

IN THE NATIONAL GREEN TRIBUNAL AT NEW DELHI

OA/606/2018

IN THE MATTER OF:

COMPLIANCE OF MUNICIPAL SOLID WASTE MANAGEMENT
RULES, 2016 AND OTHER ENVIRONMENTAL ISSUES

N.D.O.H.: 18.05.2023**INDEX**

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Debendra Dalai, IFS
Director Environment
Department of Environment

Director Environment
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PLACE:

DATE:

IN THE NATIONAL GREEN TRIBUNAL AT NEW DELHI

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IN THE MATTER OF:

COMPLIANCE OF MUNICIPAL SOLID WASTE MANAGEMENT
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**REPLY BY WAY OF AFFIDAVIT ON BEHALF OF CHANDIGARH
ADMINISTRATION**

I, Debendra Dalai, IFS, on behalf of Chandigarh Administration do hereby solemnly affirm and state on oath as under:-

1. That I am duly authorised by the Chandigarh Administration to file the present status report by way of affidavit. I am filing this affidavit in terms of order of this Hon'ble Tribunal dated 07th September, 2022 on behalf of the Chandigarh Administration and am conversant with the facts of the case. As such I am competent to swear this affidavit.
2. That the Hon'ble National Green Tribunal, New Delhi has passed an order on 7th September, 2022 in the above mentioned case and said order is reproduced below:-

“On due consideration, in the interest of protection of environment and to maintain consistency, we find it appropriate to issue notice to States/UTs of Kerala, Tamil Nadu, Lakshadweep, Puducherry, Andhra Pradesh and Chandigarh by email to respond to the issue why further directions on the pattern of order



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may appear by virtual mode or physically through counsel or any other representative and file their response, if any before the next date by email."

3. That the issue in the present case is regarding alleged violation of Solid Waste Management and Liquid Waste Management in Chandigarh and issues mentioned in order dated 18.08.22 passed by this Hon'ble Tribunal in O.A No. 606/2018 along with the action taken report and compliance status regarding gaps in waste generation and remediation as per the order dated 25.04.2023 in O.A No. 736/2022 titled L. R. Budaniya Vs. U.T., Chandigarh.
4. That present status report, in compliance of the directions of the Hon'ble Tribunal, is hereby submitted:
 - I. That, Sh. Debendra Dalai, IFS has been designated as Senior Nodal Officer to regularly assess the progress in solid and liquid waste management and that he is well versed with the subject and facts.
 - II. That Chandigarh city is currently generating 220 MLD (approx.) of liquid waste against an available treatment capacity of 250.7 MLD. **It is therefore submitted that there is no gap between the Total Liquid Waste Generation and Liquid Waste Treatment Capacity.**
 - III.


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That against a Liquid Waste Generation of 220 MLD, Liquid Waste being treated is 217.3 MLD. The 2.7

land in village Faidan is private, right to way is being sought from the landowners to lay sewerage network and connect it to the STP.

- IV. That there are two drains discharging wastewater in river Ghaggar i.e. Sukhna Choe and N-Choe. Earlier, 14 points were detected from which wastewater/sewage water was being discharged into N-Choe. All the said points were plugged, resulting in reduction of BOD level from a range of 33-210 mg/l to a range of 2.7-13 mg/l.

However, during a recent inspection on 26.04.2023, it was observed that out of 17 points monitored, waste water was being discharged at 02 points. However, it is pertinent to mention here that BOD level at the exit point of Chandigarh is less than 30 mg/l and at some times, even less than 10 mg/l. Notice has been issued to MC to take corrective measures to plug all the sewage outlets with the immediate effect.

- V. That in the case of Sukhna Choe, 13 points were detected from where sewage/wastewater was being discharged into Sukhna Choe. Thereafter, all points were plugged. However, during a recent inspection on 28.04.23, it was observed that out of 15 points monitored, waste water is still being discharged at 06



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Quality of water is poor because of mixing of partially treated waste water from two STPs i.e. Raipur Kalan and Raipur Khurd which are both under upgradation.

VI. That it would be pertinent to mention here that residents sometimes break plugs and discharge sewage water, which, after regular inspections by CPCC and immediate action is taken by Municipal Corporation, to plug the same.

VII. That status of 8 STPs functioning in UT, Chandigarh are as given below:

Sr. No.	STP	Capacity (in MLD)	Current Status	Timeline for completion to meet latest norms
1.	Raipur kalan II	5.6	Meets latest standards of BOD & Fecal Coliform	NA
2.	Maloya	22.5	Meets latest standards of BOD & Fecal Coliform	NA
3.	Dhanas	7.5	Meets latest standards of BOD & Fecal Coliform	NA
4.	3 BRD	50	Meets latest standards of BOD & Fecal Coliform	NA
5.	Kishangarh	2	Meets latest standards of BOD & Fecal Coliform	NA
6.	Raipur kalan I	22.5	Under Upgradation	31.07.2023
7.	Raipur khurd	5.6	Under Upgradation	31.07.2023
8.	Diggian	135	Under Upgradation	30.09.2023
Total		250.7		

VIII.

That, at present, out of 8 STPs, 5 STPs (87.6 MLD) are complying with latest norms. After upgradation, all the STPs will meet with the prescribed norms of BOD (10 mg/l) and Fecal Coliform (100 MPN/100ml) along with



Performance of STPs (January to April 2023)								
Month	January		February		March		April	
Parameters	BOD	F. Coli	BOD	F. Coli	BOD	F. Coli	BOD	F. Coli
STPs	(mg/l)	(MPN/100 ml)	(mg/l)	(MPN/100 ml)	(mg/l)	(MPN/100 ml)	(mg/l)	(MPN/100 ml)
Raipur Kalan -II	1.3	<1.8	<1	<1.8	4.4	<1.8	2.6	<1.8
Dhanas	2.6	<1.8	8.9	<1.8	2.2	<1.8	4.0	<1.8
Maloya	1.9	<1.8	2.9	<1.8	<1	<1.8	5.8	<1.8
Kishangarh	2.4	<1.8	1.4	<1.8	1.4	<1.8	2.1	<1.8
3BRD	29	<1.8	4.7	<1.8	4.4	<1.8	<1	<1.8
Diggian	28	1.7×10^3	25	1.4×10^3	26	9.2×10^2	25	1.4×10^3
Raipur Khurd	116	3.3×10^5	60	3.3×10^5	104	2.6×10^5	88	2.2×10^5
Raipur Kalan-I	152	2.7×10^6	147	1.4×10^6	145	1.1×10^6	131	7.0×10^5

Standards: BOD<10mg/l F. Coliform<100MPN/100ml

IX. That presently, 125 MLD tertiary treated (TT) water is being generated and 45 MLD is being used in 680 parks and green belts, and 4300 residential units. After upgradation of the remaining STPs, 215 MLD TT water will be generated. All the Bulk Waste Generators are being encouraged to use TT water as much as possible.

X. That dedicated water sprinklers have been procured for the sprinkling of water as and when required for road sweeping. At regular interval in some the areas all the footpaths are being cleaned, through tertiary treated water

XI. That tertiary Treated Water lines of 10 kms have also been laid in the IT Park area at a cost of Rs. 2 crore in

the EWS Housing Complex, Dhanas at a cost of Rs. 85

Lacs and Police Housing Complex, Dhanas at a cost of

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- XII. That further, a Detailed Project Report to the tune of 97 crores, for laying of 440 kms of TT Water lines in left out areas has been approved. After the laying of TT water lines in all left out areas including industrial areas, bulk users like service stations, bus depots etc. will only use TT water upto maximum possible extent. With the completion of the project, usage of Tertiary Treated waste will increase from 45 MLD to 90 MLD. After Upgradation of STPs, TT water will be filled sector 42 lake and Dhanas Lake of Chandigarh.
- XIII. That initiatives have already been started to provide dual plumbing in public toilets. Further, for all the big projects dual plumbing is mandatory. Even New Secretariat Building and Housing Board Building are equipped with dual plumbing system.
- XIV. That there are no rural areas in the jurisdiction of Chandigarh UT. However, 09 villages were brought within municipal limits in 2006 and 13 villages in 2018. The work of laying sewerage network in the 13 villages has been started and 90% erstwhile rural areas have been covered with sewerage network connected to STPs.


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However, there are areas beyond Lal Dora which are not covered with sewerage network, but the sewage

XV. That the liquid waste generated in government run Gaushalas is being transported to STPs through existing Sewerage Network. Further ETPs are being set up in all 5 gaushalas managed by Municipal Corporation Chandigarh. Timelines for the completion and operationalization of the same are below:

- i. Raipur Kalan - 30.09.2023
- ii. Industrial Area - 31.12.2023
- iii. Maloya - 31-12.2023
- iv. Sector 25 - 31.12.2023
- v. Sector 45 - 31.12.2023

Tender has been awarded for lifting of gobar (Cow dung) from all the gaushalas on 14.02.2023 and 110 MT gobar has been disposed off from 3/2023 to 05/2023. The same is being used by the agency to produce pallets to be used as fuel.

XVI. That further, in case of private dairies/ gaushalas owners are being educated about the provisions of rules and ill effects of improper disposal so that all the units adopt the proper methodology for the disposal of solid/ liquid waste.

XVII. That 588 TPD municipal solid waste is being generated in the city of Chandigarh.

XVIII. That door to door (D2D) waste collection is being done



mechanized vehicles with four compartments along with driver and garbage collector have been deployed. The collection of garbage is being done in four categories i.e. Dry, Wet, Sanitary and Domestic Hazardous Waste from residential as well as commercial i.e. School, Colleges, Institutes, Religious places, Petrol Pumps, Bhawans as well as market areas of the city.

XXIX. That presently Chandigarh has achieved 97% segregation at source and in order to achieve 100% segregation at source, the Municipal Corporation Chandigarh is taking utmost efforts by conducting awareness drives followed by mass challaning drives on regular basis in the city, which is evident from the fact that sanitary waste collection since the inception has increased from 12 kgs/day to 305 kgs/day which is being processed through bio-medical waste treatment facility authorized by CPCC. 926 D2D collectors have entered into MoU with the MCC to protect their livelihood. In pursuance thereof, they are collecting waste in segregated manner as per the terms and conditions of MoU.

XX. That the city of Chandigarh has 3 Material Recovery Facilities (MRFs) where further segregation of waste



large containers after segregating saleable material (i.e. Plastic, Cardboard, Metals, Packaging material, old clothes, Shoes, Rubber, Tyres etc.). Therefore, the auction is being held on 1st and 3rd Wednesday of every month at MRF centre situated at Indl. Area Phase I, Chandigarh, for the sale of the residual plastic at MRF center which is being purchased by the small scrap dealers who further sell to the large kabaries. Thereafter, the domestic hazardous, the sanitary, the dry and the wet waste collected are sent to the respective processing facilities.

XXI. That as a short-term measure, in order to ensure proper disposal of the dry and wet waste and to ensure it does not get dumped into the landfill site, upgradation of the existing Municipal Waste Processing Plant has taken place.

XXII. That the upgradation work of the existing dry waste dys-functional plant was completed on 01.12.2022 and it has started processing approximately 80 TPD of dry waste.

XXIII. That the existing capacity of compost plant has been upgraded and approximately 120 TPD of Wet Waste is being processed to produce compost. Also, the work of upgrading the existing wet waste processing plant by



200 TPD will be completed by 31.07.2023. In addition to this, for the remaining unprocessed waste, proposal for additional composting facilities for treatment of 200 TPD fresh waste is under process, which will be operational by 31.12.2023.

- XXIV. That the domestic hazardous waste (DHW) is processed through an agency authorized by CPCC namely, Re Sustainability Limited at their Treatment & Disposal facility at village Nimbua, Dera Bassi, Punjab. It would be pertinent to mention that 900 kg of Domestic Hazardous Waste has been lifted by the agency since 01/08/2022. 100% of collected DHW is being processed scientifically.
- XXV. That the sanitary waste (SW) is processed through an agency authorized by CPCC namely, Alliance Envirocare company Pvt. Ltd. at their Bio-Medical Waste Treatment Facility in Chandigarh. It would be pertinent to mention that the average collection and disposal of sanitary waste is 305 kg/day. 100% of collected SW is being processed scientifically
- XXVI. That despite of above efforts, there is gap of approx. 370 TPD between generation and processing of Solid Waste.

XXVII. That Chandigarh is in process of establishing an



years. The same shall be commissioned by December 2025.

XXVIII. That in regard to plastic waste management, it is relevant to mention the clause 1.1.7 of the MoU whereby the door-to-door garbage collectors are allowed to take out the saleable material and can further sale it. As per this clause, all the door-to-door garbage collectors extract the saleable plastic waste from the segregated garbage collected by them and further, sell that extracted saleable plastic waste at their own level. The relevant extract of which is reproduced as below:

“The door-to-door collector can take out the saleable material from the dry garbage and can further sell it. For this purpose, he will be provided a bag by MCC”.

Further it is submitted that the residual plastic along with the segregated garbage is being transported in Garbage Vehicles to Material Recovery Facility (MRFs) centres.

XXIX. That the dumping ground at Chandigarh is situated over 45 acres of land. That 20 acres of land which was used earlier, is no longer in use for the purpose of dumping. Further, 8.28 acres of the land has been developed as sanitary land fill site and is currently in



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covered and a portion has been used to set up the new sanitary landfill

- XXX. That Bio-Remediation of Legacy Waste dump of 5 Lakh MT situated in 20 acres (old dumpsite) is completed. The site shall be shortly available for setting up of the proposed Integrated Solid Waste Processing Plant.
- XXXI. That work of Bio-Remediation of 8 Lakh MT at current landfill site of 8.28 acres (where waste is being dumped currently) has already been started and Approx. 2.5 Lakh MT has been processed.
- XXXII. That the work of construction of two Leachate Treatment Plant of total capacity of 126 KLD has been completed and is now operational to treat the leachate generated from landfill site.
- XXXIII. That in compliance of the direction of this Hon'ble Tribunal Vide order dated 18.08.22, horticulture Waste Processing Plant has been established at 3 BRD, Chandigarh of processing capacity of 30 TPD and has also been made operational and functional. Horticulture waste being generated by pruning of trees is processed to manufacture Bio-Briquettes which will be sold through auction. The horticulture waste to produce briquettes and pellets are an excellent combustible material i.e. "Biocoal". These wooden



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Horticulture Waste has been processed since 10/01/2023.

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.

XXXIV. That Chandigarh has taken up, on a pilot basis, project for setting up of a decentralized plant for processing of waste generated by four Bulk Waste Generators, together. The same shall be operational by 31/08/2023.

XXXV. That citizens of Chandigarh have started to take responsibility to process their own wet/kitchen waste at individual and community level, which is evident from example of Rajiv Vihar society, where complete in-situ wet waste processing is being done.

XXXVI. That construction and Demolition Waste Processing Plant having capacity of 150 TPD has been installed at Industrial Area Phase-I, Chandigarh which was commissioned on 15th May 2019 to process Construction and Demolition waste.

Further, a Manual Casting Unit as well as Automatic Block Making Machine for maximum utilization of



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products like kerb stones, paver blocks, bricks etc. are being casted. Thus making optimum use of the C&D waste and using the finished products casted out of the same in public works across the city.

XXXVII. That in order to ensure that the C & D waste is not dumped at the dumping ground and in order to facilitate the general public, 22 C&D waste collection centers have been set up, all around the city, where public can dump the C&D waste being generated from the construction/re-construction work of the buildings, which is then transported to the Construction and Demolition Waste Processing Plant by MCC. Online call facility has also been started by MCC for effective collection of C & D waste from households.

XXXVIII. That proper record is being maintained in the all the wastes processing facility whether it is RDF facility, compost facility, horticulture waste plant, bio-methanation plant, MRFs and landfill site

XXXIX. That bulk waste generators are being regularly monitored and notices have been issued from time to time. There are 25 bulk waste generators and recently 8 BWGs which are not complaint with the SWM rules 2016 have been penalized.

That the Chandigarh is land locked city and is having



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XXXXI. That the steps taken by Chandigarh Administration for the **management of Solid Waste** have been tabulated as under:

Sr. No.	Work	Allocation (in Crores)	Expenditure (in Crores)	Current Status
1.	Construction of Material Recovery Facility (MRF) 3 Nos.	27.96	27.96	100 % Work Completed. All the 03 MRF Centers are Operational.
2.	Bio-Remediation of Old Dump Site (20 Acre)	33.98	27.86	100 % Work Completed.
3.	Bio-Remediation of Current Landfill Site (8.63 Acre)	67.96	11.36	30% Work Completed.
4.	Construction of Horticulture Waste Processing Plant	3.5	3.0	100% Work Completed.
5.	Development of New Sanitary Landfill Site	13.21	13.21	100% Work Completed.
6.	Upgradation of Existing Waste Processing Plant	4.99	3.29	75% Work Completed.
7.	Development of Integrated Solid Waste Processing Facility	412	Nil	DPR/RFP approved by High Power Technical Committee. The project will be completed by 31/12/2025.
8.	Purchase of 550 Twin Bin Waste Disposal Vehicles & 35 Hopper Tipper	36.9	36.9	100% Work Completed.
	Construction of 104 Horticulture Composting	2.5	2.35	100% Work Completed.

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11.	Decentralised Wet Waste Plant at Sector 49 Chandigarh	0.72	0.22	50% Work Completed.
12.	Disposal of Sanitary Waste	1.0	0.54	All the collected Sanitary Waste is being Processed through Bio-Medical Waste Treatment Facility
13.	Disposal of Domestic Hazardous Waste	0.1	0.01	All the collected Domestic Hazardous Waste is being Processed through TSDF

It is pertinent to mention that Chandigarh Administration has allocated funds in its budget to the tune of Rs. 611.33 Crores for Solid Waste management in Chandigarh out of which an expenditure of 132.7 Crores has already been incurred.

XXXXII. That the steps taken by Chandigarh Administration for the **management of Liquid Waste** are tabulated as under:

Sr. No.	Work	Allocated Cost (in Crores)	Expenditure Incurred (in Crores)	Current Status
1.	Upgradation of 05 Nos. of STPs to meet with the latest norms	310.51	208.8	1) 100% work at 2 STPs at Dhanas & 3 BRD. 2) 70% work completed at 3 STPs at Diggian,


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	Kalan II			
3.	Installation of Real time Water Quality Monitoring Station at Sukhna Choe & N-Choe	0.26	0.26	The RTWQMS at Sukhna-Choe and N-Choe have been installed and functional.
4.	Construction of New STP at Kishangarh	13	13	100% Work Completed. The STP is already functional.
5.	Laying of pipelines for supply of tertiary treated water at various areas of Chandigarh	97	Nil	DPR approved and work shall be completed by 31/12/2025
6.	Laying of pipelines for supply of tertiary treated in IT park area.	2	1.0	70% work completed.
7.	Laying of pipelines for supply of tertiary treated at EWS Housing Complex, Dhanas	0.85	0.85	100% Work Completed.
8.	Laying of pipelines for supply of tertiary treated at Police Housing Complex, Dhanas	1.0	1.0	100% Work Completed.
9.	Laying of sewerage & Storm Water Lines in 13 Villages in Chandigarh	21.16	13.45	90% Work Completed.
10.	Construction of ETPs at Gaushalas	5.99	Nil	Work is yet to be done.

It is pertinent to mention that Chandigarh Administration has allocated funds in its budget to the tune of **Rs. 457.77 Crores** for Liquid Waste

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XXXXIII. That in view of above submission, it is prayed here that Chandigarh Administration has taken all possible steps as directed by the Hon'ble Tribunal and situation is continuously improving. It is humbly requested that the submission made above may kindly be taken on record and no adverse order may be passed against Chandigarh Administration in the matter. The answering respondent also craves for the indulgence of this Hon'ble Tribunal in granting them the liberty of reserving the right for filing an additional reply, if required.

Debendra Dalai, IFS
Director Environment
Department of Environment

Director Environment
Chandigarh Administration



VERIFICATION:

I, Debendra Dalai, IFS the deponent above named do hereby verify and declare that the facts stated in the above paras are true to my knowledge.

Verified at Chandigarh on this 16th day of May 2023.

Debendra Dalai, IFS
Director Environment
Department of Environment
 Director Environment
 Chandigarh Administration

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Advocate

206 C K Daphtary Chamber

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PLACE:

DATE: 16.05.2023

The contents of this Affidavit/Document has been explained to the deponent/executants. He/She has admitted the same to be correct. The deponent/executant has signed Register at Sr. No. 587 P. No. 58 Date 17/05/2023



Attested As Identified

MONIKA GANGI
 Notary, Chandigarh (U.T.)

17 MAY 2023