

BEFORE THE NATIONAL GREEN TRIBUNAL SPECIAL BENCH

Original Application No. 60/2021(WZ)

Detail Note

Table of Contents

Detail Note	3
Main Issue: -	3
Expert Committee Observation: -	4
PREAMBLE: -	5
Problem on surface 2015-16	6
Immediately action taken	6
Action Taken to restore Drainage Scheme	7
Point no: - 1	8
Point no: - 2	8
Point no: -3	9
Point no: -4	9
Point no: -5	9
Point no: -6	9
Point no: -7	10
Point no: -8	10
Point no: -9	10
Point no: -10	11
Point no: -11	11
Point no: -12	11
Point no: -13	11
Point no: -14	11
A. Major works were completed for up-gradation of Drainage Infrastructure at Dahej PCPIR area:	12
WORK - 1	12
WORK - 2	12
WORK -3	12
WORK -4	13
WORK -5	13
B. For controlling quality of effluent received at various drainage pumping station, following works for Upgradation of effluent collection and conveyance system are undertaken.	14
WORK -1	14
WORK -2	14

WORK -3	15
WORK -4	15
WORK -5	15
WORK -6	16
C. GIDC has commissioned two no's of Common Effluent Treatment Plant having capacity of 40 MLD each at Dahej-II and Saykha Industrial estate. Project cost of Dahej CETP is 28973.86 lakhs and Saykha CETP is 29662.52 lakhs.	17
D. The works of 90 MLD Deep sea effluent disposal pipeline (offshore) & 90 MLD Effluent disposal pipeline from Saykha CETP to FPS (plot no Z-93) at Dahej PCPIR area.	18
E. Following measures also being taken by GIDC to control quality of Air and industrial effluent.	19

Detail Note

BEFORE THE NATIONAL GREEN TRIBUNAL SPECIAL BENCH

Original Application No. 60/2021(WZ)

- Aryavart Foundation (Applicant)

Versus

- Hemani Industries Limited (Respondent No. 1)
- Gujarat Pollution Control Board (Respondent No. 2)
- Central Pollution Control Board (Respondent No. 3)
- Gujarat Industrial Development Corporation (Respondent No. 4)
- Collectorate, Bharuch (Respondent No. 5)
- Gujarat Coastal Zone Management Authority (Respondent No. 7)

The application was filed and has been subject matter of various orders passed by the Tribunal in continuation to the earlier orders dated 16.08.2021 and 16.09.2021. The applicant, i.e., M/s Aryavart Foundation was filed against Respondent no 2 to 7. (Annexure-1 and 2)

Main Issue: -

The issues raised in this application related to respondent no 1 is that in utter disregard and violation of various conditions imposed upon them, for allotment of plot and running the industry by official respondents no 2 to 4, put up a dummy pipeline and discharging effluent directly into the sea within 600 metres, i.e., between high tide level and low tide level instead 4.5 KM deep sea offshore due to damage and chocking of damage offshore pipeline and diffuser system.

Expert Committee Observation: -

The GIDC drain directly release the trade effluents into the Sea. It is also worth mentioning that the GIDC drainage main pipeline which was to release trade effluents in deep sea at a point identified by NIO (around 4.5 km from the shore) has been blocked and now the trade effluents are being discharged only at a distance of 650 Meters from the shore. In addition to this there are various leakages in the pipeline through which the trade effluent oozes out even before it enters the sea. The reports of Expert Committee Submitted before this Hon'ble Tribunal in Original Application No. 22 of 2020 (ZB) titled as Aryavart Foundation Versus Yashyashvi Rasayan Pvt. Ltd, & Anr. Has clearly mentioned the blockage of the said pipeline and discharge of trade effluents on land and near the sea shore. The expert committee report submitted in O.A. No. 22 of 2020 (Aryavart Foundation Versus Yashyashvi Rasayan Pvt. Ltd, & Anr.) at para 6.5 page 12 reads as under other Allie Issues Found Relevant: Effluent Management in Dahej Industrial Area - Most of the Industries in Dahej -Vilayat area are discharging treated wastewater into internal drainage network (39 km) provided by GIDC having pumping stations (4 no's) and earlier finally used to pump to deep Sea through underground pipeline (90 MLD capacity, present flow @ 39 MLD) from final Pumping station (FPS). The length of this disposal pipeline is 13.5 km out of which 9 km on shore and 4.5 km off - shore. The final disposal point was identified by the National Institute of Oceanography (NIO).

However, presently, the wastewater is being reportedly discharged only at 600 m inside (with 600 m off - shore separate Pipeline) the Sea, instead of 4.5 km due to damage /choking of 4.5 km off-shore pipeline /diffuser system. The 600 m off - shore pipe in use is reportedly having leakages at a number of locations discharging effluent in between High Tide Level (HTL) & Low Tide Level (LTL) .

The effluent discharged from Final Pumping Station is not meeting prescribed norms as per CPCB & GPCB monitoring results. It is inferred that the individual industries are not treating the effluent as per standards prescribed by GPCB and letting wastewater without proper treatment into the GIDC drainage system.” The report further mentions, “Noncompliance of discharge standards at Final Pumping Station (FPS), heavy sludge deposition at FPS, overflowing of manholes due to choking / leakage problems of GIDC drainage lines, Frequent overflowing of effluent from manholes leading to storm water drain / natural drains which ultimately carry effluent to estuary of River Narmada & to the Sea, accumulation of effluent in some area etc.”

- > As per the hearing on 04.10.2021, Hon'ble Justices ordered that the Chief Secretary of Government of Gujarat is directed to convene a Meeting with the participation of Gujarat Pollution Control Board (GPCB), Respondent No. 4 represented by Chairman and Managing Director, Respondent No. 5 and the Respondent No. 7 and the result of the said Meeting and decision to be taken in the said Meeting, be submitted in the form of the report with supporting documents on the next date of hearing. (Annexure-3)
- > The short-term and long-term action plan submitted to the GPCB vide this office letter no GIDC/BRH/EE/WD/754 dated 04.10.2021 as per directive of GPCB, Gandhinagar meeting was held on dated 17.09.2021 is enclosed herewith. (Annexure-4)

PREAMBLE: -**GIDC Drainage scheme Infrastructure at Dahej PCPIR.**

- GIDC had commissioned 90 MLD (65 MLD for Dahej + 25 MLD for Vilayat Industrial estate) Effluent collection and disposal scheme at Dahej PCPIR in year 2006-07.



Figure 1 Effluent Disposal Pipeline

- Main components of existing drainage scheme are as below:
 1. 90 MLD (65 MLD from Dahej + 25 MLD from Vilayat) final drainage pumping station at Dahej.
 2. 25 MLD drainage pumping station at Vilayat.
 3. 710 mm Dia. HDPE pipeline from Vilayat Drainage pumping station to Dahej final drainage pumping station. (39.5 Kms)
 4. 1000 mm Dia. HDPE pipeline from Final Drainage pumping station to Landfall point. (9.5 Kms)
 5. 1000 mm Dia. CS offshore pipeline from Landfall point to Diffuser point. (4.25 Kms)
 6. The pumping machineries at Final drainage pumping station were designed for 90 MLD of effluent discharge with 100 percent standby (2 working + 2 standby).
- > Initially, in year 2008-09, only three effluent connections were released and only 0.76 MLD effluent was received at Final drainage pumping station.
- > There after as the industries came up, 42 no's of industries drainage connections were released and discharge of effluent quantity receive was 35 MLD up to 2015-16.

Problem on surface 2015-16

In year 2015-16, the maintenance of drainage scheme got increased and frequent incidence of overflow of wet well took place. Once, dry well was also submerged.



Figure 2 Drywell in submerged condition

Immediately action taken

1. INSPECTION OF PIPELINE: Inspection of pipeline at various locations was carried out and it was found that the pipeline was gradually scaled from inside due to chemical reactions. The scaling was found inside the suction & delivery, header, valves, discharge pipeline and pumping machineries.



Figure 3 Scaling condition found in pipeline, Valves & pumps at Existing FPS

Due scaling, the pipe diameter got reduced and which damaged pumping machinery and hence the pumping machinery could not be operate with efficiency as per original design, resulting in overflowing of effluent

2. INSPECTION OF DIFFUSER: Inspection of offshore pipeline was also carried out by the M/s Hydroair Tectonics, Mumbai on April 2016 in deep sea and as per report of the agency, it was concluded that: -

No diffuser port nozzles or valves were found protruding out of the sea bed as the same were buried below sea bed to the tune of 2.8 to 3.5 mt. The large-scale sand movements in this gulf results in heavy sand deposition over the pipeline/diffuser and similarly at times the large-scale erosion removes the sand deposition and expose the diffuser ports depending on the seasonal variations. (Annexure-5)

Action Taken to restore Drainage Scheme

Temporary works were undertaken on war foot basis in 2016-17 to 2017-18. i.e., Replacement of various valves, pumping machineries and header line at final drainage pumping station, Replacement of Rising main of 1.7 Kms including pumping machinery in first phase but after two to three months balance pipeline also got fully scaled. Hence, Reroute of Rising main of 6.6 Kms in second phase from final drainage pumping station to Pumping station - D at SEZ-II was taken up. Also, the arrangement of by passing the diffuser was made and the pipe line was laid in to the sea within up to 600 metres, i.e., between high tide level and low tide level.



Figure 4 Temporary arrangement of pipeline at FPS

As per GPCB's Direction, Detailed time bound action Plan is as under:

Point no: - 1

To stop discharge of effluent from pipeline laid at 600-meter on offshore as alternative arrangement and discharge effluent 4.5 km mtr. away from sea, so proper dilution as per condition no. 5.4 of CCA may be available at discharge point No. 8

Point no: - 2

To discharge of effluent 4.5 km mtr away from sea, so proper dilution as per condition no. 5.4 of CCA may be available at discharge point.

Action taken: -

GIDC has completed the phase-I work of 1000 mm Dia HDPE pipe line for discharging 90MLD Treated Effluent from Land fall point to 800 mtr offshore.

Short Term Action Plan

GIDC has undertaken the work of Providing and Laying 1000 mm Dia HDPE pipe line for discharging 90MLD Treated Effluent from SEZ-II to Land fall point and up to 800 mtr offshore. The work order for the above work was issued on 12-01-2021. The work completed 11/ 10/2021



Figure 5 Providing and Laying of 1000Dia, HDPE Pipeline

Long Term Action Plan

GIDC has published the Online Tender for execution of 4.5 Kms Offshore effluent disposal pipeline with diffuser. The agency will be finalized by end of Dec-2021 and the work of offshore pipeline work with diffuser will be completed within a time limit of 18 months from the date of fixation of agency.

Present Status: -

- > Tender of the above work (i.e., long term action plan) is invited. Last date of bid submission is 30/11/2021.

Point no: -3

To carry out maintenance of 4.5 km offshore pipeline and solve problem of choking of pipeline.

Short Term Action Plan

As per compliance of point no 1; and it is not possible to repair diffuser and removal of scaling in offshore pipeline. Hence, it is required to lay new offshore pipeline and it will take at least 18 months to complete the said work.

Long Term Action Plan

GIDC has published the Online Tender for execution of 4.5 Kms Offshore effluent disposal pipeline with diffuser. The agency will be finalized by end of Dec-2021 and the work of offshore pipeline work with diffuser will be completed within a time limit of 18 months from the date of fixation of agency.

Present Status: -

Tender of the above work (i.e., long term action plan) is invited. Last date of bid submission is 30/11/2021.

Point no: -4

To rectify and repair leakages in GIDC drainage lines.

Short Term Action Plan: -

- > GIDC has awarded the M&R of underground drainage work to the agency. At present there is in no leakages found from drainage lines.

Long Term Action Plan: -

The M&R work shall be carried out throughout the year. The work is awarded to the agency.

Present Status: -

- > It is attended on regular basis whenever leakage is observed in drainage line and overflow manholes of drainage system at Dahej & Vilayat Estate.

Point no: -5

To stop overflow from GIDC drainage manholes in various sections of GIDC drainage system in Dahej & Vilayat.

Action taken

- > GIDC has started up-gradation of Drainage Effluent Collection & Conveyance System for SEZ Part-I at Dahej Industrial Estate.

Short Term Action Plan

- > This is continuous process for maintenance of underground drainage line and manhole. GIDC has awarded the M&R of underground drainage work to the agency. At present there in no overflow found from drainage manholes.

Long Term Action Plan

- > GIDC has upgraded effluent collection system in Dahej-I area i.e. 05 nos of collection wells with pumping station are constructed. Effluent connection will be released through above ground to avoid any unauthorized connection. Moreover, the existing manholes are to be closed.

Present Status

- > GIDC has already informed to industries to lay express line above ground and will be completed shortly.

Point no: -6

To take necessary steps to control overflowed waste water reaches to estuary/ sea through the natural drain / storm water drain.

Action taken

- > Whenever any leakage / breakdown took place, the discharge of member industries were stopped and

immediate actions are taken for repairing.

- > The M&R work shall be carried out throughout the year. The work is awarded to the agency.

[Present Status](#)

- > The accumulated effluent pumped into nearby manhole chamber to avoid draining into estuary / sea.

Point no: -7

To remove sludge deposition observed at the GIDC final pumping station (FPS)

[Action taken](#)

- > The M&R work shall be carried out throughout the year. The work is awarded to the agency.

[Short Term Action Plan](#)

- > GIDC has constructed sludge drying bed at FPS. The sludge will be removed within one month.

[Long Term Action Plan](#)

- > The work for installation of filter press at Pumping station will be completed within next six months.

[Present Status](#)

- > Remove settled sludge regular basis from collection well of final drainage pumping station.

Point no: -8

To provide adequate storage facility to prevent overflow of wastewater entering into surface water drains/ storm water drains/ surrounding area.

[Short Term Action Plan: -](#)

- > To avoid overflow of wastewater, GIDC has made arrangement of standby pumps in case of the pumps gets failed. The DG sets have been installed to take care during the power failure. And as and when required discharge of individual industries will be stopped.

[Long Term Action Plan -](#)

- > GIDC has published the Online Tender for execution of 90 MLD pump house, 180 MLD storage capacity of guard pond at Plot no-Z/93, SEZ-II part of 90 MLD scheme. The agency will be finalized by end of Dec-2021 and the work will be completed within a time limit of 18 months.

[Present Status](#)

- > Tender of the above work is invited. Last date of bid submission is 30/11/2021.

Point no: -9

To relocate manholes to prevent overflow of wastewater entering into surface water drains/ storm water drains/ surrounding area.

[Short Term Action Plan: -](#)

- > Whenever any leakage / breakdown took place, the discharge of member industries were stopped and immediate actions are taken for repairing. The accumulated effluent pumped in to nearby manhole chamber to avoid draining in estuary / sea.

[Long Terms Action Plan:](#)

- > GIDC has upgraded effluent collection system in Dahej-I area i.e., 05 no's of collection well with pumping station are constructed and connection will be released above ground express pipeline to avoid any unauthorized connection. Also, the existing manholes **are to be closed**.
- > GIDC has started up- gradation of Drainage Effluent Collection & Conveyance System for SEZ Part-I at Dahej Industrial Estate.
- > The work is undertaken having following major components.

Major Components:

1. Three no's of effluent collection sump and pump house.
2. Three no's of Effluent storage reservoir.
3. Drainage network (MOC - HDPE)
4. Pumping Machinerics

Present Status

- > Civil work completed and Pumping machinery work will be installed by the end of December 2021.

Point no: -10

To re-collect accumulated wastewater from surrounding area.

Short Term Action Plan

- > Whenever any leakage / breakdown took place, the discharge of member industries were stopped and immediate actions have been taken for repairing. The accumulated effluent is pumped in to nearby manhole chamber to avoid drain in estuary / sea.

Long Term Action Plan

- > Re-collected accumulated wastewater from surrounding area regular basis

Present Status

- > Presently area is cleaned up.

Point no: -11

To strengthen pipeline infrastructure to convey effluent up to deep sea.

Short Terms Action taken Plan

- > GIDC had laid 1000 mm Dia. HDPE pipeline from FPS to LFP in the month of June-2019. Hence, there is no any leakage found in conveyance line.
- > GIDC has replaced existing 600 mm Dia. MS pipeline by laying 1000 mm Dia. HDPE pipeline length of 800 mt from LFP.

Long Terms Action taken Plan

- > The agency will be finalized by end of Dec-2021 and the work of offshore pipeline work with diffusers will be completed within a time limit of 18 months from the date of fixation of agency.

Present Status

Tender of the above work is invited. Last date of bid submission is 30/11/2021.

Point no: -12

To provide permanent solution of storm water management

Present Status

GIDC has invited the tender for construction of storm water drain to provide permanent solutions of the storm water management. Price bid has been opened and agency will be finalized soon, so as to complete the work before on set of monsoons.

Point no: -13

To take necessary steps to keep storm water drain dry during lean period

Present Status

Cleaning of SWD has been carried regularly through agency.

Point no: -14

To comply condition no. 5.25 of existing CC&A.

Action taken Plan

Environmental compliance will be submitted to GPCB regularly.

A. Major works were completed for up-gradation of Drainage Infrastructure at Dahej PCPIR area:

WORK - 1

The pipeline from land fall point to diffuser was chocked. (Approx. 4.5 Kms)

Action taken

GIDC has undertaken the work of Providing & Laying 610mm Dia MS pipe from Landfall point towards Diffuser Point at Dahej. Consent from Association was received on dated 06-12-2018. The length of the pipeline laid was 700 mt (100 mt Onshore + 600 mt offshore between Low tide line and High tide line). The expenditure occurred for the work was Rs. 81.08 lakhs. The work order for the above work was issued on 04-04-2018.



Figure 6 Providing and Laying of 610 mm Dia MS Pipe

WORK - 2

Effluent disposal line from pumping station D to Land fall point was chocked. (Approx. 1.72 Kms)

Action taken

GIDC has undertaken the work of Removing, carting 1016mm Dia MS pipe from Drainage final PS to near sterling Auxiliary and Laying from Drainage PS-D to Landfall at Dahej.

Consent from Association was received on dated 06-12-2018. The length of the pipeline laid was 1.72 Kms from Pumping station - D to Landfall point. The expenditure occurred for the work was Rs. 118.98 lakhs. The work order for the above work was issued on 04-04-2018.

WORK -3

The pipeline from Final drainage pumping station at Dahej to Pumping station-D at SEZ-II was highly scaled. (Approx. 8.5 Kms)

Action taken

GIDC has undertaken the work of Providing and laying 1000 mm Dia HDPE pipe for 90 MLD Treated Effluent Conveyance pipe line from Final Drainage Pumping Station to landfall point at Dahej including Five years free maintenance. Consent from the Association was received on dated 25-05-2018. The expenditure occurred for the work was Rs. 3435.05 lakhs. The work order for the above work was issued on 1108-2018.

WORK -4

The pipeline from Final drainage pumping station at Dahej to Reliance SWD was highly scaled. (Approx. 3 Kms)

Action taken

GIDC has undertaken the work of Providing & laying of 610 mm dia. MS drainage main pipeline from Ambheta Pumping to Reliance Khadi joint in Dahej-GIDC Area. Consent from the Association was received on dated 06-12-2018. The expenditure occurred for the work was Rs. 355.88 lakhs. The work order for the above work was issued on 19-02-2019.

WORK -5

The pipeline from PS-D at SEZ-II to Land fall point. (Approx. 2 Kms)

Action taken

GIDC has undertaken the work of Providing and Laying 1000 mm Dia HDPE pipe line for discharging 90MLD Treated Effluent from SEZ-II to Land fall point at Dahej Industrial Estate. Consent from the Association was received on dated 15-04-2019. The expenditure occurred for the work was Rs. 1003.76 lakhs. The work order for the above work was issued on 12-01-2021.

B. For controlling quality of effluent received at various drainage pumping station, following works for Upgradation of effluent collection and conveyance system are undertaken.

WORK -1

Name of Work:

Upgradation of Drainage Effluent Collection & Conveyance System for SEZ Part-I at Dahej Industrial Estate.

Purpose of Work:

The existing effluent collection network is at doorstep with underground pipeline and manhole chamber system.

As per direction of GPCB, for controlling quality of effluent discharged by industry, the effluent should be collected through above the ground express pipeline of individual industry. Hence, the work is undertaken with following major components.

Major Components:

1. Three no's of effluent collection sump and pump house.
2. Three no's of Effluent storage reservoir.
3. Drainage network (MOC - HDPE)
4. Pumping Machineries

Tendered Cost: Rs. 785.04 lakhs

WORK -2

Name of Work:

Providing, Supplying & Laying of 710mm Dia. HDPE & 610mm Dia MS Drainage Rising Main line from pond to LFP at Dahej -PCPIR Area.

Purpose of Work:

At present, the effluent of SEZ-I area is being discharged at final drainage pumping station at Ambheta.

As planned by GIDC, New 90MLD final pumping station to be constructed near LFP i.e., plot no Z-93. Hence, the work is undertaken with following major components.

Major Components:

1. 710 mm Dia HDPE pipeline.
2. 610 mm Dia MS pipeline.

Tendered Cost: Rs. 1485.76 lakhs

WORK -3**Name of Work:**

Construction of Sludge Drying Bed at Final Pumping Station at Dahej Industrial Estate.

Purpose of Work:

As per direction of GPCB, to remove settled sludge at collection well of final drainage pumping station, the above work was undertaken.

Tendered Cost: Rs. 72.48 lakhs

WORK -4**Name of Work:**

Construction of 02 nos. RCC Sump and Pump House at Chemical Zone, Dahej-I.

Purpose of Work:

The existing effluent collection network is at doorstep with underground pipeline and manhole chamber system.

As per direction of GPCB, for controlling quality of effluent discharged by industry, the effluent should be collected through above the ground express pipeline of individual industry. Hence, the work is undertaken with following major components.

Major Components:

1. 02 no's of RCC sump and pumphouse.
2. Providing, Supplying, Lowering and laying of HDPE pipeline.
3. Pumping machineries with panels.

Tendered Cost: Rs. 356.44 lakhs

WORK -5**Name of Work:**

Refurbishment and Replacement and Design, Engineering, Supply, Installation, Testing and Commissioning of Horizontal Non-Clog Pumps with accessories and allied Electro-mechanical and Instrumentation and SCADA work at Dahej and Vilayat 90 MLD Pumping Station @ Dahej and Vilayat.

Purpose of Work:

Augmentation of Pumping machinery, Refurbishment and replacement work. Hence, the work is undertaken with following major components.

Major Components:

1. Pumps.
2. Motors.
3. Electrical Panels.

Tendered Cost: Rs. 552.62 lakhs

WORK -6**Name of Work:**

Untreated effluent collection and conveyance system to nearest pumping station at GIDC, Dahej-II.

Purpose of Work:

For controlling quality of effluent discharged by industry, the effluent should be collected through above the ground express pipeline of individual industry. Hence, the work is undertaken with following major components.

Major Components:

1. Elevated storage reservoir - 22 no's
2. Providing, Supplying and Laying HDPE pipeline.

Tendered Cost: Rs. 398.31 lakhs

C. GIDC has commissioned two no's of Common Effluent Treatment Plant having capacity of 40 MLD each at Dahej-II and Saykha Industrial estate. Project cost of Dahej CETP is 28973.86 lakhs and Saykha CETP is 29662.52 lakhs.



Figure 7 Saykha-CETP-40 MLD Capacity



Figure 8 Dahej-CETP-40 MLD Capacity

D. The works of 90 MLD Deep sea effluent disposal pipeline (offshore) & 90 MLD Effluent disposal pipeline from Saykha CETP to FPS (plot no Z-93) at Dahej PCPIR area.

GIDC Board has approved to lay new 90 MLD pumping station, Electromechanical, Instrumentation, Onshore and Offshore pipeline with diffusers for which the tender amounting Rs. 474.61 crores has published.

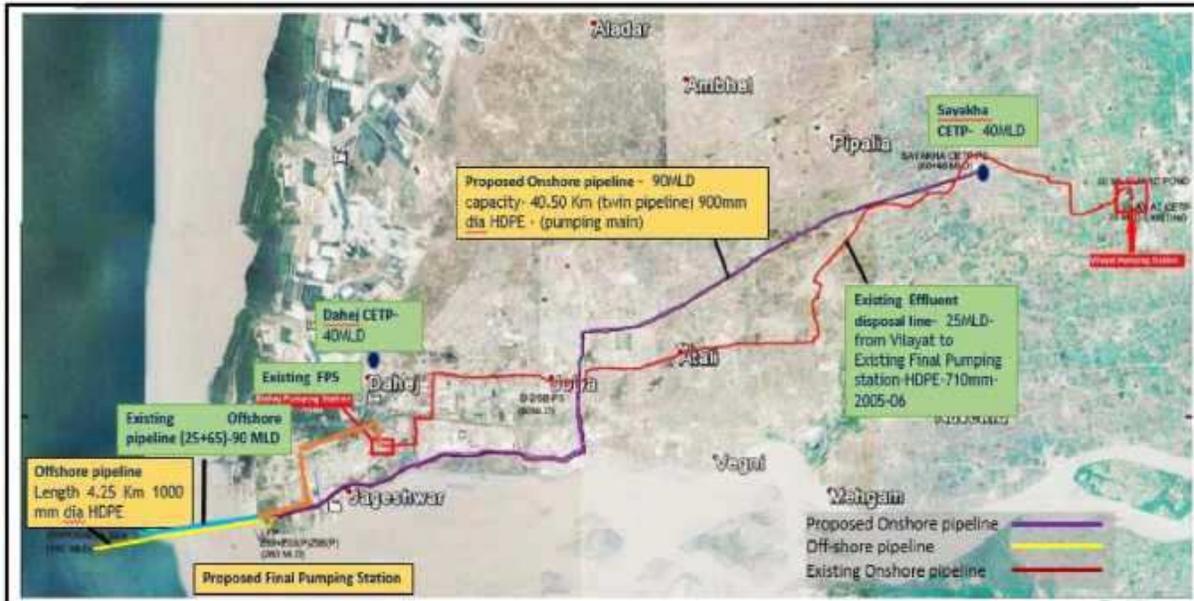


Figure 9 Route of existing & proposed 90 MLD Effluent disposal pipeline

Major Components:

1. 90 MLD Drainage Pumping station near Landfall point.
 2. Electro-mechanical, Instrumentation work.
 3. 180 ML capacity of Guard Pond at Dahej.
 4. 4.25 Kms 1000 mm Dia. HDPE Offshore pipeline with diffusers. (This component will take approx. 18 months)
 5. 8.5 Kms Onshore 710 mm Dia. HDPE pipeline from existing final pumping station to proposed 90 MLD pumping station.
 6. 40.5 Kms Onshore 900 mm Dia. HDPE pipeline from Saykha industrial estate to proposed 90 MLD pumping station.
 7. 50 MLD Drainage Pumping station at Saykha.
 8. 100 ML capacity of Guard Pond at Saykha.
- The agency will be finalized by end of Dec-2021 and the work of offshore pipeline work with diffusers will be completed within a time limit of 18 months from the date of fixation of agency.
 - Tender of the above work is invited. Last date of bid submission is 30/11/2021.

- **(For Point No.11):** To strengthen pipeline infrastructure to convey effluent up to deep sea.
 - As matter regarding NGT and part of short-term action plan; GIDC shall provide the additional pipeline of 1200 mt with diffuser work from existing effluent discharge point (i.e., 800 mt) in to the deep sea within 6-8 months.

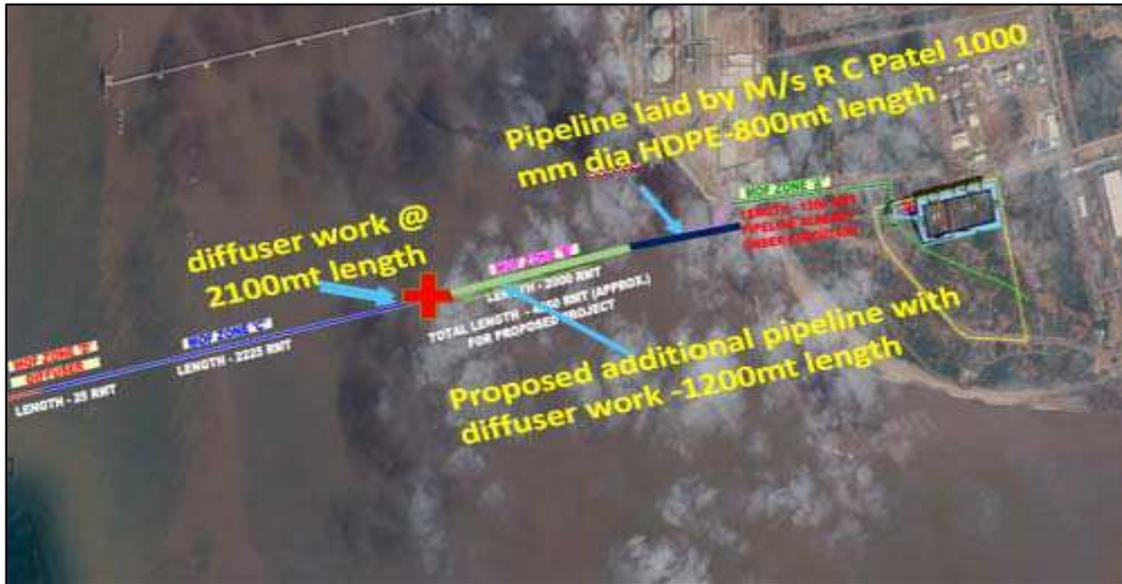


Figure 10 Route of proposed 1200rmt pipeline with diffuser

E. Following measures also being taken by GIDC to control quality of Air and industrial effluent.

- GIDC has allotted plot to M/s Bharuch Enviro Infrastructure Ltd to develop TSDF site at Dahej Industrial estate.
- GIDC has developed 22 nos of Drainage pumping stations with u/g collection well in above said area. Individual industries of Dahej-I and Vilayat estate are treating their effluent as per GPCB norms and discharging their effluent in GIDC collection network. Individual industries of Dahej-II and Dahej-III estate are treating their effluent as per CETP Inlet norms and discharging their effluent into collection network of CETP. Further treatment as per outlet norms as per consent issued by GPCB is being done at CETP and the treated effluent is being discharged in to the sea.
- GIDC has appointed third party liquid monitoring agency to monitor the effluent discharged by individual industry and the reports of the same are being sent to GPCB RO office every month.
- GIDC has appointed third party Air monitoring agency to monitor the air quality at industrial estates and the reports of the same are being sent to GPCB RO office every month.
- GIDC insist every member industry to install TOC/ COD meter, pH meter, flow meter, automation system with return arrangement in case of parameter are higher than permissible limit.

TABLE OF FIGURES

Figure 1 Effluent Disposal Pipeline.....	5
Figure 2 Drywell in submerged condition	6
Figure 3 Scaling condition found in pipeline, Valves & pumps at Existing FPS.....	6
Figure 4 Temporary arrangement of pipeline at FPS	7
Figure 5 Providing and Laying of 1000Dia, HDPE Pipeline	8
Figure 6 Providing and Laying of 610 mm Dia MS Pipe.....	12
Figure 7 Sayakha-CETP-40 MLD Capacity.....	17
Figure 8 Dahej-CETP-40 MLD Capacity.....	17
Figure 9 Route of existing & proposed 90 MLD Effluent disposal pipeline.....	18
Figure 10 Route of proposed 1200rmt pipeline with diffuser.....	189

Minutes of the Meeting held on 27th October 2021 at 17:30 hrs under the Chairmanship of Honourable Chief Secretary, Government of Gujarat.

Agenda: To take stock of the situation with respect to compliance of the direction of Honourable National Green Tribunal in O.A. 60/2021, Aryavart Foundation versus Hemani Industries Limited dtd. 04.10.2021 and to issue directions to the concerned authorities as may be found necessary.

Reference: Hon'ble NGT order dated 04.10.2021 in the matter of O.A. No. 60/2021.

Date & Time: 27th October 2021 at 17.30 Hrs

Venue: Committee Room, Office of the Chief Secretary, 5th Floor, Block No. 1, Sachivalaya, Gandhinagar.

Key Attendees: 1) Shri Pankaj Kumar, IAS, Chief Secretary, Government of Gujarat
2) Shri Sanjeev Kumar, IAS, Chairman, GPCB
3) Shri S.J. Pandit, IFS, Member Secretary, GCZMA
4) Shri Yogesh Chaudhry, IAS, Dist. Collector, Bharuch
5) Shri A.V. Shah, Member Secretary, GPCB Gandhinagar.
6) Shri B.C. Warli, Chief Engineer, GIDC

At the outset, Shri Sanjeev Kumar, Chairman, GPCB briefed the gathering that a case is pending before Honourable National Green Tribunal (NGT) in O.A.60/2021 (WZ) of Aryavart Foundation versus Hemani Industries Limited and Hon'ble NGT has issued direction on 04.10.2021.

MS, GPCB made a presentation giving insight of Petroleum, Chemical, Petrochemical Investment Region (PCPIR) mentioning area of PCPIR is 453 sq. Kilo meter and covers Dahej, Saykha, Vilayat GIDC with Jubilant SEZ. Major sector of industries are Petrochemical, Chemical, Dyes and Dye Intermediates, Bulk Drugs and Pesticides.

- Effluent Conveyance and Disposal

Member Secretary apprised the existing infrastructure of effluent conveyance and disposal facilities mentioning that there are 5 pumping stations i.e. Vilayat Pumping station, Pumping station A, Pumping station C, Pumping station D and final pumping station. He explained that Pumping station at Vilayat (Cap: 25 MLD) receives waste water from 5 units and is conveyed to final pumping station through 39.50 km long HDPE pipeline having 710 mm diameter along with other Industrial wastewater of other four units (GNFC, China Steel, DFL and Saykha CETP) meets in downstream of Vilayat pumping station.

CETP, Dahej (Cap: 40 MLD) receives Industrial wastewater from 32 units and convey the effluent to final pumping station through 6.50 km long HDPE pipeline (710 mm diameter).

Pumping station A (Cap 13 MLD) receives Industrial wastewater from 15 units and conveys waste water to final pumping station through 4 km long HDPE pipeline (Diameter:

710mm). Similarly Pumping station C (Cap 5 MLD) receives Industrial wastewater from 15 units and conveys wastewater to final pumping station through 2.2km long GRP pipeline (Diameter: 500mm).

Pumping station D (cap: 5 MLD) receives Industrial wastewater from 18 units and conveys into discharge line of final pumping station through 200 meter long HDPE pipeline (Diameter: 300 mm).

Final Pumping station (Cap 90 MLD) receives Industrial wastewater from CETP Dahej, pumping station A, C, D and Vilayat Pumping station along with 9 other industrial units having direct discharge to Final pumping station. Industrial wastewater from final pumping station is further conveyed through 13.5 KM long pipeline into deep sea. Out of 13.5 Km, 9.5 Km pipeline is existing off shore and 4.5 KM is existing on shore.

- Issues and Action

It is mentioned that offshore pipeline of 4.5 Km is blocked since long. Alternatively, 600-meter offshore MS pipeline disposing effluent is leaking in CRZ 1B area and this line replaced by 800-meter HDPE pipeline to prevent leakages.

Further, it was mentioned that leakages/overflow from GIDC internal drainage & SEZ area of Dahej results Industrial wastewater ponding and overflow of storm water drain reaches to Estuary/Sea. Further, it was informed that effluent is not meeting with discharge norms prescribed in consent of the Board as GIDC accepts untreated/partly treated effluent from member units. CETP, Dahej operated by GIDC is not meeting the norms.

GPCB issued directions under the Water Act, 1974 to GIDC on 30/01/2019, 23/03/2020, 27/05/2020, 14/08/2020, 24/03/2021 and 23/09/2021 and Notice of Direction (NOD) under the Water Act, 1974 to CETP-Dahej on 01/03/2021, 26/05/2021 and 31/07/2021. Direction u/s 5 of the EPACT 1986 by Forest and Environment Department dtd. 21/07/2020 to VC&MD, GIDC, Letter of ACS, F & ED, Chairman GPCB to VC & MD, GIDC dtd. 15 March 2018

At the outset, directions issued by GPCB, its compliance submitted by GIDC with action plan to GPCB on 29.04.2021 and 04.10.2021 were deliberated.

To overcome the issue, Member Secretary suggested to divert the Industrial waste water from Pumping station A, C and D to Dahej CETP to utilize the capacity within 40 MLD limit, however to reach out this, industrial units disposing effluent to pumping station are required to meet the TDS norms as same is not given in their present consent and which may be resisted by the concerned industrial units due to installation of additional infrastructure of RO, MEE, ATFD etc.

- Direction of Hon'ble NGT

MS,GPCB apprised the direction of Hon'ble NGT(WZ) dtd. 04.10.2021 in O.A. 60/2021 of Aryavart Foundation versus Hemani Industries Limited mentioning that Hon'ble Chief Secretary is to convene a meeting of GIDC,GPCB and GCZMA and result of meeting and decision be submitted in the form of report with documents on next date of hearing i.e. 29.11.2021.

He further informed that as per the direction CPCB and GPCB are to monitor "Red Category" industries to find out whether discharge of untreated/ partly treated effluents into the Treatment plant maintained by GIDC and if any infractions/violations are noted, then to come out with the environmental compensation and to take action in accordance with law based on report.

He further informed that as per the direction, the district collector-Bharuch and Superintendent of Police are to provide assistance to carry out inspection of the unit in GIDC. MS,GPCB informed that CPCB and GPCB have started joint monitoring on 25.10.2021.

- Compliance & Action plan by GIDC on 29.04.2021 and 04.10.2021

Shri B.C.Warli, Chief Engineer, GIDC informed that GIDC has published online tender for execution of 4.5 Km offshore effluent disposal pipeline with diffuser and last date of tender bid submission being 15th, November 2021 and work will be completed within a time limit of 18 months. He further informed that maintenance, repair work is carried out throughout the year, and work is awarded to the agency. Further, he informed that GIDC has upgraded effluent collection system in Dahej-1 area by providing five nos. of collection well with pumping station, connection will be released through above ground pipeline as and when Industries comes for drainage connection to prevent any unauthorised connection and existing manholes are to be closed. To remove the sludge deposition at final pumping station, Chief Engineer, GIDC informed that installation work of filter press at pumping station will be taken up. It was further mentioned that GIDC has published online tender for execution of 90 MLD effluent disposal twin pipeline from Sayakha to final pumping station (Plot NO Z/93,SEZ-II) and from there to deep sea and agency will be finalized by end of November 2021. He further added that Environmental compliance will be submitted to GPCB.

Conclusion

Honourable Chief Secretary noted compliance of direction of GPCB submitted by GIDC and directed Chief Engineer,GIDC to address revised details with adequate measures implemented for the concern raised by Hon'ble NGT so as to review the same in next meeting.

The meeting was concluded with vote of thanks to the Chair.

Annexure-B

Minutes of the Meeting held on 18th November 2021 at 17:30 hrs under the Chairmanship of Honourable Chief Secretary, Government of Gujarat.

Agenda: To take stock of the situation with respect to compliance of the direction of Honourable National Green Tribunal in O.A. 60/2021, Aryavart Foundation versus Hemani Industries Limited dtd. 04.10.2021 and to issue directions to the concerned authorities as may be found necessary.

Reference: Hon'ble NGT order dated 04.10.2021 in the matter of O.A. No. 60/2021.

Date & Time: 18th October 2021 at 17.30 Hrs

Venue: Committee Room, Office of the Chief Secretary, 5th Floor, Block No. 1, Sachivalaya, Gandhingar.

Key Attendees: 1) Shri Pankaj Kumar, IAS, Chief Secretary, Government of Gujarat
2) Shri Sanjeev Kumar, IAS, Chairman, GPCB
3) Shri Shri M. Thennarasan, IAS, VC & MD, GIDC
4) Shri Tushar Sumera, IAS, Dist. Collector, Bharuch
5) Shri B.C. Warli, Chief Engineer, GIDC
6) Mrs. D.P. Shah, Senior Environmental Engineer, GPCB.
7) Shri Ashok Chauhan, Dy. Env. Engr., GCZMA

Background:

A case is pending before Honourable National Green Tribunal (NGT) in O.A.60/2021 (WZ) of Aryavart Foundation versus Hemani Industries Limited and Hon'ble NGT has issued direction on 04.10.2021. Next hearing is scheduled on 29/11/2021.

Accordingly, a meeting under the chairmanship of Hon'ble Chief Secretary was held on 27/10/2021. Honourable Chief Secretary noted compliance of direction of GPCB submitted by GIDC and directed Chief Engineer, GIDC to submit revised details with adequate measures implemented for the concern raised by Hon'ble NGT so as to review the same in next meeting.

Second Meeting was scheduled on 18/11/2021 and proceeding is as below:

At the outset, Honourable Chief Secretary asked progress of updated action plan and its implementation as decided in last meeting on 27.10.2021 to GIDC.

To apprise the status of compliances, a presentation was made by GIDC. Chief Engineer of GIDC submitted the action plan and its status vide the direction issued by the GPCB under the Water Act 1974 on 23.09.2021 as below:

Sr No	Direction issued on 23.09.2021 by GPCB	Compliance Status as on 18/11/2021 represented by GIDC
1	To stop discharge of effluent from pipeline laid at 600-meter on offshore as alternative arrangement.	<ul style="list-style-type: none"> GIDC shall provide the additional pipeline of 1200 meter with diffuser work from existing effluent discharge point (i.e. 800 meter) in to the deep sea once the tender is finalized on priority within 6-8 month.
2	To discharge effluent 4.5 km mtr away from sea, so proper	

Sr No	Direction issued on 23.09.2021 by GPCB	Compliance Status as on 18/11/2021 represented by GIDC
	dilution as per condition no. 5.4 of CCA may be available at discharge point.	<ul style="list-style-type: none"> • GIDC has laid 1000 mm dia. HDPE pipeline length of 800 meter from LFP.
3	To carry out maintenance of 4.5 km offshore pipeline and solve problem of choking of pipeline.	<ul style="list-style-type: none"> • GIDC has published the Online Tender for execution of 40.50 km onshore + 4.5 Kms Offshore effluent disposal pipeline with diffuser at an estimated cost o Rs 474.61 cr. The agency will be finalized by end of Dec-2021 and the work will be completed within a time limit of 18 months.
4	To rectify and repair leakages in GIDC drainage lines.	<ul style="list-style-type: none"> • The Maintenance& Repair work is attended regularly whenever leakage is observed in drainage line, overflow of manholes of drainage system at Dahej & Vilayat Estate.
5	To stop overflow from GIDC drainage manholes in various sections of GIDC drainage system in Dahej & Vilayat.	<ul style="list-style-type: none"> • GIDC has upgraded effluent collection system in Dahej-I area i.e. 05 nos. of collection well with pumping station are constructed and connection will be released above ground pipeline to avoid any unauthorized connection. Moreover, the existing manholes shall be closed.
6	To take necessary steps to control overflowed wastewater reaches to estuary/ sea through the natural drain / storm water drain.	<ul style="list-style-type: none"> • Actions are taken on regular basis whenever leakage is observed in drainage line, overflow manholes of drainage system at Dahej & Vilayat Estate
7	To remove sludge deposition observed at the GIDC final pumping station (FPS).	<ul style="list-style-type: none"> • GIDC has constructed sludge drying bed at Final Pumping station. • Sludge has been removed at Final Pumping station.
8	To provide adequate storage facility to prevent overflow of wastewater entering into surface water drains/ storm water drains/ surrounding area.	<ul style="list-style-type: none"> • Adequate storage facility Guard pond @ Sayakha-90ML & at Final Pumping station (z-93) -180ML is proposed.
9	To relocate manholes to prevent overflow of wastewater entering into surface water drains/ storm water drains/ surrounding area.	<ul style="list-style-type: none"> • The manhole shall be closed and the industries shall have to lay the express line upto sump/ ESR for SEZ Part-I at Dahej Industrial Estate. • The work is undertaken with following major components. <ol style="list-style-type: none"> 1. Three nos of effluent collection sump, pump house & effluent storage reservoir. 2. Drainage network (MOC - HDPE)& Pumping machineries
10	To re-collect accumulated wastewater from surrounding area.	<ul style="list-style-type: none"> • GIDC has invited the tender for construction of storm water drain to provide permanent solutions of the storm water management. Price bid has been opened and agency will be finalized soon, so

Sr No	Direction issued on 23.09.2021 by GPCB	Compliance Status as on 18/11/2021 represented by GIDC
		as to complete the work before on set of monsoon. <ul style="list-style-type: none"> • Cleaning of SWD has been carried regularly through agency. (M/s SVR Construction Company, Surat)
11	To strengthen pipeline infrastructure to convey effluent upto deep sea.	<ul style="list-style-type: none"> • The agency will be finalized by end of Dec-2021 and the work of offshore pipeline work with diffusers will be completed within a time limit of 18 months from the date of fixation of agency. • Tender of the above work is invited. Last date of bid submission is 30/11/2021.
12	To provide permanent solution of storm water management.	<ul style="list-style-type: none"> • GIDC has invited the tender for construction of storm water drain to provide permanent solutions of the storm water management. Price bid has been opened and agency will be finalized soon, so as to complete the work before on set of monsoon.
13	To take necessary steps to keep storm water drain dry during lean period.	<ul style="list-style-type: none"> • Cleaning of SWD has been carried regularly through agency. (M/s SVR Construction Company, Surat)
14	To comply condition no. 5.25 of existing CC&A.	<ul style="list-style-type: none"> • Environmental compliance will be submitted to GPCB regularly and Environment management cell will be firmed within six months.

Further detailed report of GIDC (Effluent Disposal Management) was deliberated which is annexed herewith as **Annexure 1**.

Honourable Chief Secretary further inquired about the joint monitoring status of industrial units carried out by GPCB and CPCB to which it was mentioned that till date out of 117 Red Category units, 34 industrial units have been monitored and report is under preparation.

Conclusion

Honourable Chief Secretary noted compliance of direction of GPCB submitted by GIDC and asked GIDC to implement the same in a time bound manner.

The meeting concluded with vote of thanks to the Chair.
