IN THE HIGH COURT OF GUJARAT AT AHMEDABAD

R/WRIT PETITION (PIL) NO. 98 of 2021

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SUO MOTU

Versus

AHMEDABAD MUNICIPAL CORPORATION THROUGH THE MUNICIPAL COMMISSIONER, AHMEDABAD & 3 other(s)

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Appearance:
MR HEMANG M SHAH(5399) for the Applicant(s) No. 1
SUO MOTU(25) for the Applicant(s) No. 1
G H VIRK(7392) for the Opponent(s) No. 1
GOVERNMENT PLEADER(1) for the Opponent(s) No. 4
MR DEVANG VYAS(2794) for the Opponent(s) No. 3
MR KH BAXI(150) for the Opponent(s) No. 4
MR RUTUL P DESAI(6498) for the Opponent(s) No. 2
MS. KRUTI M SHAH(2428) for the Opponent(s) No. 5
NOTICE SERVED BY DS(5) for the Opponent(s) No. 6

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CORAM:**HONOURABLE MR. JUSTICE J.B.PARDIWALA**
and
HONOURABLE MS. JUSTICE VAIBHAVI D. NANAVATI

Date : 21/10/2021

ORAL ORDER

(PER : HONOURABLE MR. JUSTICE J.B.PARDIWALA)

1. We have heard Mr.Hemang Shah, the learned Amicus Curiae, Mr.Mihir Joshi, the learned senior counsel assisted by Mr.G.H.Virk, the learned counsel appearing for the Ahmedabad Municipal Corporation, Mr.Devang Vyas, the learned counsel appearing for the Gujarat Pollution Control Board, Mr.Prashant Desai, the learned senior counsel appearing for the respondent running the Sewage Treatment Plant at Ahmedabad and Ms.Kruti M.Shah, the learned counsel appearing for the respondent Society.

2. We also had the benefit of hearing Mr. Prajapati, one of the members of the Joint Task Force on various issues.

3. The report submitted by the learned Amicus reads thus;

> *"This report is submitted pursuant to the report dated 20.10.2021 submitted to the undersigned by the Joint Task Force who had undertaken field visit from 07.10.2021 to 09.10.2021 for carrying out inspection of the outfalls/discharges in Sabarmati River, Sewage Treatment Plants (STPs) and Common Effluent Treatment Plants (CETPs). At the time of their visit, CETPs were shut down for maintenance work. Hence, on 13.10.2021 and 14.10.2021 visit was undertaken to visit the CETPs. Pursuant to their visit, a report had been submitted to the undersigned and which is annexed hereto and marked as* ***Annexure-Z****.*
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> ***Observations from the Report****:*
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> *Sewage Treatment Plants:*
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> *A rosy picture had been peddled by Ahmedabad Municipal Corporation projecting that all is well at their end. However, the report submitted by the Joint Task Force reflects the other way round. The report brings out the flaws in the running of Sewage Treatment Plants. The Joint Task Force had visited 16 outfalls covering both sides of Sabarmati River. This includes 6 outfalls of sewage from STPs, 4 outfalls of CETPs/industrial wastewater and 6 outfalls carrying untreated sewage from various parts of the city.*
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> *The Joint Task Force after carrying out detailed inspection had opined that the operations of STPs are not being properly reviewed and evaluated and systematic problems are never questioned and*

addressed. In many cases even basic operational issues of STPs are not noticed by operating agencies/ Ahmedabad Municipal Corporation and neither are they taken up for redressal. The Joint Task Force had requested Ahmedabad Municipal Corporation to provide necessary details and even then, Ahmedabad Municipal Corporation failed to provide complete details. This itself shows that there is no proper record of operational status and issues maintained by Ahmedabad Municipal Corporation.

It has been peddled that the laboratory in every STP is functioning. The laboratory set-up in every STP is not adequately equipped to test the constituents of the sewage and operational parameters. The staff is not adequately trained and sensitized to carry out the tests and analyse the results. Thus, the in-house operating and monitoring system at the STP plants and their laboratories is not upto the requisite mark.

The Joint Task Force had observed that the data collected and provided by Ahmedabad Municipal Corporation does not match with the analysers placed at certain points to monitor the flow of wastewater. Ahmedabad Municipal Corporation had provided the details of 180 MLD STP (i.e. Pirana STP run by DNP Infrastructure) wherein the BOD is much less than the BOD reported by Gujarat Pollution Control Board. The concentration values are ***same*** *and which is a rare occurrence. This shows that the data provided by Ahmedabad Municipal Corporation is fudged to peddle and thereby portray a rosy picture. Hence, the data as provided by Ahmedabad Municipal Corporation for its STPs should not be relied upon by this Hon'ble Court.*

At this juncture it would also be prudent to refer to the additional affidavit dated 23.09.2021 filed by Ahmedabad Municipal Corporation. In response to the report submitted by the Amicus Curiae, it had been stated in para no. 10 thereof that Ahmedabad Municipal Corporation had not provided any

preferential treatment to DNP Infrastructure. The said contention stands falsified by the report of the Joint Task Force.

The report of Joint Task Force clearly shows as to how Sewerage Operations department of Ahmedabad Municipal Corporation is functioning. Blatant lies are being peddled. Hence, Municipal Commissioner, Ahmedabad Municipal Corporation, Ahmedabad should be called upon to remain present before this Hon'ble Court and answer as to why there are so many flaws existing in the running/functioning of STPs especially when public exchequer money is being utilised along with loans availed from world bank.

Common Effluent Treatment Plants:

The Joint Task Force had visited certain industries and collected samples, results for the same are awaited. During the visit it was found that Odhav Enviro Project Ltd (1.2 MLD) did not operational flow meter for both the inlet streams. Moreover, the said agency was found utilising sewage water. The Consolidated Consent & Authorization issued by GPCB does not mention the amount of sewage water it can draw. This implies that sewage water is utilised for diluting effluent laden water which may partially be treated or not even treated. At Naroda enviro Projects Ltd., it was found that the concentration of COD was 365 mg/lt which was more than the prescribed limit of 250 mg/lt. Moreover, the spray dryer which was required to be operational was found not to be operational because of the not disposing the residue in time. This implies that the plant is not running efficiently. Similarly, at Green Environment Services Co-op Society Ltd., it was found that concentration of COD was 332 mg/lt.

Suggestions:

The Joint Task Force has suggested certain actions

which are required to be undertaken on top priority basis by Ahmedabad Municipal Corporation and Gujarat Pollution Control Board.

***Judgment rendered by National Green Tribunal**:*

Sabarmati River was one of the 351 polluted rivers. Pursuant to the judgment rendered by the Hon'ble Supreme Court, National Green Tribunal had rendered its judgment and in which every State was directed to form river rejuvenation team which would function under the guidance of the Chief Secretary of the concerned State. Hence, the Chief Secretary of Gujarat State should be called upon to remain present and explain whether the river rejuvenation team is formed and what is the further course of action. The Chief Secretary should also be called upon to remain present and explain what steps had been undertaken by him for rejuvenating Sabarmati River.

***Miroli**:*

Pursuant to the oral order passed by this Hon'ble Court, advocate appearing for Miroli Sahakari Mandli and the undersigned had undertaken site inspection from where chemical laden water flowing through Sabarmati River was being drawn. It so happens that the said Mandli had stopped utilizing the water from Sabarmati River. They were running borewells through which they were drawing water from the underground water table. The villagers are in need of water and they had approached the authority for providing them water from Narmada canal. However, their request was turned down. Hence, the Chief Secretary should be called upon to take appropriate steps and thereby provide water supply to the farmers who were relying upon Sabarmati River for agriculture purpose. "

4. The report of the field visit undertaken by the Joint

Task Force between 7th October, 2021 and 9th October, 2021 reads thus;

"**FIELD VISIT REPORT OF JOINT TASK FORCE CONSTITUTED BY HON'BLE HIGH COURT OF GUJARAT IN WRIT PETITION PIL NO. 98 OF 2021**

The Joint Task Force (JTF) visited Ahmedabad during 07th October to 09th October 2021 to undertake field visits of outfalls / discharges in Sabarmati River, Sewage Treatment Plants (STPs), Common Effluent Treatment Plants (CETPs), and conducted second meeting of the joint task force at Ahmedabad on 08th October, 2021. The minutes of the meeting held at Ahmedabad on 08th October, 2021 are given at **Annexure-1**. All members of JTF participated in the visit. The Task Force members gathered at location near V. N. Bridge of Ahmedabad on 07th October 2021. JTF members were informed by GPCB that all CETPs discharging through Mega Pipe Line are not in operation and not discharging effluent due to some leakages issue in the Mega Pipe Line which has been taken up for repair and maintenance. GPCB informed that there was no prior intimation from CETPs regarding the same. Therefore, JTF decided to cover outfalls / drains of identified stretch of Sabarmati River and STPs for the purpose of inspections. The locations /spots covered by JTF during 07th October to 09th October 2021 for inspection are listed below.

Location / spot	**Date of visit**
Outfalls of 182 MLD sewage pumping station	07.10.2021
Outfall of Mega Pipe Line	
Outfall of Narol CETP (Textile)	
155 MLD STP	
180 MLD STP	
Outfall of 180 MLD and 155 MLD STP	
Outfall of 106 MLD + 60MLD Old Pirana STPs	
Outfall of Dani Limda industrial area	

Location / spot	Date of visit
25 MLD STP, Shankar Bhuvan	08.10.2021
60 MLD Jalvihar STP	
Outfall of 60 MLD STP near River Front (Jalvihar)	
60 MLD Pirana STP	
106 MLD Pirana STP	
03 By-pass discharge line observed within the premises of 60 MLD + 106 MLD.	08.10.2021
48 MLD STP at Vasna	
240 MLD STP at Vasna	09.10.2021
35 MLD STP at Vasna	
126 MLD STP at Vasna	
Sabarmati River at U/s of 60 MLD Jalvihar outfall in River Front	
Sabarmati River at d/s of 25 MLD Shankar Bhuvan STP outfall in River Front	

Subsequent to the above visits, inspections of industries & CETPs also carried out by the Gujarat Pollution Control Board along with member of JTF on 13th and 18th October, 2021. Inspection & sampling in 03 industries and 04 CETPs covered during the visits. Inspections of more industries and remaining CETPs are to be covered besides meeting with the industries associations and operators of CETPs. Detailed findings and observations on the industrial wastewater management part shall be covered after a few more visits as well as receipt of information and therefore only preliminary observations are given in this report. List of industries & CETPs covered so far are depicted below:

S. No.	Industry/CETP	Date of visit
1.	Narayan Dyestuff Pvt. Ltd., Vatva	13th October, 2021
2.	Atlas Pharmachem Industries Pvt Ltd., Vatva	
3.	Mac Dye Chem Industries, Vatva	
4.	Odhav Enviro Project Ltd (1.2 MLD)	18th

5.	Odhav Green Enviro Project Ltd. (1 MLD)	October, 2021
6.	Naroda Enviro Projects Ltd. (14 MLD) (9 MLD Sewage; 2 MLD primary treated effluent from food & textile industries and 3 MLD industrial wastewater from member units)	
7.	Green Environment Services Co. Op. Society Ltd (16 MLD)	

The overall findings based on observations made by JTF to above locations and discussion with officials & other stakeholders, categorized in following five parts for the purpose of reporting:

1. Findings & observations at outfalls/drains locations
2. Findings & observations at STPs of AMC
3. Findings & observations on institutional coordination and functional mechanism
4. Summary of recommendations for actions to be initiated
5. Preliminary observations based on visit to industries and CETPs

It is worth to mention that significant part of information desired by JTF from various agencies is received and some information/details are yet to be supplied/supplemented and therefore comments/observations are based on preliminary scrutiny of the information supplied so far.

2.0 FINDINGS & OBSERVATIONS ON OUTFALLS/ DRAINS LOCATIONS

The JTF visited total 16 outfalls covering both the sides of the Sabarmati River in Ahmedabad. This includes 6 outfalls of sewage from STPs, 4 outfalls of CETPs/industrial wastewater and 6 out falls reportedly carrying untreated sewage from various parts of the city. These outfalls are disposing untreated, inadequately treated and treated wastewaters. The estimation normally done by AMC

about sewage generation and discharge are based on the per capita water supplied in the city. However, JTF is in the opinion that actual generation of sewage/ domestic wastewater in the city could be more than 1300 MLD, a small part of which is discharged into Fatehwadi canal after treatment and the remaining is disposed in the Sabarmati River with partial or no treatment. Over and above about 175 MLD of treated / untreated / partially treated industrial wastewater from various industrial areas of Ahmedabad is disposed in the Sabarmati River. Samples of some of the outfalls and STPs collected in duplicate during the visit by GPCB in presence of JTF for analysis in the laboratory of GPCB and another lab recognized under Environmental (Protection) Act, 1986.

AMC has reported 25 storm water drains on eastern side of the river and 30 storm water drains on the western side of the river. Presence of sewage or industrial wastewater flow in any of these storm water drains is required to be ascertained and reported by AMC.

Traces of colored industrial effluent discharge observed by the JTF in soil strata at location near outfall of 155-180 MLD STPs in Sabarmati River near Gyasspur road area. Close surveillance and high vigil are required to be strengthened in this area to keep a check on unauthorized activities.

Use of drone mapping of both the banks of the Sabarmati River is also required in Ahmedabad to rule out any unaccounted outfall/drain disposing sewage or industrial effluent into the Sabarmati River.

It is important to know the measurement-based quantum of sewage/wastewater discharge from various outfalls/drains along with their characterization in terms of presence of pollutant parameters. Therefore, it is suggested that AMC to undertake the flow/discharges measurement from all

the outfalls & drains with the help of any expert engineering institution to prepare the realistic inventory with all the details of locations, methodology used for measurement, flow data, location coordinates, photo and nearby landmark. The outfalls data is to be linked with characterization done by GPCB so that clear assessment in terms of quantity & quality can be used for devising appropriate strategy. Outcome could be of great help to AMC in revisiting their plans for strengthening of sewage management of the city and also for plans to meet future requirements as well.

Work on the mentioned aspects of quantification and characterization is required to be completed in two months' time. The AMC has to make necessary arrangements for access to locations to facilitate flow measurement and characterization. Meanwhile, it is required that in-situ remediation facility in drains/nallahs carrying sewage should be explored as immediate task. Technologies and practices adopted by several municipal bodies across the country may be referred for the same.

3.0 FINDINGS & OBSERVATIONS ON STPs OF AMC

Following 10 numbers of STPs are mentioned in the list provided by AMC with name of O & M agencies.

1.	240 MLD Vasna
2.	35 MLD Vasna
3.	48 MLD Vasna
4.	126 MLD Vasna
5.	180 MLD Pirana
6.	60 MLD Pirana

7.	106 MLD Pirana
8.	60 MLD Vadaj
9.	25 MLD Shahpur
10.	155 MLD Pirana

The total installed treatment capacity of above STPs is 1035 MLD. All the above STPs, except S. No. 1, 2 & 3 are having their discharge in the Sabarmati River. The treated sewage from STPs S. No. 1, 2 & 3 is discharged into canal for irrigation purpose. The JTF visited STPs to see the status of following aspects:

a. Operational status & issues
b. Treatment technology used
c. Laboratory facility
d. Data generation & review

3.1 Operational status & issues

The JTF observed varying operational and maintenance issues with the treatment units of most of the STPs. The JTF observed that STPs of the Shankar Bhuvan (25 MLD), Jalvihar (60 MLD), 48 MLD STP and 240 MLD STPs are working seemingly satisfactorily and to be confirmed with analysis results of the samples collected. Remaining sewage is discharge in Sabarmati River either untreated or after partial/improper treatment. It was observed that the STPs those functioning efficiently, received a uniform hourly flow of sewage with average daily flow matching with their hydraulic treatment capacity. This is important as for any biological treatment to function efficiently, the hydraulic and organic load to the treatment system should be as uniform as possible. It is also important to closely monitor the operational parameter of the STPs to ensure efficient operation. It is felt that identification of operational issues for redressal from time to time

falls very much in the scope of owner & operating agencies with proper understanding, and therefore only a few observations with respect to operational issues made by JTF during visit to STPs are summarized below to indicate the need of attention:

a) The new STP of 155 MLD capacity is reportedly under stabilization with significant hydraulic loading and likely to be stable within two months. However, the online analyzers provided for treated sewage is generating erroneous data with highly absurd values. The issue would have been taken care at the beginning itself when it is important to monitor the performance of STP during stabilization.

b) Some of the aeration units of 180 MLD STP at Pirana were not functional during the visit of JTF. One treatment train of 60 MLD, which is part of 180 MLD STP was observed to be defunct. The indicative operational parameter of MLSS in Aeration Tank was observed almost nil. The AMC has provided excel data sheet of operation of 180 MLD STP of Pirana which shows biogas composition value as zero (for CH_4, CO_2, H_2S) without any comment on it and at the same time copy of billing of biogas supplied is also provided. These two submissions are in contradiction and required to be examined by AMC. The **Annexure-2** may be referred in this regard.

c) Only one out of two primary clarifiers of the 60 MLD STP was found operational during visit. The primary clarifiers are in urgent need of repair and maintenance.

d) The old lagoon based STP of 106 MLD has three bypass lines of sewage in the premises reportedly one of excess sewage received for the STP, second from Maninagar pumping station and third one from an unknown source.

e) No biomass is observed in the STP of 35 MLD capacity. The operational parameters are not monitored, as the analytical facility of the laboratory was not functional and the STP is not equipped with online analyzers.

The AMC has raised issues of sporadic instances of receipt of acidic effluent at inlet of STP for which it is required that efforts to identification of potential area based on pH monitored at pumping station to be done for increased surveillance and check. Additionally, provision of neutralization of wastewater received at STPs may be made so that upset of biological treatment system of STP may be prevented. It is felt that GPCB & AMC may workout the sharing of significant part of EDC recovered in the cases of unauthorized acidic effluent discharge which may be used solely for operation of neutralization system of STPs of AMC.

Operations of STPs are not being properly reviewed & evaluated and systemic problems are never questioned and addressed. It is concluded by JTF that many of even basic operational issues of STPs are not noticed by operating agencies /AMC and not taken up for redressal so far.

In view of this it was suggested by JTF that AMC to take this as an opportunity to provide information on its own with respect to stage wise operational status of all STPs (with specific mention of any of the treatment units of all the STPs, if non-functional / by-passed / under maintenance), provision of Online Continuous Effluent Monitoring System (OCEMS) at inlet and outlet of STPs, wherever provided along with details of technology used, calibration of system and any difficulty in running and operation of individual STPs. However, AMC has provided generalized O & M (Civil & Mechanical) issues of 5 STPs. The treatment unit-wise specific status (specially, functionality/operational/bypass/under-maintenance status) is not provided which is of

immense importance. Online analyzer details of only 2 STPs (60 MLD Jalvihar and 25 MLD Shankar Bhuvan STP) are provided that too is not complete, as the calibration certificates are not provided. No issue with respect to adequacy of laboratories of respective STPs for operational parameters, data reporting, data reliability, skills of operators/chemist etc are reported by AMC, however significant flaws were observed by JTF during the visit.

3.2 Treatment technology used

The STPs of AMC are established during different periods and therefore having different technologies of treatment. STP of 106 MLD is based on aerated lagoons and a few are based on Activated Sludge Process. The recent new STPs are based on SBR technology. The new STPs have less land requirement and better process control subject to the condition that hydraulic and pollution load is maintained as per designed criteria and operational parameters are closely watched. All the treatment technologies are effective in treatment of sewage. However, it is worth mentioning that irrespective of the technologies adopted, the scientific operation, regular maintenance and close monitoring of operational parameters of STP is of prime importance to achieve the maximum effectiveness in terms of removal of pollution load.

3.3 Laboratory Facility of STPs

The JTF also visited laboratories of the STPs to see their functional status. The JTF observed non-functional lab equipment and absence of raw data /calculations to support the actual analysis done, chemical consumption etc. It was observed that the analysis data entered in the record book were having number of duplications and followed a typical repetitive trend. The laboratory used to examine inlet/outlet quality at the STPs are not adequately equipped to test the constituents of the sewage and

operational parameters, while the staff at the laboratories is also not adequately trained and sensitized to perform the required tests and analyze the results. In-house operating and monitoring mechanism of the STP Plants and their laboratories is insubstantial.

3.4 Data generation & review

The JTF has observed that the data generated with respect to the quantity and quality of generated raw sewage is not properly verified and validated so far. There are substantial evidences of analytical results reported by STPs indicating unreliable & unrealistic results. The laboratory facilities were either inadequate or not used for analysis. In those STPs wherein the treatment of sewage was poor or almost Nil, the agency operating the STP generated the analysis data of COD, BOD, TSS, TDS, etc. with typical range and pattern without even with impact of seasonal variation or impact of rains in sewage quality. Most of the STPs are showing typical trend of reduction in total dissolved solids concentration after treatment without any treatment technically supporting to facilitate such reduction. Even the online analyzers placed at certain places are showing unreliable & unrealistic data. **Annexure-3** may be referred in this regard. It may be seen that results of treated sewage (180 MLD STP) reported by AMC are far less than the results reported by GPCB. Also, the same table of AMC shows typical repetition of concentration values which is rarely possible. Another table of SCADA data of 155 MLD STP shows unrealistic values of pH, COD and BOD. The values of BOD are shown more than two times of COD, which is not possible. Even the pH value is reported beyond the standard scale of measurement. Further, the data pertaining to power consumption of Terminal Sewage Pumping Stations (TSPS) supplied by Torrent Power are showing significant variation on monthly basis and not following any trend.

Conclusively, the data with respect to the quality of treated or untreated sewage provided by STPs cannot be relied upon and cannot support in diagnostics and healthy operation of STPs.

A system of proper sampling, analysis with standard methods, quality checks, data review and validation need to be established for all STPs. The mechanism to check proficiency of laboratories also required to be established on priority.

The data with respect to quantity and flow of sewage is required to be validated/verified with actual measurement exercise from time to time. It is worth mentioning that plans and strategies based on unrealistic data is less likely to achieve the desired goal. Therefore, submission of realistic data & issues by respective stakeholders is expected for strategic interventions.

4.0 FINDINGS & OBSERVATIONS ON INSTITUTIONAL COORDINATION AND FUNCTIONAL MECHANISM

The need of generation of authentic data of sewage/ wastewater generation, disposal and characterization itself shows the lack of institutional coordination and functional mechanism. It is felt by JTF that stakeholders like STP operators, AMC and GPCB are working in fragmented manner with lack of coordination. Huge volume of data through SCADA system, online analyzers and through laboratory analysis works has been generated on regular basis but the data is not verified for its authenticity, validity, reliability and not used for corrective measures/steps. The STPs malfunction is more systemic than technical.

It is important that operation of STPs should be reviewed more frequently & rigorously when it is outsourced for O & M. The data generated by operators should be verified and examined for

actions required. Such actions should also be followed-up for completion. AMC and GPCB may examine the operation of STPs in detail at certain suitable frequency separately and exchange their views/observations for measures/steps required.

The AMC has provided Schedule D - Liquidated Damages (For non-conformance in meeting the Output Standards for Treated Sewage set as per this tender specifications, Guaranteed Power consumption & Power Factor for electrical installation) to JTF for reference. Use of such provision in last three years and policy for use of penalty recovered if any could be further examined by concerned agency to workout steps for strengthening of institutional coordination and functional mechanism.

Joint evidence-based efforts for identification of defaulters causing damage or disturbing treatment and disposal mechanism of sewage and wastewater are required. There should be exchange of information as a process of assistance and facilitation rather than pointing the fingers.

5.0 PRELIMINARY OBSERVATIONS BASED ON VISIT TO INDUSTRIES AND CETPS

Inspection of industries started with three industries in Vatva area. The inspection team collected information and made observations about provision & operation of effluent treatment system. Samples of effluent also collected during the visit. Analysis results are awaited. The reports with findings on analysis results shall be prepared on receipt of results and information asked for with conclusive remarks. It is also to mention here that more number of industries are to be covered for inspection to come out with overall scenario of treatment or pre-treatment facility.

The CETP of Odhav Enviro Project Ltd (1.2 MLD)

reportedly receives about 0.7 MLD of industrial effluent and 0.5 MLD of domestic sewage. The CETP was found operational during visit, reportedly with about 50% hydraulic load due to ongoing maintenance in the mega pipeline. The CETP is not equipped with operational flowmeter for both the inlet streams to confirm the above facts. The OCEMS was operational during visit and COD of treated effluent was 190 mg/l on the display panel. Stage wise samples collected from CETP during the visit. Analysis results are awaited. It is to mention that the quantity of sewage permitted for receipt by CETP is not mentioned in the Consolidated Consent & Authorization (CCA) issued by GPCB. Sewage is received in collection sump reportedly from the AMC network. The concentrated effluent from member units is taken to spray dryer of 75 KL per day capacity. The dried residue generated is disposed in CHWTSDF. Sample of dried residue was also collected. Analysis results are awaited.

The CETP of Odhav Green Enviro Project Ltd. (1 MLD) was found operational during visit. The OCEMS was not operational during visit. The wastewater was received from only two out of four member industries at the time of visit. The wastewater received is fed to aeration tank without any primary treatment. Almost negligible presence of MLSS was observed in the aeration tank. Stage wise samples were collected during visit. Analysis results are awaited. The facilities for sludge drying and storage seems inadequate.

The CETP of Naroda Enviro Projects Ltd. (14 MLD: 9 MLD Sewage; 2 MLD primary treated effluent from food & textile industries and 3 MLD industrial wastewater from member units)

Reportedly, 3 MLD industrial wastewater and 3 MLD of mix wastewater stream (sewage, food & textile wastewater) was being treated during the visit in two separate treatment trains and mixed at the end of

treatment before the final discharge. OCEMS was found operational during visit. The concentration of COD was observed to be about 365 mg/l (more than prescribed standard of 250 mg/l) in OCEMS display. Stage wise wastewater samples were collected along with sludge sample during visit. Analysis results are awaited. The concentrated effluent from member units is taken to spray dryer, however during visit the spray dryer was not operational due to excessive accumulation of spray dryer residue onsite which is pending for disposal. Accordingly, receipt of high concentrated effluent has been stopped, details of which are asked by the visiting team. Sample of dried residue was also collected. Analysis results are awaited.

The CETP of Green Environment Services Co. Op. Society Ltd (16 MLD) was operational during visit. The CETP receives 2 MLD treated sewage from Vinzol STP and fed it to aeration tank, reportedly to maintain the TDS. The OCEMS was operational. The concentration of COD was observed to be about 332 mg/l (more than prescribed standard of 250 mg/l) in OCEMS display. Stage wise wastewater samples were collected during visit. Analysis results are awaited. The concentrated effluent from member units is taken to spray dryer.

The JTF members opined that sewage from outside the GIDC should not be continuously brought in the CETPs, as the bio-mass once developed must sustain for long by control on influent quality and scientific operation. STPs and CETPs should individually meet the prescribed discharged standards and use of sewage should not be intended for dilution of CETP effluent.

Results of all the industrial and CETP samples are awaited. Information collected is also to be scrutinized. Detailed report on this aspect shall be prepared for submission. The remaining CETPs and some industries will be visited and detail report will

be submitted with recommendation.

6.0 SUGGESTED ACTIONS TO BE INITIATED

JTF has discussed about various actions and task to be initiated by stakeholder agencies during their inception and second meeting. Further following points are required to be taken care on immediate basis:

1. Scientific operation of all STPs.

2. In-situ treatment of drains carrying sewage in to Sabarmati River may be explored till the time arrangements for sewerage system and STP is ensured.

3. Provision of neutralization of wastewater received at STPs may also be explored so that upset / disturbance of the biological treatment system of STP may be prevented. This would also protect the river as well as the plant machineries. This provision would be preventive and identification and check on unauthorized acidic effluent discharge to be ensured through coordinated surveillance.

4. Strengthening of laboratories in all respect.

5. Verification and strengthening of continuous online analyzers for data reliability.

6. Submission of details of hot spot zones identified on the basis of pH monitoring started at all pumping stations after inception meeting of JTF.

7. Identification of unauthorized industrial wastewater connections.

8. CETPs should ensure operational OCEMS with

connectivity to portal of pollution control board.

9. CETPs should list out the technical reasons for non-compliance.

10. It is brought to the notice of JTF that Mega Pipe Line has certain connections of unauthorized sewage disposal and the sewerage system of AMC has certain unauthorized connections of industrial wastewater disposal. The JTF is of the opinion that identification and disconnection of all such unauthorized connections should be done by the custodian / owner of the respective pipe line network. The actions and outcome may be shared among stakeholders from time to time.

    All the above points are required to be taken up by respective agencies for necessary action. More actions may be suggested on the basis of analysis results of samples collected, scrutiny of information received and visits / meetings (with Industries Associations / CETP operators) to be taken up in near future by JTF.

    It is also to mention here that joint visit by GPCB, AMC and others was carried out on 16th September, 2021. Copy of the report was sent by GPCB to JTF by e-mail on 20th October, 2021, which is attached as **Annexure-4.** It may be observed that the COD/BOD values at most of the outfalls are much higher than the prescribed sewage and industrial discharge norms."

5. The minutes as recorded of the second meeting of the Joint Task Force convened on 8th October, 2021 reads thus;

"**Minutes of the 2nd meeting of Joint Task Force held on 08th October, 2021 at Ahmedabad.**

Second meeting of JTF was convened at 6.30 pm on 08th October, 2021 at Circuit House, Ahmedabad to discuss on the observations/outcome of inspections carried out during 7th & 8th October and to decide on further course of actions. Mr. Prasoon Gargava, Head of JTF welcomed all the members and briefed about the major issues observed during the field visits of 07th and 08th October 2021 and requested all the members to share their views / inputs for the actions/ issues to be taken up by the JTF in the coming days The list of participants of the meeting is enclosed

The points discussed in the inception meeting of the task force were reviewed. The task of field visit is being carried out as decided in the inception meeting. The AMC has to provide the list of industries found with illegal connection in AMC sewerage network. The GPCB has shared details of CETPs having Online Continuous Effluent Monitoring System (OCEMS). It is gathered that one CETP operated by Narol Dyestuff Enviro Society is not equipped with OCEMS. GPCB has to initiate suitable action to ensure installation of the OCEMS at the earliest. AMC has reportedly started hourly pH monitoring at all the pumping stations and data with findings and identified hot spot areas is yet to be submitted by the AMC. AMC is reportedly working on mapping of catchment areas of all drains/outfalls/pumping stations and require some more time. GPCB has facilitated for collection of samples during visits of JTF and analysis. Analysis reports shall be examined on receipt. The outfall/drains characterization exercise to be completed by GPCB in coordination with AMC. Subsequent to the review of minutes of the inception meeting following points were discussed in the 2nd meeting of JTF:

1. The meeting started with a note that JTF members were informed by GPCB on arrival at Anmedabad on 07th October 2021 that all CETPs discharging through Mega Pipe Line were not in operation due to some leakages issue in the Mega Pipe Lines. GPCB

informed that there was no prior intimation from CETPs regarding the same. A copy of communication dated 07.10.2021 from Ahmedabad Mega Clean Association to the Regional Officer, GPCB Ahmedabad East received through GPCB for information. The communication covered the issues related with leakage in Mega Pipe Line and repair & maintenance works taken up. It was decided to put on record the postponement of visit to CETPs in view of above-mentioned reason and to limit the visits to inspections cum monitoring of STPs and drains/ outfalls into Sabarmati River during this round of visit of JTF.

2. Ahmedabad Municipal Corporation (AMC) and Gujarat Pollution Control Board (GPCB) to provide/execute the following information/actions at the earliest.

I. AMC to provide information on stage wise operational status of all STPs (with specific mention of any of the treatment units of all the STPs, if non-functional/by-passed /under maintenance), provision of Online Continuous Effluent Monitoring System (OCEMS) at inlet and outlet of STPs, wherever provided along with details of principle used, calibration status of system and any difficulty in running and operation of individual STPs.

II. AMC and GPCB to provide factual information to JTF about all outfalls/discharges draining into Sabarmati River so that a map / sketch of all such outfalls/ discharges can be drawn for better understanding and subsequent actions by JTF. Though the issue was discussed in the inception meeting of the JTF, but it is further stressed upon in the need of actual measurement of flow from various outfalls/ drains merging to Sabarmati River in the identified stretch. AMC to arrange quantification i.e., flow data along with methodology adopted for measurement for each outfall/drain, co-ordinates of location, proper address of location and photograph.

The data should be collected at-least for 2 days, out of which one day should be Sunday (being non-working day) and reported values should contain minimum, maximum and average values for each day. It was suggested that AMC may take assistance of any expert academic institutions or hydraulic expert to accomplish the said task. With an objective to cover all the outfalls/drains in the said exercise, JTF discussed and decided to carry out drone survey of River Sabarmati on both sides of the river from Hansol to Vautha to figure out the exact Status of discharges / outfalls which may not be physically approachable or visible. Shri Rohit Prajapati offered to find out suitable drone surveyor based on his past experience in carrying out such studies. GPCB shall workout selection and engagement of the drone surveyor for completion of the task. It was decided that officials from GPCB and AMC will associate in the drone survey and ACP may arrange for necessary permissions for carrying out survey. As decided in the inception meeting, all outfalls/drains shall be characterized by GPCB. The AMC shall facilitate for proper approach/access to the locations for collection of samples for characterization wherever it is not present.

III The JTF also discussed about information/documents to be collected from AMC and GPCB. Officials were requested to take note of information requested by the members during the meeting and to provide at the earliest to JTF for review and further action.

IV. It is informed by the AMC that hourly pH of all major pumping stations has already been started after inception meeting of JTF. The data produced so far along with inferences/outcome summary to be shared by AMC with JTF to identify the hot spot areas at the earliest.

V. Torrent Power to provide daily electricity consumption data of individual CEIPs, STPs and all

pumping stations of AMC for the last one month to JTF. The data shall be submitted in hard copies as well as in soft copies (Excel file format)

VI. GPCB to provide sample copies of MoU, if any between individual CETPs and associated member industries. GPCB to provide information on stage wise operational status of all CETPs (with specific mention of any of the treatment units of all the CETPs, if non-functional/by-passed/under maintenance), provision of Online Continuous Effluent Monitoring System (OCEMS) at inlet and outlet of CETPs wherever provided along with details of principle used, calibration status of system and any difficulty in running and operation of individual CETPs.

VII JTF suggested to members from GPCB to put forward their plan of inspecting the industries. It was suggested that GPCB should prioritize the industrial inspection based on non-compliance, public complaint w.r.t water pollution observed/received by them during last 06 months, high COD/spent acid generating units. GPCB shall submit the list of industries/CETPs which are found non-compliant w.r.t. water pollution during last 06 months. Further, the industries which are members of common facility M/s Novel Spent Acid and not disposed any quantity of spent acid during any of the year during last three years. Similarly, GPCB will also submit the list of industries who have not filed return w.r.t. hazardous waste disposal during last one year as well as list of industries having Zero Liquid Discharge (ZLD) permission.

VIII AMC shall prepare a map showing all Sewage Pumping Stations along with catchment area, Terminal Sewage Pumping Stations (TSPS), all STPs and their final discharges.

3. Assistant Commissioner of Police (ACP) to ensure increase surveillance on tanker movement in potential areas with more focus on Gyaspur area.

4. JTF suggested to take clarification on status of CTE/ CCA issuance to Mega Pipe Line from GPCB.

5. Issue of mixing of sewage (treated/untreated) at CETPs was also discussed. The JTF members opined that sewage from outside the GIDC should not be continuously brought in the CETPs, as the bio-mass once developed must sustain for long by control on influent quality and scientific operation. It was also discussed that STPs and CETPs should individually meet the prescribed discharged standards and use of sewage should not be intended for dilution of CETP effluent.

6. Learned Amicus Curiae reached to the venue at the fag end of the meeting to hand over paper-book of the matter to the members of the JTF and informed that farmers of Miroli have stopped using contaminated water of River Sabarmati at Miroli. It is further informed that Ld. Amicus Curiae is going to held a meeting with the Chief Secretary, Government of Gujarat on providing alternate source for irrigation to the farmers

The meeting concluded with thanks to and from the chair."

6. It is very disturbing to note that the laboratories of the STPs run and managed by the Ahmedabad Municipal Corporation were found indulging in manipulation of the records. In other words, the members of the Committee noticed that the data of the analysis entered in the record book indicated number of duplications and a typical repetitive trend. It is also very shocking to note that the entire staff at the laboratories are ill-trained and have no idea about anything. The Committee, in so many words,

has stated in its report that the in house operating and monitoring mechanism of the STP plans and their laboratories is insubstantial.

7. When the learned senior counsel appearing for the Ahmedabad Municipal Corporation was confronted with the aforesaid, it was brought to our notice that the laboratories are manned by the contractors. Even the Ahmedabad Municipal Corporation has been caught by surprise about what has been highlighted by the Joint Task Force.

8. We issue the following directions to the Ahmedabad Municipal Corporation.

i) The Ahmedabad Municipal Corporation shall ensure scientific operation of all the STPs.

ii) The Ahmedabad Municipal Corporation shall sincerely explore the In-situ treatment of the drains carrying sewage into the Sabarmati River till the time arrangements for sewerage system and STP is ensured.

Iii) The Ahmedabad Municipal Corporation shall also sincerely explore the provision of neutralization of the wastewater received at the STPs in order to prevent the upset/disturbance of the biological treatment system of the STP. This would also protect the river as well as the plant machineries. This provision would be preventive.

The identification and check on the unauthorized acidic effluent discharge shall be ensured through coordinated surveillance.

iv) We direct the Ahmedabad Municipal Corporation to immediately look into the affairs of the laboratories in all respect. In this regard, we have already expressed our concern as above. It appears that the laboratories are not, at all, functioning in the manner as the law expects such laboratories to function. In fact, it is the duty of the Gujarat Pollution Control Board to keep a close watch on such laboratories because the Board would be relying upon the data that the laboratories may be furnishing to the Board. If there are inefficient or unqualified people or technicians in the laboratories, then the contract should be immediately terminated in accordance with law and fresh appointments shall be made of qualified and efficient staff.

v) We direct the Corporation to undertake regular exercise of verification and strengthening of continuous online analyzers for data reliability.

vi) We direct the Corporation to furnish necessary details to the Joint Task Force of the hot spot zones identified on the basis of the PH Monitoring at all the pumping stations.

vii) We direct the Corporation to identify, at the earliest, of the unauthorized industrial wastewater connections. We lay much stress on this particular direction as if we want to achieve good and positive results, then such identification is a must and it should be undertaken at the earliest.

viii) All the CETPs shall ensure operational OCEMS with connectivity with the portal of the Gujarat Pollution Control Board. The CETPs shall list out the technical reasons for non-compliance.

ix) The JTF has noticed that the Mega Pipe Line has few connections of unauthorized sewage disposal and the sewerage system of the Ahmedabad Municipal Corporation has few unauthorized connections of the industrial wastewater disposal. We direct that the identification and disconnection of all such unauthorized connections shall be done by the custodian / owner of the respective pipeline network. The actions and the outcome shall be shared among the stakeholders from time to time.

x) We request the Commissioner of the Ahmedabad Municipal Corporation to look into all the aforesaid directions and see to it that the same are complied in its letter and spirit. We also request the Chief Secretary of the State of Gujarat to keep a close watch on the present public interest litigation and extend full cooperation. We

request the Chief Secretary, State of Gujarat to remain in constant touch with the Municipal Commissioner with a view to make a sincere attempt to bring around some better and positive results.

9. Post this matter for further hearing before this Bench (Coram: Hon'ble Mr. Justice J.B. Pardiwala & Hon'ble Ms. Justice Vaibhavi D. Nanavati) on 3rd December, 2021.

10. One copy of this order shall be furnished, at the earliest, to Mr. Hemang Shah, the learned Amicus Curiae for its onward communication.

(J. B. PARDIWALA, J)

(VAIBHAVI D. NANAVATI,J)

Vahid