

# COMPLIANCE REPORT

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O.A. No. 606/ 2018

SUBMITTED BY

CHANDIGARH ADMINISTRATION

I N D E X

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## COMPLIANCE REPORT

O.A. No. 606/ 2018

## INTRODUCTION

The said matter of Hon'ble National Green Tribunal in O.A. No. 606/2018 (Compliance of Municipal Solid Waste Management Rules, 2016 and other Environmental Issues) relates to the issues of solid as well as liquid waste management and is being monitored by the Adviser to the Administrator of U.T. Chandigarh. Two orders were passed by Hon'ble Tribunal on 18.05.2023; one order is general for all the States/UTs and other order is specifically for U.T., Chandigarh. The directions issued are as follows:

**Directions of the Tribunal passed in general order for all States/ UTs dated 18.05.2023****Para 26. Levy of compensation for past violations**

The Tribunal directed that acknowledged gaps in solid and liquid waste generation and treatment are required to be addressed speedily for protection of environment. The Tribunal determined compensation on 'Polluter Pays' principle for gaps in existence beyond the laid down timelines on the scale of Rs. 2 crore per MLD for gap in respect of liquid waste and Rs. 300 per MT for gap in respect of legacy waste.

**For U.T. Chandigarh, amount as per the undertaking to ring fence has been worked out as 282 Crores.**

**Para 27.** Idea of environmental compensation is to require remediation, fix accountability for the past failures and ensure restoration in enforcing citizens' right to clean environment and protect public health.

**Para 31.** **With regard to solid waste management**, the Tribunal noted that unless adequate waste processing facilities are set up; the legacy waste will keep

mounting and occupy huge area of land. It is source of degradation of environment, threat to human health and has potential for fires and explosions. Quality of compost has to meet standards and rejects/residue emerging out from waste processing facilities needs to be properly routed to end users with due authorization. The Tribunal emphasized need for setting up of decentralized waste processing plants and standardizing plants for compost for rural areas and empaneling the service providers.

**With regard to sewage management**, the Tribunal noted that installed treatment capacities have not been fully utilized and treated sewage is discharged without putting to secondary uses. Tribunal flagged need for adopting low cost options like oxidation ponds for towns having population less than one lakh and utilizing treated sewage for irrigation and pisciculture.

**Para 32.** Further, the Tribunal has made reference to recent order of the Hon'ble Supreme Court dated 20.03.2023 in M.A. No. 356 of 2023 in Writ Petition (Civil) No. 375 of 2012, Paryavaran Suraksha Samiti vs. Union of India & Ors. on the subject of extending timeline for setting up requisite sewage treatment plants and supplementary directions. Relevant observations are quoted below:

*“The mere setting up of STPs is not enough. The maintenance of the STPS and their performance and capacity to deal with sewage which is generated is another matter which has to be duly scrutinized and monitored. The treatment of sewage which is generated in the villages, towns and cities is a matter of utmost concern. Untreated sewage waste is discharged into rivers and naalas polluting the very sources of water upon which the survival of the population and bio diversity depends.”*

**Para 34.** The Tribunal directed the Chief Secretaries of all the States/UTs to file further progress reports every six months to be taken up by the Tribunal for further

consideration, if necessary, the proceedings stand concluded for the time being, subject to compliance being further monitored, if necessary.

**In respect of U.T., Chandigarh; two orders dated 18.08.2022 and 18.05.2023 are being to be referred for compliance.**

**Directions of the Tribunal passed vide order dated 18.08.2022 for U.T., Chandigarh**

Earlier an order was passed by Hon'ble National Green Tribunal w.r.t. to the appearance of worthy Adviser to the Administrator before the tribunal held on dated 18.08.2022 and following directions were issued by Hon'ble NGT for U.T., Chandigarh.

- Designate a Senior Nodal Officer to regularly assess the progress in solid waste management and liquid waste management.
- Ensure that the gaps in liquid waste generation and treatment are bridged at the earliest.
- Shorten the proposed timelines.
- Adopt alternative/interim measures to the extent and wherever found viable.
- Ensure upgradation of STPs to meet the standards and get executable plans for utilization of treated sewage.
- Manage rural sanitary issues.
- Ensure setting up of and operationalization of solid waste processing plant and remediation of landfill site.
- Replicate standardized processing and treatment methodologies based on the gained experience at either individual or at smaller community level.
- Set up more and more green belts/dense forests to mitigate adverse impact of waste.
- Impose Environmental Compensation (EC) as per the regime fixed by the Tribunal.

The proceedings were closed but then, notice was issued vide order dated 07.09.2022 to the U.T., Chandigarh and other States/UTs to respond to the proposal for further directions on the pattern of order dated 01.09.2022 in the case of West Bengal.

In response to the above, Chandigarh Administration filed a status report on 17.05.2023 and the Adviser to the Administrator appeared before the tribunal on dated 18.05.2023 through video conferencing.

## **Directions of the Tribunal passed vide order dated 18.05.2023 for U.T., Chandigarh**

**Para 6.** Data filed showed that out of 8 lakh MT legacy waste, 2.5 lakh MT has been remediated. Current generation of waste is 588 TPD while processing is only 120 TPD (80 TPD dry waste). Thus, there is gap of 468 TPD which is further adding to legacy waste. With regard to sewage management, gap is to the extent of 133 MLD. Generation of sewage is 220 MLD and actual treatment as per standards is only to the extent of 87.6 MLD.

**Para 7.** During the hearing, it was submitted that compensation need not be levied on Chandigarh as it has already allocated requisite funds are readily available and works are in progress. Amount as per the undertaking to ring fence in a separate account has been worked out as 282 Crores.

**Para 8.** Critical issues to be addressed include:

- Utilization of treated sewage for non-potable purposes, particularly agriculture, avoiding discharge into rivers or water bodies.
- Performance based O&M mechanism for STPs
- Preventing mixing of current waste with legacy waste and bio-remediating both
- Identifying and authorizing the end-users/destination of processed waste.

**Para 10.** The Administration itself may ensure availability of funds at least to the extent of Rs. 282 Crores by transferring the amount in a separate ring-fenced account, to be operated as per directions of the Advisor to Administrator. This will not debar incurring expenditure over and above the said amount of Rs. 282 Crores. The amount will be utilized as per the approval of Worthy Adviser to the Administrator.

Directions issued by Hon'ble NGT are as given below:

<b>S.No.</b>	<b>Directions</b>	<b>Timeline</b>
<b>1.</b>	To ensure availability of funds at least to the extent of Rs. 282 Crores by transferring the amount in a separate ring-fenced account, to be operated as per directions of the Adviser to the Administrator.	No timeline is given however report is to be submitted within six months to Hon'ble NGT.
<b>2.</b>	Installed capacity of 8 existing/upgraded and renovated and new STPs be fully utilized to their capacity and made compliant with the standards preferably.	Within four months.
<b>3.</b>	Treated water be utilized for secondary purposes, including industries and irrigation. If necessary, conveyance/distribution system be laid.	Preferably in next six months.
<b>4.</b>	Gap in waste processing be plugged by setting up of additional facilities to process bio-degradable and non-biodegradable and other waste estimated to be 468 TPD, alongwith the legacy waste of 5.5 lakh MTs.	Preferably within four months.
<b>5.</b>	The Advisor to Administrator may review progress of work.	Once in a month.
<b>6.</b>	Six monthly progress reports in the matter may be filed with the Registrar General of Hon'ble NGT.	Within Six Months

**STATUS ON COMPLIANCE OF DIRECTIONS OF HON'BLE NATIONAL GREEN TRIBUNAL**

The status of compliance of the orders of Hon'ble NGT w.r.t. Solid Waste Management and Liquid Waste Management in U.T. Chandigarh is given below.

- 1. NGT Direction : To ensure availability of funds at least to the extent of Rs. 282 Crores by transferring the amount in a separate ring-fenced account, to be operated as per directions of the Adviser to the Administrator.**

**Concerned Departments** – Chandigarh Administration/ Municipal Corporation Chandigarh

**Status:**

- Municipal Corporation Chandigarh and Smart City Limited Chandigarh have ring-fenced Rs. 232.48 Crores.
- The remaining amount of Rs. 49.52 Crores has been demanded from Chandigarh Administration.

**LIQUID WASTE MANAGEMENT**

- 2. NGT Direction : Installed capacity of 8 existing/upgraded and renovated and new STPs be fully utilized to their capacity and made compliant with the standards preferably.**

**Concerned Departments** - Municipal Corporation/ Engineering Department

**Status:**

- Chandigarh is generating around 220 MLD sewage water and having the treatment capacity of 250.7 MLD. **This clearly indicates that Chandigarh has more than 100% treatment capacity.**
- At present 8 Sewage Treatment Plants (STPs) are operational. Out of these 8 STPs, 05 STPs are meeting with latest norms of BOD < 10 mg/l and F. Coli < 100 MPN/100 ml.

Rest 03 STPs have been upgraded and are already in trial/ stabilization mode and after stabilization/ trial run, these 03 STPs will also meet with latest norms of BOD < 10 mg/l and F.Coli < 100 MPN/100 ml.

#### STATUS OF SEWAGE TREATMENT PLANTS

Location	Capacity MLD	Compliance with Norms	Status
<b>Diggian (MCC)</b>	135	Not meeting with latest norms	Presently old STP (MBBR) is operational. New STP (SBR) is under stabilization.
<b>3 BRD (MCC)</b>	50	Meeting with latest norms in terms of BOD and F. Coli	Plant is upgraded & fully operational in SBR Technology.
<b>Maloya (MCC)</b>	22.5	Meeting with latest norms in terms of BOD and F. Coli	Plant is fully operational in SBR Technology.
<b>Dhanas (MCC)</b>	7.5	Meeting with latest norms in terms of BOD and F. Coli	Plant is upgraded & fully operational in SBR Technology.
<b>Raipur Kalan-I (MCC)</b>	22.5	Not meeting with latest norms	Presently old STP (UASB) is operational. New STP (SBR) is under stabilization.
<b>Raipur Khurd (MCC)</b>	5.6	Not meeting with latest norms	Presently old STP (ASP) is operational. New STP (SBR) is under stabilization.
<b>Raipur Kalan-II (Engg. Deptt.)</b>	5.6	Meeting with latest norms in terms of BOD and F. Coli	At present only 0.5 MLD waste water is coming and plant is properly functional.
<b>Kishangarh (MBR) (Engg. Deptt.)</b>	2	Presently plant is not operational as the repair work of waste water pipe is being going on.	

3. **NGT Direction** : Treated water be utilized for secondary purposes, including industries and irrigation. If necessary, conveyance/distribution system be laid.

**Concerned Departments** - Municipal Corporation/ Engineering Department

**Status:**

- Presently Tertiary Treated (TT) water is being supplied to 680 parks/gardens/green belts for irrigation and to more than 2800 private residences for lawn watering. However, for utilizing remaining TT water, further distribution lines are being laid including industrial areas so that TT water can be used upto maximum possible extent.
- Tertiary Treated water lines over 10 kms long from STPs at Kishangarh and Dhanas are being laid in various locations such as IT Park area; College campus of Post Graduate College for Men, Sector 11; EWS Housing Complex, Dhanas and Police Housing Complex, Dhanas.
- Further, the work of laying of 129 km TT water distribution network has been approved and shall be completed by 30.04.2025. For the purpose, 3 Underground Reservoirs (UGRs) at STPs at Raipur Kalan, Maloya and Diggian will be constructed. The detailed scope of work is given below.
  - i. Laying of 129 KM TT distribution network:
    - The TT Water Distribution Network will be laid in left out areas of Industrial Area Phase -1 and 2, villages (Maloya, Dadumajra, Dhanas, Kishangarh, Khuda Lahora, Makhan Majra, Mauli Jagraon, Subash Nagar, Indira Colony.
  - ii. Construction of 1 MGD (4.5 MLD) Capacity UGR at 3BRD, 2 MGD (9 MLD) Capacity UGR at Maloya, 2 MGD (9 MLD) Capacity UGR at Raipur Kalan:
    - The UGR at Raipur Kalan will supply the TT Water to all parks in Mauli Jagraon, Vikas Nagar, Rajiv Vihar, Modren Housing Complex, Shivalik Park, Indira Colony Manimajra, Makhan Majra etc.
    - The UGR at 3BRD will supply the water to Existing Pumping Stations at Sector 28, 2 Nos. in Sector 29 and Sector 48 Chandigarh. These pumping stations will supply the water to all Parks, Residential Areas having 1 kanal; round-about; institutions in Sector 1 to 12, Sector 14; Sector 63, Village Kaimbwala, Chandigarh.
    - The third UGR at STP Maloya will supply TT Water to various parks in villages Maloya, Dadumajra, Dhanas, Sarangpur, Khuda Lohar, Khuda Jassu etc.

**SOLID WASTE MANAGEMENT**

4. **NGT Direction** : Gap in waste processing be plugged by setting up of additional facilities to process bio-degradable & non-biodegradable and other waste estimated to be 468 TPD, along with the legacy waste of 5.5 lakh MTs.

**Concerned Departments** - Municipal Corporation

**Status:**

- Chandigarh generates 550 TPD municipal solid waste, of which 174 TPD is dry waste and 376 TPD is wet waste.

## Facilities

Material Recovery Facilities (MRFs) : 03 Nos.

Processing Facility

RDF : 200 TPD

Compost : 80 TPD

Horticulture : 30 TPD

Bio-Methanation : 5 TPD

Coconut Shell : 2 TPD

- 100% waste is collected door to door in four categories viz Dry, Wet, Sanitary and Domestic Hazardous waste.
- Collected dry waste, sanitary waste and domestic hazardous waste at Material Recovery Facilities is sent for processing.
- The processing of wet waste is around 70 – 80 TPD which is less than its generation for which MCC has initiated the process of upgradation of existing compost plant and also setting up of additional facility to process 300 TPD of wet waste.
- The work of expansion of existing compost plant will be completed in November, 2023 and its operational capacity shall increase from 80 TPD to 120 TPD.
- The work of construction of temporary composting plant has been started. The tender has been floated and plant will be operational by 31.01.2024.

- For better management & to overcome all the issues related to solid waste processing, one Integrated Solid Waste Management (ISWM) facility is being setup which will be operational by December, 2025. This shall cater to the waste processing needs of the city for 15 years.
- The sanitary waste (comprising of used diapers, sanitary towels or napkins etc.) is being collected from MRFs for processing by the authorized Biomedical Waste Treatment Facility i.e. M/s Alliance Envirocare Company Pvt. Ltd.
- The domestic hazardous waste (comprising of discarded paint drums, pesticide cans, CFL bulbs, tube lights, expired medicines, used needles and syringes etc.) is being collected by M/s RE-Sustainability Ltd. from MRFs for its proper disposal at Nimbua Greenfield (Punjab) Ltd., Derabassi.
- Horticulture Waste Processing Plant of capacity 30 TPD has been established and is functional. Horticulture waste being generated by pruning of trees is processed to manufacture Bio-Briquettes which are sold through auction. Horticulture waste produced in parks and green belts is also being processed in situ, for which 104 aerobic compost pits have been constructed and are in operation for composting effectively. The said onsite compost pits have capacity of 21 TPD.
- Coconut shell waste is separately collected for brick making.
- All the C&D waste is being processed at C&D waste plant of capacity 150 TPD.
- The dumping ground is situated over 45 acres of land. Out of this, 20 acres of land which was used earlier, is no longer in use for the purpose of dumping and is bio-remediated. There is a proposal to develop additional compost facility to process 300 TPD wet waste at the cleared site. Out of 25 acres, 8.28 acres of land was developed as sanitary landfill site and is currently in use. The remaining land (16.72 acres) was capped and covered and a portion has been used to set up a new landfill site.

#### **BIOREMEDIATION OF LEGACY WASTE**

- Bio-remediation of old dumpsite of 20 acres – started on 22.10.2020.  
Entire legacy waste of 5 LMT has been processed.

# 891

- Bio-remediation of current landfill of 8.28 acres – started on 26.08.2022.  
Out of 8 LMT, 4.20 LMT waste has been processed. The work is proposed to be completed by 31.12.2024.