JCEE, ZO: Visakhapatnam has forwarded a proposal to modify the existing procedure of monitoring marine outfall systems being utilized by the industries for discharge of treated effluents into the Bay of Bengal. This was examined.

The approved Standard operating procedures (SOPs) for monitoring marine outfalls in the State are communicated for implementation. The JCEE, ZO: Visakhapatnam is directed to issue necessary directions to the industries to take necessary action as per the SOPs. The JCEE is also directed to take necessary action for effective implementation of SOPs.

Encl: as above.

Bandla Siva  
Sankar Prasad  
Digitally signed by  
Bandla Siva Sankar  
Prasad  
Date: 2019.09.16  
17:45:17 +05'30'  
**CHAIRMAN**

**To**

**The JCEE, Zonal Office: Visakhapatnam**

Copy to

- 1) The Spl. Chief Secretary to Govt., EFS&T Dept., for kind information.
- 2) The Chief Environmental Engineer for information and necessary action.
- 3) Sri B.V. Prasad, JSO, Head Office for information and necessary action.
- 4) The RO: Visakhapatnam for information and necessary action.

**STANDARD OPERATING PROCEDURES (SOPs) FOR MONITORING  
MARINE OUTFALLS IN THE STATE**

The Spl.C.S, EFS&T, GoAP, during the review of marine monitoring in the meeting held on 22/08/2019 instructed for strict and **transparent procedure** for the supervision and data collection on marine outfall discharges from the industries and CETPs. Accordingly, this issue was examined at ZO: Visakhapatnam level and a report was submitted to the Head Office. This issue was further examined at Head Office and evolved the following protocol to be followed and recommendations to be implemented for effective monitoring of marine outfall system:

**Additional measures suggested with technological intervention for transparent discharge treated effluents through marine outfalls:**

- i. At present, the marine outfall pipelines within the premises of the industry are laid below the ground level. This is causing a doubt whether there are any by-pass pipelines connecting to marine outfall, below the ground level. In order to overcome above doubts, the existing pipelines shall be laid in a **masonry / RCC open trench** or above ground level within the factory premises up to the boundary. **This shall be completed within 15 days.**
- ii. **Scanning and detection of pipelines:**  
  
Pipeline detection techniques may be adopted to check the presence of illegal pipeline / by pass pipelines. If required, a competent agency in this field may be hired to detect the illegal pipelines / by pass pipelines below the ground level.
- iii. The existing cameras provided are focusing on flow meter only and the same is connected to CPCB / APPCB websites. The online cameras for guard ponds and entire ETP shall be provided for continuous monitoring of operation of the ETPs, guard ponds and the marine outfall disposal system. The RO: Visakhapatnam / the SEE, ZO: Visakhapatnam shall monitor the marine outfalls continuously through online system. The JCEE, ZO: Visakhapatnam and Environment monitoring cell in the Head Office shall randomly monitor the ETPs and marine outfalls. **The online cameras shall be installed in 30 days.**
- iv. The industries have installed tap off points to monitor the parameters of the treated effluents for TOC and COD, online, continuously. In that sampling system some of the industries are collecting the treated effluents into an open trough and monitoring the parameters TOC and COD with the sensors. There is a chance that the effluent being monitored in the trough is diluted with fresh water. This results in change in the readings of the online parameters. Hence, the open trough shall be removed. The sensor / probe shall be installed in the tap of pipeline only to obtain representative values of the parameters. **This activity shall be completed within 30 days.**
- v. Visible level indicators shall be provided by the industries at all guard ponds **within one week.**
- vi. The existing Mobile laboratory shall be upgraded with the facilities to do random analysis for core parameters viz., pH, COD and TSS in the field itself, **within 30 days.** Sri B. V. Prasad, JSO at Head Office shall take necessary action in this regard.

- vii. The IT cell at Head Office shall ensure to provide adequate capacity (for 15 to 30 days) to store the videos recorded through online cameras **within 15 days**.

viii. **Displaying information in the public domain:**

The analysis reports of the samples collected for marine outfall monitoring shall be kept in the website of APPCB in the public domain.

ix. **Online monitoring tool / App:**

The IT section at Head Office and Environment monitoring cell shall develop an online monitoring tool / dash board / an App to display all the activities mentioned in the SOPs i.e., date, name of the industry, names of the staff in the monitoring team, operation of online digital cameras from the offices of APPCB to know the operational status of ETPs and Marine outfalls, display of analysis reports etc., on a real time basis and also to take out monthly / half yearly reports.

**I. Administrative Protocol:**

**a. Allotment of duties for supervision of marine discharges:**

The JCEE, Zonal office, Visakhapatnam allots duties for each schedule. The team shall consist of the following:

- i. Regular employee (JSO or AEE) shall be in the team in all the days of monitoring / marine discharge.
- ii. In addition to above, out sourcing AEE, Analyst and Field asst., shall be there in all the teams, on all days of monitoring.

**b. Hiring of Vehicles and provision of accessories for sample collection :**

AEE – III, ZO, Visakhapatnam shall co-ordinate for hiring of vehicles and procurement of accessories for sample collection under intimation to the EE, ZO.

**c. Day to day administrative monitoring:**

The SEE shall monitor field activity on day to day basis during schedules. The EE and AEE –III shall compile the data pertaining to each schedule and submit to the JCEE through SEE.

**d. Control of keys of the locks:**

- 2 sets of keys, each shall be in the custody of the SEE and EE, ZO. Remaining sets of keys shall be kept in the custody of JCEE, ZO: Visakhapatnam.

**II. Protocol for Field Supervision of Marine Discharge in the industries / CETPs :**

- a. Regular staff shall be the team leader and co-ordinate the activities pertaining to supervision of marine discharge, data collection, compilation of photos, submission of samples at Zonal Laboratory and submit detailed report within 24 hours.
- b. The team leader shall inform / contact EE, ZO or SEE, ZO for any clarification and reporting of any emergency event which needs to be addressed immediately.
- c. The staff (Regular & Outsourcing) shall not be absent to duty without prior approval of the SEE, ZO: Visakhapatnam.
- d. The outsourcing employees allotted duties shall be present at the discharge point throughout the discharge time.
- e. The on duty regular staff shall collect the samples from the guard ponds before starting the discharge and on the 2<sup>nd</sup> day /3<sup>rd</sup> day also, if required.
- f. All the keys with the team shall be deposited in the Zonal office after completion of the marine outfall monitoring duty on the particular day.
- g. The regular staff shall ensure that all the details shall be filled in the sample submission form and shall be forwarded through whatsapp after completion of the discharge and also updated in the on line monitoring tool / App.
- h. The staff carrying out the monitoring shall take the photographs at the following locations before starting the monitoring and in the lunch time and shall forward the same to the SEE and EE of Zonal office through whatsapp / online monitoring tool / App.
  - Guard pond for which the discharge is permitted.
  - Level indicators in the guard pond.
  - While collecting samples from the guard ponds which are filled with treated effluent and ready for next schedule of discharge.
  - Photos of the seal put on the sample cans after sample collection.
  - TOC and COD analyzer with readings.
  - Flow meters ensuring visibility of the totalizer reading in the flow meter
  - Aerial photograph of ETP and guard ponds by drones.
- i. The photographs shall be taken for the following after completing the discharge into marine outfall.
  - Level indicators in the guard pond.
  - All the seals for inlets of the guard ponds and marine pipe line after closing the discharge.

The photos of level indicator shall be taken on the 2<sup>nd</sup> and 3<sup>rd</sup> day also, if applicable, as mentioned above.

**III. Protocol for sample collection and Analysis :**

- a. The samples from the guard ponds and the ETP outlet shall be collected by the regular staff only on all days of the schedule.
- b. The collected samples shall be sealed. The responsibility of safe custody of the samples collected is on the regular officer on duty till their submission to Zonal laboratory. The sealed samples shall be kept in the Refrigerator provided at the Zonal Laboratory.
- c. Samples along with required data sheet duly filled in shall be handed over by the regular staff to the JSO – I, Zonal Laboratory: Visakhapatnam.
- d. The JSO – I, Zonal Laboratory: Visakhapatnam shall ensure coding of samples and allotment coded samples to the analyst.
- e. The JSO – I, Zonal Laboratory: Visakhapatnam shall ensure that the core parameters i.e. pH, COD, and TSS are analysed and reports are submitted to JCEE, ZO, Visakhapatnam immediately. The analysis of the other parameters of CFO orders shall be completed and report shall be submitted within 5 days.
- f. The JSO – I, Zonal Laboratory: Visakhapatnam shall submit the graphical presentation of sample analysis reports at the time of submission of analysis reports.
- g. Sri B.V. Prasad, JSO at Head Office shall take necessary steps to upgrade the existing mobile laboratory to install TOC analyzer **within 30 days**.
- h. Mobile lab services may be arranged so that samples are analysed and report is generated on the spot. **[Sri B.V. Prasad to prepare action plan in a week]**

**IV. Initiation of follow up action :**

The AEE – III shall initiate file proceedings for taking up follow up action on the issues highlighted in the schedule, prepare Monthly reports and comparative graphical presentation of the data received from the Laboratory, by 5<sup>th</sup> of every successive month.

**V. Calibration of online equipment:**

The Zonal office shall depute special teams for inspection and verification of Online Continuous Effluent Monitoring Systems (OCEMS) once in a month for all the industries for calibration.

**VI. Random Checks:**

The ZO shall depute senior officers to carryout surprise inspections for verification and collection of samples to cross check the veracity of samples being collected by the teams.

- VII. National Institute of Oceanography (NIO)** shall be hired for monthly Coastal monitoring. The SOPs evaluated by the Board may be audited by a team consists of professor from Andhra University, Department of Oceanography and a representative from NIO, periodically to know the effectiveness of SOPs implementation. The JCEE, ZO: Visakhapatnam shall take necessary action in this regard.
- VIII.** Industries shall display the data of marine outfall i.e., quantity of treated effluent discharged through marine outfall, pH, suspended solids (SS) and COD values on a board installed beside the main gate.

The JCEE, ZO: Visakhapatnam shall maintain the photographs of existing ETPs, marine outfalls, Flow meters within the premises of the industries. Photographs of ETPs, marine outfalls, Flow meters shall be taken after completion of above mentioned modifications.

Any deviation from the above protocol will be viewed seriously. The JCEE, ZO: Visakhapatnam shall initiate necessary action in the matter against defaulting staff. The JCEE, ZO: Visakhapatnam is overall in charge for the above monitoring activity.

**Bandla Siva**  
**Sankar Prasad**

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**CHAIRMAN**

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>
JANUARY	02.01.2020	2020-01-M-015	GP-VI	7.68	25	156	1136	0.14	0.49	1.14
		2020-01-M-016	GP-VII	7.43	21	56	812	0.16	0.10	1.36
	08.01.2020	2020-01-M-046	GP-VIII	7.47	30	124	1156	0.09	0.30	0.77
		2020-01-M-047	GP-IV	7.50	24	112	1084	0.05	0.37	1.60
	18.01.2020	2020-01-M-117	GP-I	7.77	16	80	936	0.11	0.18	1.43
		2020-01-M-118	GP-II	7.72	34	116	920	0.09	0.27	0.72
	24.01.2020	2020-01-M-144	GP-VIII	7.99	49	120	1004	0.08	0.19	1.38
		2020-01-M-145	GP-V	7.65	29	96	636	0.10	0.29	1.42
	29.01.2020	2020-01-M-197	GP-IV	7.58	37	112	656	0.13	0.16	0.94
		2020-01-M-198	GP-VI	7.17	13	68	644	0.04	0.80	1.41
		<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>	
FEBRUARY	04.02.2020	2020-02-M-007	GP-II	7.20	32	100	1212	0.04	0.43	1.22	
		2020-02-M-008	GP-VIII	7.60	31	96	1128	0.09	0.68	1.39	
	10.02.2020	2020-02-M-050	GP-VI	7.27	18	68	1136	0.09	0.02	1.11	
		2020-02-M-051	GP-IV	7.75	30	84	1232	0.12	0.72	1.27	
	15.02.2020	2020-02-M-085	GP-I	7.56	10	76	1048	0.09	0.73	0.91	
		2020-02-M-086	GP-VIII	7.80	30	112	1236	0.11	1.04	1.50	
	22.02.2020	2020-02-M-144	GP-VI	7.99	29	96	1316	0.10	0.85	1.02	
		2020-02-M-145	GP-VII	7.79	20	108	1084	0.07	0.98	1.09	
	27.02.2020	2020-02-M-181	GP-III	7.67	15	48	948	0.10	1.00	1.07	
		2020-02-M-182	GP-V	7.35	17	200	1136	0.06	0.96	1.34	
			<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>
MARCH	04.03.2020	2020-03-M-004	GP-I	7.99	36	124	1244	0.01	0.52	0.98
		2020-03-M-005	GP-VI	8.01	37	116	1168	0.02	0.86	1.16
	10.03.2020	2020-03-M-056	GP-II	8.18	29	148	868	0.01	0.24	1.01
		2020-03-M-057	GP-V	6.48	52	76	1124	0.01	0.15	0.57
	16.03.2020	2020-03-M-090	GP-I	7.37	22	120	1152	0.05	0.04	1.15
		2020-03-M-091	GP-VIII	7.47	27	140	1336	0.01	BDL	0.87
	21.03.2020	2020-03-M-135	GP-II	7.79	18	48	1264	0.18	BDL	1.26
		2020-03-M-136	GP-IV	8.80	22	132	1084	0.09	0.42	1.42
	28.03.2020	2020-03-M-156	GP-I	8.05	49	68				
		2020-03-M-157	GP-II	7.99	72	120				
		2020-03-M-158	GP-IV	7.59	36	56				
		2020-03-M-159	GP-VII	7.99	66	120				
			<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>

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**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>
APRIL	03.04.2020	2020-04-M-168	GP-III	8.18	35	96				
		2020-04-M-169	GP-V	8.16	43	88				
		2020-04-M-170	GP-VI	7.38	45	104				
	13.04.2020	2020-04-M-186	GP-I	8.45	29	60				
		2020-04-M-187	GP-II	7.56	35	120				
		2020-04-M-188	GP-VII	7.53	11	72				
		2020-04-M-189	GP-VIII	7.56	18	144				
	20.04.2020	2020-03-M-200	GP-III	7.80	20	192				
		2020-03-M-201	GP-IV	7.94	27	176				
		2020-03-M-202	GP-VI	7.77	32	196				
	27.04.2020	2020-04-M-212	GP-I	7.75	18	120				
		2020-04-M-213	GP-V	8.33	20	88				
		2020-04-M-214	GP-VII	8.31	19	112				
		2020-04-M-215	GP-VIII	8.45	22	96				
		<b>Standard (mg/L)</b>			<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>
MAY	04.05.2020	2020-05-M-013	GP-II	7.81	58	192				
		2020-05-M-014	GP-III	8.15	48	144				
		2020-05-M-015	GP-IV	8.14	19	56				
		2020-05-M-016	GP-VI	8.23	49	184				
	11.05.2020	2020-05-M-021	GP-I	8.33	20	88				
		2020-05-M-022	GP-V	8.42	39	180				
		2020-05-M-023	GP-VII	8.45	19	84				
		2020-05-M-024	GP-VIII	7.53	36	112				
	18.05.2020	2020-05-M-039	GP-II	7.59	55	196				
		2020-05-M-040	GP-III	7.25	43	164				
		2020-05-M-041	GP-IV	7.79	40	192				
		2020-05-M-042	GP-VI	7.81	41	172				
	22.05.2020	2020-05-M-048	GP-I	7.33	34	136				
		2020-05-M-049	GP-V	7.64	40	296				
		Standard (mg/L)		5.5-9.0	100	250				
	26.05.2020	2020-05-M-062	GP-I	7.30	33.0	1232	132	0.05	BDL	0.76
		<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>	
JUNE	01.06.2020	2020-06-M-014	GP-VII	8.0	63.0	216	1208	0.05	0.03	0.63	
		2020-06-M-015	GP-VIII	7.8	48.0	124	856	0.01	0.01	0.54	
	08.06.2020	2020-06-M-045	GP-II	7.6	53.0	176	1156	0.12	0.04	0.61	
		2020-06-M-046	GP-III	7.5	47.0	184	7236	0.13	BDL	0.72	
	15.06.2020	2020-06-M-090	GP-I	7.5	19.0	124	988	0.04	0.01	0.63	
		2020-06-M-091	GP-VI	8.5	53.0	196	760	0.07	0.05	0.50	
	20.06.2020	2020-06-M-137	GP-IV	7.9	22.0	120	952	0.06	0.01	0.38	
		2020-06-M-138	GP-V	7.8	60.0	200	1188	0.04	0.04	0.56	
	27.06.2020	2020-06-M-173	GP-I	7.9	23.0	132	4984	0.05	BDL	0.18	
		2020-06-M-174	GP-VI	7.1	39.0	188	1180	0.04	0.02	0.59	
			<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> - N	F <sup>-</sup>	
JULY	06.07.2020	2020-07-M-015	GP-II	7.45	42	132	908	0.04	0.04	0.64	
		2020-07-M-016	GP-III	7.88	46	136	692	0.06	0.01	0.55	
	13.07.2020	2020-07-M-051	GP-VI	7.07	34	132	632	0.07	0.01	0.39	
		2020-07-M-052	GP-VII	7.49	22	134	920	0.05	BDL	0.40	
	18.07.2020	2020-07-M-108	GP-II	7.68	40	128	1072	0.05	0.05	0.09	
		2020-07-M-109	GP-III	7.62	40	120	1092	0.02	0.02	0.38	
	24.07.2020	2020-07-M-140	GP-VI	6.87	14	52	680	0.07	0.01	0.97	
		2020-07-M-141	GP-VIII	7.10	39	164	1532	0.10	0.04	0.73	
	29.07.2020	2020-07-M-188	GP-I	8.08	42	124	1180	0.08	0.04	0.81	
		2020-07-M-189	GP-II	8.39	78	172	1524	0.09	0.03	0.47	
		2020-07-M-190	GP-III	8.45	62	132	1068	0.10	0.03	0.79	
		2020-07-M-191	GP-IV	8.85	64	184	1392	0.09	0.03	0.35	
			<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

**M/S RAMKY PHARMA CITY (I) LTD., JNPC, PARAWADA, VISAKHAPATNAM**  
**Consolidated Statement of Analysis Data of Samples Collected in Guard Ponds (January to August 2020)**

Month	Date of Sampling	Sample No.	Sampling point	pH	TSS	COD	TDS	Phenolics	NH <sub>3</sub> -N	F <sup>-</sup>	
AUGUST	04.08.2020	2020-08-M-009	GP-V	7.83	45	200	1300	0.07	0.04	0.93	
		2020-08-M-010	GP-VI	7.86	31	216	1044	0.09	0.01	0.54	
		2020-08-M-011	GP-VII	8.32	12	188	876	0.14	0.02	0.45	
		2020-08-M-012	GP-VIII	7.19	32	244	1580	0.17	0.03	0.32	
	10.08.2020	2020-08-M-061	GP-I	7.35	38	100	728	0.13	0.07	0.85	
		2020-08-M-062	GP-II	7.50	25	84	772	0.13	0.04	0.67	
		2020-08-M-063	GP-III	7.72	35	124	916	0.14	0.03	0.62	
		2020-08-M-064	GP-IX	7.29	13	88	1152	0.06	0.03	0.94	
	17.08.2020	2020-08-M-104	GP-IV	8.48	73	120	1240	0.07	0.20	0.53	
		2020-08-M-105	GP-VI	8.32	38	92	876	0.04	0.01	0.31	
		2020-08-M-106	GP-VIII	8.62	77	88	1128	0.06	0.02	0.50	
		2020-08-M-107	GP-VII	8.16	13	48	1520	0.02	0.03	0.49	
	25.08.2020	2020-08-M-141	GP-I	7.18	21	84	1040	0.08	0.04	0.62	
		2020-08-M-142	GP-II	8.23	66	124	1254	0.12	0.02	0.79	
		2020-08-M-143	GP-III	8.80	65	120	1268	0.14	0.02	0.42	
		2020-08-M-144	GP-V	8.05	65	156	948	0.15	0.01	0.59	
		2020-08-M-145	GP-IX	8.63	19	100	1172	0.16	0.02	0.86	
	31.08.2020	2020-08-M-175	GP-VI	8.57	15	104	1124	0.09	0.02	0.92	
		2020-08-M-176	GP-VII	8.36	25	76	1048	0.11	0.09	0.81	
			<b>Standard (mg/L)</b>		<b>5.5-9.0</b>	<b>100</b>	<b>250</b>		<b>5</b>	<b>50</b>	<b>15</b>

## **5. SUMMARY & CONCLUSIONS**

1. These studies were undertaken to assess the health of the marine environment nearby the marine outfalls of different industries established in the areas between Pydibhimavaram and Nakkapalli of North Andhra Coast.
2. The water and sediment quality of the receiving marine environment was studied by collecting the samples at different MOP's as per MoEF guidelines and at a number of other stations located around the discharge point.
3. The study area from Pydibhimavaram to Nakkapalli was divided into three regions for assessment of the water Quality. The northern region consisted of marine outfalls of Andhra Organics Ltd and Aurobindo Pharma Limited, the central region consisted of Visakhapatnam harbour entrance and Visakhapatnam steel Plant and southern region consisted of NTPC and Ramky Pharma Ltd marine outfalls.
4. The data revealed that the water quality in terms of pH, DO & BOD at the marine outfalls during 2011 was within the ranges of baseline data obtained in 2001 of northern, 2006 for central and southern regions of Visakhapatnam. However, the concentrations of nutrients viz., Nitrate and Phosphate have shown substantial increase compared to baseline data. This may be due to the impact of anthropogenic inputs together with the industrial effluents and domestic sewage in all the three regions. The central zone in Visakhapatnam was also affected by flow of highly polluted harbour waters into the coastal environment.
5. The concentrations of petroleum hydrocarbons showed a marginal increment compared to baseline data in northern and central regions but were within the threshold limits of coastal waters.
6. It is concluded from the present results that the coastal waters studied are not affected by the discharge of industrial effluents through marine outfalls and the small changes

noticed may be due to the seasonal variations of chemical constituents caused through run off and other local activities.

7. The abundance of different bacterial population of the coastal waters at different periods was comparable and showed no significant change. However, the values recorded compared to that of in 1998 were significantly low in 2011. This could be due to better environmental conditions prevailing at the time of the present study.
8. A comparison of quantitative data of phytoplankton of earlier studies with the present set of data indicates that the coastal water of Andhra Pradesh is rich in phytoplankton diversity. Generally, the counts were high but within the reported range of coastal waters. The diversity and numerical counts showed spatial and temporal variability. The counts of earlier data were on the higher side as compared to the present data. This may be attributed to seasonal changes which is an important feature of biological community of the tropical coastal waters. The occurrence of large number of dinoflagellates including *Gonyaulax* needs more attention. The high cell counts in the near shore areas are attributed to enrichment of coastal waters.
9. The total counts of zooplankton were comparable with the base line data with little spatial and temporal variability. Such small variations could be attributed to seasonal changes in the occurrence of some of the taxa. At some locations the counts were consistently high at all times which may be due to reproduction and recruitment of some organisms. It is believed that the breeding of fishes and appearance of larvae in the coastal waters coincides with the peak occurrences and availability of food in the form of zooplankton in the area. These natural processes can be altered by anthropogenic activities and thus a major shift in the fisheries can be envisaged in those areas affected by human disturbances.
10. A comparison of quantitative data on benthos of the study area indicate that the macrofauna of the coastal areas of Andhra Pradesh remained rich in diversity and productive despite effluent discharges from many industries along the coast. Except those at the point of discharge where the fauna appeared to be reduced in density and

biomass, the other areas showed no significant variation when compared with earlier data. A significantly high density at some areas may be attributed to increase in some opportunistic species and their seasonal variation. This was true for both macro and meiofauna. The major and dominant taxa have not changed in the course of time. The polychaetes remained the most abundant group in macrofauna with maximum number of species in space and time. Similarly the nematodes remained the dominant taxa among the meiofauna. It may be concluded that coastal benthic ecology and ecosystem of Andhra Pradesh has not significantly changed due to anthropogenic activities and strong seasonality persist in the tropical coastal ecosystem.

11. Data of the exploratory trawling on demersal fishery resources collected from different areas (up to 40 m depth) had showed a variety of fishes. The trawling at 30m and 40m depth zones recorded different catches. Total catch was 40.5 kg at 30m depth and 55 kg at 40 m depth off Visakhapatnam. The catch composition showed the total dominance of silverbellies, ribbon fish, upenouids, *Nemipterus japonicus* and anchovy. It also had some commercially important groups like pomfrets, , lizard fish, flat fish, soles, cephalopods, prawns, Priacanthus etc). The area appears to be a rich fishing ground even though there is a general feeling among the fishermen and fishery officials that the fishery resources of Andhra Pradesh coast are going down.
12. From the toxicological studies it was noticed that the effluent samples of different industries viz. M/s. Matrix Laboratories Ltd., M/s. Visakhapatnam Steel Plant, CETP of M/s. Ramky Pharma City Ltd., M/s. Andhra Organics Ltd. and Visakhapatnam Steel Plant -Outlet No. 1 appear to be toxic and needs improvement in the treatment as per the standards of APPCB guidelines. It is also pertinent to investigate the chemical composition of the effluents to understand the toxicants other than those mentioned in the APPCB consent. Individual industries are required to conduct bioassay test to know the toxicity of effluent which would be useful for treating the same.
13. Eventhough the effluents from some of the industries appeared to be toxic, it did not play significant role in causing mass mortality in the coastal zone between

Pydibhimavaram and Nakkapalli of North Andhra, after their release. This might be due to faster dilution and dispersion of treated effluents in the coastal environment.

14. It is strongly recommended to have regular (atleast once a year) monitoring in the marine environment near outfall points. Further the bioassay tests or toxicological studies have to be conducted as part of environmental management policy by the individual industries and to be cross checked by the authentic agency, under the supervision of APPCB.

**Andhra Pradesh Pollution Control Board, Regional Office, Visakhapatnam conducted the following Awareness Programmes regarding Plastic waste Management.**

1. Sri Vibhuthi brothers cultural organization conducted an Awareness Campaign by the Sri V. Siva sankar Artist & team for a long week starting on 22.01.2018 to 31.01.2018. The Campaign slogan is "Ban on Plastic carry bags" through songs and drama as Street play & Kalajatha programs. The R.O, VSP spent an amount of Rs. 80,000/-. By this approach this campaign is reached to the public.
2. Sri venkteswara khalabrundam team conducted an Awareness Campaign for a period of 01.03.2018 to 10.03.2018 through songs and drama programs on "Ban on Plastic carry bags". The team performed ten programs. The R.O, VSP spent a total amount of Rs. 40,000/- for 10 programmes.
3. The R.O, VSP conducted a Green Rally for the World Earth Day on 15.04.2018 by the slogan "End Plastic Pollution". Sri G. Srujna, Joint collector & add. Dist magistrate was called as chief Guest for the event. The RO spent an amount of Rs. 1,82,100/-. During the rally distributed the Pamphlets and posters regarding the slogan. School children, NGOs, Various industries, Hospitals, Public were participated in the rally.
4. The R.O, VSP conducted a week long Awareness Program on the occasion of World Environmental Day on the theme "Beat Plastic Pollution" for period of 30.05.2018 to 05.06.2018 and spent an amount of Rs. 7,83,687/-. During the week the following programmes were conducted on day wise schedule:
  - 30.05.2018: Beach cleaning drive at Bheemunipatnam.
  - 31.05.2018: Clean up drive at Malkapuram.
  - 01.06.2018: Competitions conducted among school children at Public library.
  - 03.06.2018: Beach cleaning at rushikonda & awareness program in coordinaton with NGOs at R.K.Beach.
  - 04.06.2018: Beach cleaning drive at R.K.Beach & Plantation Programme.
  - 05.06.2018: Green Rally at R.K.Beach & distributed jute/cloth bags & programm organized.

School children, representatives from various industries, representatives of various clubs, NGOs & APPCB staff were attended the program.

5. APPCB organized a one day workshop on 02.08.2018 along with exhibition showing various new technologies involved in collection and reuse of plastic material. Sri Sidda Raghava Rao, MoEFS&T was invited as the chief guest along with other Head members from the reputed institutions & Board members. Later exhibition is followed by seminar by the officials and covered the following points:

- Plastic waste issues, strategies & tech. for its management.
- Environmental issues on plastic waste.
- De-centralized plastic & mixed waste management using a catalytic process.
- Success story of bobbilli municipality on preventing plastic waste.

At last, the official members interacted with stake holders of the plastic unit and suggested some measures. The amount spent on this occasion is Rs.9,98,022/-.

6. India Youth for Society (IYFS) a Volunteer organization in Visakhapatnam approached regional office for financial assistance to conduct Awareness Program along with Clean up drive & plantation under "Plastic Free Vizag-Phase-I" on dates 06.07.2019, 22.07.2019 & 27.07.2019. The R.O assisted the program by contributing Rs. 50,000/-

- 06.07.2019: Clean up drive at Beach road, Kailasagiri, Zoo, Red sand Hill & Bheemili.
- 22.07.2019: Awareness Program at Eco place leadership centre.
- 27.07.2019: Plantation at Bottavanipalem cheruvu.

During the events representatives of IYFS, NGOs, Students and Public participated and completed the tasks.

*Munisham*  
 Environmental Engineer (FAS)  
 A.P. Pollution Control Board  
 Regional Office, Visakhapatnam



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**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**ZONAL OFFICE :: VISAKHAPATNAM**  
39-33-20/4/1, Madhavadhara Vuda Colony, Visakhapatnam - 530018.  
Ph: 0891-2719380

**Lr No. 2011/APPCB/ZO- VSP/Comp./2019**

**Date: 05.08.2019**

**To**  
**The Commissioner,**  
**Greater Visakhapatnam Municipal Corporation,**  
**Visakhapatnam.**

**Sir,**

**Sub:** APPCB, ZO, VSP – Complaint given by Dr. Rajendra Singh, Founder Jal Biradiri regarding water & air pollution – Pollution of Megadrigedda reservoir due to discharge of sewage from Pendurthi area of GVMC – Provision of sewage treatment facilities to treat the domestic effluents generated in Pendurthi Town to avoid drinking water pollution in Meghadrigedda reservoir - Reg.

**Ref:** 1. Complaint given Dr. Rajendra Singh, Founder Jal Biradiri dated: 01.07.2019.  
2. Press item published in daily news paper "The Hindu" on 02.07.2019.

\* \* \*

Dr. Rajendra Singh, Founder Jal Biradiri vide reference 1<sup>st</sup> cited has given a complaint addressed to the Hon'ble Chief Minister of AP through the Collector, Vizianagaram regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District and pollution of Gosthani River & Megadrigedda reservoir.

APPCB officials inspected the Meghadrigedda reservoir & its catchment area. It was observed that the domestic sewage generated from the Pendurthi town is entering into the open drains leading to Meghadrigedda drain ultimately joining Meghadrigedda reservoir, which is one of the drinking water sources for Visakhapatnam City.

It is also observed that the open drains at Pendurthi town area are filled-up with domestic solid waste including plastic waste. Reddy cheruvu existing beside Pendurthi to Sabbavaram road in Pendurthi town is accumulated with domestic sewage including plastic bottles and the overflow of reddy cheruvu enters into Meghadrigedda drain and ultimately joins into Meghadrigedda reservoir.

The analysis reports of the samples collected from the drains and Meghadrigedda reservoir is enclosed. The photographs depicting the situation in various drains in the area enclosed for information & ready reference.

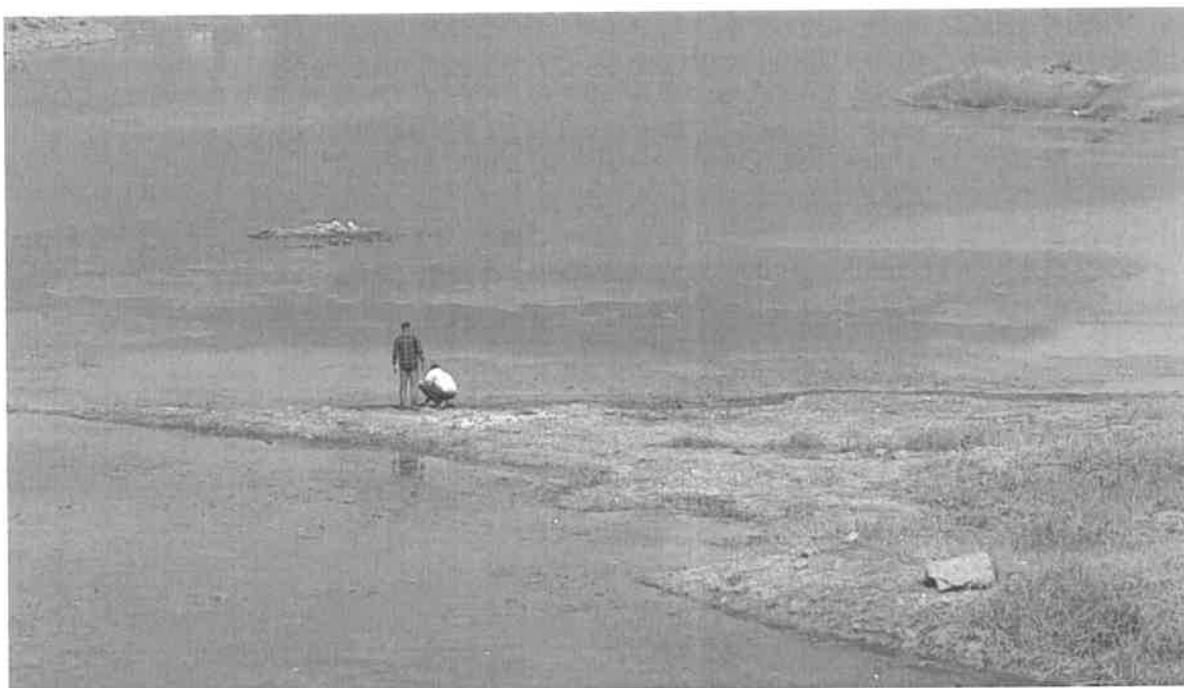
It is informed that the Hon'ble NGT is reviewing the status of treatment of sewage and provision of STPs by the urban local bodies and hence it is requested to initiate immediate action for provision of sewage treatment system facilities to treat the sewage generated from Pendurthi town before entering into open drains leading to Meghadrigedda to avoid pollution of drinking water in Meghadrigedda Reservoir.

Yours faithfully,  
**Rajendra Reddy**  
Thuraka  
**JOINT CHIEF ENVIRONMENTAL ENGINEER**

Digitally signed by Rajendra  
Reddy Thuraka  
Date: 2019.08.05 18:10:53  
+05'30'



Meghadrigedda Reservoir



Waster & sediment sample collection in Meghadrigedda Reservoir



Municipal Solid waste floating on reservoir water



Meghadrigedda widening works observed at Culvert Vepagunta – Sabbavaram road



**Borramma gedda at Chintala Agraharam**



**Borrammagedda**



Domestic water from JNURM colony at Pragathi nagar joins drain which ultimately joins into Meghadrigedda



Drain at pendurthi ultimately joins into Meghadrigedda



**Drain At Masjid in pendurthi town ultimately joins into Meghadrigedda**





Reddy Cheruvu overflow joins into Meghadrigedda





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**Order No. 487/APP/UB/UH-II/TF/VJA/2020-**

**Date: 10/01/2020.**

**DIRECTIONS**

**Sub:** APPCB – UH-II - TF - M/s. Jindal Stainless (Hisar) Limited, Jindal Nagar, Kothavalasa Village & Mandal, Vizianagaram District – Complaints received against the industry - Non-Compliance of Consent order conditions and Board's directions – Legal Hearing held on 06.11.2019 – **DIRECTIONS** – Issued - Reg.

- Ref:**
1. CFO&HWA Order No.APPCB/VSP/VZN/112/CFO/HO/2015-930, dt. 27.05.2015.
  2. Amendment of CFO&HWA Order No.APPCB/VSP/VZN/112/CFO/HO/2015-930, dt.25.02.2016.
  3. Auto Renewal of CFO order dated 29.09.2017 valid upto 30.09.2022.
  4. Complaint given by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 to Hon'CM through District Collector, Vizianagaram.
  5. Inspection of the ZO officials on 19.07.2019.
  6. Show cause notice issued to the industry dated 05.08.2019.
  7. External Advisory Committee (Task Force) Meeting held on 06.11.2019.

dc

**WHEREAS** you are operating Ferro Alloys manufacturing industry in the name and style of M/s. Jindal Stainless (Hisar) Limited at Jindal Nagar, Kothavalasa Village & Mandal, Vizianagaram District.

**WHEREAS** the Board vide reference 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> cited, issued Consent for Operation and Hazardous Waste Authorization to the industry validity upto 30.09.2022 for manufacturing of High Carbon Ferro Chrome – 95 TPD (70 MTD directly from the furnaces and 25 MTD from metal recovery plant).

**WHEREAS** The Board vide reference 4<sup>th</sup> cited, received a complaint through the District Collector Vizianagaram, by Dr. Rajendra Singh, Founder Jal Biradiri to Hon'ble Chief Minister of AP regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District.

**WHEREAS** vide reference 5<sup>th</sup> cited, the Board officials from ZO, Zonal Lab & RO, Visakhapatnam inspected the industry on 19.07.2019 and observed the following:

1. Appannapalem village is existing towards Northern side of the industry at a distance of 2 km.
2. The industry is meeting the water requirement from the Thatipudi Reservoir supplied by the GVMC.
3. The industry is recycling the water used in the jigging plant and process cooling to the maximum extent possible. The remaining is being utilized for plantation and for dust suppression. The circulation water pond capacity for the furnace is 300 KL and the jigging plant water pond capacity is 500 KL.
4. The Storm water drains of the industry are connected to a main drain which is passing through a culvert finally joining to Nimmalapalem cheruvu which is located towards South-West direction of the industry. It was observed that the drains in the industry, main drain leading to cheruvu and Nimmalapalem cheruvu are in dry condition.
5. The Nimmalapalem cheruvu falls under the catchment area of Meghadrigedda reservoir. It was learnt from the local villagers that there was no overflow observed from the Nimmalapalem cheruvu since long time.
6. Another cheruvu by name Maridamma cheruvu was observed to be located towards North-East direction of the industry which was also in dry condition. This cheruvu falls under the catchment area of Gosthani river. During heavy rains, the runoff from the Ferro chrome slag stacked in the industry premises towards North-East direction may lead to Maridamma

cheruvu.

7. The industry is having two CAAQM stations located at pump house (towards southern direction) & at garage (towards northern direction) monitored for the parameters PM10 & PM2.5. It was observed that CAAQM station at garage is not working and the values of PM10 & PM2.5 at pump house station are noted to be 6.3 & 2.6 µg/m<sup>3</sup> respectively.
8. The industry is stocking the various raw materials and products viz., Quartz, wood chips, coke, MRP slag, slag openly in the premises. As it was drizzling during inspection no fugitive emissions were observed from the open stacks.
9. The industry is storing Ferro chrome slag, MRP slag, Quartz, Coke openly within the industry premises.
10. The Nimmalapalem cheruvu falls under the catchment area of Meghadrigedda reservoir. It was learnt from the local villagers that there was no overflow from the Nimmalapalem cheruvu observed since long time.
11. Another cheruvu by name Maridamma cheruvu falls under the catchment area of Gosthani river. During the heavy rains, the runoff from the slag dumped in the industry premises towards North-East direction may lead to Maridamma cheruvu.
12. The values of PM10 & PM2.5 of CAAQM station at garage are being displayed in the data logger even though the station is not functioning.

**WHEREAS** the Board vide reference 6<sup>th</sup> cited, The JCEE, ZO, Visakhapatnam issued showcause notice to the industry on 05.08.2019 in connection with Complaint filed by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 regarding Water & Air pollution from the industries located at Lakavarapukota, Vizianagaram District and Pollution of Gosthani River & Megadrigedda Reservoir.

**WHEREAS** legal hearing was conducted before the External Advisory Committee (Task Force) of A.P. Pollution Control Board in its meeting held on 06.11.2019. The representative of the industry attended the legal hearing and submitted representation on the status of the non compliances reported in the agenda.

The Committee, after detailed discussions, recommended to issue **directions**. The Board hereby issues the following directions under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987:

1. The industry shall submit a bank guarantee of Rs.4.0 Lakhs within 15 days, valid upto February, 2021.
2. The industry shall provide garland drains along the boundary of the industry within 3 months, to ensure that the dust carried in the storm water runoff is contained in the drains.
3. The industry shall not store the slag outside the industry premises. The industry shall not store the raw material and finished products in open.
4. The industry shall obtain necessary permissions from the Ground water department and other dept as required under APWALTA Act. The industry shall carryout the monitoring of ground water within 2 months.
5. The industry has to provide water meters for the borewells for quantification of water consumption within one month.
6. The industry shall restrict the water consumption to the consented capacity.
7. The industry shall maintain the water sprinklers properly along the roads to control the fugitive emissions.
8. The industry shall maintain rain water harvesting structures within plant site.
9. The industry shall not discharge any waste water outside the industry premises.
10. The industry shall maintain the Air Pollution Control Equipment regularly and maintain the log registers.
11. The industry shall operate the control equipment provided at the metal recovery plant.
12. The industry shall maintain the records of the quantity of the solid waste generated and disposed.
13. The industry shall ensure regular maintenance and operation of the online system with tamper proof mechanism.
14. The industry shall calibrate within one month the online stack monitoring equipment with credible parties in the presence of APPCB officials.(probably empanelled with MoEF &CC.
15. The analyser/ systems installed for particulate matter monitoring shall be calibrated by performing manual isokinetic sampling carried out through either BSEN 13284-1, IS:

11255 Part 1 (Particulate Matter) or EPA method 17 or EPA method 5 or BS ISO 9096:2003(As per the CPCB guidelines).

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16. The sampling location for the analyser must be in accordance with the CPCB prescribed guidelines.

17. The industry shall develop greenbelt in 33% of the total area.

You are hereby directed to note that, should you violate any of the directions mentioned above, your unit will be closed under Sec. 33(A) of the Water (Prevention & Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention and Control of Pollution) Amendment Act, 1987 without any further notice, in the interest of Public Health and Environment.

***This Order comes into effect from today i.e. 10.01.2020***

Sd/-

**MEMBER SECRETARY**

To  
M/s. Jindal Stainless (Hisar)  
Limited, Jindal Nagar,  
Kothavalasa Village & Mandal,  
Vizianagaram District.

Copy to:

1. The Joint Chief Environmental Engineer, Zonal Office, Visakhapatnam for information and necessary action.
2. The Environmental Engineer, Regional Office, Vizianagaram for information and necessary action.

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

  
JOINT CHIEF ENVIRONMENTAL ENGINEER  
UH-II



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**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
D.No.33-26-14, D/2, Near Sunrise Hospital, Pushpa Hotel Centre,  
Chalamalavari street, Kasturibalpet, Vijayawada – 520 010

Phone:0866-2463200.  
Grams : Kalusya Nivarana  
Website :www.appcb.ap.nic.in

**Reqd. Post With Ack Due**

**Order No. 487/APP/CB/UH-II/TF/VJA/2019-1755**

**Dt.09.01.2020.**

**DIRECTIONS**

**Sub: APPCB – UH-II – TF – M/s.Maa Mahamaya Industries Ltd., Relligawarammapeta Village, L.Kota Mandal, Vizianagaram – Complaints received against the industry - Non- Compliance of Consent order conditions and Board's directions – Legal Hearing held on 06.11.2019 – DIRECTIONS – Issued - Reg.**

**Ref:**

1. CFO&HWA Order No.APPCB/VSP/VZN/232/CFO/HO/2014, dt.04.12.2014.
2. Auto Renewal of CFO order dated 07.03.2017 valid upto 31.03.2022.
3. Complaint given by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 to Hon'CM through District Collector, Vizianagaram. Inspection of the ZO officials on 19.07.2019.
5. Show cause notice issued to the industry dated 05.08.2019.
6. Minutes of External Advisory Committee (Task Force) Meeting held on 06.11.2019

10.01.2020  
**DESPATCHED**

O/C

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**WHEREAS** you are operating the Sponge Iron manufacturing industry in the name and style of M/s.Maa Mahamaya Industries Ltd., at Relligawarammapeta Village, L.Kota Mandal, Vizianagaram District.

**WHEREAS** the Board vide reference 1<sup>st</sup> & 2<sup>nd</sup> cited, issued Consent for Operation and Hazardous Waste Authorization to the industry on 07.03.2017 of Sponge Iron (DRI) – 350 TPD, Billets – 373 TPD, Bars & Rods – 333 TPD and Captive Power (Electricity) – 20 MW, which is validity period upto 31.03.2022.

**WHEREAS** vide reference 3<sup>rd</sup> cited, The Board received a complaint through the District Collector Vizianagaram submitted by Dr. Rajendra Singh, Founder Jal Biradiri to Hon'ble Chief Minister of AP regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District.

**WHEREAS** vide reference 4<sup>th</sup> cited, officials of ZO, Zonal Lab & RO, Visakhapatnam inspected the industry on 19.07.2019 and observed the following:

1. R.G.Peta village is existing almost adjacent to the industry towards north east direction. The inspection team contacted the complainant Mr. Rama Rao & others and inspected the surroundings of the industry.
2. The industry is collecting all the blow downs of cooling tower, boiler, DM plant back wash & service water in a concrete tank and is reusing the water in DRI plant & continuous casting. The remaining is being utilized for plantation and for dust suppression.
3. Water sample from the concrete collection tank is collected and Bore well sample in the industry premises is also collected.
4. The Storm water drains of the industry are connected to the concrete collection tank from which the water is being recycled and reused. It was observed that a drain was passing adjacent to the compound wall of the industry leading to Kunam cheruvu at R.G.peta village. It was learned from the villagers that in case of heavy rains the overflow of Kunam cheruvu will flow to Kotha cheruvu followed by Pedda gedda followed by Voota gedda finally joining the Gosthani river. It was also observed that another drain from within the industry premises leading to Naduvu cheruvu which is used for irrigation. The villagers informed that the overflow of Naduvu cheruvu will also

- joins Kotha cheruvu.
5. Kunam cheruvu and Naduvu cheruvu are adjacent to the industry and R.G Peta village. The Kunam cheruvu and Naduvu cheruvu falls under the catchment area of Gosthani River. It was observed that the Kunam cheruvu and Naduvu cheruvu are in almost dry condition. These tanks falls under the catchment area of Gosthani river. An open well is existing at R.G.Peta adjacent to Kunam cheruvu and a sample was collected.
  6. The industry is operating DRI plant, SMS plant & Rolling mill. The industry has provided online SPM analyser for both the stack, but are not presently connected to the APPCB website.
  7. The stack monitoring to stack attached to waste heat recovery boiler was not conducted as the monkey ladder was obstructed by crow nests. The industry was instructed to clear the passage and inform the Board to carry out the monitoring.
  8. The industry has not provided CAAQM stations within the premises.
  9. The industry is stocking the various raw materials and products viz., Quartz, wood chips, coke, MRP slag, slag openly in the premises. As it was drizzling during inspection no fugitive emissions were observed from the open stacks.
  10. Thick plume was observed from the stacks attached to the boilers.
  11. All the raw material, product & waste samples were collected and Sediment samples from Kunam cheruvu and Naduvu cheruvu were collected.
  12. Coal/iron ore deposition was observed on the roof tops of houses in the village. The dust sample was collected.
  13. Huge quantity of slag is observed to be stacked adjacent to the Naduvu cheruvu.
  14. There is every chance of the runoff water being joining the Naduvu cheruvu.

**WHEREAS** vide reference 5<sup>th</sup> cited, The JCEE, ZO, Visakhapatnam issued showcause notice to the industry on 05.08.2019 in connection with Complaint filed by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 regarding Water & Air pollution from the industries located at Lakavarapukota, Vizianagaram District and Pollution of Gosthani River & Megadriggedda Reservoir.

**WHEREAS** legal hearing was conducted before the External Advisory Committee (Task Force) of A.P. Pollution Control Board in its meeting held on 06.11.2019. The representative of the industry attended the legal hearing and submitted representation on the status of the non compliances reported in the agenda.

The Committee, after detailed discussions, recommended to issue **directions**. The Board hereby issues the following directions under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987:

1. The industry shall submit a bank guarantee within 15 days for an amount of Rs.32.0 Lakhs valid upto February, 2021.
2. The industry shall not dump/store any solid waste /raw material outside the industry premises.
3. The industry shall provide garland drains within 3 months along the boundary of the industry to ensure that the dust carried in the storm water runoff is contained in the drains .
4. The industry shall also make garland drains within 3 months around the solid waste dumps to contain the same in the area, to prevent the storm water runoff contamination.
5. The industry shall construct the compound wall and storm water drains within 3 months, shall ensure no contaminated storm water discharges outside the industry premises.
6. The industry shall obtain necessary permissions from the Ground water department and other dept as required under APWALTA Act. The industry shall carryout the monitoring of ground water within 2 months.
7. The industry has to provide water meters for the borewells for quantification of water consumption within one month.
8. The industry shall restrict the water consumption to the consented capacity.
9. The industry shall maintain the water sprinklers properly along the roads to control the fugitive missions.
10. The industry shall maintain the records of details of quantity of dolochar generated, utilized in FBC boilers and disposal details, solid waste generated from the process and its disposal, records of APC operation.
11. The industry shall install the CAAQM stations as per the CFO order within 2 months.
12. The industry shall maintain rain water harvesting structures within plant site.
13. The industry shall ensure regular maintenance and operation of the online system with tamper proof mechanism.

14. The industry shall calibrate the online stack monitoring equipment within one month with credible parties in the presence of APPCB officials. (Probably agencies empanelled with MoEF&CC)
15. The sampling location for the analyzer must be in accordance with the CPCB prescribed guidelines.
16. The analyzer/ systems installed for particulate matter monitoring shall be calibrated by performing manual isokinetic sampling carried out through either BSEN 13284-1, IS: 11255 Part 1 (Particulate Matter) or EPA method 17 or EPA method 5 or BS ISO 9096:2003. (As per the CPCB guidelines).

You are hereby directed to note that, should you violate any of the directing mentioned above, your unit will be closed under Sec. 33(A) of the Water (Prevention & Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention and Control of Pollution) Amendment Act, 1987 without any further notice, in the interest of Public Health and Environment.

***This Order comes into effect from today i.e. 20.01.2019.***

**Sd/-  
MEMBER SECRETARY**

**To  
M/s.Maa Mahamaya Industries Ltd.,  
Relligawarammapeta Village,  
L.Kota Mandal,  
Vizianagaram.**

**Copy to:**

1. The Joint Chief Environmental Engineer, Zonal Office, Visakhapatnam for information and necessary action.
2. The Environmental Engineer, Regional Office, Vizianagaram for information and necessary action.

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

  
**JOINT CHIEF ENVIRONMENTAL ENGINEER  
UH-II**



**Regd. Post With Ack Due**

**Order No. 487/APPCB/UH-II/TF/VZN/2020- 1262**

**Dt.09.01.2020.**

**DIRECTIONS**

- Sub:** APPCB – UH-II - TF - M/s. Steel Exchange India Limited, Malliveedu & Sreerampuram (V), L. Kota (M), Vizianagaram District – Complaints received against the industry - Non-Compliance of Consent order conditions and Board's directions – Legal Hearing held on 06.11.2019 – **DIRECTIONS** – Issued - Reg.
- Ref:**
1. CFO&HWA Order No.APPCB/VSP/VZM/35/HO/CFO/2017, dt.11.05.2017 valid upto 30.11.2019.
  2. Complaint given by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 to Hon'CM through District Collector, Vizianagaram.
  3. Inspection of the ZO officials on 19.07.2019.
  4. Show cause notice issued to the industry dated 05.08.2019.
  5. External Advisory Committee (Task Force) Meeting held on 06.11.2019.

\*\*\*  
**WHEREAS** you are operating the Sponge Iron and Re-rolling industry in the name and style of M/s. Steel Exchange India Limited at Malliveedu & Sreerampuram (V), L. Kota (M), Vizianagaram District.

**WHEREAS** the Board vide reference 1<sup>st</sup> cited, issued Consent for Operation and Hazardous Waste Authorization order dated 11.05.2017 validity upto 30.11.2019 duly stipulating necessary conditions and standards for the manufacture of Rolling Products – 2,50,000 TPA, Steel Billets - 2,50,000 TPA, Sponge Iron – 2,20,000 TPA, Producer Gas - 15,000 M<sup>3</sup>/Hr & Captive Power Generation (WHRB: 16 \* MW + FBC: 44 MW) – 60 MW.

**WHEREAS** The Board vide reference 2<sup>nd</sup> cited, received a complaint through the District Collector Vizianagaram by Dr. Rajendra Singh, Founder Jal Biradiri to Hon'ble Chief Minister of AP regarding water & air pollution from the industries located at Lakavarapukota, Vizianagaram District.

**WHEREAS** vide reference 3<sup>rd</sup> cited, the Board officials from ZO, Zonal Lab & RO, Visakhapatnam inspected the industry on 19.07.2019 and observed the following:

1. The residents of Kothapalem viz., Sri. D.Varahalu, A.Durga Rao and others were enquired and they accompanied the officials showing the water tanks and affected areas outside the premises. They informed that they are facing severe air/water/soil pollution problems due to operation of the industry. It was observed that the industry is discharging wastewater into the drain near the rolling mill which would lead its way to Pydamma cheruvu of Kothapalem village.
2. It was observed that there are around 6 tanks viz., Pydamma Cheruvu, Nalla cheruvu in Kothapalem village, Nakkalagattu Cheruvu, Chavitivani Cheruvu, Vura Cheruvu & Pullayya Panthulu Cheruvu in Malliveedu village surrounding the industry. All the tanks are in dry condition except Pydamma cheruvu. The dry tanks are covered partly with natural vegetation. The soil sample was collected from Pydamma cheruvu of Kothapalem village.
3. It was observed that some of the storm water drains in case of overflow would find way into Nalla cheruvu & Pydamma cheruvu of Kothapalem Village. The industry has excavated an earthen pond besides the entrance gate of the premises in an area of about 1.5 Acres with 4 mts depth into which the remaining storm water drains would join. The Soil Sample was collected from the storm water pond located in the industry premises.
4. It was observed that huge quantities of solid waste generated from various sections and raw materials were stored forming heaps from which fugitive dust emissions into atmosphere was observed. The samples of Kiln Ash, Fly Ash, Iron Ore fine, coal & Iron ore, Ferro shots, Iron Ore lumps, Dolomite, Slag & Mill scale were collected.

10.01.2020  
DESPATCHED  
JMS

5. The stack monitoring to stack attached to Rotary Kiln-II was not conducted as there were honey combs on the chimney. The industry was instructed to clear the honey combs and inform the Board to carry out the monitoring.
6. The industry has provided OCEMS for all the 5 stacks. The Kiln-I is not in operation, on enquiry it was informed that the kiln is not in operation from 22/06/2019.
7. The industry has installed only two CAAQM stations and both are functional.

**WHEREAS** vide reference 4<sup>th</sup> cited, The JCEE, ZO, Visakhapatnam issued showcause notice to the industry on 05.08.2019 in connection with Complaint filed by Dr. Rajendra Singh, Founder Jal Biradiri dated 01.07.2019 regarding Water & Air pollution from the industries located at Lakavarapukota, Vizianagaram District and Pollution of Gosthani River & Megadrigedda Reservoir.

**WHEREAS** legal hearing was conducted before the External Advisory Committee (Task Force) of A.P. Pollution Control Board in its meeting held on 06.11.2019. The representative of the industry attended the legal hearing and submitted representation on the status of the non compliances reported in the agenda.

The Committee, after detailed discussions, recommended to issue **directions**. The Board hereby issues the following directions under Sec.33 (A) of Water (Prevention and Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention & Control of Pollution) Amendment Act, 1987:

1. The industry shall submit a bank guarantee within 15 days, for an amount of Rs.64.0 Lakhs valid upto February, 2021.
2. The industry shall provide garland drains within 3 months along the boundary of the industry to ensure that the dust carried in the storm water runoff is contained in the drains.
3. The industry shall ensure that no waste water is discharged outside the industry premises.
4. The industry shall restrict the water consumption to the consented capacity.
5. The industry shall construct the STP within 3 months.
6. The industry shall store the raw material in shed.
7. The industry shall maintain the records of the details of activation recorder for emergency vent of the burner chamber.
8. The industry shall maintain the water sprinkling system properly along the internal roads and at the raw material handling area.
9. The industry shall install 2 CAAQM stations as stipulated in the CFO order. The industry shall calibrate the CAAQM station as per the guidelines of the CPCB.
10. The industry shall ensure that there is no discharge of waste water from the industry to the drain leading to Pydamma Cheruvu of Kothapalem village.
11. The iron ore and coal fines shall be stored in closed sheds.
12. The industry shall provide sprinklers at all the salient points within one month.
13. The industry shall operate the bag filter at all the transfer points to control the fugitive emissions.
14. The industry shall maintain rain water harvesting structures within plant site.
15. The industry shall maintain the Air Pollution Control Equipment regularly and maintain the log registers
16. The industry shall ensure regular maintenance and operation of the online system with tamper proof mechanism.
17. The industry shall calibrate the online stack monitoring equipment within one month with credible parties in the presence of APPCB officials.(probably empanelled with MoEF &CC)
18. The analyzer/ systems installed for particulate matter monitoring shall be calibrated by performing manual isokinetic sampling carried out through either BSEN 13284-1, IS: 11255 Part 1 (Particulate Matter) or EPA method 17 or EPA method 5 or BS ISO 9096:2003.(As per the CPCB guidelines).
19. The sampling location for the analyzer must be in accordance with the CPCB prescribed guidelines.
20. The industry shall develop greenbelt in 33% of the total area

You are hereby directed to note that, should you violate any of the directing mentioned above, your unit will be closed under Sec. 33(A) of the Water (Prevention & Control of Pollution) Amendment Act, 1988 and under Sec.31 (A) of Air (Prevention and Control of Pollution) Amendment Act, 1987 without any further notice, in the interest of Public Health and Environment.

**This Order comes into effect from today i.e.09.01.2020.**

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**Sd/-  
MEMBER SECRETARY**

**To  
M/s. Steel Exchange India Limited,  
Malliveedu & Sreerampuram (V),  
L. Kota (M), Vizianagaram District. -535 161**

**Copy to:**

1. The Joint Chief Environmental Engineer, Zonal Office, Visakhapatnam for information and necessary action.
2. The Environmental Engineer, Regional Office, Vizianagaram for information and necessary action.

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

**JOINT CHIEF ENVIRONMENTAL ENGINEER  
UH-II**

9/c



**ANDHRA PRADESH POLLUTION CONTROL BOARD**  
**ZONAL LABORATORY, VISAKHAPATNAM**

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony  
Visakhapatnam – 530 018.

P.SOM SUNDAR ,M.Sc  
Senior Environmental Scientist

Ph: 2719480/380/481 Fax: 2719480

**ANALYSIS REPORT**

Sample No. : 2019 – 07 – W – 222 & 223

Sample location/Address : Sample collected around of M/s Steel Exchange India Ltd.,  
Shreerampuram (V), L.Kota (M),  
Vizianagaram District.

Sample Source : 2019 – 07 – W – 222: Bore well sample collected near Anganawadi School,  
Kothapalem (V), L.Kota (M)  
2019 – 07 – W – 223: Open well sample collected near Ratcha Banda,  
Kothapalem (V), L.Kota (M)

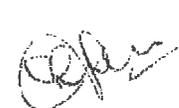
Sample collected on : 18.07.2019

Sample submitted on : 19.07.2019

Sample collected by : Assistant Environmental Engineer, Zonal Office, Visakhapatnam  
& Analyst Gr.I, Zonal Laboratory, Visakhapatnam

Sl. No.	Parameters	2019-07 W-222	2019-07 W-223	Drinking Water Specification: IS: 10500: 2012 Requirement (Acceptable Limit)
1.	pH	7.60	7.46	6.5-8.5
2.	Conductivity ( $\mu\text{s}/\text{cm}$ )	557	1678	--
3.	Total Dissolved Solids at 105 <sup>o</sup> C	420	1276	500 mg/L
4.	Dissolved Oxygen	2.5	1.5	--
5.	Chemical Oxygen Demand	BDL	12	--
6.	Biochemical Oxygen Demand	BDL	1.0	--
7.	Chlorides as $\text{Cl}^-$	54	274	250 mg/L
8.	Total Hardness as $\text{CaCO}_3$	200	600	200 mg/L
9.	Total Alkalinity as $\text{CaCO}_3$	200	468	--
10.	Phosphates as $\text{PO}_4^{3-}$	0.03	0.27	--
11.	Sulphates as $\text{SO}_4^{2-}$	36.40	78.68	200 mg/L
12.	Fluorides as $\text{F}^-$	BDL	0.69	1.0 mg/L
13.	Ammonical Nitrogen as $\text{NH}_3\text{-N}$	0.03	0.03	--
14.	Nitrates as $\text{NO}_3$	1.06	1.81	45 mg/L
15.	Nitrite Nitrogen as $\text{NO}_2\text{-N}$	0.08	0.16	--
16.	Calcium as $\text{Ca}^{+2}$	48	160	75 mg/L
17.	Magnesium as $\text{Mg}^{+2}$	19.44	48.6	30 mg/L
18.	Copper as Cu	ND	ND	0.05 mg/L
19.	Iron as Fe	ND	0.005	0.3 mg/L
20.	Cadmium as Cd	ND	ND	0.003 mg/L
21.	Lead as Pb	ND	ND	0.05 mg/L
22.	Zinc as Zn	ND	ND	5.0 mg/L
23.	Chromium as Cr	ND	ND	0.05 mg/L
24.	Manganese as Mn	ND	ND	0.1 mg/L
25.	Nickel as Ni	ND	ND	0.02 mg/L

Note: - All values are expressed in mg/l except pH  
BDL: Below Detectable Limit,

  
SENIOR ENVIRONMENTAL SCIENTIST



ANDHRA PRADESH POLLUTION CONTROL BOARD  
ZONAL LABORATORY, VISAKHAPATNAM

D.No.39-33-20/4/1, Behind RTA Office, Madhavadhara VUDA Colony  
Visakhapatnam – 530 018.

P.SOM SUNDAR ,M.Sc  
Senior Environmental Scientist

Ph: 2719480/380/481 Fax: 2719480

**ANALYSIS REPORT**

Sample No. : 2019 – 07 – W – 224

Sample location/Address : Sample collected around of M/s Steel Exchange India Ltd.,  
Shreerampuram (V), L.Kota (M),  
Vizianagaram District.

Sample Source : 2019 – 07 – W – 224: Sample collected from Pydamma Cheruvu,  
Kothapalem (V)

Sample collected on : 18.07.2019

Sample submitted on : 19.07.2019

Sample collected by : Assistant Environmental Engineer, Zonal Office, Visakhapatnam  
& Analyst Gr.I, Zonal Laboratory, Visakhapatnam

Sl. No.	Parameters	Values	Inland Surface Water Standards
1.	pH	7.58	5.5-9.0
2.	Conductivity ( $\mu\text{s}/\text{cm}$ )	1333	
3.	Total Suspended Solids at 105°C	32	100 mg/l
4.	Total Dissolved Solids at 105°C	1008	--
5.	Dissolved Oxygen	1.5	--
6.	Chemical Oxygen Demand	40	250 mg/l
7.	Biochemical Oxygen Demand	6.0	30 mg/l
8.	Chlorides (as Cl <sup>-</sup> )	127	--
9.	Total Hardness as CaCO <sub>3</sub>	440	--
10.	Total Alkalinity as Ca CO <sub>3</sub>	120	--
11.	Phosphate (as P)	0.06	5.0 mg/l
12.	Sulphates as SO <sub>4</sub> <sup>2-</sup>	220	--
13.	Fluoride (as F <sup>-</sup> )	0.99	2.0 mg/l
14.	Ammonical Nitrogen (as NH <sub>3</sub> -N)	0.01	50 mg/l
15.	Nitrates Nitrogen (as NO <sub>3</sub> -N)	10.80	10 mg/l
16.	Nitrite Nitrogen as NO <sub>2</sub> -N	6.9	--
17.	Calcium as Ca <sup>+2</sup>	104	--
18.	Magnesium as Mg <sup>+2</sup>	43.74	--
19.	Lead (as Pb)	ND	0.1 mg/l
20.	Cadmium (as Cd)	ND	2.0 mg/l
21.	Total Chromium (as Cr)	ND	2.0 mg/l
22.	Copper (as Cu)	ND	3.0 mg/l
23.	Zinc (as Zn)	ND	5.0 mg/l
24.	Nickel (as N)	ND	3.0 mg/l
25.	Iron (as Fe)	0.032	3.0 mg/l

Note: - All values are expressed in mg/l except pH

  
SENIOR ENVIRONMENTAL SCIENTIST

From  
Dr. P. Srinivasa Rao M.Sc., Ph.D.,  
Fisheries Development Officer  
Bheemunipatnam

To  
The Joint Director of Fisheries  
Visakhapatnam

Lr. No. Spl/2020 Date 19.08.2020

Sir,

Sub: Fisheries –Dead fish lying on the shore from Sagar nagar to Rushikonda - Report on Mass mortality of fish - Submission – Reg.

\*\*\*

I submit that dead fish were found at sea shore stretch from Sagar Nagar beach to Rushikonda on 18.08.2020 . The dead fish had been identified as Silver bellies (Local name: Karalu).

Further the reason for fish mass mortality might be due to stress conditions aroused as result of last three days continuous rain fall lead to declinity in sea surface temperatue and DO.

This is submitted for favour of kind information

Yours faithfully

  
Fisheries Development Officer  
Bheemunipatnam

Copy submitted to the Asst. Director of Fisheries, Vsp  
For favour of kind information