

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI

Miscellaneous Application No.38/2023

IN

Original Application No.196/2022

Hariom Gupta

.... Applicant

Versus

Nagar Palika Parishad, Loni & others

..... Respondent

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Respondent

*Neeraj Kumar*

(Counsel for the Respondent)

Neeraj Kumar

Enrol. No.- D/2106/2005

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Connaught Place Delhi 110001

Email- [Neeraj.enfin@gmail.com](mailto:Neeraj.enfin@gmail.com)

Mob: 9313127275

Place: Delhi

Date:11.11.2024

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI

Miscellaneous Application No.38/2023

IN

Original Application No.196/2022

Hariom Gupta

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Nagar Palika Parishad, Loni & others

..... Respondent

**Additional Reply filed on behalf of the Respondent No.11**

Most Respectfully Showeth:

The answering Respondent No. 11 viz., M/s. VA TECH WABAG LIMITED, having its registered office at WABAG HOUSE, No. 17, 200 Feet Thoraipakkam - Pallavaram Main Road, Sunnambu Kolathur, 600 117 Chennai, Tamil Nadu is represented by its duly authorized signatory Mr. Sunil Kumar Singh, S/o., Yogendra Prashad Singh aged about 51 years, working as Additional General Manager, having project office at 56 MLD Sewage Treatment Plant, Shakthi Khand-4, Indirapuram, Ghaziabad, U.P 201014.

1. It is respectfully submitted that this Additional Reply is being filed by Respondent No.11 in compliance to the Hon'ble NGT's direction dated 23.10.2024 which is in furtherance to reply dated 19.10.2024 already filed by Respondent no 11.



2. It is submitted that, this answering Respondent No.11, is an Indian multinational company specialized in water and wastewater treatment solutions, and is generally considered a leading player in its field. The Respondent Company is 3<sup>rd</sup> largest private water operator in global rank among the "World's top 50 private water operators" as per Global Water Intelligence (GWI), for ensuring safe drinking water and a clean environment for over 48 million people across the globe.
  
3. It is humbly submitted that the answering Respondent is a Contractor for the running/operation & maintenance of 30 MLD Sewage Treatment Plant (STP) situated at Loni, Ghaziabad as appointed by UP Jal Nigam. The answering Respondent has been performing the work under UP Jal Nigam, Ghaziabad, in line with the Agreement of the Respondent with State Mission for Clean Ganga - Uttar Pradesh, UP Jal Nigam and others (Employer) dated 15.11.2019 and related instructions from the Employer.
  
4. The Respondent humbly submits that Respondent No.11, as a Contractor, operates the STP strictly as per the guidelines and plant design parameters as specified in the Tender Document (RFQ) by its Employer. The Respondent does not possess nor exercise control over the setting of the parameters/standards for the already designed and built STP; it solely ensures adherence to those stipulated in the contract agreement. The subject Sewage Treatment Plant (STP) was built and commissioned in June 2012 by the Employer and operated by previous contractors viz., Triveni Engineering & Industries Limited (2012 - 2016) and Tomar Construction (2016-2017). Respondent No.11 is merely a succeeding contractor tasked with the Operation & Maintenance (O&M) of the STP, operating strictly under the Employer's direction since 16<sup>th</sup> December 2019, with no authority



over design conditions. This Respondent's role is limited to ensuring compliance with the contracted design effluent parameters established in its contractual agreement with UP Jal Nigam.

5. The Respondent respectfully submits that, this Respondent No.11 is strictly adhering to the operational criteria established by the Agreement dated 15.11.2019, as well as to additional directions from the Office of the Chief Engineer dated 10.12.2021. The contract mandates that the Respondent operate and maintain the STP in alignment with specific inlet and outlet parameters, which are consistently met, as evidenced by regular test results from both UP Jal Nigam and independent agencies.
  
6. The Respondent humbly submits that, Respondent No.11 has been in compliance with the contractual parameters as mandated by the Employer. Further, it has maintained the effluent quality to meet design discharge standards specifications, verified through monitoring systems and periodic lab tests. The Respondent's preliminary reply dated 10.10.2024 may be considered and read part and parcel of this Reply statement.

The designed criteria as per the 10.12.2021 letter of UP Jal Nigam to UDD, inline with the agreement dated 15.11.2021 are extracted herein below:

### Design Criteria

<b>Loni 30 MLD (MBBR) - Inlet parameters</b>				
<b>BOD (mg/l)</b>	<b>COD (mg/l)</b>	<b>TSS (mg/l)</b>	<b>DO</b>	<b>Faecal coliform (MPN/100ml)</b>
220-250	400-500	350-500	0	4.5*10 <sup>7</sup>



<b>Loni 30 MLD (MBBR) - Outlet parameters</b>				
<b>BOD (mg/l)</b>	<b>COD (mg/l)</b>	<b>TSS (mg/l)</b>	<b>DO</b>	<b>Faecal coliform (MPN/100ml)</b>
<30	<150	<50	Not mentioned in contract bond	Desirable <1000 mg/l per 100ml but shall not exceed 10000 per 100 ml.

7. It is respectfully submitted that, Respondent No.11 has been meeting above mentioned outlet parameters Modification in plant design is not covered in the contract and unauthorized modifications would constitute a breach of contract and expose this Respondent to severe hardship, liability, and penalties. However, if the Employer gives any variation orders to modify or alter of the system with separate work orders the same shall be executed as per the Contract specifications. This Respondent neither owns the subject STP nor has any independent control over the plant's parameters.
  
8. The Respondent humbly submits that, Respondent No.11 is a contractor solely responsible for the Operation & Maintenance (O&M) of the STP. This Respondent is neither an industry operator nor a polluter but is engaged to mitigate environmental pollution as per the terms of the contract with its Employers viz., UP Jal Nigam and others. As Respondent No.11 merely operates and maintains the STP on behalf of the Employer, without contributing to pollution generation, it is submitted that the provisions of the Water (Prevention and Control of Pollution) Act should not apply to this Respondent. Respondent No.11 unequivocally states that it has not discharged untreated sewage into any river or stream. As mandated by the contract with the Employer, Respondent No.11 ensures that all sewage water is duly treated before discharge. Independent testing and monitoring confirm that the effluent meets the parameters



specified in the contract, thereby protecting surrounding water bodies from pollution.

9. It is respectfully submitted that, Respondent No.11 submitted representations dated 31.10.2024 to the authorities to expedite the upgradation of the Sewage Treatment Plant (STP) to achieve the revised effluent parameters stipulated by the Hon'ble NGT's Order dated 30.04.2019 in Nitin Shankar Deshpande vs. Union of India & Others.

The copy of the Respondent letter dated 31.10.2024 to UP Jal Nigam requesting for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT), Delhi is annexed herewith **Annexure R-8**.

10. Further, the Respondent has also sent, a detailed Techno-Commercial proposal outlining the necessary steps and associated costs for the upgradation of the STP owned by the Employer vide its letter dated 07.11.2024.

The copy of the Respondent letter dated 07.11.2024 to UP Jal Nigam enclosing its Techno-Commercial Offer/Proposal for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT) is annexed herewith **Annexure R-9**.

11. The Respondent humbly submit that, recognizing the need for the STP to meet updated environmental standards, Respondent No.11 has promptly submitted representations to the Employer, urging upgrades to align with the Hon'ble NGT's directives dated 30.04.2019. The Respondent has also provided a tentative cost proposal to the authorities to facilitate the upgradation of the facility. The Respondent



awaits the Authorities' consent to expedite the upgradation of the STP owned by the Authorities/Employer.

12. It is respectfully submitted that the dispute in the present case does not concern the Sewage Treatment Plant (STP) operated and managed by this Respondent. Grievance of the applicant is regarding dumping of hazardous sewerage of surrounding Nagar Palika area to the Green Belt, NH-709 B, opposite Ansal Estate End., Sector C-1, Trans Delhi Signature City, Loni Ghaziabad which is entirely distinct from the operations and maintenance work performed by this Respondent under its contract.
13. The answering Respondent No.11 humbly submits that Respondent No.11 is solely a contractor employed to maintain and operate the STP, following the specifications and parameters set by the Employer (UP Jal Nigam), and has fulfilled all obligations under the contract. Given that there are no allegations specific to the STP operated by Respondent No.11, nor any indication that the STP contributes to the core issues raised by the Petitioner, Respondent No.11 respectfully submits that it should be discharged from these proceedings, as this Respondent does not engage in any independent polluting activity and operates solely under the Employer's guidelines.
14. For the reasons stated above, Respondent No.11 respectfully submits that any slight deviation from the prescribed standards set forth by the Hon'ble NGT has not been wilful nor wanton. In the light of the Hon'ble Tribunal's judgment in Nitin Shankar Deshpande vs. Union of India & Others, Respondent No.11 has made every reasonable effort to comply with the standards within the limitations of its contractual scope. This Respondent has operated and maintained the Sewage Treatment Plant (STP) according to the Employer's



instructions, who holds the ultimate authority over design and operational standards.

15. The answering Respondent further submits that, it is not the case that Respondent has ignored or neglected this Honourable Tribunal's requirements; on the contrary, Respondent No.11 has actively implemented measures to achieve the mandated parameters to the extent possible within its operational authority. This Respondent remains fully committed to operating in compliance with NGT orders and humbly submits that any residual variance is both unintentional and justified by its restricted operational role as a contractor.

In light of the above, it is most humbly prayed that this Hon'ble Tribunal may graciously be pleased to:

- a) Consider that role of Respondent No.11 as an contractor acting under Employer instructions and exempt this Respondent from any punitive fines, costs, or liabilities as it has complied with all contractual obligations and directions in line with its Agreement; and
- b) Pass any other order as this Hon'ble Tribunal may deem fit and proper in the interest of justice.



Respondent

*Neeraj Kumar*

(Counsel for the Respondent)

Neeraj Kumar

Enrol. No.- D/2106/2005

1103 Nirmal Tower Barakhambha Road

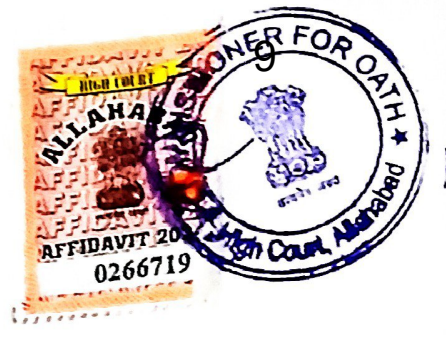
Connaught Place Delhi 110001

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Mob: 9313127275

Place: Delhi

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PRINCIPAL BENCH, NEW DELHI

Miscellaneous Application No.38/2023  
IN  
Original Application No.196/2022

Hariom Gupta

Versus

.... Applicant

Nagar Palika Parishad, Loni & others

..... Respondent

AFFIDAVIT

I, SUNIL KUMAR SINGH, S/o, YOGENDRA PRASHAD SINGH, aged about 51 years, the authorized signatory, designated as ADDITIONAL GENERAL MANAGER of the Respondent having office at Ghaziabad and registered office at Wabag House, 200 Feet Radial Road, Sunambu Kolathur Chennai - 117, do hereby declare and state as under:

1. I am the authorized signatory of the Respondent and am well conversant with the facts of the present case, based on the official records maintained in the office in its due course, thus I am competent to swear the present affidavit before the Hon'ble Tribunal.
2. The accompanying Additional Reply filed on behalf of the Respondent No.11 has been drafted by my counsel under my instructions and the contents of the same are true and correct to the best of my knowledge.
3. That the contents of the accompanying petition may kindly be read as part of this affidavit as the same has not been repeated herein for sake of brevity.



DEPONENT /RESPONDENT NO. 11

VERIFICATION

Verified on solemn affirmation at Lucknow on this 12<sup>th</sup> day of November, 2024 that the contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed there from.

Solemnly affirmed before me on... 12/11/24  
at... 09:00 am/pm by the deponent...  
who is identified by Sri...  
High Court, Lucknow Bench



DEPONENT /RESPONDENT NO.11



R.K. Verma  
OATH COMMISSIONER  
High Court, Lucknow Bench, Lucknow

OATH COMMISSIONER  
Advocate  
9046/03

S No. 266719 Date 12/11/24

An ISO 9001 Company

**Ref.** VATW/2024-25/PKG-8/GZBD/UPJN/414**Dt:** 31 October, 2024

To,

Office of the Superintending Engineer,  
U.P. Jal Nigam (Urban),  
Ghaziabad Sector -1,  
Raj Nagar, Ghaziabad 201 001**VA TECH WABAG LIMITED****Project Office:**56 MLD, STP, Shakti Khand-4,  
Indirapuram, Ghaziabad,  
U.P. – 201014. India  
Web: www.wabag.com**Subject: Request for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT), Delhi**

- Ref:**
- Order dated 30.04.2019 passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in *Nitin Shankar Deshpande Vs. Union of India & Others*.
  - Order dated 23.10.2024 passed by Hon'ble NGT in Miscellaneous Application No. 38/2023 in Original Application No.196/2022
  - Agreement No. 09/SGRCA/2017-18 (OM&M) Contract Package-8, Zone-Ghaziabad dated 15.11.2019
  - Our letter dated 17.10.2024
  - Miscellaneous Application No. 38/2023 in Original Application No.196/2022 filed in NGT Delhi

Dear Sir,

As you are aware that a Miscellaneous Application no. 38 of 2023 , arising out of Original Application no 196/2022 is filed before National green Tribunal, Delhi by one Mr. Hariom, wherein UP Jal Nigam and VA Tech Wabag Ltd are impleaded as Respondents. The Application was listed for hearing on 23.10.2024 and next date of hearing is 14.011.2024.On the last date of hearing, the Hon'ble NGT has recorded a finding that the said STP is not meeting the prescribed standards in the light of Tribunal's judgement in Nitin Shankar Deshpande Vs Union of India & Ors, OA no 1069/2018 dated 30.04.2019

We wish to submit that M/s. VA TECH WABAG LIMITED, is a Contractor, for the Operation, Maintenance, and Management (OM&M) of the 30 MLD Sewage Treatment Plant located at Loni, Ghaziabad. We have been operating, maintaining and managing the STP as per our Agreement dated 15.11.2019 and successfully meeting the outlet parameters which are periodically tested at UPPCB and Sri Ram Lab.

Sustainable solutions, for a better life

**VA TECH WABAG LTD.**  
"WABAG HOUSE"  
No. 17, 200 Feet Radial Road,  
SunnambuKolathur,  
Chennai – 600 117, IndiaTel : +91-44-3923 2323  
Fax : +91-44-3923 2324  
Web : wabag@wabag.in**Regional Offices:**  
Noida  
Kolkata  
Pune

Outlet parameters are based on plant design and inlet conditions which is part of contract agreement. You are aware that as directed by the Hon'ble NGT, plant can't meet the treated water outlet parameters since it has not been designed for the same. Being the owner of the STP of the subject agreement dated 15.11.2019, it is UP Jal Nigam, as an Employer / owner and designer of the STP, who is accountable for ensuring that the plant's design, infrastructure, and operational parameters meet applicable regulatory and environmental standards, including but not limited to the order of NGT in *Nitin Shankar Deshpande Vs. Union of India & Others* dated 30.04.2019. Our role as an O & M operator is limited only to perform O&M of the facility, and thus, we do not have any authority to make the necessary and suitable infrastructural upgrades, to bring the plant into compliance with the Tribunal's mandated standards.

In the event of non-compliance with these court-mandated design parameters, we submit that we are not responsible for any failures on your part to comply with the legal standards, irrespective of the circumstances. In such circumstances we may be compelled to consider terminating / short closing the contract solely at your risk and cost, on the ground of continued non-compliance of the legal norms by UP Jal Nigam, which shall render this agreement void and untenable. We also reserve the right to seek compensation, claim reimbursements and indemnification for all financial and reputational losses arising out of such foreclosing.

In view of court's directive, plant is required to be designed and upgraded/retrofitted to meet the latest NGT norms. Through this letter we seek your action plan which is being taken to upgrade the plant to the desired standards. Wabag has the wherewithal to design the plant to the desired requirement and would be in a position to submit the techno commercial proposal if required by UPJN. This decision has to be taken urgently as further delay not only jeopardizes compliance but also undermines our contractual relationship, which is contingent upon adherence to legal standards and norms.

Please take note that, failure to comply with these court-mandated standards/ orders could result in imposition of severe penalties, including the imposition of environmental compensation. It is important to note that any financial or legal liabilities arising from non-compliance by UP Jal Nigam due to the lack of necessary upgrades to the plant infrastructure should solely be attributed to UP Jal Nigam, as we, the operating contractor for a plant which has been designed by someone's else, are not responsible for infrastructure upgradation in accordance with regulatory upgrades.

Sustainable solutions, for a better life



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Pune

Therefore, if any penalty or environmental compensation is imposed upon us, VA Tech Wabag Ltd, the same would be required to be compensated/reimbursed/ indemnified by UP Jal Nigam for the reasons explained in preceding paras.

Therefore, we humbly request you to initiate immediate action for the required upgradation of infrastructure of the said STP to ensure compliance of the Tribunal's directives. Without prompt action at your end, the Plant cannot be upgraded. Please be assured that you will have our full support and cooperation as and when required. Please let us know your next course of action and our deliverables, if any, to proceed with the essential upgrades to safeguard against non-compliance and associated liabilities. We are willing to extend all the support to UP Jal Nigam for timely completion of the upgradation plan in all possible ways.

Sincerely,

For **VA TECH WABAG LIMITED,**



**SUNIL KUMAR SINGH**

**(PROJECT MANAGER, GHAZIABAD ZONE PACKAGE -8)**

**ENCL:**

1. Order passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in Nitin Shankar Deshpande Vs. Union of India & Others.
2. Order dated 23.10.24 passed by National green Tribunal, Delhi in Miscellaneous Application no 38 of 2023, arising out of Original Application no 196/2022.

**Copy to:**

1. The Managing Director, U.P. Jal Nigam (Urban), Lucknow.
2. The Joint Managing Director, U.P. Jal Nigam (Urban), Lucknow.
3. The Chief Engineer, U.P. Jal Nigam (Urban), Ghaziabad.
4. The Executive Engineer, Construction Division (Ist), U.P. Jal Nigam (Urban), Ghaziabad.

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Item No. 04

Court No.1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No. 1069/2018  
(M.A. No. 1792/2018, M.A. No. 1793/2018, I.A. No. 150/2019 & I.A.  
No. 151/2019)

Nitin Shankar Deshpande

Applicant(s)

Versus

Union of India &amp;Ors.

Respondent(s)

Date of hearing: 30.04.2019

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s): Ms. Ekta Sikri and Ms. K. Gayatri, Advocates

For Respondent (s): Mr. Rajkumar, Advocate for CPCB  
Mr. Gigi C. George, Advocate for MoEF&CC  
Mr. Dhruv Mehta, Sr. Advocate with Mr. Ashish  
Wad and Mr. Sidharth Mahajan, Advocates

**ORDER**

1. The issue for consideration is effluent discharge standards for STPs as laid down vide Notification dated 13.10.2017 by way of Environment (Protection) Amendment Rules, 2017 against Serial No. 105 of Schedule-I to the Environment (Protection) Rules, 1986.
2. Vide order dated 21.12.2018, this Tribunal noted that untreated or partially treated sewage is a major source of pollution in the country.

The Hon'ble Supreme Court in the case of *Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors.*<sup>1</sup> directed taking of steps so that huge gap in sewage generated and treated is bridged.

3. The Tribunal also noted that the proposed standards as per Draft Notification dated 24.11.2015 issued by Ministry of Environment, Forest & Climate Change (MoEF & CC) are sought to be diluted by the impugned Notification as follows:

Sr. No.	Parameters	Old Norms 1986	Draft Norms Nov., 15	MoEF& CC Notification October 2017
1.	Biochemical Oxygen Demand (BOD) (mg/l)	<30	<10	<30 and <20 (metro cities)
2.	Chemical Oxygen Demand (COD) (mg/l)	<250	50	No limit
3.	Total Suspended Solids (TSS) (mg/l)	<100	<20	<100 and <50 (metro cities)
4.	Total Nitrogen (mg/l)	<100	<10	No limit
5.	Ammonical Nitrogen (mg/l)	<50	<5	No limit
6.	Total Phosphorus (mg/l)	No limit	No limit	No limit
7.	Fecal Coliform MPN/100 ml	No limit	<100	<1000

4. The Tribunal also noted that the relaxed standards will deteriorate the water quality and degrade the environment and be a retrograde

<sup>1</sup>(2017) 5 SCC 326

step. The dilution will also affect the human life and the water quality of the rivers.

5. Accordingly, the Tribunal constituted an Expert Committee comprising the nominees from IIT Kanpur, IIT Roorkee, NEERI and CPCB which was to give its report after examining the best available technologies and best practices and after referring to the Experts study on the subject particularly CPCB Report on “River Stretches for Restoration of Water Quality, 2014-15” and the order of this Tribunal on the subject of polluted river stretches dated 20.09.2018 in Original Application No. 673/2018 in the matter of News item published in “*The Hindu*” authored by Shri Jacob Koshy titled “*More river stretches are now critically polluted : CPCB*”. The Tribunal also directed stay of operation of the impugned Notification and application of pre-revised standards till further orders.

6. Accordingly, report has been received from CPCB vide e-mail dated 30.04.2019 forwarding the Expert Committee report. The report noted the current status of water quality of rivers which flows in India and the fact that 351 river stretches out of 323 rivers were polluted. There was need for revised standards for BOD and COD with a view to protect the water quality of the rivers/streams. There was also a need for revised standards for TSS, for Nitrogen (Ammonia & Nitrates) and Phosphorus and for Fecal Coliform.

7. The Committee while discussing the need for revised the Standards for BOD and COD observed that:

*“Inclusion of COD in sewage discharge certainly offers advantages in terms of early diagnosis on functioning of STPs and thus helps in resorting immediate measures/corrective actions. This is because analysis of COD is completed within 5 Hours as against 5 days at 20°C or 3 days at 27°C for BOD (Sawyer & McCarty, V. Edition). Moreover, if Government wishes to regulate STPs across the country through online monitoring system in future, inclusion of COD in Discharge Standards will prove beneficial for the reason that COD sensors are quite reliable and readily available in Indian market, however the same is not the case with BOD sensors. Thus, from regulatory point of view also, COD is an important parameter and needs to be included in sewage Discharge Standards.”*

While discussing the need for revised standards for TSS the Committee has observed that:

*“ The Microbial quality of wastewater could be linked with the TSS concentration. The larger the Suspended solids, the larger shall be the presence of bacteria, protozoa and viruses. High TSS wastewater cannot be easily disinfected, as the suspended particles “hide” these microorganisms and also react with chemical disinfectants.”*

Further the committee observed:

*“A well designed and operated conventional sewage treatment system such as activated sludge process can meet 20 mg/L effluent TSS discharge standards. Many STPs bases on secondary wastewater treatment all over the globe are able to achieve 10-20mg/L. TSS without any tertiary treatment.”*

Further with regard to the need for revised standard for Nitrogen (Ammonia & Nitrates) and Phosphorus it has been elaborated by Committee that:

*“Nitrogen and phosphorus in all forms are major rate limiting elements essential for the growth of algae and other vegetation in water bodies leading to a state called eutrophication. The greenish color water with large vegetation growth is common sight for not only lakes and ponds but also slow moving rivers.*

*Eutrophication arises from the oversupply of nutrients (N & P), which leads to overgrowth of plants and algae.*

*Degradation of dead algae and plants by microbes consumes dissolved oxygen in the water, thereby creating the state of hypoxie.*

*Eutrophication leads to many problems related to water quality:*

- *Large Dissolved oxygen variation leads to fish kills*
- *Filling the water body with dead algae and other vegetation.*
- *Decomposition of dead algae and vegetation at the bottom causing oxygen depletion and further release of nutrient.*
- *Release of algal toxins and odors causing substances make the water unsuitable for human and animal consumption.”*

The Committee has also observed that:

*Due to the absence of dilution and worsening of our rivers and lakes, it is necessary to move towards nutrients (nitrogen and phosphorus) regulations in water bodies.*

The Committee while discussing the revised standards for Fecal Coliforms observed:

“As per "Houses and Household Amenities, Latrine Facility, Census of India - 2011, Registrar General and Commissioner, India" available at [http://censusindia.gov.in/2011census/hlo/Data sheet/ India / Latrine. Pdf](http://censusindia.gov.in/2011census/hlo/Data%20sheet/India/Latrine.Pdf); Out of 7.9 Crores Urban Households (UHH), nearly 1.7 Crores UHH (i.e. 20 %) lacks adequate sanitation. At the same time more than 5 lakhs villages in the country are now open defecation free (ODF) ([https:// sbm.gov.in/sbmdashboard / ODF.aspx](https://sbm.gov.in/sbmdashboard/ODF.aspx).) Although rural parts are covered through sanitary toilets, effluent from septic tanks from newly built 9.2 crores toilets across the country is unavoidable. This may pose very high health risk owing to the fact that "Sanitation" including collection, conveyance and treatment is either absent or inadequate in such areas. **Relaxing FC pose risk to downstream cities/town/villages that rely on drinking water source on same water body in case of rivers. It appears quite reasonable to say that FC Standards be prescribed to 100 MPN/100 ml. considering its impact on human health in general and readiness of Indian wastewater sector to handle the same (Recommended value of FC in CPHEEO Manual, 2013 is MPS230/100 mI).** (emphasis added)

Hence, CPHEEO 2013 recommended the following guidelines for treated sewage discharge into surface water which after some travel may join a **drinking water source to be used as source of supply for drinking water as given in following Table 5.20**

Table 5.20 Recommended Guidelines for Treated Sewage if Discharged into Surface Water to be used as source of Drinking Water.

<i>Parameter</i>	<i>MoEF Standards (A)</i>	<i>Recommended Values</i>
<i>BOD, mg/L</i>	<i>30</i>	<i>Less than 10</i>
<i>SS, mg/L</i>	<i>100</i>	<i>Less than 10</i>
<i>TN, mg/L</i>	<i>100</i>	<i>Less than 10</i>
<i>Dissolved P, mg/L</i>	<i>5</i>	<i>Less than 2</i>
<i>Faecal Coliforms, MPN/ 100 mL</i>	<i>Not specified</i>	<i>Less than 230</i>

(A) General Standards, Environmental Protection Rule, 1986 & as authorized by PCB

• *In order to achieve the above values, the treatment process would need to be designed for nutrient removal in addition to the conventional BOD and SS removal. It has also been reported that if the nutrients were removed to the levels mentioned in Table 3.20, then the amount of chlorine required for disinfection would be less at about 5 mg/ l.*

Considering aforementioned analysis, the Chairman CPCB directed all State Pollution Control Boards to make it mandatory for local bodies to set up sewerage systems for treatment and disposal of sewage to meet the prescribed standards ie., pH 6.5-9, BOD (mg/L): Not more than 10, COD (mg/L ): Not more than 50, TSS (mg/L) : Not more than 20, NH<sub>4</sub>-N (mg/L): Not more than 5, N-total (mg/L) Not more than 10 ,Fecal Coliforms (MPN/100 ml) Less than 230. The details are provided in Annexure 1.”

8. The report further mentions that the stringent standards in terms of Draft Notification dated 24.11.2015 are not only economically viable

and technically feasible, the cost will not be significantly high. In this regard, it was observed:

*“7.0 ECONOMIC VIABILITY & RESOURCE POSITION*

*1. For Nitrification (Conversion of ammonia to nitrate), 20-30% larger aeration tanks are required with additional 40-50 % aeration demand. The Total capital and O&M cost of the system increases by 10-20 & 5-10 % respectively.*

*2. For further removal of nitrate from wastewater, denitrification (conversion of nitrate to Nitrogen gas) is needed by additional anoxic tank in the system. The capital cost further increases by 5-10 %. Nevertheless, denitrification gives 25 % oxygen credit which reduces 25 % aeration requirement.*

*3. Finally, overall capital and operational cost implications for achieving standards for metropolitan and class-I cities shall be 20-30 %.*

*4. Typical total unit costs for wastewater treatment based on experience gained in Western Europe and the USA is presented in Figure XX (WHO/ UNEP 1997), The total unit cost for secondary treatment (BOD < 20-30 mg/L, & TSS < 50-100 mg/L) varies between 1.5-2.0 US\$/m<sup>3</sup>, while for tertiary treatment (BOD, TSS & TN < 10 mg/L) it is 2.0-2.5 US\$/m<sup>3</sup>. The additional burden is approximately 25-33 % which matches with Indian experience as well.*

*5. In recent years, many STPs are constructed based on effluent BOD, TSS & TN < 10 mg/L) and all the well operated and maintained STPs are providing the desired effluent quality. Some of these STPs are monitored by IIT Roorkee in recent years under several research projects and NGT reports. The performance evaluation results for 20 MGD Nilothi STP, 20 MLD Pappan Kalan STP, 15 MLD Delhi Gate STP and 5 MGD Kapashera STP of Delhi submitted to NGT alongwith 3.0 MID*

*STP, Rishikesh, 1 MGD STP, Delhi, 27 MGD STP, Haridwar etc., monitored under various research projects is attached as Annexure 3.*

*6. CPCB has also conducted study on technological achievability of proposed standards. Delhi Jal Board has installed and commissioned 04 STPs on advanced treatment technology along with coliform reduction facilities.*

*7. In addition, the following STPs all over India are producing the desired quality: 1.5 MLD STP, Cubbon Park, Bangalore, 2.0 MLD STP, Pahalgam, 3.5 MLD STP, Tapovan, Rishikesh, 4.0 MLD STP, IIT Madras, 12.5 MLD STP, Tonca, Goa, 15.0 MLD STP, Gorakhpur, 17.3 MLD STP, Zirakpur, Punjab, 18 MLD STP, Sarai, Haridwar, 20.0 MLD STP, Hyderabad, 20.0 MLD Sangvi, Pune, 30 MLD STP, Hyderabad, 37.5 MLD STP, UP Housing Board, Lucknow, 40.0 MLD Kharadi, Pune, 40.0 MLD STP, Hubballi, Karnataka, 45 MLD STP, Mundhwa, Pune, 50 MLD STP Kalamboli, Navi Mumbai, 54 MLD STP, Noida, 55.0 MLD, Singanpure, Surat, 56 MLD STP, Indirapuram, Ghaziabad, 68.0 MLD STP, Dehradun, 100 MLD STP, Vashi Navi Mumbai, 130 MLD STP, Nagpur, 137 MLD STP, Greater Noida, 245 MLD STP Indore, etc.*

*8. In practical experience with actual tendered cost, the experience has been quite differing. Many tenders based on old and less stringent quality standards have been awarded at much higher per MLD cost as compared to STPs having more stringent standards. Plus on a long term basis, new technologies have lower life cycle costs. Other factors which are encouraging most corporations and contractors to adopt new technologies are more compact designs, less land requirement, less construction time, better material of construction, less maintenance cost, automation and less dependency on expensive trained manpower to operate plants in remote locations.”*

9. Accordingly, the Committee further observed that:

- “● *The new stringent standards are devised considering the deterioration condition of water bodies and unavailability of adequate dilution water in our water bodies. If not stringent quality standards are not implemented then in the coming future with more population burden on rivers, situation will further deteriorate.*
- *The greatest benefit of these standards is to achieve all purpose non-portable reuse quality effluent. Each STP is to be treated as a source of water for reuse and recycling, helping in mitigating drought/ climate change in the country. It will also reduce exploitation of groundwater reserves and dependency on rainfall which has become quite unpredictable in the past few years. Climate change is a reality that should be addressed and adopted for in the coming future. It will go a long way in reducing agricultural dependency on bore well water.*
- *If treatment of wastewater is not carried out with intention of reuse and recycle expenditure on conveyance/long distance transport of water/sewage will be much higher. Even as on toady in many cities cost of conveyance of water is much higher than the treatment of sewage to make it fit for most uses including domestic uses. For example the cost of transporting water from Narmada to fulfil water supply needs of Indore city (approximately @ Rs. 20/cum) is much higher than the cost of treating sewage to tertiary level.”*

In view of above and severity of depletion of aquatic resources vis-a-vis the financial aspects related to conveyance and treatment of water/sewage the committee recommended that the effluent discharge for STPs to be as follows:

“

SI. No.	Industry	Parameters	Standards (Applicable to all mode of disposal)			
1	2	3	4			
	Sewage Treatment Plants (STPs)		Mega and Metropolitan Cities	Class I Cities	Others	Deep Marine Outfall
		pH	5.5-9.0	5.5-9.0	5.5-9.0	5.5-9.0
		Bio-Chemical Oxygen Demand (BOD)	10	20	30	30
		Total Suspended Solids (TSS)	20	30	50	50
		Chemical Oxygen Demand (COD)	50	100	150	150
		Nitrogen-Total	10	15	-	-
		Phosphorus-Total( For Discharge into Ponds, Lakes)	1.0	1.0	1.0	
		Fecal Coliform (FC) (Most Probable)	Desireable-100 Permissible-	Desireable-230 Permissible-	Desireable-1000 Permissible-	Desireable-1000 Permissible-

	<i>Number per 100 milliliter, MPN/100 ml</i>	<i>230</i>	<i>ble-1000</i>	<i>10,000</i>	<i>e-10,000</i>
<i>Note:</i>					
<p><i>(i) Mega-Metropolitan Cities have population more than 1 crore, Metropolitan Cities-Population more than 10 Lakhs and Class-1 Population more than 1 Lakh.</i></p> <p><i>(ii) All value in mg/l except for pH and Fecal Coliform.</i></p> <p><i>(iii) These standards will be applicable for discharge into water bodies as well as for land disposal/applications.</i></p> <p><i>(iv) These Standards shall apply to all new STPs for which construction is yet to be initiated.</i></p> <p><i>(v) The existing/under construction STPs shall achieve these standards within 07 years from the date of notification.</i></p> <p><i>(vi) In case where the marine outfall provides a minimum initial dilution of 150 times at the point of discharge and a minimum dilution of 1500 times at a point 100m away from discharge point, then norms for deep sea marine discharge shall be applied.</i></p> <p><i>(vii) Reuse/Recycling of treated effluent shall be encouraged.</i></p> <p><i>(viii) State Pollution Control Boards/Pollution Control Committees may make these norms more stringent taking into account the local conditions.</i></p>					

10. We have heard Learned Counsel for the parties.

11. Learned Counsel for the applicant submits that while the Expert Committee is fully justified in suggesting parameters as per its report for Mega-Metropolitan Cities, there is no justification for different and diluted standards for Class-I cities, Other cities or Deep Marine Outfall and to that extent the report of the Expert Committee fall short of the required scientific logic and database. While

recommending the diluted standards for Class-I cities, Other cities or Deep Marine Outfall the Committee has not given any explanation with regard to the existing pollution load in these areas, the available systems in place, the efficacy of the systems in terms of meeting of norms, the population impacted by deteriorating water quality and likely consequences on health of people if these diluted norms are permitted. There is no scientific justification offered for diluting the norms for these areas in which the majority of country's population resides. Also such standards we feel must apply not only to new STPs but also to the existing ones. Further, there is no justification for non-application of such standards for seven years for existing STPs.

12. Learned Counsel for CPCB and interveners are unable to justify dilution of standards for areas other than Mega Metropolitan Cities or for existing STPs.

13. We find that there is no justification for diluted standards for areas other than Mega and Metropolitan Cities. The water quality standards are required to be same for the population of major cities or other cities. No justification has been shown for different standards for persons living in cities other than Mega and Metropolitan Cities. Major population of this country will be affected by diluted standards and only persons in Mega and Metropolitan Cities will have comparatively better standards without any valid reason or distinction. We may note that filters, UV filters etc. are facilities

mainly available in major cities and not in smaller cities or villages where the standards are proposed to be diluted.

14. Accordingly, we accept the report of the Expert Committee with the modification that the standards recommended for Mega and Metropolitan Cities will also apply to rest of the country. We also direct that the standards will apply not only for new STPs but also for existing/under construction STPs without any delay and giving of seven years time stands disapproved.

MoEF & CC may issue an appropriate Notification in the matter within one month from today.

The Application is disposed of.

Adarsh Kumar Goel, CP

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

April 30, 2019  
Original Application No. 1069/2018  
SN

Item No.04

Court No. 2

**BEFORE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Miscellaneous Application No. 38/2023  
IN  
Original Application No.196/2022

Hariom Gupta

Applicant(s)

Versus

Executive Officer Nagar Palika, Loni

Respondent(s)

Date of hearing: 23.10.2024

**CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL JUDICIAL MEMBER  
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER**

Applicant: Applicant in Person (through VC)

Respondents: Ms. Simran Sehgal, Proxy Counsel for Ms. Priyanka Swami, Advocate for DM Ghaziabad  
Mr. Bhanwar Pal Singh Jadon and Ms. Gargi Chaturvedi, Advocates for respondents no. 3, 4, 6, 9 and 10 with Mr. Ramakant Pandey, MD, Jal Nigam (through VC)  
Mr. Pradeep Misra and Mr. Daleep Dhyani, Advocates for UPPCB  
Mr. Balendu Shekhar and Ms. Tanisha Samanta, Advocates for respondent no. 7  
Mr. Raj Kumar, Advocate for respondent no. 8 (through VC)  
Mr. Neeraj Kumar and Ms. Meenakshi Jha, Advocates for respondent No. 11 with Mr. Rajiv D Mittal, MD and Mr. Sunil Kumar, AGMR (through VC)

**ORDER**

1. Reply has been filed by respondent 11 giving a chart to demonstrate that it is complying with prescribed standards and in this regard reports of UPPCB are referred.
2. We require UPPCB to verify said report and submit its additional reply within two weeks.
3. Further, in the meantime, respondent 11 may also workout as to why it is not meeting the prescribed standards in the light of Tribunal's judgment in Nitin Shankar Deshpandey Vs. Union of Indian and Ors.

O.A. 1069/2018 decided on 30.04.2019 and submit, if so advised additional reply.

4. Applicant present in person stated that with regard to discharge of sewerage in greenbelt of the residential area, no effective steps have been taken by Nagar Palika Parishad, Loni. We require Nagar Palika Parishad, Loni also to submit its reply on this aspect at least three days before next date.

5. List for further consideration on 14.11.2024.

Sudhir Agarwal, JM

Dr. Afroz Ahmad, EM

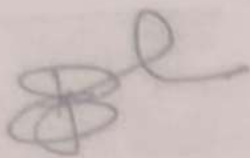
October 23, 2024  
Miscellaneous Application No. 38/2023  
M

Therefore, if any penalty or environmental compensation is imposed upon us, VA Tech Wabag Ltd, the same would be required to be compensated/reimbursed/ indemnified by UP Jal Nigam for the reasons explained in preceding paras.

Therefore, we humbly request you to initiate immediate action for the required upgradation of infrastructure of the said STP to ensure compliance of the Tribunal's directives. Without prompt action at your end, the Plant cannot be upgraded. Please be assured that you will have our full support and cooperation as and when required. Please let us know your next course of action and our deliverables, if any, to proceed with the essential upgrades to safeguard against non-compliance and associated liabilities. We are willing to extend all the support to UP Jal Nigam for timely completion of the upgradation plan in all possible ways.

Sincerely,

For VA TECH WABAG LIMITED,




SUNIL KUMAR SINGH

(PROJECT MANAGER, GHAZIABAD ZONE PACKAGE -8)

ENCL:

1. Order passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in Nitin Shankar Deshpande Vs. Union of India & Others.
2. Order dated 23.10.24 passed by National green Tribunal, Delhi in Miscellaneous Application no 38 of 2023, arising out of Original Application no 196/2022.

Copy to:

1. The Managing Director, U.P. Jal Nigam (Urban), Lucknow. *MD office*
2. The Joint Managing Director, U.P. Jal Nigam (Urban), Lucknow.
3. The Chief Engineer, U.P. Jal Nigam (Urban), Lucknow.
4. The Executive Engineer, Construction Division (Ist), U.P. Jal Nigam (Urban), Ghaziabad.

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VA TECH WABAG LTD.  
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Web : wabag@wabag.in

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Kolkata  
Pune

An ISO 9001 Company

Ref. VATW/2024-25/PKG-8/GZBD/UPJN/414  
Dt: 31 October, 2024

**VA TECH WABAG LIMITED**

Project Office:

56 MLD, STP, Shakti Khand-4,  
Indrapuram, Ghaziabad,  
U.P. – 201014, India  
Web: www.wabag.com

To,

Office of the Superintending Engineer,  
U.P. Jal Nigam (Urban),  
Ghaziabad Sector -1,  
Raj Nagar, Ghaziabad 201 001

**Subject: Request for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT), Delhi**

Ref: i. Order dated 30.04.2019 passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in *Nitin Shankar Deshpande Vs. Union of India & Others.*  
ii. Order dated 23.10.2024 passed by Hon'ble NGT in Miscellaneous Application No. 38/2023 in Original Application No.196/2022  
iii Agreement No. 09/SGRCA/2017-18 (OM&M) Contract Package-8, Zone-Ghaziabad dated 15.11.2019  
iv. Our letter dated 17.10.2024  
v. Miscellaneous Application No. 38/2023 in Original Application No.196/2022 filed in NGT Delhi

*JMD Office*  
Dear Sir,

*4/11/24*  
As you are aware that a Miscellaneous Application no. 38 of 2023 , arising out of Original Application no 196/2022 is filed before National green Tribunal, Delhi by one Mr. Hariom, wherein UP Jal Nigam and VA Tech Wabag Ltd are impleaded as Respondents. The Application was listed for hearing on 23.10.2024 and next date of hearing is 14.01.2024. On the last date of hearing, the Hon'ble NGT has recorded a finding that the said STP is not meeting the prescribed standards in the light of Tribunal's judgement in Nitin Shankar Deshpande Vs Union of India & Ors, OA no 1069/2018 dated 30.04.2019

We wish to submit that M/s. VA TECH WABAG LIMITED, is a Contractor, for the Operation, Maintenance, and Management (OM&M) of the 30 MLD Sewage Treatment Plant located at Loni, Ghaziabad. We have been operating, maintaining and managing the STP as per our Agreement dated 15.11.2019 and successfully meeting the outlet parameters which are periodically tested at UPPCB and Sri Ram Lab.

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**VA TECH WABAG LTD.**  
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**Regional Offices:**  
Noida  
Kolkata  
Pune

*etc*

---

**From:** Ea Ghz  
**Sent:** 07 November 2024 12:48  
**To:** se18upjn@yahoo.co.in  
**Cc:** zce\_gzb\_upjn@yahoo.co.in; yantrikmandal@gmail.com; ee.cd.em.gzb@gmail.com; ypcuupjn@ymail.com; npp.loni@gmail.com; Sunil Kumar Singh; Kamal Dev; Manish Zade; Anthony Nirmal; Meenakshi Sundaram; Team - Legal; Shailesh Kumar; Neeraj enfin; Ashutosh Sharma; Nitin Kumar Dubey; Vipin Kumar Shrivastava; Abhimanyu Rai  
**Subject:** Reg-Techno Commercial Offer-Proposal for Immediate Upgradation of the Sewage Treatment Plant (STP)  
**Attachments:** Reg-Techno Commercial Offer-Proposal for Immediate Upgradation of the Sewage Treatment Plant (STP).pdf

Dear Sir,

Kindly find attachment.

With Regards  
Sandeep Kasyap EA  
56 MLD STP Office Indirapuram

An ISO 9001 Company

**Ref.** VATW/2024-25/PKG-8/GZBD/UPJN/430

**Dt:** 07 November, 2024

**To,**

The Superintending Engineer,  
Construction Circle,  
U.P. Jal Nigam (Urban),  
Ghaziabad.

**VA TECH WABAG LIMITED**

**Project Office:**

56 MLD, STP, Shakti Khand-4,  
Indrapuram, Ghaziabad,  
U.P. – 201014. India  
Web: [www.wabag.com](http://www.wabag.com)

**Subject: Techno Commercial Offer/Proposal for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT), Delhi.**

- Ref:**
- i. Order dated 30.04.2019 passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in *Nitin Shankar Deshpande Vs. Union of India & Others*.
  - ii. Order dated 23.10.2024 passed by Hon'ble NGT in Miscellaneous Application No. 38/2023 in Original Application No.196/2022
  - iii Agreement No. 09/SGRCA/2017-18 (OM&M) Contract Package-8, Zone-Ghaziabad dated 15.11.2019
  - iv. Our letter dated 17.10.2024
  - v. Our letter dated 31.10.2024
  - vi. Techno Commercial Offer (Proposal) for upgradation of 30MLD STP, Loni

Dear Sir,

In reference to our letter dated 31.10.2024 cited above are our earlier discussions, we are pleased to enclose our Techno Commercial Offer dated 06.11.2024 outlining the indicative pricing for upgrading the 30 MLD Sewage Treatment Plant (STP), located at Loni, Ghaziabad and to ensure compliance with the outflow standards mandated by the order of the National Green Tribunal (NGT) in *Nitin Shankar Deshpandey Vs Union of India & Ors, OA no 1069/2018* dated 30.04.2019.

This offer/proposal has been prepared based on our preliminary assessment and covers the essential modifications needed to bring the STP design parameters in line with the required regulatory standards. This is an indicative pricing offer and upon detailed consultation with you giving due consideration and basis of your response, the offer shall be finalised.

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Pune

As detailed in our Techno-Commercial Offer, these upgrades aim to achieve the desired outflow quality and performance benchmarks stipulated by the NGT, thereby ensuring compliance and avoiding potential penalties. We are fully committed to support UP Jal Nigam in maintaining the operational integrity and compliance of the STP.

We trust this offer meets your requirements. Please feel free to contact us for any further clarification or to discuss any specific adjustments needed. Upon your response to the offer and finalisation, we shall be fully prepared to expedite the upgradation process.

Thank you for the opportunity to provide this offer. We look forward to your favourable response.

Sincerely,

For **VA Tech Wabag Ltd.**



**(Sunil Kumar Singh)**  
**Project Manager, Ghaziabad Zone Pkg-8**

**ENCLOSED:**

1. **Techno Commercial Offer For Upgradation of 30 MLD STP, Loni, Ghaziabad (in order to comply with NGT Norms) dated 06.11.2024.**

**Copy To:**


1. Managing Director, U.P. Jal Nigam (Urban), Lucknow.
2. Joint Managing Director, U.P. Jal Nigam (Urban), Lucknow.
3. Chief Engineer (GZB Zone), U.P. Jal Nigam (Urban), Ghaziabad.
4. Superintending Engineer, Construction Circle (E/M), U.P. Jal Nigam (Urban), Ghaziabad.
5. Executive Engineer, Construction Division (Ist), U.P. Jal Nigam (Urban), Ghaziabad.
6. Executive Engineer, Construction Division (E/M), U.P. Jal Nigam (Urban), Ghaziabad.
7. Executive Officer, Nagar Palika Parishad, Loni.



**Techno Commercial Offer**

**For**


**Upgradation of 30 MLD STP, Loni, Ghaziabad  
(in order to comply with NGT Norms)**

Submitted to UPJAL NIGAM	sustainable solutions. for a better life. 		
	Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)		Rev 0
Date : 6 <sup>th</sup> Nov '24			

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9	Add on Drives
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11	Schedule
12	Land Requirement
13	Battery Limit
14	Technical Assumptions
15	Commercial Terms And Conditions
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Submitted to UPJAL NIGAM	sustainable solutions. for a better life. 		
	Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)		Rev 0
Date : 6 <sup>th</sup> Nov '24			

## 1. Background

The Government of India, recognizing that long-term rejuvenation of the river Ganga will have significant social and economic benefits on the lives of the 500 million people living along its basin, has identified cleaning of the river Ganga as one of its priorities. For this purpose, the Gol approved the flagship Namami Gange programme for cleaning, rejuvenation, and protection of the river Ganga.

National Mission for Clean Ganga (NMCG), a statutory body constituted under the Environment (Protection) Act, 1986 will be the nodal agency for the implementation of the Ganga 2016 Order

## 2. Purpose

The revised effluent discharge standards for Sewage Treatment Plants (STPs), in accordance with the Honorable National Green Tribunal (NGT) order dated 30th April 2019, mandate compliance with updated treatment parameters. In line with this, the implementation of advanced treatment solutions at the Loni Existing STP will ensure that the treated effluent meets the standards recommended by the Honorable NGT.

## 3. Reference


Ref. No.	Document Title	Document No
[1]	Operation And Maintenance Manual	P-123-11-008
[2]	Process Design Calculations For MBBR	P-123-11-004
[3]	NGT Order	

## 4. Acronyms and Definitions

The following abbreviations are used in this document:

ASP	Activated Sludge Process
BNR	Biological Nutrient Removal
BOD	Biological Oxygen Demand
CCT	Chlorine Contact Tank
COD	Chemical Oxygen Demand
MBBR	Moving Bed Biofilm Reactor
MLD	Million Liters per Day
MLSS	Mixed Liquor Suspended Solids



Submitted to UPJAL NIGAM	sustainable solutions. for a better life. 	
	<b>Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)</b>	Rev 0
Date : 6 <sup>th</sup> Nov '24		

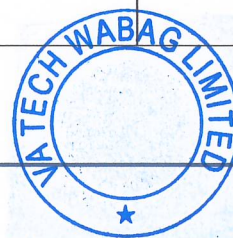
MPN	Most Probable Number
MPS	Main Pumping Station
NMCG	National Mission for Clean Ganga
NGL	Natural Ground Level
O&M	Operation and Maintenance
OPEX	Operating Expenditure
PPP	Public Private Partnership
PS	Pumping Station
RAS	Return Activated Sludge
SPS	Sewage Pumping Station
STP	Sewage Treatment Plant
TN	Total Nitrogen
TP	Total Phosphorus
TS	Total Solids
TSS	Total Suspended Solids
VSS	Volatile Suspended Solids
WAS	Waste Activated Sludge


## 5. Brief Description of Changes

### 5.1. Changes in Inlet Design Parameter

Parameter	Original Design Value	Revised Design Value
pH	7.0 – 7.5	7.0 – 7.5
BOD, mg/l	230	230
COD, mg/l	523	523
TSS, mg/l	498	498
Total Nitrogen, mg/l	-	50 *
Organic Nitrogen, mg/l	-	12.5 *
Ammonia Nitrogen, mg/l	-	32.5 *
Nitrate Nitrogen, mg/l	-	5 *
Total Phosphorus, mg/l	-	7.1 *
Fecal Coliform MPN/100 ml	-	10 <sup>6</sup> – 10 <sup>7</sup> *

\* The data has been considered as per CPHEEO.



Submitted to UPJAL NIGAM	sustainable solutions. for a better life. 		
	Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)		Rev 0
Date : 6 <sup>th</sup> Nov '24			

## 5.2. Changes in Key Performance Indicator


Parameter	Original Design Value	Revised Design Value
pH	7.0 – 8.0	6.0 – 9.0
BOD, mg/l	< 30	< 10
COD, mg/l	< 150	< 50
TSS, mg/l	< 50	< 20
Total Nitrogen, mg/l	-	< 10
Total Phosphorus, mg/l	-	< 1
Fecal Coliform, MPN/100 ml	< 1000	< 230 (Permissible)

WABAG shall not be responsible for adherence to the above requirements of treated effluent mentioned in an event the values of the Influent Standards are as per table below:

Parameter	Revised Design Value
pH	< 6 & > 8.5
BOD, mg/l	< 100 & > 230
COD, mg/l	> 523
TSS, mg/l	> 498
Alkalinity, mg/l as CaCO <sub>3</sub>	< 250
Total Nitrogen, mg/l	> 50
Ammonia Nitrogen, mg/l	> 32.5
Organic Nitrogen, mg/l	> 12.5
Nitrate Nitrogen, mg/l	> 5
Total Phosphorus, mg/l	> 7.1
Fecal Coliform, MPN/100 ml	> 10 <sup>7</sup>

In addition to this, BOD/TKN ratio in raw sewage shall be minimum 4 and BOD/TP ratio in raw sewage shall be minimum 30.



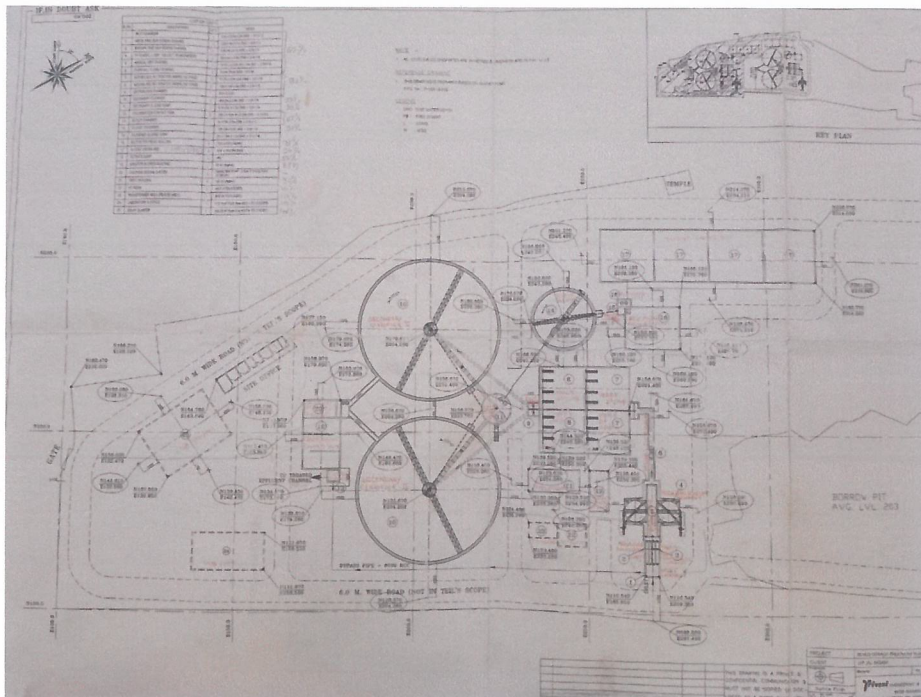
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### Assessment of KPI Parameters

The assessment report of Compliance to KPI for each of the parameter shall be checked on Quarterly Basis. The report shall cover the daily analysis of the average of real time values (flow weighted average) of respective online instruments / analyzer or a daily flow weighted 24 hour composite sample.

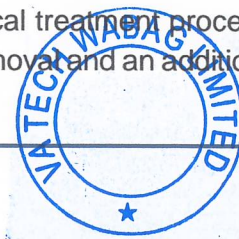
### 6. Brief of Existing Process


The sewage treatment process includes the following stages as raw wastewater enters the inlet chamber, followed by fine screening and grit separation. Flow is measured with a parshall flume, and biological treatment occurs in the MBBR. After settling in the secondary clarifier, the water is disinfected in the chlorine contact tank. Sludge is processed through the sludge thickener, belt filter press, and sludge drying bed. Finally, polyelectrolyte and calcium hypochlorite dosing systems support dewatering and disinfection. The treated water is then discharged.



### 7. Proposed Modifications

In accordance with the NGT norms, the sewage treatment process has been modified with additional components to enhance treatment efficiency. These modifications include the introduction of an anoxic tank for denitrification, and an additional aeration MBBR to improve biological treatment. An intermediate pumping pump has also been added to transport wastewater from the new aeration MBBR to the existing first-stage MBBR tank. Additionally, a MLR pump has been introduced to ensure uniform distribution of oxygen and nutrients to the biofilm, optimizing the biological treatment process. The system now also includes  $\text{FeCl}_3$  dosing tank for phosphorus removal and an additional  $\text{Ca}(\text{OCl})_2$  dosing



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tank to ensure proper disinfection and maintain fecal coliform levels within 230 MPN/100 ml. These enhancements aim to improve the overall treatment efficiency and ensure compliance with NGT norms.

## 7.1. Changes in Process Design

### 7.1.1. Anoxic MBBR Tank

An anoxic MBBR tank is a type of biological treatment system used in wastewater treatment. It combines the MBBR technology, which utilizes suspended plastic media to promote biofilm growth, with an anoxic environment, which is a condition where oxygen is limited or absent. This setup is typically used for denitrification processes that require low or no dissolved oxygen.

### 7.1.2. Additional Aeration MBBR Zone

An aeration MBBR tank is a biological treatment process used in wastewater treatment systems where aeration is provided to encourage the growth of microorganisms that degrade organic matter and other pollutants.

### 7.1.3. Intermediate Pumping Station

An Intermediate Pumping Station is designed to transport wastewater from the new aeration MBBR tank to the existing First stage MBBR tank of the treatment plant.

### 7.1.4. FeCl<sub>3</sub> Dosing System

The purpose of FeCl<sub>3</sub> system proposed for Chemical enhanced Phosphorus removal. Agitator and Dosing Pumps provided for the operation.

### 7.1.5. Additional Ca(OCl)<sub>2</sub> Dosing System

Installation of an additional Ca(OCl)<sub>2</sub> dosing tank to ensure adequate disinfection and maintain fecal coliform levels within the target range of 230 MPN/100 mL.

### 7.1.6. MLR Pump

The MLR pumps is used to transfer the treated sewage with the converted nitrates back to the anoxic tank so that carbon source in the influent sewage is utilized to convert NO<sub>3</sub> to N<sub>2</sub>.



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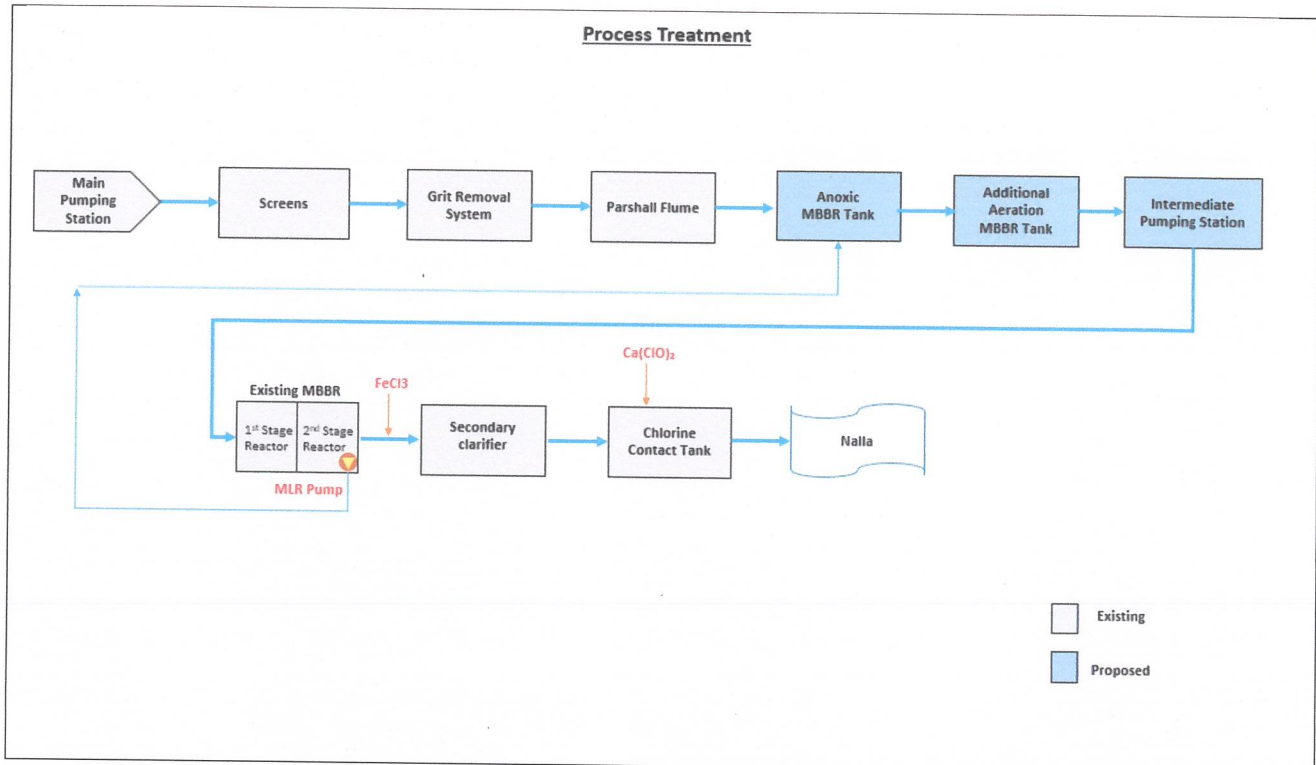
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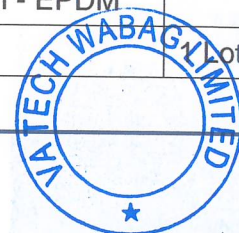
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## 8. Add-on BOQ

S.NO	EQUIPMENT	SPECIFICATION	QUANTITY
1	Anoxic tank	Volume - 625 m <sup>3</sup> Material of Construction - RCC Size – 5 m x 25 m x 5 m	2 Nos
2	Anoxic tank mixers	Material of Construction - SS316	4 Nos
3	Anoxic media	Quantity – 650 m <sup>2</sup> /m <sup>3</sup> Material of Construction – PP Fill Ratio – 30%	1 Lot
4	Anoxic tank retention screen	Material of Construction - SS316 Screen opening – 6 mm	2 Nos
5	Additional Aeration tank	Tank Capacity - 3520 m <sup>3</sup> Material of Construction - RCC Size : 25 m x 28.3 m x 5 m	2 Nos
6	Aeration tank diffuser	Type: Tubular Material of Construction - EPDM	1 Lot
7	Aeration media	Quantity – 650 m <sup>2</sup> /m <sup>3</sup>	1 Lot



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Rev

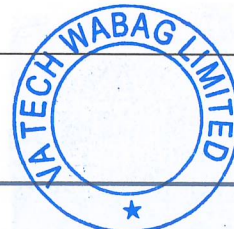
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S.NO	EQUIPMENT	SPECIFICATION	QUANTITY
		Material of Construction – PP Fill Ratio – 30%	
8	Air blower – New Aeration tank	Capacity: 5000 Nm <sup>3</sup> /h @ 6 mWc Material of Construction – CI	3 (2W+1S)
9	Aeration tank retention screen	Material of Construction - SS316 Screen opening – 6 mm	2 Nos
10	MLR Pump	Type – Axial Pump Capacity – 2000 m <sup>3</sup> /h @ 2.5 mWc	4 (2W+2S)
11	Intermediate pumping pump	Type – Submersible Pump Capacity - 1410 m <sup>3</sup> /h @ 2.5 mWc Material of Construction - CI	2 W+1S
12	FeCl <sub>3</sub> dosing tank	Tank Capacity - 1 m <sup>3</sup> Material of Construction – FRP	2 (1W+1S)
13	FeCl <sub>3</sub> Dosing tank Agitator	Material of Construction – SS316	2 (1W+1S)
14	FeCl <sub>3</sub> dosing pump	Type – Diaphragm Metering Pump Capacity - 50 LPH @ 30 mWc Material of Construction - PP	2 (1W+1S)
15	Calcium hypochlorite dosing pump	Type – Diaphragm Metering Pump Capacity - 100 LPH @ 30 mWc Material of Construction - PP	2 (1W+1S)
16	Additional Calcium hypochlorite dosing Tank	Capacity – 5.0 m <sup>3</sup> Material of Construction - RCC	2 (1W+1S)
17	Additional Calcium hypochlorite dosing Tank Agitator	Material of Construction – SS316	2 (1W+1S)
18	Level Transmitters	Non-Contact type	3 Nos.
19	Flow Transmitters	Electro-Magnetic Type	4 Nos.
20	Pressure Transmitters /Gauges	-	1 lot
21	DO Analyzers	-	4 Nos.
22	Nitrate Analyzers		2 Nos.
23	Piping and Valves	-	As necessary



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## 9. Add-on Drives

S.NO	ADDITIONAL LOADS	QUANTITY	MOTOR kW
1	Anoxic tank mixers	4 W	5.5 kW
2	Air blower – New aeration tank	3 (2W+1S)	110 kW
3	MLR Pump	4 (2W+2S)	30 kW
4	Intermediate pumping station	2 W+1S	18.5 kW
5	FeCl <sub>3</sub> dosing tank agitator	2 (1W+1S)	1.1 kW
6	FeCl <sub>3</sub> dosing pump	2 (1W+1S)	0.75 kW
7	Ca(OCl) <sub>2</sub> dosing tank agitator	2 (1W+1S)	1.1 kW
8	Ca(OCl) <sub>2</sub> Dosing pump	2 (1W+1S)	0.75 kW

## 10. Major scope of works

### 10.1. Changes in Mechanical & Piping Works

10.1.1. All equipment with accessories due to above changes in process

10.1.2. Process Pipe Works, Fittings, Valves, Gates, Penstocks and Piping accessories due to change in process

10.1.3. Length & Size increase of Pipe Works, Fittings, Valves, Gates, Penstocks and Piping accessories due to increase in layout

### 10.2. Changes in Electrical Works

10.2.1. MCC Panel considered for the additional drives required for the Additional changes

### 10.3. Changes in Instrumentation Works


10.3.1. Instruments required for the Plant Performance monitoring are considered.

### 10.4. Changes in Civil Works

10.4.1. Modified Civil Units as per table above.

10.4.2. Required footprint to construct the new structures to be provided by Client.



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### 11. Schedule

Construction schedule due to the changes as explained above will be as follows

- |                                    |             |
|------------------------------------|-------------|
| For design and Engineering         | – 6 months  |
| For Construction and Commissioning | – 12 months |

Total Construction Schedule will be 18 months

### 12. Land Requirement

In order to comply with the parameters of the treated effluent recommended by Honorable NGT for the Loni Project will significantly impact the land requirement to accommodate the additional treatment units proposed. It is assumed the proposed land is available for the upgradation.

Tentative Area Required: 3700 m<sup>2</sup>


### 13. Battery Limit Conditions:

MCC will be energized by client

### 14. Technical Assumptions:

1. Presently industrial effluent is getting mixed in the sewage coming to the plant. This industrial effluent need to be segregated and only sewage needs to be fed into the plant. Client shall take care of this segregation.
2. Nitrogen and Phosphorous values of 50 mg/l and 7.1 mg/l have been considered as per CPHEEO manual at the plant inlet respectively.



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**15. Commercial Terms and Conditions:**

**15.1. Commercial Price:**

S. No.	Packages	Price (in INR)- Excluding GST
1	Upgradation Of 30 MLD STP, Loni, Ghaziabad(In Order To Comply With NGT Norms)	Rs. 27,00,00,000/- (Rupees Twenty Seven Crores only )

**15.2. Payment Terms:**

Refer Head of Terms (HoT).

**15.3. Completion Period:**

21 months from the date of commencement

Commencement date: 28 days from later of the following

1. Receipt of LOI,
2. Receipt of advance payment,
3. Encumbrance free site handed over to Wabag.

**15.4. Offer Validity:**

Three (3) Months from the date of submission of this offer.

**15.5. Performance Bond/Bank Guarantee(PBG):**

Refer Head of Terms (HoT)

**15.6. Limitation of Liability:**

25% of the Accepted Contract amount.

**15.7. Statutory Variations:**


Any statutory variations in taxes & duties on material & services shall be paid extra. Any change in law from the date of submission shall be applicable and paid extra.

**15.8. Effective/Commencement date of Contract:**

The start date of the contract will come into force 28 days from later of the following

- a. receipt of LOI,
- b. receipt of advance payment,



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Date : 6 <sup>th</sup> Nov '24	<b>Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)</b>	<b>Rev</b>  0	<b>Page</b>  13 of 17

c. encumbrance free site handed over to Wabag

**15.9. Inspection:**

For the Major supply portion (to be defined) WABAG shall give Buyer two (2) weeks' notice inviting Buyer to inspect the goods at sub-vendor's works. In the event the goods are not inspected during this period, the inspection shall be deemed to be waived by you and we shall dispatch the goods to the Site. Third Party Inspection agency shall be appointed by Buyer and corresponding cost related to third party inspection agency and Buyers representative will be in Client scope.

**15.10. Warranty:**

We warrant that the plants and equipment that shall be supplied by us shall be new and comply with the standard and specifications as detailed in our technical bid. We warrant our plant & equipment against any manufacturing defects for a period of 12 months from the date of dispatch.

During the warranty period we shall be liable for any defect in material, workmanship and manufacture and shall replace/rectify any such defect noticed during the warranty period. We shall however not be liable for any defects arising out of mishandling, incorrect operation or not following the directions be detailed in our operation and maintenance manual.


**15.11. Consequential losses:**

Neither WABAG nor BUYER shall be liable to the other by way of indemnity, warranty or guarantee or by reason of any breach of the Contract or of statutory duty or by reason of not (including negligence and strict or absolute liability) or otherwise for any other loss of profit, loss of use of equipment, cost of capital, downtime costs, loss of opportunity, loss of goodwill, loss of production, loss of contracts or for any other special, exemplary, incidental or consequential damages that may be suffered by the other and claims of the other Party for such damages.

**15.12. Termination Clause**

Head of Terms (HoT) for the above shall be discussed and agreed mutually.



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### 15.13. Payment on Termination for Buyer's Default

In the event of termination as provided, BUYER shall pay to WABAG within ninety (90) days of a properly substantiated invoice the cost of the work performed to the date of termination, not to exceed the Contract Price, less amount previously paid.

### 15.14. Force Majeure


If at any time during the continuance of this Contract the performance by either party under this Contract shall be prevented by reasons of any war/war like situations, invasion, acts of enemies, hostilities, riots, civil commotion, labor disturbance, strikes, lockouts, layoffs, mutiny, insurrection, rebellion, revolution, accidents, sabotage, fire, natural calamities like epidemics, earthquake, floods, etc. also delay or inability due to change in government policies and orders obtain materials due to change in Import Policy or other statutory restrictions, lack of transport facilities, interruptions/restrictions in power supply, damage to or breakdown of plant, machinery and equipment etc. (hereinafter referred to as eventuality) then provided notice of the happening of any such eventuality is given by either party to the other within fifteen (15) days of such eventuality, be entitled to terminate this Contract, nor shall either party have any claim for damages against the other in respect of such non-performance and the work under this Contract shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exit.

Under such circumstances the contractual delivery period shall be extended by a period equal to that during which such eventuality operated plus an additional period, if any, as may be considered reasonable by Buyer. Should one or both parties be prevented from fulfilling their contractual obligations by a state of Force Majeure lasting continuously for a period of at least 6 months, both the parties shall consult each other regarding the further implementation of the contract, provided always that, if no mutually agreed arrangement is arrived at within a period of one month from the expiry of the six months referred to above, the Contract shall be deemed to have expired at the end of the said 6 months referred to above. The above mentioned expiry of the Contract will imply that both the parties have the obligation to reach an agreement regarding the winding up and financial settlement of the contract.

### 15.15. Governing Law

Governing law shall be Laws of India.



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### 15.16. Dispute Resolution

The arbitration proceedings shall be conducted by the Indian Council of Arbitration ("ICA") applying Arbitration and Conciliation Act, 1996. The Seat of the arbitration shall be Chennai. The language of arbitration proceedings, documents and communication shall be English.

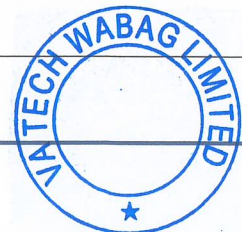
### Annexure 1 - Head of Terms


<b>Scope</b>	Scope between Client and EPC contractor shall be as per price basis & this offer.
<b>Price</b>	Lump sum price
<b>Permits and Statutory Approvals</b>	Shall be the responsibility of the Client. EPC Contractor shall support and provide necessary inputs, documentation as applicable to its scope for obtaining the permits, licenses, statutory approvals.
<b>Performance Bond</b>	3% of Contract Price for the scope of EPC contractor valid up to successful completion of performance guarantee test run.
<b>LD cap for Performance</b>	5% of the Contract price
<b>Liquidated Damages for Delay</b>	LD for Delay shall be levied at the rate of 0.05% per week of the Contract Value per day up to a maximum cap of 5% of the uncompleted portion of work of contract value.
<b>Aggregate Liquidated Damages cap (delay and performance)</b>	Maximum 10% of the EPC Contract price
<b>Taxes and Duties</b>	Price is exclusive of all taxes and duties.



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Date : 6 <sup>th</sup> Nov '24	<b>Techno Commercial Offer For Upgradation Of 30 MLD STP, Loni, Ghaziabad (In Order To Comply With NGT Norms)</b>	<table border="1"> <tr> <td data-bbox="1257 179 1380 224">Rev</td> <td data-bbox="1380 179 1492 224">Page</td> </tr> <tr> <td data-bbox="1257 224 1380 302">0</td> <td data-bbox="1380 224 1492 302">16 of 17</td> </tr> </table>	Rev	Page	0	16 of 17
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<b>Payment Terms</b>	<ol style="list-style-type: none"> <li>1. <b>Basic design Submission</b> – 5% (pro rata) of total order value.</li> <li>2. <b>Detail design Submission</b> – 5% (pro rata) of total order value</li> <li>3. <b>Civil Works</b> –       <ol style="list-style-type: none"> <li>a. 40% of total order value on completion of civil works on pro rata basis.</li> </ol> </li> <li>4. <b>Supply completion</b> – 45% of total order value on pro rata basis on material reaching site.</li> <li>5. <b>Installation completion</b> – 2.5% of total order value on pro rata basis.</li> <li>6. <b>Commissioning Completion</b> – 2.5% of total order value on successful commissioning completion</li> </ol>
<b>Variations/ Extension of time</b>	Any change in the tender conditions or ground or soil conditions will be subject to variations.
<b>Limitation of Liability and Consequential losses</b>	<p>a. The aggregate liability of EPC contractor shall not exceed (25%) of the Contract Price for EPC contractors scope of work.</p> <p>b. Neither Party shall have any liability to the other for any special, indirect, incidental, or consequential loss or damage, including loss of profit, loss of contract, loss of Plant production, data, interest payments etc., in connection with the Contract.</p>
<b>Change in Law/ Introduction of new law, tax / Change in Taxes and Duties</b>	<p>EPC contractor Contract value shall be adjusted to take account of any increase or decrease in all costs resulting from the reason not attributable to EPC contractor including but not limited to:</p> <p>(a) any act, omission, default or breach by the public authority, public authority's representative and/or their agents, employees</p> <p>(b) a suspension by the public authority; and</p> <p>In the event that EPC contractor suffers and/or incurs additional cost as a result of change in laws, Imposition of New Taxes or fees and regulations, the Contract value shall be adjusted. The public authority shall exercise all reasonable effort to mitigate the additional cost resulting from the changes in laws and regulations.</p>



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<b>Unforeseen site conditions</b>	EPC contractor shall be entitled to both an extension of time and cost for unforeseen site conditions
<b>Price Adjustment</b>	Effective date shall be the date of this offer and Base date shall be from the date of receipt of LOI. Source of Indices and weightage shall be mutually agreed.
<b>Currency of Bid</b>	INR
<b>Currency of payment</b>	INR
<b>Right of way</b>	By Client
<b>Power and water for Construction, Commissioning and Performance Test</b>	By Client (free of cost)
<b>Chemicals for Commissioning and Performance Test</b>	By Client (free of cost)

End of Document





An ISO 9001 Company

Ref. VATW/2024-25/PKG-8/GZBD/UPJN/430  
Dt: 07 November, 2024

VA TECH WABAG LIMITED

Project Office:

56 MLD, STP, Shakti Khand-4,  
Indrapuram, Ghaziabad,  
U.P. – 201014, India  
Web: www.wabag.com

To,

The Superintending Engineer,  
Construction Circle,  
U.P. Jal Nigam (Urban),  
Ghaziabad.

**Subject: Techno Commercial Offer/Proposal for Immediate Upgradation of the Sewage Treatment Plant (STP) to Meet the Mandated Standards prescribed by Hon'ble National Green Tribunal (NGT), Delhi.**

- Ref: i. Order dated 30.04.2019 passed by the Hon'ble National Green Tribunal (NGT) dated 30.04.2019 in *Nitin Shankar Deshpande Vs. Union of India & Others*.  
ii. Order dated 23.10.2024 passed by Hon'ble NGT in Miscellaneous Application No. 38/2023 in Original Application No.196/2022  
iii Agreement No. 09/SGRCA/2017-18 (OM&M) Contract Package-8, Zone-Ghaziabad dated 15.11.2019  
iv. Our letter dated 17.10.2024  
v. Our letter dated 31.10.2024  
vi. Techno Commercial Offer (Proposal) for upgradation of 30MLD STP, Loni

Dear Sir,

In reference to our letter dated 31.10.2024 cited above are our earlier discussions, we are pleased to enclose our Techno Commercial Offer dated 06.11.2024 outlining the indicative pricing for upgrading the 30 MLD Sewage Treatment Plant (STP), located at Loni, Ghaziabad and to ensure compliance with the outflow standards mandated by the order of the National Green Tribunal (NGT) in *Nitin Shankar Deshpandey Vs Union of India & Ors, OA no 1069/2018* dated 30.04.2019.

This offer/proposal has been prepared based on our preliminary assessment and covers the essential modifications needed to bring the STP design parameters in line with the required regulatory standards. This is an indicative pricing offer and upon detailed consultation with you giving due consideration and basis of your response, the offer shall be finalised.

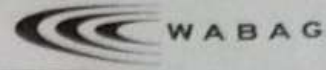
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Web : wabag@wabag.in

Regional Offices:  
Noida  
Kolkata  
Pune



An ISO 9001 Company

As detailed in our Techno-Commercial Offer, these upgrades aim to achieve the desired outflow quality and performance benchmarks stipulated by the NGT, thereby ensuring compliance and avoiding potential penalties. We are fully committed to support UP Jal Nigam in maintaining the operational integrity and compliance of the STP.

We trust this offer meets your requirements. Please feel free to contact us for any further clarification or to discuss any specific adjustments needed. Upon your response to the offer and finalisation, we shall be fully prepared to expedite the upgradation process.

Thank you for the opportunity to provide this offer. We look forward to your favourable response.

Sincerely,

For VA Tech Wabag Ltd.



(Sunil Kumar Singh)  
Project Manager, Ghaziabad Zone Pkg-8

ENCLOSED:

1. Techno Commercial Offer For Upgradation of 30 MLD STP, Loni, Ghaziabad (in order to comply with NGT Norms) dated 06.11.2024.

Copy To:

1. Managing Director, U.P. Jal Nigam (Urban), Lucknow.
2. Joint Managing Director, U.P. Jal Nigam (Urban), Lucknow. ✓
3. Chief Engineer (GZB Zone), U.P. Jal Nigam (Urban), Ghaziabad.
4. Superintending Engineer, Construction Circle (E/M), U.P. Jal Nigam (Urban), Ghaziabad.
5. Executive Engineer, Construction Division (Ist), U.P. Jal Nigam (Urban), Ghaziabad.
6. Executive Engineer, Construction Division (E/M), U.P. Jal Nigam (Urban), Ghaziabad.
7. Executive Officer, Nagar Palika Parishad, Loni.

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Pune