

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH, NEW DELHI
ORIGINAL APPLICATION No. 481/2024

In the matter of:

News item titled "Major fire erupts at Delhi's Ghazipur landfill site
smoke engulfs region" appearing in the Hindustan Times dated 21.04.2024

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Divya Sinha
Scientist 'F'
Central Pollution Control Board

Place: Delhi
Dated: 05.08.2024

REPORT

SUBMITTED

(In Response to Hon'ble NGT order dated 29.04.2024 in O.A No 481/2024 in the matter of news item titled "MAJOR FIRE ERUPTS AT DELHI'S GHAZIPUR LANDFILL SITE SMOKE ENGULFS REGION" APPEARING IN HINDUSTAN TIMES DATED 21.04.2024)



CENTRAL POLLUTION CONTROL BOARD
(Ministry of Environment, Forest & Climate Change)
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REPORT SUBMITTED IN RESPONSE TO HON'BLE NGT ORDER DATED 29.04.2024 IN O.A NO 481/2024 IN THE MATTER OF NEWS ITEM TITLED "MAJOR FIRE ERUPTS AT DELHI'S GHAZIPUR LANDFILL SITE SMOKE ENGULFS REGION" APPEARING IN HINDUSTAN TIMES DATED 21.04.2024.

1.0. BACKGROUND

Hon'ble NGT vide order dated 29.04.2024 in O.A No 481/2024 in the matter of news item titled "MAJOR FIRE ERUPTS AT DELHI'S GHAZIPUR LANDFILL SITE SMOKE ENGULFS REGION" APPEARING IN HINDUSTAN TIMES DATED 21.04.2024. directed in para 5, 8 and 9 are reproduced below:

Para 5 "Hence, we implead the following as respondents in the matter:

- (1). Delhi Pollution Control Committee through its Member Secretary.
- (2). Municipal Corporation of Delhi through its commissioner
- (3). District Magistrate/District Collector, East Delhi
- (4). **Central Pollution Control Board through its Member Secretary"**

Para 8 "Having regard to this issue involved in the matter, we direct all the respondents to file their report/response within five weeks."

Para 9 "Let notice be issued to CPCB-Respondent No. 4 for examining the issue of levy environmental compensation on continuous violation on the persons/authority responsible for the same and also to submit the report before the Tribunal within five weeks by email at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR support PDF and not in the form of image PDF".

A copy of Hon'ble NGT order is attached as **Annexure-I**

2.0 FOLLOW UP ACTION INITIATED BY CPCB

In compliance to the said order, Central Pollution Control Board (CPCB) issued letter dated June 21, 2024 (**Annexure-II**) to Delhi Pollution Control Committee for joint inspection of the Ghazipur dumpsite in Delhi Subsequently, following officials from CPCB and DPCC conducted a joint inspection of the Ghazipur dumpsite on June 24, 2024: -.

1	Mrs. Suniti Parashar , Scientist 'C' , UPC-II, CPCB
2	Mr. Amit Kumar , Scientist 'B' , UPC-II, CPCB
3	Mr. Krishan Kaushik, JEE, DPCC

During the inspection, Mr. Zavvar Kazim (AE) Municipal Corporation of Delhi, was also present at the site.

Two formats were shared by CPCB team with the DPCC & MCD to provide the relevant information regarding (i) City details of areas disposing the waste at Ghazipur dumpsite (ii) Compliance of CPCB

direction regarding biomining of legacy waste and control of fire incidents at MSW dumpsite. The formats are attached as **Annexure-III**.

2.1 Legacy Waste Management:

CPCB has prepared Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) under the provision of Solid Waste Management Rules, 2016. CPCB has also issued the following Directions dated 27.01.2021 to all SPCBs/PCCs for enforcement of Solid Waste Management Rules, 2016 regarding bio-mining of legacy waste:

1. SPCBs/PCCs to provide complete list of Legacy Waste dumpsites in their States/UTs as per format enclosed.
2. SPCBs/PCCs to ensure that necessary action for bio mining and bioremediation of these dumpsites is done by the concerned Local Authorities in compliance with Provisions of SWM Rules, 2016.
3. SPCBs/PCCs shall ensure that concerned Local Authorities engaged in the bio mining process of legacy waste follow procedures as per CPCB Guidelines for Disposal of Legacy Waste with specific compliance to the following points;
 - i. Analysis of various screened fraction materials i.e. RDF, fine earth/bio earth etc., prior to its disposal/utilization.
 - ii. Preparation of plan for utilization/disposal of screened fractions.
 - iii. Adequate provisions for leachate treatment.
 - iv. Maintenance of records / documents for disposal/utilization of tie RDFs or fine earth and other materials.
4. SPCBs/PCCs shall ensure that the local bodies prepare time targeted Action Plan for biomining /bio-remediation of these dumpsites in compliance with points listed above. The timelines as specified in SWM Rules,2016 and Hon'ble NGT Directions on the matter are to be adhered to for remediation of these sites.
5. SPCBs/PCCs to ensure that no fresh waste is disposed at these dumpsites and local authorities make proper arrangement for management of fresh solid waste.
6. SPCBs to ensure that at least one legacy waste dumpsite is remediated in their jurisdiction which can be considered as model for compliance for other legacy Waste dump sites in Non-Attainment Cities (NAC).

Copy of the direction on biomining of legacy waste is provided in **Annexure-IV**.

2.2. Management of Fire Hazard in Dumpsites:

CPCB issued direction under Section 5 of Environment (Protection) Act, 1986 to all SPCB/PCCs for management of fire hazards in dumpsites. The direction was issued on May 26, 2022 with the following directions:

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- i. Provide updated information w.r.t. Directions dated 27.1.21 regarding biomining issued to SPCBs/ PCCs. It is to be ensured that updated information w.r.t. at least all metro cities are provided in accordance with NGT Directions
- ii. Direct State UDDs to conduct comprehensive risk assessment studies and accordingly prepare detailed On-site Emergency Plan for each dumpsite located in their jurisdiction address the following issues:
 - a. The onsite emergency plan to cover potential risks/ emergencies due to fire, obnoxious/ flammable emissions, odour, vector borne diseases, rodents, bird nuisance, seasonal affects i.e. summer/ winter/ monsoon (rainy seasons) and all other potential risks at the dumpsites.
 - b. The onsite emergency plans to address the worst possible case scenarios preferably using appropriate risk assessment softwares covering any or all of the potential emergency issues/ scenarios cited above
 - c. The on-site emergency management plan to cover likely affected geographical area including population, flora and fauna in and around the dumpsites
 - d. The on-site emergency plan to contain detailed remedial measures both hardware and software based for mitigating various emergency situations, which should finally be finally be available with respective control rooms and on-site emergency notice boards
- iii. To direct District Collector or District Emergency Authority designated by the State Government for integrating such (dumpsites) On-site Emergency Plans with the existing Off-site District Disaster Management Plans in their respective Districts, prepared by the Local Authorities in compliance with Rule 14 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
- iv. The State/ UT Authorities to prepare the on-site and off-site (or update off-site) emergency management plans preferably through an expert agency on the subject
- v. The following interim measures to be implemented on priority till the time On-site/ Off-site Emergency Plans are prepared and implemented.
 - a. Disposal of waste: Fresh waste not to be disposed at the dumpsite where bio-remediation is being undertaken. Organic waste from slaughter house, fish market, etc not to be disposed of in dumpsite. It is to be further ensured that industrial waste/E-Waste/ lithium battery is not dumped at the site. Waste that is being unloaded at the site should be examined visually for potential fire sources; fire sources when located should be neutralized with cover material immediately. Emergency tipping area to be provided to set aside from the immediate working area where incoming loads of material known to be on fire or suspected of being so can be deposited, inspected and dealt with. Adequate compacting of waste to be done to minimize formation of air or methane pockets which can lead to subsurface fire at site
 - b. Monitoring at dumpsites: Methane Gas Detectors (on downwind side to be installed at site so that area with high methane concentration can be identified and preventive actions be undertaken. Further temperature at windrows to be monitored with non-contact infrared thermometer (as used for monitoring human body temperature under COVID circumstances) and records be maintained for any major deviations. The temperature is to be in the range of 35°C to 59°C. Treated leachate / water to be sprayed on the waste when rise in temperature is observed.

Copy of the direction regarding management of fire hazard in dumpsites is provided in **Annexure-V.**

3.0. Brief Facts about Ghazipur dumpsite:

Based on the inspection carried out on June 24, 2024 at Ghazipur dumpsite and information provided by officials of MCD and DPCC, the details are mentioned in further section of the report.

3.1. Introduction:

The Solid waste management status of East Delhi, Municipal Corporation of Delhi (MCD) is given in **Table 1**.

Table 1: Solid Waste Management status of East Delhi, MCD

Solid Waste Generated (TPD)	Waste Collected (TPD)	Waste Processed				Gap (generation Vs Processing) (TPD)
		Composting (TPD)	Biomethanation (TPD)	WTE (TPD)	MRF (TPD)	
2500	2500(100%)	12	NIL	700	12	1776

The Ghazipur dumpsite receives solid waste from East Delhi (having population of 40 lakhs) divided into 250 wards with an average quantity of 2500 tons per day (TPD). For waste collection, a total of 5141 vehicles (4341 primary collection vehicles such as Auto tipper, three wheelers, cycle rickshaw, E-rickshaw) and 800 secondary collection vehicles such as Refuse collector vehicles, Hook loader, Mobile transfer station are deployed, which collectively make 8 trips per day. Out of 2500 TPD, 724 TPD is being processed through Composting (12TPD), WTE(700TPD) and MRF (12TPD). Remaining waste is dumped at the dumpsite

3.2. Biomining Status:

The dumpsite in Ghazipur, Delhi, is positioned at latitude 28.62 and longitude 77.32 under the jurisdiction of Municipal Corporation of Delhi. The dumpsite is in close proximity to Ghazipur dairy and Khichripur. The dumpsite is operating since 1984, having an initial waste volume of 140 Lakh Metric Tonnes (MT) with height of 65 meters and area of about 70 Acres. The present height is 65 meters, with a total waste volume of 82.39 lakhs MT approx. This dumpsite is under operation before the notification of Solid Waste Management Rules, 2000.

Currently, a significant portion of the landfill is being used to dump fresh municipal solid waste (MSW) and other portion is being utilized for biomining and other operations

Biomining activities at this site began in July 2019. The processing of legacy waste is carried out with 35 no. of excavators. The windrows are turned every 10 days, with a stabilization period lasting 1 month. Total 27 No. of trommels are used for processing of legacy waste having capacity of 500 TPD each (optimal capacity in two shifts). As reported by MCD the trommels were inducted in phase wise manner for biomining at site since 2019 and doesn't operate in two shifts uniformly throughout the year due to frequent breakdown issues. Due to this, all trommels do not operate simultaneously. In addition to that in rainy season leachate comes out and trommels require to be shifted at new site for biomining which slows down the biomining activity. As reported by MCD, the site processes average of around 2000-3000 tonnes per day (TPD) of waste using windrow formation for biomining. Approximately 57.61 lakhs MT is to be biomined which is quite matching with 57.61 Lakh MT as reported) of legacy waste has been biomined till date (as on June 2024). Bioculture is used for biomining of site wherever required. The details of legacy waste management are given in

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Table 2. Details of biomining at the Ghazipur dumpsite is given at Table 3. Details of Fresh Waste received at the dumpsite is given at Table 4.

Table 2: Details of Legacy waste

Area	Height of (as on June 2024)	Quantity of waste (as on June 2024)	Quantity of waste processed (TPD)	Total quantity of legacy waste processed so far (as on June 2024)	No. of trommels (30 mm Screen)
70 acres	65 m	82.39 Lakh Ton	2000-3000	57.61 Lakh Ton	27

Table 3: Details of biomining at the Ghazipur dumpsite

Composition of the waste*			Process adopted to remediate at the site	Timelines to process the site	Final destination of the components	Action plan to remediate and recover the sites
Inerts (%)	RDF (%)	C&D Waste (%)				
65-70	10-15	15-20	Bioremediation through the process of windrows .& trommeling	December 2027	<p>Inerts- Used as low lying areas</p> <p>RDF- Use as alternate fuel in coal based industries like cement factories, boiler etc to reduce coal consumption.</p> <p>C&D Waste- Used as landfilling material, making of tile, stone, dust and paver block(As informed by MCD official the C&D waste goes to C&D plant for abovementioned uses , however documents of sale receipt or log book were not provided to the inspecting team)</p>	<p>As reported, MCD is in the process of tendering the second phase of biomining at Ghazipur dumpsite having total of 30 Lakh MT, extendable by another 15 Lakh MT) which will have rate of 8500-12000 TPD in 18 months .</p> <p>It is informed that for remaining quantity, another tender would be floated in due course of time to achieve the target of biomining by Dec, 2027 .</p>

*No composting of biomined waste is being done

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Table 4: Fresh Waste Management

Fresh Municipal Solid waste received from the sources	Management of fresh waste received at Ghazipur dumpsite (TPD)	Arrangement for management of Fresh Solid Waste	Action taken to stop the fresh waste
i. Shahdara North & South ii. Slaughter house iii. Agriculture product market iv. Flower market v. Fish & Poultry market vi. ITPO, Pragati Maidan vii. Chintan Enviro (NGO) (from RWA colonies)	i. Waste received at dumpsite – 2476. (Out of 2500 TPD ,24 TPD is being treated) - ii. Waste sent to WtE – 700* iii. Waste being dumped – 1776	A separate area has been designated for disposal of incoming fresh waste at dumpsite	i. Existing 2 no. of WTE plants (at Okhla- 1550 TPD and Tehkhand- 2000 TPD) Expansion of both the WTE plants by 1000 TPD capacity each is planned by December 2027. ii. Proposed 2 No. of WTE plants of 5000 TPD (New WTE plant at Ghazipur of 2000TPD & at Bawana of - 3000TPD)

*The existing WTE plant at Ghazipur is having capacity of 1300 TPD while only 700 TPD of RDF is processed. The fresh mixed waste of approx. 700-800 TPD is given by MCD to the WTE plant which is segregated by WTE operator through trommel and waste having calorific value/RDF is processed at WTE. It is observed that the remaining segregated organic portion is dumped at the legacy waste dumpsite without any processing.

3.3. Leachate Management:

Leachate treatment is not being conducted however there are garland drains encircling the site with 3 sides of the dumpsite, directing leachate into Hindon cut canal which ultimately meets to river Yamuna . Assessment of quantity and quality of leachate generated is not being carried out by concerned authorities. The leachate drains are neither lined nor channelised, rather only at tail end it is concretised /cemented.

As reported by the concerned authority, there is a plan to introduce storage tanks for leachate at the Ghazipur dumpsite. From there, the leachate would be transported to the Tehkhand Leachate Treatment Plant for proper treatment.

3.4. Air Pollution:

Sources of air pollution at Ghazipur dumpsite are handling of fresh waste, biomining of legacy waste, methane and other greenhouse gases emanating from the dumpsite, dust resuspension during transportation of fresh waste & screened fractions, odour & fire incidents. Pungent & foul smell was observed both at legacy waste dumpsite and at fresh waste disposal area.

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As informed by MCD official, the measures taken for dust mitigation at the sites mainly include sprinkling of water. Also, antismog guns are deployed at the Ghazipur dumpsite. Further, 20 No. of perforated pipes installed to escape methane/CO gas.

Indian Institute of Remote Sensing (IIRS), ISRO, Dehradun, has also conducted a study and reported Ghazipur dumpsite (Lat 28.62 Long 77.32) in Delhi, India, as a source of methane emissions however concentration of methane at Ghazipur dumpsite has not been mentioned.

4.0. Fire Incident:

Ghazipur dumpsite is located very close to habitations in close proximity. Methane gas is generated and released from the dumpsite due to the decomposition of biodegradable waste. As the methane gas gets trapped in the garbage, it becomes highly flammable and can catch fire, especially during high temperature when it comes in contact with air and reaches its combustion temperature.

The Ghazipur dumpsite has experienced several fire incidents in the past, which is primarily due to the accumulation of methane gas and the presence of combustible materials. This year, a fire incident occurred on April 21, 2024 at 4:30 PM on the east side of the dumpsite where fresh waste was being dumped (near the slaughterhouse and fish market). The cause of fire occurred on 21.4.2024 identified as hot and dry weather conditions, with high wind velocity. This resulted in the ignition of trapped methane, which caused the fire and high wind velocity resulted in its fast spreading.

The fire department was informed about the incident and fire tenders were sent to the location. About 16 excavators, 2 bulldozers and other machinery were deployed to isolate the fire pockets, and inert/C&D (around 2000 MT) material was used to contain the fire. The situation was brought under control by 5:00 PM on April 22nd, 2024 and substantial fire was extinguished by this time. The fire was completely extinguished by 10:00 AM on April 23rd, 2024 with no casualties reported.

4.1. Measures already in place to prevent fire at the dumpsite:

As reported by MCD and DPCC official, following measures have already been adopted at the dumpsite for prevention and control of fire incidents -

- i. Fire-fighting equipment such as fire extinguishers, emergency lights, hose pipes, jetting machines, and water pipes are available at the dumpsite.
- ii. Patrolling staff are deployed in shifts to monitor the dumpsite and promptly report any fumes or fire incidents to the Duty Officer. The Delhi Fire Service department is also notified immediately upon detecting any fire at the site.
- iii. Heavy Earth Moving Machinery (HEMM) like bulldozers and excavators are stationed at vulnerable points so they can quickly respond to fires at the dumpsite.
- iv. Perforated pipes are installed in newly dumped municipal solid waste (MSW) to release methane gas gradually, reducing the risk of sudden fires caused by methane build-up.
- v. Strict regulations prohibit carrying prohibited items such as cigarettes, bidis, lighters, and matchboxes to the dumpsite. Random checks are conducted, and fines are imposed as per the DMC Act for violations.
- vi. Water tankers and sprinklers are deployed round the clock to sprinkle water regularly at the dumpsite.
- vii. Only authorized personnel such as machine operators, drivers, and contractors staff are allowed entry into the dumpsite premises. Unauthorized entry is strictly prohibited,

and constant surveillance is maintained by onsite staff. Trespassing incidents are reported to the police for necessary action.

- viii. The dumpsite is barricaded to prevent unauthorized access. Plans are underway to enclose the site with an RCC boundary wall to further restrict unauthorized entry from surrounding areas.

The photographs taken by the visit team on June 24, 2024 are illustrated below:



Figure: Photograph of inspection at i) Ghazipur dumpsite, ii) leachate drains iii) processing of waste through trommel, iv) Location of Fire occurred on 21.4.2024 at left side of the dumpsite

5.0. Assessment of Environmental Compensation:

As per provision of SWM rules, 2016, waste processing facilities were to be set up by ULBs within 2 years from the date of notification of Rules (8.4.2016) i.e by 7.4.2018. Also, bioremediation of the the dumped waste was to be completed within five years of the Notification of the SWM Rules, 2016 i.e by 7.4.2021.

However, it is observed that Bioremediation of the waste has not been completed and presently 82.39 Lac Tonnes of waste is still dumped at the site. Further fresh waste @ 1776 TPD is continued to be dumped at the dumpsite. In view of above, EC may be applicable on two factors (i) Incomplete bioremediation (ii) Continual dumping of fresh waste at the dumpsite. The detailed EC assessment as per the said factors is as given below:

(a) Environmental compensation for incomplete bioremediation at Ghazipur legacy waste dumpsite

As per para 45 of Order dated 8.9.2022 in OA No. 606/ 2018 in respect the state of Maharashtra (**Annexure VII**):

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"In our recent order dated 01.09.2022 in O.A No. 606/2018 (in respect of State of West Bengal), considering scale of compensation adopted in earlier cases including in OA No. 1002/2018, *Abhisht Kusum Gupta vs. State of Uttar Pradesh & Ors.*, compensation was determined @ Rs. 2 Crore per MLD for untreated liquid waste and in OA No. 286/2022 for unprocessed legacy waste compensation was fixed @ Rs. 300 per MT to be utilized for restoration measures, including preventing discharge of untreated sewage and solid waste treatment/processing facilities, as per appropriate mechanism for planning and execution that may be evolved, within three months"

Waste presently dumped at Ghazipur dumpsite: 82.39 Lac T

Rate at which EC is to be levied as per the aforementioned Order: Rs.300/T

Environmental compensation for incomplete bioremediation at Ghazipur legacy waste dumpsite:

Rs. 247.17 Crores (82.39 * 300)

(b) Environmental Compensation for Continual dumping of fresh waste at the dumpsite

As per Para No. 139 Hon'ble NGT order dated 29.05.2024 in M.A no. 79/2023 in O.A no. 758/2022 in the matter of Paldan Phunchog Vs. State of Himachal Pradesh & others (Annexure VIII).

"The rate of computation of environmental compensation cannot be less than Rs 0.01 per kg per day of illegally dumped solid waste which has not been properly handled, managed and disposed"

Fresh waste presently dumped during FY 2024- 25 (127 days) : 1776 TPD

Fresh waste presently dumped during FY 2023- 24 (365 days) : 1700 (Interpolated)

Fresh waste presently dumped during FY 2022- 23 (365 days) : 1600 (Interpolated)

Fresh waste presently dumped during FY 2021- 22 (365 days): 1500 (interpolated)

Fresh waste presently dumped during FY 2020- 21 (365 days) : 1450 (As per Report dated 28.1.21 filed by CPCB in NGT in the matter of OA No. 519 / 2019)

Fresh waste presently dumped during FY 2019- 20 (365 days): 1300 (extrapolated)

Fresh waste presently dumped during FY 2018- 19 (365 days): 1200 (extrapolated)

Accordingly, Environmental Compensation for Continual dumping of fresh waste at the dumpsite= Rs. 3.42 Crores

Total EC to be levied for mismanagement of Waste at Ghazipur = Rs.250.59 Crores

6.0 Observations:

- The Ghazipur dumpsite started in the year 1984, and disposing MSW from the East Delhi areas.
- Surrounding area of the dumpsite (residential, commercial & industrial activities) has developed substantially over the years as informed by the MCD officials.

Fresh Waste Management:

- The sources of fresh waste disposal at Ghazipur site is from East Delhi areas viz Shahdara North & South, Slaughter house, Agriculture product market, Flower

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market, Fish & Poultry market, Ghazipur, ITPO- Pragati Maidan & Chintan Enviro (NGO)- waste from nearby RWA colonies.

- Fresh waste generated in East Delhi area is 2500 TPD out of which 724 TPD is processed only (Composting -12 TPD, WTE- 700 TPD & MRF- 12 TPD). Remaining 1776 TPD of fresh waste is continued to be disposed at the dumpsite.
- The WTE at Ghazipur dumpsite is having capacity to process 1300 TPD whereas only 700 TPD of mixed fresh waste is processed after segregation of RDF/Calorific value waste. The remaining segregated organic waste is also dumped at the Ghazipur legacy waste dumpsite adding more volume to the dumpsite.

Biomining Process:

- Biomining is being carried through the process of windrows at very slow rate and only approx. 57.61 lakhs metric tonnes waste has been biomined (till June 2024) out of total 140 Lakh ton which is only 40% of total legacy waste dumped.
- Legacy waste is being segregated using 30mm screen into three fractions using trommels namely Refused derived fuel (RDF) (10-15%), C&D waste (15-20%) & Inert fractions (65-70%), however details of supply and sale receipt not provided.
- RDF is utilized in cement and other industries, inerts and C&D waste are being utilized for NHAI projects, filling of low lying areas and covering of fresh waste at dumpsite.
- The bioremediation is being carried out in the open. No shed has been provided in the bioremediation and trommel area in absence of which work may be hampered during rain.

Leachate Management:

- Leachate is being generated from the dumpsite, through drains, flows to Hindon cut canal and ultimately meets to river Yamuna causing pollution. No concrete measures for leachate collection and treatment have been taken at the dumpsite.
- Assessment of quantification of leachate is also not being carried out.

Air Pollution:

- Pungent smell was observed at legacy waste dumpsite and at fresh waste disposal area.
- Air pollution control measures taken at site mainly includes sprinkling of water. Also it has been informed by the authorities that one antismog gun has been deployed on the dumpsite.
- Two water tankers (9000 litres each) carry 18000 litres per day (treated water from kondli STP). Water is sprinkled on daily basis for dust suppression at the dumpsite.

Fire Prevention & Methane gas management:

- Temperature is not monitored at the dumpsite.
- There are no methane detectors installed for continuous monitoring of methane gas.
- There are 30 CCTV cameras installed for surveillance at the dumpsite through a control room for monitoring activities at the dumpsite.

- There is arrangement of fire extinguishers at every trommel.
- Adequate compacting of waste is done to minimize formation of methane pockets.

No emergency plan /SoP was shared with inspecting team. However DPCC official shared a report dated 24.4.2024 of District Disaster Management Authority (DDMA) regarding fire incident at Ghazipur site on 21.4.2024 and a mock drill exercise conducted by DDMA on 18.5.2022 at Ghazipur site (**Annexure VI**)

7.0 Conclusions

Waste Management

- a. The concerned local authority to take immediate steps for enhancing capacity of solid waste management facilities including for collection, segregation, transportation and processing of waste generated. This is in accordance with Rule 15 of SWM Rules, 2016 which stipulate the duties and responsibility of Local authorities to stop dumping of fresh waste of 1776 TPD at the dumpsite.

Biomining Process

- a. Biomining of the dumpsites was to be completed by April 7, 2021, as per rule 22(11) of SWM Rules, 2016, (As per Hon'ble NGT order in O.A. No. 519/2019 all Chief Secretaries, States/UTs to ensure completion of remediation of dumpsites by October 2020. Out of 140 Lakh MT, 57.61 Lakh MT has been biominced and 82.39 Lakh MT waste is to be biominced Hence, it is essential to accelerate the process of biomincing for reduction in volume of legacy waste remaining at the dumpsite. The concerned local authority is required to submit their action plan for biomincing of legacy waste dumpsites.
- b. Ensure proper documentation and reporting of supply and sale receipts of segregated fractions of MSW.
- c. Sheds to be provided in bioremediation and trommel areas to shield operations for protection during rainy season for effective waste processing.
- d. Inerts generated during biomincing should either be disposed in Sanitary Landfill or used for Construction purposes.
- e. It was observed that 27 Trommel machines with processing capacity 500 TPD each have been installed for biomincing. However, the actual waste processed as reported during inspection was in range 2000-3000 TPD only. Accordingly, the concerned Authorities are required to optimize the resources to enhance the rate at which the biomincing is presently being carried out.

Leachate Management

- a. Leachate collection and treatment facilities to be implemented to prevent discharge into surface waterbodies. Assessment of leachate quality and quantity to be conducted.

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Air Pollution Control

- a. Ambient air quality to be monitored regularly as per clause (F) of Schedule I of SWM Rules, 2016 and quarterly reports to be submitted to the DPCC.
- b. Odour control measures to be implemented to minimize the pungent smells emanating from the dumpsite.

Fire Prevention

- Major non-compliance observed includes continual disposal of fresh waste at the dumpsite.
- Dumpsite temperature to be monitored regularly and records to be maintained for any major deviations in temperature.
- Every vehicle delivering fresh waste to the dumpsite should be screened for flammable materials to minimize the risk of fire incidents.
- Horticulture or dry waste should not be disposed off at the legacy waste dumpsite and Fresh waste carrying vehicles to be specifically screened during the months of April to June as a fire prevention measure.
- Continuous methane detectors at identified fire prone locations to be installed & necessary fire preventive measures to be implemented at the dumpsite. Directions dated 26.5.2022 have been issued by CPCB under E(P) Act, 1986 to all SPCBs/PCCs for implementation of measures for prevention of fire accidents at dumpsites. Compliance of the same is to be ensured by the DPCC.
- On Site Emergency plan to be prepared for fire management at Ghazipur dump site as per direction issued by CPCB vide dated 26.5.2022. The concerned authorities to integrate On-site Emergency Plans with the existing Off-site District Disaster Management Plans in their respective Districts, prepared by the Local Authorities in compliance with Rule 14 of the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989

Environmental Compensation:

- The Environmental Compensation (EC) for violations of the Rule 22(11) Solid Waste Management Rules, 2016 at the Ghazipur dumpsite has been assessed as **Rs 250.59 Crore.**

Dx

Item No. 03

Court No. 1

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

Original Application No. 481/2024

News item titled "Major fire erupts at Delhi's Ghazipur landfill site smoke engulfs region" appearing in the Hindustan Times dated 21.04.2024

Date of hearing: 29.04.2024

**CORAM: HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Respondent: Ms. Jyoti Mendiratta, Adv. for DM (East)
Mr. Virendra Singh & Ms. Puja Kalra, Adv. for MCD
Mr. Kush Sharma, Adv. with Mr. Dinesh Jindal, Law Officer, DPCC

ORDER

1. This original application is registered *suo motu* on the basis of the news item titled "Major fire erupts at Delhi's Ghazipur landfill site, smoke engulfs region" appearing in the 'Hindustan Times' dated 21.04.2024.

2. The news item relates to eruption of a massive fire at Ghazipur landfill site in East Delhi. As per the article, fire erupted in the evening of 20th/21st April, 2024 and till the time of publication of the news item, efforts were underway to douse the fire. The news item also mentions that in spite of promise to clear the Ghazipur landfill site by December 31 previous year, the Government has failed to fulfil its commitment. It also discloses that due to the landfill fire, smoke has engulfed the entire area and causing inconvenience to the residents. It discloses that the Ghazipur landfill site has been a long-standing environmental concern, reaching a towering height of 65 meters by 2019, just eight meters shorter than the iconic Qutub Minar. The news item also discloses that in the previous years also such incidents had taken place.

3. The item raises substantial issue relating to compliance of environmental norms and implementation of the provisions of the Scheduled enactment.

4. The similar fire had taken place earlier also in Ghazipur landfill site in 2022. Hence, on the basis of the media report, Tribunal in *suo motu* exercise of power had registered OA No. 288/2022 and that OA along with connected OA No. 300/2022 was disposed of by order dated 16.02.2023 observing as under:

“xxxxxx.....xxx
 7. Both the matters were then considered together order dated 11.10.2022 in light of earlier orders of the Hon’ble Supreme Court and this Tribunal on the subject including orders passed in O.A. No. 519/2019 and O.A. No. 606/2018. The Tribunal also considered the reports dated 31.07.2022 and 21.09.2022 of the joint Committee headed by Justice S.P. Garg (Retd.) on the issue of current status of legacy waste dump sites in Delhi and measures to remediate the same. **The Tribunal found that the status reports presented grim picture and an environmental emergency in view of continued emission of methane and other harmful gases adding to the already polluted air quality of Delhi.** There was continuous leachate generation contaminating ground water. Health and safety of citizens was at risk. There was failure to follow even minimum standards to prevent fires and maintaining aesthetics. Huge costly public land was occupied by the waste dump sites of which even on conservative estimated value was more than Rs. 10,000 crores. There was continued violation of right of citizens and failure of ‘Public Trust Doctrine’ on the part of Delhi Government and its authorities. Remedial measures were required for which the Tribunal issued directions apart from levying compensation of Rs. 900 crores for past violations on ‘Polluter Pays’ principle. The Tribunal also sought a report from the Committee headed by the Chief Secretary about the compliance status as on 31.12.2022.”

5. In spite of the aforesaid order, there is no improvement in the situation and such fire incidents at landfill site are still taken place. Hence, we implead the following as respondents in the matter:

- (1). Delhi Pollution Control Committee through its Member Secretary.
- (2). Municipal Corporation of Delhi through its Commissioner.

(3). District Magistrate/District Collector, East Delhi.

(4). Central Pollution Control Board through its Member Secretary.

6. Since, Respondents No. 1 to 3 are represented through their respective Counsel, therefore no notice to the said respondents is necessary.

7. There is continuous violation of not clearing the landfill site of Ghazipur till now. Hence, we had put a question to learned Counsel for DPCC as to why action for imposition of Environmental Compensation (EC) for continuous violation of environmental norms has not been taken. Learned Counsel appearing for DPCC, on instructions from Mr. Dinesh Jindal, Law Officer, DPCC, has submitted that an amendment in the Environment (Protection) Act, 1986 has come into force with effect from 01.04.2024 and in terms of newly inserted Sections after Section 14, now the determination of penalty is to be done by a separate committee and the rules in this regard are yet to be framed therefore the mechanism provided by the amendment has not been set up. In view of this, he has submitted that now DPCC does not have any power to levy environmental compensation.

8. Having regard to the issue involved in the matter, we direct all the respondents to file their report/response within five weeks.

9. Let notice be issued to CPCB- Respondent No. 4 for examining the issue of levy of environmental compensation on continuous violation on the persons/authority responsible for the same and also to submit the report before the Tribunal within five weeks by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF.

10. List on 06.08.2024.

Prakash Shrivastava, CP

Dr. A. Senthil Vel, EM

April 29, 2024
Original Application No. 481/2024
DV

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केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE, GOVT. OF INDIA

File No. CP-28/5/2024-UPC-II-HO-CPCB-HO

Date: 21/06/2024

To

The Member Secretary
Delhi Pollution Control committee
Building, 4th & 5th Floor ISBT, GT Karnal Rd,
Kashmere Gate, New Delhi, Delhi 110006

Subject: Hon'ble NGT order dated 29.4.2024 in the matter of O.A. no. 481/2024 based on News item titled "Major fire erupts at Delhi's Ghazipur landfill site smoke engulfs region", appearing in the Hindustan Times dated 21.4.2024- reg.

Sir,

This is in reference to the order dated 29.4.2024 issued by Hon'ble NGT in above mentioned matter. **(A copy of the order is enclosed).**

In this connection, this is to inform that a joint inspection by CPCB and Delhi Pollution Control Committee to the Ghazipur Landfill site is scheduled on 24th June, 2024 in order to verify the compliance status relating to environmental norms particularly with respect to prevention of fire and landfill gas management.

It is therefore requested to depute the concerned official for the scheduled inspection. Also, action taken report and compliance on the direction issued by CPCB under Section 5 of the Environment (Protection) Act, 1986 on (i) May 26th, 2022 regarding fire incidents at MSW Dumpsites (ii) January 27th, 2021 regarding bio mining of legacy waste, **(Copies enclosed)** may please be provided preferably before 24th June, 2024 .

This may be treated as 'URGENT'.

Yours faithfully,

(Divya Sinha)

Director & Divisional Head, UPC-II

Encl: As above

Copy to:

1. DH, Law Section : For information please
2. PS to MS : For kind formation of 'MS' Please.

O/A

(Divya Sinha)

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, New Delhi - 110032

दूरभाष/Tel: 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

S.No.	Items	Details				
1	Name of City Disposing Solid Waste at Ghazipur dumpsite					
2	No. of sanitary Landfill sites in city					
3	No. of Ward in City					
4	No. of vehicle with capacity deployed for collection of waste in ward/city					
5	No. of trips carried out					
6	Total no. of trip carried out					
7	No. of transfer station/waste segregation depot					
8	Population of City (Latest available)					
9	Estimated Quantity of solid waste generated in City disposing SW to Ghazipur dumpsite. (TPD)					
10	Quantity of waste collected (TPD)					
11	Quantity of waste segregated (TPD)					
12	Quantity of waste processed with method of processing	Composting (TPD)	Biomethanation (TPD)	WtE (TPD)	MRF (TPD)	Any other (TPD)
13	Quantity of SW disposed at dumpsite (TPD)					
14	Gap in SW Management (Generation Vs. Processed) (TPD)					

Format for legacy waste biomining

Serial No.	Item	Details
1		General Information
	A	City & Location (Lat., Long) of Landfill
	B	Map of Site
	C	Name, Designation & Contact Details of Nodal Officers for Biomining
	D	Stage of Biomining (Planned/Being Executed/Completed)
	E	Biomining starting date & quantity of legacy waste biomined till date
	F	Biomining Agency
	G	Proposed completion time (Attach action Plan)
	H	Only entry gate at site or exit gate is also there
2		Quantity of Waste accumulated at dumpsite (TPD)
	A	Age of Dumpsite
	B	Has Contour Survey of site been Done (Y/N)
	C	Length (Initial -M)
	D	Width (Initial -M)
	E	Height (Initial -M) & at present
	F	Total Volume (Cub.Meter)
3		Characteristics of Waste
		Inerts- Construction waste, wood glass etc (%)
		Compost – Organic (%) RDF- Plastic (%)
		Any other material (%)
4		Leachate Characteristics (Provide details & attach latest test report)
	A	Leachate Collection & treatment method (Provide details)
5		Baseline Survey
	A	Ground Water Analysis
	B	Soil Analysis
	C	Quantity Of Waste Processed Per Day (TPD)
6		Process Flow sheet of Bio-Mining
7		Stabilization of waste
	A	Type of biomining method Adopted (Tractor tiller, Trenchmethod; Cone Method; Windrow, Thin Layer

			Method)	
	B		Machinery used for Excavating dumpsite (Tractor Tiller Etc)	
	C		Machinery Used for preparing Windrows (JCB etc)	
	D		Are large objects removed prior to windrow preparation	
	E		Are Windrows Turned Every 4-5 Days	
	F		Duration of Stabilization	
	G		Bio-culture Used	
	H		Is End Product Stabilized (No Heat / Gas /leachate /Smell)	
	I		Is leachate Being Generated From the waste	
	J		If Yes, methodology for leachate Management Adopted	
8			Processing Of Legacy Waste	
			Machinery Used For processing of legacy waste	
	A		Screening	
		i	Trommel (Number & Capacity (TPD)	
		ii	Size of screens used (Mostly used 150 mm. 80 to 100 mm, 24 to 50mm, 1216 mm and 4-6)	
		iii	Vibrating Screen (No)	
		iv	Electromagnet (For separating ferrous metals)	
		v	Air Classifier (for separating light material from heavy organic)	
		vi	Disc/Star (No)	
	B		Handling	
		i	Loader (No.)	
		ii	Conveyor (No.)	
		iii	Fork Lift (No.)	
		iv	Categories in which the waste is segregated.(Compost/Recyclables/RDF/C&D/Inerts etc.)	
		v	Quantity of items which is being generated in each category	
		vi	Quantity of items being utilized of different categories	
		vii	Logbook & sale receipt of different fractions. (Bioearth/Recyclable/RDF/Other wastes) (With Signature & stamp for one year	

		viii	Analysis results of fine earth	
		ix	Frequency of testing of bio-earth	
9			Measures for Prevention & management of fire	
		A	No. of fires fire being reported at the site in 2024	
		B	Reason of frequent fire at Bandhwari (Provide details)	
		C	Action taken for fire control in 2024	
		D	Methodology to tackle fires	
		E	Whether treated leachate/water is being sprayed during high temperature.	
		F	Percentage land recovered so far & its utilization details	
		G	Is third party audit of biomining being done	
10			Ambient air quality monitoring	
		A	Landfill Gas control System ,	
		B	Methane gas measurement and mitigation measures adopted	
		C	Use of Landfill Gas	
		D	Ambient Air quality monitoring in & around the site along with GPS location (Attach latest report)	
		E	Compliance with standards	
11			Letter declaring MSW exigency in Gurugram under SDMA Act, 2005	
12			Detailed observations:	
13			Recommendations:	

Format for compliance of CPCB direction reg. biomining of legacy waste & control of fire incidents at MSW dumpsite

Serial No.		Item	Details
1		Whether CPCB direction dated 27.01.2021 reg. biomining of legacy Waste complied	
	A	Action taken for biomining/bioremediation of Dumpsite in compliance with provision of SWM Rules, 2016.(Provide details)	
	B	Whether CPCB guidelines for disposal of legacy waste are being followed.	
	C	Whether analysis of various screened fraction (RDF, fine earth/bioearth etc.done prior to its disposal utilization.	
	D	Whether Plan prepared for utilization/disposal of screened fractions. (Provide details & attach document).	
	E	Whether adequate provision for leachate treatment provided. (Provide details).	
	F	Whether record/documents maintained for utilization/disposal of screened fraction. (Attach documents).	
	G	Whether time targeted action plan prepared for biomining/bioremediation (Attach action Plan).	
	H	Whether proper arrangement for management of fresh solid waste made by local body.	
	I	Quantity of fresh waste disposed at site. (TPD)	
2		Whether CPCB direction dated 26.05.2022 reg. fire incidents at MSW dumpsite complied.	
	A	Whether comprehenssive risk assessment studies conducted (if yes, provide details).	
	B	Whether detailed On-site Emergency Plan prepared. (if yes, provide details & attach document)	

	C		Whether On-site Emergency Plans integrated with the existing Off-site District Disaster Management Plans in their respective Districts, prepared by the Local Authorities in compliance with Rule 14 of The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989. (If yes, provide details & attach document)	
	D		Whether on-site & off-site (or update off-site) emergency management plans preferably through an expert agency on the subject by State authority. (provide details & attach document)	
	E		Interim measures implemented before onsite/offsite emergency implementation	
		i.	Whether fresh waste disposal stooped. (Action taken to stop disposal of fresh at site)	
		ii.	Whether Waste that is being unloaded at the site be examined visually for potential fire sources.	
		iii	Whether Organic waste from slaughter house, fish market etc. and industrial waste & industrial waste / E-waste / lithium battery is still being dumped (Provide details)	
		iv	Whether emergency tipping area is provided.	
		v	Whether adequate compacting of waste is done to minimize formation of air or methane pockets which can lead to subsurface fire at site.	
		vi	Whether methane gas detector has been installed & temperature at windrow is being monitored.	
		vii	Whether treated leachate/water is being sprayed during high temperature.	
		viii	Whether CCTV cameras have been installed at the site.	
		ix	Whether patrolling, mock drills, and safety audits are being conducted regularly.	
		x	Whether arrangement of fire extinguishing has been provided. (Provide Details)	

		xi	Whether arrangements for adequate storage of sand / chemical fire extinguishing medias such as foam or powder at site have been made to douse fire in case a fire incident is reported.	
		xii	Whether health and safety measures for workers have been provided. (Provide details)	



SP-92 POST

Annexure IV

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

F. No. B-11011/UPC-II/MSW(Direction)/2020-21

27 .01.2021

To,

15320-15354

**The Chairman,
All SPCBs/PCCs**

Direction under Section 5 of the Environment (Protection) Act, 1986 for enforcement of Provisions of Solid Waste Management (SWM) Rules, 2016 regarding bio mining of legacy waste.

WHEREAS, the Central Government has notified the standards for discharge of environmental pollutants from various categories of industries under the Environment (Protection) Act, 1986 and the rules framed there under;

WHEREAS, the Ministry of Environment, Forest & Climate Change has notified Solid Waste Management Rules, 2016, which inter-alia state procedures for Solid Waste Management;

WHEREAS, under Rule 15(zj) of SWM Rules, 2016 local authorities and village Panchayats shall investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and whosoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

WHEREAS, under Rule 16(a) of Solid Waste Management Rules, 2016, the State Pollution Control Board or Pollution Control Committee shall enforce these rules in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;

WHEREAS, remediation of all Dumpsites has to be completed by April 7, 2021 as per Rule 22 of SWM Rules, 2016.

WHEREAS, in compliance of Hon'ble NGT Order dated 16.01.2019 in the matter of OA no. 606/2018, CPCB published Guidelines for Disposal of Legacy waste;

WHEREAS, Hon'ble NGT has issued several Directives on the matter including the following:

Contd.

'परिवेश भवन' पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

- (i) In OA no. 519/2019, all Chief Secretaries, States/UTs to ensure completion of remediation of dumpsites by October, 2020.
- (ii) In OA no. 53/2020, CPCB to complete inventorization of dumpsites in the Country.
- (iii) In OA no. 593/2017, CPCB to compile information related to Legacy Waste Management and identify gaps thereof.

WHEREAS in compliance with above orders of Hon'ble NGT, several communications dated 14.05.2020, 28.07.20 & 31.07.2020 have been issued by CPCB to States/UTs to provide requisite information on the matter.

WHEREAS complete information on the matter is yet to be received from all States/UTs.

WHEREAS, CPCB officials inspected dumpsites in various States where bioremediation of legacy waste is being carried out and made the following observation:

- i. Most of the ULBs engaged in the bio mining process of the legacy waste not following CPCB Guidelines on disposal of legacy waste.
- ii. Analysis of different screened fractions is not being carried out prior to disposal/utilization.
- iii. Poor quality of screen fractions and screened fractions not being lifted by the users.
- iv. Adequate plan for disposal of screened fractions at the dumpsites not prepared and screened fractions accumulated on site.
- v. No leachate treatment being carried out and stagnation of leachate noticed at the dumpsites.
- vi. Records/documents for the sale of the RDFs, inerts and other materials not maintained.
- vii. Fresh Solid Waste continued to be dumped at these dumpsites.

WHEREAS, vide Order dated 21-8-2020 in the matter of OA no. 681/2018, Hon'ble NGT directed CPCB to issue fresh Direction in this regard to all the State PCBs/ PCCs to coordinate with concerned Local Authorities for further Action in the matter. Further, as per the Hon'ble NGT's Direction, at least one site is to be remediated and made a model of compliance in each of the 122 Non-Attainment Cities;

Contd.

NOW THEREFORE, in view of the above and in exercise of powers delegated to the Chairman, Central Pollution Control Board (CPCB), under Section 5 of the Environment (Protection) Act, 1986, the following directions are issued for compliance:

1. SPCBs/PCCs to provide complete list of Legacy Waste dumpsites in their States/UTs as per format enclosed.
2. SPCB/PCCs to ensure that necessary action for biomining and bio-remediation of these dumpsites is done by the concerned Local Authorities in compliance with Provisions of SWM Rules,2016.
3. SPCBs/PCCs shall ensure that concerned Local Authorities engaged in the bio mining process of legacy waste follow procedures as per CPCB Guidelines for Disposal of Legacy Waste with specific compliance to the following points.
 - (i) Analysis of various screened fraction materials i.e. RDF, fine earth/bio earth etc., prior to its disposal/utilization.
 - (ii) Preparation of plan for utilization/disposal of screened fractions
 - (iii) Adequate provisions for leachate treatment.
 - (iv) Maintenance of records / documents for disposal/utilization of the RDFs or fine earth and other materials.
4. SPCBs/PCCs shall ensure that the local bodies prepare time targeted Action Plan for biomining /bio-remediation of these dumpsites in compliance with points listed above. The timelines as specified in SWM Rules,2016 and Hon'ble NGT Directions on the matter are to be adhered to for remediation of these sites.
5. SPCBs/PCCs to ensure that no fresh waste is disposed at these dumpsites and local authorities make proper arrangement for management of fresh solid waste.
6. SPCBs to ensure that at least one legacy waste dumpsite is remediated in their jurisdiction which can be considered as model for compliance for other legacy waste dumpsites in Non-Attainment Cities (NAC).

SPCBs/PCCs are hereby directed to submit action taken report within **30 days** from receipt of these Directions.


(Shiv Das Meena)
Chairman

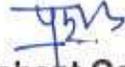
Copy to:

1. **Joint Secretary (CP),**
Ministry of Environment, Forest and Climate Change,
Indira Paryavaran Bhavan, Jorbagh Road,
New Delhi-110003

: For necessary information pls

✓ 2. **DH- IT Division, CPCB**

: For uploading on website pls


✓ **(Prashant Gargava)**
Member Secretary 



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Annexure- V

केन्द्रीय प्रदूषण नियंत्रण बोर्ड

CENTRAL POLLUTION CONTROL BOARD

पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय भारत सरकार

MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE GOVT. OF INDIA

CP-99/143/2021-UPC-II-HO-CPCB-HO

May 26, 2022

To,

The Chairman
All SPCBs/ PCCs

Sub: Directions under Section 5 of Environment (Protection) Act, 1986 for implementation of the Solid Waste Management Rules, 2016-regarding Fire Incidents at MSW Dumpsites.

WHEREAS, the Ministry of Environment, Forest & Climate Change has notified Solid Waste Management Rules on April 08, 2016 which inter-alia state procedures for Solid Waste Management;

WHEREAS, in accordance with Rule 11(d) of the Rules, it is the duty of the State/UT Urban Development Department to ensure implementation of provisions of these Rules by all local authorities;

WHEREAS, in accordance with Rule 15(a) of the Solid Waste Management (SWM) Rules, 2016, the local authorities and Panchayats should prepare a solid waste management plan as per state policy and strategy on solid waste management within six months from the date of notification;

WHEREAS, in accordance with provision of Rule 15(zd) of the SWM Rules, 2016, the local authorities and Panchayats shall ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;

WHEREAS, in accordance with provision of Rule 16 (1a) of SWM Rules, 2016, the State Pollution Control Board or Pollution Control Committee shall enforce these rules in their State through local bodies and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department;

WHEREAS, MSW is being disposed of unscientifically in most cases which is one of the major causes for public nuisance due to frequent fire incidents, foul odour, generation of leachate and other adverse environmental impacts;

WHEREAS, waste disposed at dumpsites is prone to catching fire in view of inadequate waste management practices adopted at these sites;

WHEREAS, several fire incidents have been reported recently at Ghazipur & Bhalsawa dumpsites in Delhi, Manesar in Haryana and Ludhiana in Punjab;

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110032

Parivesh Bhawan, East Arjun Nagar, Delhi-110032

दूरभाष/Tel : 43102030, 22305792, वेबसाईट/Website : www.cpcb.nic.in

WHEREAS, fire incidents at dumpsites may lead to severe adverse impact on environment and related health hazards. People living in and around the dumpsites are likely to be affected due to the frequent outbreaks of fire

WHEREAS, Hon'ble NGT in OA No. 286 of 2022, in reference to News item published in The Indian Express dated 20th April, 2022, titled "7 Charred to death in fire near Ludhiana dumpsite" issued the following Directions:

"CPCB to collect information about garbage dumpsites from all States/ UTs in respect of at least Metro cities and issue statutory directions / guidelines for preventing such fires and handling them effectively if they take place, specifying serious consequences of delay in dealing with the issue, in violation of binding rules."

WHEREAS, as per the information provided by SPCBs/PCCs there are 3,184 dumpsites in the country, of which XXX are located in your State/UT;

WHEREAS, CPCB had issued Directions dated October 20, 2018 regarding fire at Bhalsawa site to North Delhi Municipal Corporation in which specific measures to be taken for prevention of fire at the dumpsites had been identified which amongst others included using Construction & Demolition waste material to immediately check fire, stopping dumping of fresh waste, installation of CCTV cameras, setting up of decentralized facilities for biodegradable waste;

WHEREAS, as per Guidelines for Disposal of Legacy Waste (Old Municipal Solid Waste) issued by CPCB, it is important to carry out comprehensive risk assessment and develop onsite emergency plan which should be kept handy prior to commencement of dumpsite bio-remediation & bio-mining;

WHEREAS, CPCB had issued following Directions dated January 27, 2021 to SPCBs/PCCs regarding biomining of legacy waste

- i. SPCBs/PCCs to provide complete list of legacy waste dumpsite in their States /UTs as per format enclosed
- ii. SPCBs/PCCs to ensure that necessary action for biomining and bio-remediation of these dumpsites is done by the concerned Local authorities in compliance with provisions of SWM Rules 2016
- iii. SPCBs/PCCs shall ensure that concerned Local authorities engaged in the biomining process of legacy waste follow procedures as per CPCB Guidelines for disposal of legacy waste with specific compliance to the following points:
 - a. Analysis of various screened fractions i.e. RDF, fine earth / bio earth etc. prior to its disposal / utilization
 - b. Preparation of action plan for utilization / disposal of screened fractions
 - c. Adequate provisions for leachate treatment
 - d. Maintenance of records / documents for disposal / utilization of the RDFs or fine earth and other material

- iv. SPCBS shall ensure that the local bodies prepare time targeted Action Plan for biomining / bio-remediation of these dumpsites in compliance with points listed above. The timeline as specified in SWM Rules and Hon'ble NGT Directions on the matter are to be adhered to for remediation of these sites
- v. SPCBs/PCCs to ensure that no fresh waste is disposed at these dumpsites and local authorities make proper arrangement for management of fresh solid waste
- vi. SPCBs/PCSS to ensure that at least one legacy waste dumpsite is remediated in their jurisdiction which can be considered as model for compliance for other legacy waste dumpsites in Non-Attainment Cities

WHEREAS Hon'ble NGT in its Order dated April 22, 2022 in O.A No. 288/ 2022 regarding News item published in the Times of India dated April 22, titled "Delhi: Another long-drawn effort to douse fire at Ghazipur landfill" has stated that dumpsite may be considered as isolated and vulnerable site which require On-site and Off-site Fire and other disaster management plans; **AND**

WHEREAS, CPCB made the following observations based on inspected various dumpsites, where bioremediation of legacy waste is being carried out:

- i. Fresh solid waste continued to be dumped at these dumpsites.
- ii. Fire incidents have been reported at locations where fresh waste is being dumped
- iii. Inaccessible slopes of garbage were observed
- iv. No standard operating plan in place for prevention and management of dumpsite fires
- v. Cause of fire incident reported is excess release of Methane (CH₄) gas due to anaerobic decomposition of the bio-degradable organic waste, high temperature and dry atmospheric conditions.
- vi. Partial fencing with barbed wire provided at the boundary observed.
- vii. Police patrolling the site not observed.
- viii. No fire tender observed at site.
- ix. Anti-Smog Gun have been installed which were not found in use; **AND**

NOW THEREFORE, in view of above and in exercise of powers vested under section 5 of Environment (protection) Act, 1986 to the Chairman, Central Pollution Control Board (CPCB) the following directions are issued for compliance;

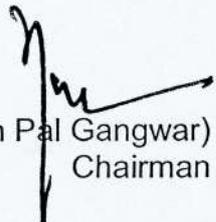
- i. Provide updated information w.r.t Directions dated 27.1.21 regarding biomining issued to SPCBs/PCCs. It is to be ensured that updated information w.r.t at least all Metro cities is provided in accordance with NGT Directions
- ii. Direct State UDDs to conduct comprehensive risk assessment studies and accordingly prepare detailed On-site Emergency Plan for each dumpsite located in their jurisdiction addressing the following issues:
 - a. The onsite emergency plan to cover potential risks / emergencies due to fire, obnoxious / flammable emissions, odour, vector borne diseases,

- rodents, bird nuisance, seasonal affects i.e. summer / winter / monsoon (rainy season) and all other potential risks at the dumpsites.
- b. The onsite emergency plans to address the worst possible case scenarios preferably using appropriate risk assessment softwares covering any or all of the potential emergency issues / scenarios cited above.
 - c. The on-site emergency management plan to cover likely affected geographical area including population, flora & fauna in and around the dumpsites
 - d. The on-site emergency plan to contain detailed remedial measures both hardware and software based for mitigating various emergency situations, which should finally be available with respective control rooms and on-site emergency notice boards.
- iii. To direct District Collector or District Emergency Authority designated by the State Government for integrating such (dumpsites) On-site Emergency Plans with the existing Off-site District Disaster Management Plans in their respective Districts, prepared by the Local Authorities in compliance with Rule 14 of The Manufacture, Storage and Import of Hazardous Chemical Rules, 1989
 - iv. The State / UT Authorities to prepare the on-site & off-site (or update off-site) emergency management plans preferably through an expert agency on the subject.
 - v. The following interim measures to be implemented on priority till the time On-site/Off-site Emergency Plans are prepared and implemented.
 - a. **Disposal of Waste:** Fresh waste not to be disposed at the dumpsite where bio-remediation is being undertaken. Organic waste from slaughter house, fish market etc., industrial waste not to be disposed at the dumpsite. It is to be further ensured that industrial waste / E-waste / lithium battery is not dumped at the site. Waste that is being unloaded at the site should be examined visually for potential fire sources fire sources when located, should be neutralized with cover material immediately. Emergency tipping area to be provided to set aside from the immediate working area where incoming loads of material known to be on fire or suspected of being so can be deposited, inspected and dealt with. Adequate compacting of waste to be done to minimize formation of air or methane pockets which can lead to subsurface fire at site
 - b. **Monitoring at dumpsites:** Methane Gas Detectors (on downwind side) to be installed at site so that area with high methane concentration can be identified and preventive actions be undertaken. Further temperature at windrows to be monitored with non-contact infrared thermometer (as used for monitoring human body temperature under COVID circumstances) and records be maintained for any major deviations. The temperature is to be in the range of 35°C to 59°C. Treated leachate / water to be sprayed on the waste when rise in temperature is observed

at the bioremediation site. Suitable mechanism to be in place. Installation of CCTV cameras at the site and provision of fencing & frequent patrolling to be done for checking unauthorized entry at dumpsite

- c. **Arrangements for Fire Extinguishing:** Arrangements for adequate storage of sand / chemical fire extinguishing medias such as foam or powder at site to be made to douse fire in case a fire incident is reported. Usage of water for dousing fire to be avoided. Isolation and allowing rapid natural burnout or smothering with soil to be done for dousing dumpsite fires. Dedicated fire tenders (preferably chemical extinguishing media) and adequate fire safety measures are to be deputed, specifically during summer season when dumpsites fire is more likely to take place. All mobile equipment or vehicles should be fitted with fire extinguisher and spark arrester
- d. **Health & Safety of Workers:** Fire protection measures and safety equipment to be provided to all workers at the site and checked before entry to the dumpsite. Workers to be trained for detection of fire and necessary action to be taken in case of fire. Periodic training of workers be conducted in Safe handling of Waste, PPE's, Health & Safety issues etc
- e. **Mock Drills & safety audits:** Periodic mock drills to be conducted to prevent fire accidents at dumpsites. Quarterly, Fire Safety and Hazardous Emissions Audits to be conducted.

SPCBs/PCCs are hereby directed to submit action taken report within 15 days for Action Point listed at (v) above. Action taken report for Points (i-iv) to be provided within thirty days of receipt of these Directions


 (Naresh Pal Gangwar)
 Chairman

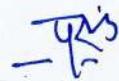
Copy to:

1. **Additional Secretary (CP Division)**
Ministry of Environment, Forests & Climate Change,
 Indira Paryavaran Bhawan, Jor Bagh Road,
 New Delhi - 110003

: for information please

2. **DH-IT Division, CPCB**

: for uploading on website please


 (Prashant Gargava)
 Member Secretary

o/c

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DISTRICT DISASTER MANAGEMENT AUTHORITY (EAST)
OFFICE OF THE DISTRICT MAGISTRATE, EAST DISTRICT
L.M. BANDH, SHASTRI NAGAR, DELHI-31
Ph: 011- 22051234, Email: ddmaeast@gmail.com



Date: 24/04/24

F. No. DM (E)/DRM/DM/PLAN/GAZIPUR/LANDFILL/329/2022/2524-29

To,
 The Spl. Secy.(Env)-Cum- Member Secretary,
 Delhi Pollution Control Committee,
 Department Of Environment, Govt. Of NCT Of Delhi
 5th Floor, ISBT Building, Kashmere Gate,
 Delhi-110006.

Subject: Fire Incident at Ghazipur Dumpsite on 21.04.2024.

Sir,

With reference to the letter no. F. No. DPCC/WMC II/ Ghazipur Dumpsite/2020/566-575 dated 23/04/2024 regarding Fire Incident at Ghazipur Dumpsite on 21.04.2024 following points issued by your department are as under: -

S.no	Points	Report
1.	Cause of the fire at Ghazipur Dumpsite and immediate steps taken by your department to douse the fire.	Pertains to EDMC & Fire department
2.	During the previous years, fire incidents were also reported and Hon'ble Minister for Environment had visited the site and Directions u/s 5 of the Environment (Protection) Act, 1986, read along with Solid Waste Management Rules, 2016, regarding prevention and control of fire incidents at the MSW Dumpsites in Delhi. were issued by DPCC to MCD, UD Deptt. and DDMA on 10.06.2022 (Copy enclosed). It is requested to send the Compliance Report w.r.t. said directions issued by DPCC on 10.06.2022.	<ul style="list-style-type: none"> • DDMA East Conducted Mockdrill at Gazipur Landfill Site on 18th May 2022. (Report of Mockdrill was submitted to the committee.) • DDMA East had prepaid SOP of Fire for Land fill Site and it was vet by Delhi Fire Service (No.F6 /DFS /HQ /2022 /Misc /2133, dated 24/08/2022) copy enclosed. The same SOP was followed in this Incident too. • Further letter was issued by DDMA East (F. No. DM(E) /DRM /DM /PLAN /GAZIPUR/LANDFILL/329/2022/1732-1749 ,dated 06/09/22.) to all DDMA's & Agencies

(Puneet Kr. Patel)
 ADM (E)/CEO, DDMA (East)

Copy for Information

1. Pr. Secretary (Environment & Forest), Environment Department, Govt. of NCT of Delhi.
2. Chairman, Delhi Pollution Control Committee.
3. Secretary to Hon'ble Environment Minister, GNCTD, 7th Level, Delhi Secretariat, Delhi-110002
4. Spl. CEO (Disaster Management), GNCTD, 5 Sham Nath Marg, Civil Lines, Delhi.
5. PA To DM (East), GNCTD, L.M. BANDH, SHASTRI NAGAR, DELHI-31.

103
REPORT ON FIRE AT GHAZIPUR, LANDFILL
ON 21 APRIL, 2024

District	East
Type of Incident	Fire
Date of Occurrence	21 st April, 2024
Time of Occurrence	4:30 PM
Address	Ghazipur Landfill
Sub-Division	Mayur Vihar
Cause of Incident	Unknown
Caller	MHA Control Room
Source & Time of Receiving information in District EOC	1077

Details of Casualty (including name/age/residence of victims & hospitals admitted to)	Major Injured	No
	Minor Injured	No
Details of Animal	Casualty	No

DETAILED REPORT AS ON 24/04/24 AT 1:00 PM

Emergency Operation Centre (EOC) DDMA (E) had received information on 21st April, 2024 at 07:25 PM from 1077 (**State Emergency Operation Centre**) that a Fire had occurred at about 04:30 pm.

On receiving call from DDMA EOC 1077 at about 07:25 PM, concerned **SDM Mayur Vihar Sh. Sanjay Kr. Ambasta & DPO (E), Ms. Anjali Diwakar** reached the incident site and facilitated search and rescue operation instantly; simultaneously all concerned ESFs were informed about the incident by DDMA East Control Room. They reached the incident site well in time and started search and rescue operation.

As per information received by MCD, A fire was seen at left side [east] of dump site towards slaughter house side and Fish market at around 4:30 p.m. The fresh waste [MSW] was being dumped at this portion. As soon as the fire was noticed, Sufficient machinery, man power and resources are deployed to control the Fire. The fire was contained within 24 hours and the situation is now in control.. Chief Engineer Sh. Dinesh Yadav , Executive Engineer Sh. Mula Singh & Staffs from MCD were present at site along with equipments 12 excavator, 2 Bulldozer, 4 dumpers were working at fire site. **There is no casualty in this fire incident**

Sh. Nirmal Kr, Jha SHO, (P.S. Gazipur), with his team was present at the incident site.

Delhi Fire Service reported the incident site with 12 fire tenders from different fire Station headed by Sh. Deepak Hudda, Additional Divisional Officer. Delhi Fire Service started the Search & Rescue Operation immediately.

As per latest update as on 24th March,2024 at 1:00 PM, the fire is reported to be under controlled except smoke is coming out from the site. The agencies are working continuously to get complete control over it.

U/S

RUNEET KUMAR PATIL

Mock Exercise Site:- Gazipur Landfill (Dumping Site)

Date of Incident: - 18/05/2022

Sub division: - Mayur Vihar

Successes

- The DDMA coordination was very effective.
- ESFs participated in this mock drill with full enthusiasm.
- The fire brigade came on time.
- The CATS ambulances operated fast and carried the victims in swift manner.
- All ESFs were very swift at reporting, DDMA QRT(E), Delhi Police, DFS, EDMC, CATS, & Civil Defence reached the spot in time.
- All staff was very swift at reporting along with CDVs performed the search and rescue operations effectively
- Ambulance services reached the site swiftly.
- The crowd management was effectively done by DDMA staff and CDVs along with Delhi Police.
- CDVs reported in large numbers beyond expectations and participated whole heartedly in the mock drill. They also helped in traffic management along with traffic policy.
- Disaster management centre, MCD was prompt in sending equipments with their staff along with Labour.
- DJB also had sent water tanker for use in relief centre operation.
- The rescue operation was carried out almost as planned. All the ESFs carried out their responsibilities well.
- The documentation of events was done properly.
- It was a great learning experience for all ESFs as to how to work in the case of disaster.

Shortcomings

- No presence of siren at the Gazipur dumping site.
- There was no display of Emergency numbers anywhere at the site.
- No presence of evacuation plan or map at the site.
- No Disaster Management plan was present at the site.

- There was no Standard Operating Procedure (SOPs) present at the site on how to deal with any kind of disaster.
- The trucks were moving in and out of the dumping site during the drill, as stopping them around have caused traffic jam as there was only one gate for entry and exit.
- The staff was not aware of the workers and vehicles working at the dumping site at any point of time. There is no formal record keeping to the people going to the dumping site. The staff is not even aware of the details of vehicle like, which area they belong to.
- Lack of trained staff for dealing with any kind of disaster
- ESF's like MCD PWD Fire department PCR must have to access the latest equipment and state-of-art machinery.
- All the departments did not have tetra sets which could make it difficult to communicate in case of shutting of telecommunication due to disaster.

However, despite the shortcomings, the team successfully carried out the rescue operation and it was a great learning experience.

Recommendations

- **Sensitized all the departments to play the active role in any disaster.**
- **Strengthening the Co-ordination among ESFs.**
- **An Emergency control room needs to be set up at the Gazipur Landfill side which shall be operation on 24X7 basis.**
- **Standard SOPs, Disaster Management Plan and Evacuation plan needs to be prepared and kept at the site.**
- **The Height of the waste/debris shall not be allowed to reach the standard prescribed height of 25 mtr.**
- **The area where the fire is re-occurring needs to be indentified and observed in order to avoid any disaster.**
- **Entry & Exit gates should be separate and proper record keeping of the entry exit should be done. Also it two gates are there, the movement of ESFs can be better during any disaster.**
- **Regular awareness and training needs to be given to the staff at the dumping site**
- **Regular internal mock drills should be conducted on regular basis.**

Item No. 01

Court No. 1

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

(By Video Conferencing)

Original Application No. 606/2018

(In respect of State of Maharashtra)

In re: **Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues**

**(Arising out of directions of the Hon'ble Supreme Court
in W.P. No. 888/1996 and W.P. No. 375/2012)**

Date of hearing: 08.09.2022

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE PROF. A. SENTHIL VEL, EXPERT MEMBER**

Present: Shri Manu Kumar Shrivastava, Chief Secretary
Smt. Manisha Mhaiskar, Principal Secretary, Environment Dept.
Dr. Sonia Sethi, Principal Secretary, Urban Development Dept.
Shri P. Velarasu, Addl. Municipal Commissioner, MCGM
Shri Vikram Kumar, Municipal Commissioner, Pune
Shri Ashok Shingare, Member Secretary, MPCB
Shri Sameer Unahale, Director, Swacch Maharashtra
Shri A.V. Jevalikar, Dy. Secretary, UD
Shri C.A. Vibhute, Dy. Secretary
Shri S.B. Sandanshiv, Under Secretary
Dr. Y.B. Sontakke, JD
Dr. J.B. Sanjewar, RO, HR
Dr. N.N. Gurav, R.O., BMC

ORDER

The Issue – Monitoring of compliance of waste in terms of orders of Hon'ble Supreme Court

1. The issues of solid as well as liquid waste management are being monitored by this Tribunal as per orders of the Hon'ble Supreme Court order dated 02.09.2014 in *Writ Petition No. 888/1996, Almitra H. Patel vs. Union of India & Ors.*, with regard to solid waste management and order

dated 22.02.2017 in W.P. No. 375/2012, reported in (2017) 5 SCC 326, *Paryavaran Suraksha vs. Union of India*, with regard to liquid waste management. Other related issues include pollution of 351 river stretches, 124 non-attainment cities in terms of air quality, 100 polluted industrial clusters, illegal sand mining etc. which have also been dealt with earlier but we propose to limit the proceedings in the present matter to two issues of solid waste and sewage management.

ORDERS OF THE HON'BLE SUPREME COURT TRANSFERRING THE ISSUE OF SOLID WASTE MANAGEMENT AND LIQUID WASTE MANAGEMENT TO THIS TRIBUNAL:

Solid Waste Management

2. While transferring the issue of solid waste management vide Order dated 02.09.2014 in *Writ Petition No. 888/1996, Almitra H. Patel Vs. Union of India & Ors.*, the Hon'ble Supreme Court observed **“handling of solid municipal waste is a perennial challenge and would require constant efforts and monitoring with a view to making the municipal authorities concerned accountable, taking note of dereliction, if any, issuing suitable directions consistent with the said Rules and direction incidental to the purpose underlying the Rules such as upgradation of technology wherever possible. All these matters can, in our opinion, be best left to be handled by the National Green Tribunal established under the National Green Tribunal Act, 2010. The Tribunal, it is common ground, is not only equipped with the necessary expertise to examine and deal with the environment related issues but is also competent to issue in appropriate cases directions considered necessary for enforcing the statutory provisions.”**

3. Before transferring the said proceedings, matter was monitored by Hon'ble Supreme Court for about eighteen years and orders passed include

(2000) 2 SCC 679 and (2004) 13 SCC 538, directing scientific disposal of waste by setting up of compost plants/processing plants, preventing water percolation through heaps of garbage, creating focused **‘solid waste management cells’** in all States and complying with the Municipal Solid Waste Management Rules, 2000 (now replaced by SWM Rules, 2016). **It was observed that the local authorities constituted for providing services to the citizens are lethargic and insufficient in their functioning which is impermissible. Non-accountability has led to lack of effort on the part of the employees.** Domestic garbage and sewage along with poor drainage system in an unplanned manner contribute heavily to the problem of solid waste. The number of slums have multiplied significantly occupying large areas of public land. Promise of free land attracts more land grabbers. **Instead of “slum clearance” there is “slum creation” in cities which is further aggravating the problem of domestic waste being strewn in the open.** Accordingly, the Court directed that provisions pertaining to sanitation and public health be complied with, streets and public premises be cleaned daily, **statutory authorities levy and recover charges from any person violating laws and ensure scientific disposal of waste**, landfill sites be identified keeping in mind requirement of the city for next 20 years and environmental considerations, sites be identified for setting up of compost plants, steps be taken to prevent fresh encroachments and compliance report be submitted within eight weeks. Further observations in the judgment of the Hon’ble Supreme Court¹are:

“3. The petitioner has handed over a note in the Court showing the progress that has been made in some of the States and also setting out some of the suggestions, including the suggestion for creation of solid waste management cell, so as to put a focus on the issue and also to provide incentives to those who perform

¹ (2004) 13 SCC 538

well as was tried in some of the States. The said note states as under:

- “1. As a result of the Hon’ble Supreme Court’s orders on 26-7-2004, in Maharashtra the number of authorisations granted for solid waste management (SWM) has increased from 32% to 98%, in Gujarat from 58% to 92% and in M.P. from NIL to 34%. No affidavits at all have been received from the 24 other States/UTs for which CPCB reported NIL or less than 3% authorisations in February 2004. All these States and their SPCBs can study and learn from Karnataka, Maharashtra and Gujarat’s successes.
2. **All States/UTs and their SPCBs/PCCs have totally ignored the improvement of existing open dumps, due by 31-12-2001**, let alone identifying and monitoring the existing sites. Simple steps can be taken immediately at almost no cost by every single ULB to prevent monsoon water percolation through the heaps, which produces highly polluting black run-off (leachate). Waste heaps can be made convex to eliminate standing water, upslope diversion drains can prevent water inflow, downslope diversion drains can capture leachate for recirculation onto the heaps, and disused heaps can be given soil cover for vegetative healing.
3. **Lack of funds is no excuse for inaction. Smaller towns in every State should go and learn from Suryapet in A.P. (population 103,000) and Namakkal in T.N. (population 53,000) which have both seen dustbin-free ‘zero garbage towns’ complying with the MSW Rules since 2003 with no financial input from the State or the Centre, just good management and a sense of commitment.**
4. **States seem to use the Rules as an excuse to milk funds from the Centre, by making that a precondition for action and inflating waste processing costs 2-3 fold.** The Supreme Court Committee recommended 1/3 contribution each from the city, State and Centre. Before seeking 70-80% Centre’s contribution, every State should first ensure that each city first spends its own share to immediately make its wastes non-polluting by simple sanitising/stabilising, which is always the first step in composting viz. inoculate the waste with cow dung solution or bio culture and placing it in windrows (long heaps) which are turned at least once or twice over a period of 45 to 60 days.
5. Unless each State creates a focussed **‘solid waste management cell’** and rewards its cities for good performance, both of which Maharashtra has done, compliance with the MSW Rules seems to be an illusion.

6. ***The admitted position is that the MSW Rules have not been complied with even after four years. None of the functionaries have bothered or discharged their duties to ensure compliance. Even existing dumps have not been improved. Thus deeper thought and urgent and immediate action is necessary to ensure compliance in future.***

4. In this regard, reference may also be made to orders of Hon'ble Supreme Court in *Municipal Council, Ratlam vs. Vardhichand*² and *B.L. Wadhera v. Union of India and Ors.*³ laying down that **clean environment is fundamental right of citizens under Article 21** and it is for the local bodies as well as the State to ensure that public health is preserved by taking all possible steps. **For doing so, financial inability cannot be pleaded.** We note that even after 26 years of monitoring, 18 years by Hon'ble Supreme Court and eight years by this Tribunal, ground situation remains unsatisfactory.

Liquid Waste Management

5. Hon'ble Supreme Court in *Paryavaran Suraksha vs. Union of India*⁴ required this Tribunal to monitor directions for proper treatment of sewage to prevent untreated sewage and other effluents being discharged in water bodies by directing "We are of the view that mere directions are inconsequential, unless a rigid implementation mechanism is laid down. We, therefore, hereby provide that the directions pertaining to continuation of industrial activity only when there is in place a functional "primary effluent treatment plants", and the setting up of functional "common effluent treatment plants" within the timelines, expressed above, shall be of the Member Secretaries of the Pollution Control Boards concerned. The Secretary of the Department of Environment, of the State Government

² (1980) 4 SCC 162

³ (1996) 2 SCC 594

⁴ (2017) 5 SCC 326

concerned (and the Union Territory concerned), shall be answerable in case of default. **The Secretaries to the Government concerned shall be responsible for monitoring the progress and issuing necessary directions to the Pollution Control Board concerned, as may be required, for the implementation of the above directions. They shall be also responsible for collecting and maintaining records of data, in respect of the directions contained in this order. The said data shall be furnished to the Central Ground Water Authority, which shall evaluate the data and shall furnish the same to the Bench of the jurisdictional National Green Tribunal. To supervise complaints of non-implementation of the instant directions, the Benches concerned of the National Green Tribunal, will maintain running and numbered case files, by dividing the jurisdictional area into units. The abovementioned case files will be listed periodically. The Pollution Control Board concerned is also hereby directed to initiate such civil or criminal action, as may be permissible in law, against all or any of the defaulters.”**

6. Extracts from the judgement of the Hon'ble Supreme Court in *Paryavaran Suraksha Samiti Vs. Union of India* are as follows:

“7. Having effectuated the directions recorded in the foregoing paragraphs, the next step would be, to set up common effluent treatment plants. We are informed, that for the aforesaid purpose, the financial contribution of the Central Government is to the extent of 50%, that of the State Government concerned (including the Union Territory concerned) is 25%. The balance 25%, is to be arranged by way of loans from banks. The above loans, are to be repaid, by the industrial areas, and/or industrial clusters. We are also informed that the setting up of a common effluent treatment plant, would ordinarily take approximately two years (in cases where the process has yet to be commenced). The reason for the above prolonged period, for setting up “common effluent treatment plants”,

according to the learned counsel, is not only financial, but also, the requirement of land acquisition, for the same.

X.....X.....X.....

10. Given the responsibility vested in municipalities under Article 243-W of the Constitution, as also, in Item 6 of Schedule XII, wherein the aforesaid obligation, pointedly extends to “public health, sanitation conservancy and solid waste management”, we are of the view that the onus to operate the existing common effluent treatment plants, rests on municipalities (and/or local bodies). Given the aforesaid responsibility, the municipalities (and/or local bodies) concerned, cannot be permitted to shy away from discharging this onerous duty. **In case there are further financial constraints, the remedy lies in Articles 243-X and 243-Y of the Constitution. It will be open to the municipalities (and/or local bodies) concerned, to evolve norms to recover funds, for the purpose of generating finances to install and run all the “common effluent treatment plants”, within the purview of the provisions referred to hereinabove. Needless to mention that such norms as may be evolved for generating financial resources, may include all or any of the commercial, industrial and domestic beneficiaries, of the facility. The process of evolving the above norms, shall be supervised by the State Government (Union Territory) concerned, through the Secretaries, Urban Development and Local Bodies, respectively (depending on the location of the respective common effluent treatment plant). The norms for generating funds for setting up and/or operating the “common effluent treatment plant” shall be finalised, on or before 31-3-2017, so as to be implemented with effect from the next financial year. In case, such norms are not in place, before the commencement of the next financial year, the State Governments (or the Union Territories) concerned, shall cater to the financial requirements, of running the “common effluent treatment plants”, which are presently dysfunctional, from their own financial resources.**

11. Just in the manner suggested hereinabove, for the purpose of setting up of “common effluent treatment plants”, the State Governments concerned (including, the Union Territories concerned) will prioritise such cities, towns and villages, which discharge **industrial pollutants and sewer, directly into rivers and water bodies.**

12. We are of the view that in the manner suggested above, **the malady of sewer treatment, should also be dealt with simultaneously.** We, therefore, hereby direct that “sewage treatment plants” shall also be set up and made

functional, within the timelines and the format, expressed hereinabove.”

7. Expression ‘Common Effluent Treatment Plants’ in para 7 may infact refer to the STPs, as the context shows.

8. On this subject, inspite of deadline of 31.3.2018 fixed by Hon’ble Supreme Court for preventing discharge of pollutants and rigorous monitoring by this Tribunal for the last five years, ground situation remains unsatisfactory.

Procedural History of present proceedings before this Tribunal

9. In the light of above, the Tribunal has considered the matter in the last eight years as far as solid waste management is concerned and more than five years as far as liquid waste management is concerned. Main orders on the subject include orders dated 22.12.2016, 31.08.2018, 16.01.2019, 28.8.2019, 12.09.2019, 6.12.2019, 07.01.2020, 28.02.2020, 02.07.2020, 14.12.2020, 22.2.2021, 30.11.2021, 14.12.2020 and 31.05.2022. First two orders - dated 22.12.2016 and 31.08.2018 deal only with solid waste management. Orders dated 28.8.2019, 6.12.2019 and 22.2.2021 deal with only liquid waste management while the remaining orders deal with solid waste as well as liquid waste management. Issue of liquid waste has also been separately dealt with in OA No. 593/2017 which was finally disposed of on 22.02.2021 with direction that further monitoring be undertaken by Central Monitoring Committee constituted by the said order. It was held that monitoring by the Tribunal cannot be for indefinite time and State authorities are primarily responsible for such monitoring after adequate monitoring by the Tribunal. By the same order, the Tribunal also dealt with the issue of 351 identified polluted river stretches in OA 673/2018. This is apart from individual cases dealing with

solid and liquid waste management. A brief reference of these orders will be made hereafter.

Orders dated 22.12.2016 and 31.08.2018

10. Vide order dated 22.12.2016, (2016) SCC Online NGT 2981, the issue of Solid Waste Management was disposed of requiring strict compliance of Solid Waste Management Rules, 2016 by all the States/UTs making it clear that if violations continue, the State will be liable to pay compensation. Later, matter was taken up to ascertain compliance status and finding that all the States/UTs were still non-compliant in the matter, the matter was again taken up and fresh directions issued for monitoring by the Tribunal constituted Monitoring Committees vide order dated 31.08.2018. Later, continuance of the committees was left to discretion of the States, depending on their own monitoring mechanism.

Order dated 16.01.2019 requiring personal presence of Chief Secretaries of all States and UTs to explore remedial action after interaction with them and further orders

11. In view of continuing non-compliances, vide order dated 16.01.2019, the Tribunal directed personal presence of Chief Secretaries of all States and UTs for interaction to ensure compliance. The Tribunal held that large scale non-compliance of environmental norms was resulting in deaths and diseases and irreversible damage to the environment, without accountability for such failures. Though violation of the Rules as well as orders of this Tribunal is criminal offence, still there was rampant violation by State authorities practically with no accountability which unhappy situation was required to be remedied by involvement of highest functionaries of the State in the interest of public health and to uphold rule of law.

12. In terms of order dated 16.1.2019, the Chief Secretaries of all the States/UTs appeared on different dates till 18.07.2019 and the Tribunal, after reviewing the status of noncompliance on most of the issues, directed further effective steps to be taken for compliance of the Rules and the environmental norms. The Chief Secretary of Maharashtra appeared on 08.04.2019 and following directions were issued:

“37. In view of above, after discussion with the Chief Secretary, following further directions are issued:

- i. Steps for compliance of Rules 22 and 24 of SWM Rules be now taken within six weeks to the extent not yet taken. Similar steps be taken with regard to Bio-Medical Waste Management Rules and Plastic Waste Management Rules.*
- ii. At least three major cities and threemajor towns in the State and at least three Panchayats in every District may be notified on the website within two weeks from today as model cities/towns/villages which will be made fully compliant within next six months.*
- iii. The remaining cities, towns and Village Panchayats of the State may be made fully compliant in respect of environmental norms within one year.*
- iv. A quarterly report be furnished by the Chief Secretary, every three months. First such report shall be furnished by July 10, 2019.*
- v. The Chief Secretary may personally monitor the progress, atleast once in a month, with all the District Magistrates.*
- vi. The District Magistrates or other Officers may be imparted requisite training.*
- vii. The District Magistrates may monitor the status of compliance of environmental norms, atleast once in two weeks.*
- viii. Performance audit of functioning of all regulatory bodies may be got conducted and remedial measures be taken, within six months.”*

13. The Chief Secretary of Maharashtra appeared again on 24.01.2020 and the Tribunal inter-alia issued following directions:

“37. In view of above, consistent with the directions referred to in Para 29 issued on 10.01.2020 in the case of UP, Punjab and Chandigarh which have also been repeated for other States in matters already dealt with, we direct:

- a. *In view of the fact that most of the statutory timelines have expired and directions of the Hon’ble Supreme Court and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.*
- b. *Legacy waste remediation was to ‘commence’ from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28⁵ even though statutory timeline for ‘completing’ the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places. Continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal.*

⁵ The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

- c. Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.
- d. The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in para 33 above will result in liability to pay compensation as already noted above which is reproduced for ready reference:
- i. Interim measures for phytoremediation/bioremediation etc in respect of 100% sewage to reduce the pollution load on recipient water bodies – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per drain by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.
 - ii. Commencement of setting up of STPs – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.
 - iii. Commissioning of STPs – 31.03.2021. Compensation is payable for failure to do so at the rate of Rs. 10 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2021.
- e. Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries' of the States/UTs.
- f. An 'Environment Monitoring Cell' may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.
- g. Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB."

14. **In short, the Tribunal expected three model cities, towns and villages to be made compliant in six months and the remaining State with one year. It was this target for the State by setting up of environmental cells directly under the Chief Secretaries, regular periodical monitoring by the Chief Secretaries at the State level and by the District Magistrates at the District level.** Further direction also was to take action for non-compliance by recovery of compensation and recording adverse ACRs against erring officers. The Tribunal also directed filing of quarterly reports by the Chief Secretaries. Based on such reports, CPCB was to file consolidated status reports. The Chief Secretaries were to appear again after six months with updated status of compliance. **It is difficult to hold that the State has taken directions of the Tribunal seriously or even endeavoured to go by this mandate. Even after three years, neither there is adequate compliance nor the same has been projected in immediate future. No accountability fixed, no performance audit shown to have been conducted and no entries in ACRs are shown to have been made. There is nothing to show that compensation has been recovered in terms of directions of the Tribunal. The State assumes that none is responsible for such gross violations of law and directions of Hon'ble Supreme Court and this Tribunal. It is difficult to say how rule of law will be achieved. We thus record our disappointment with the attitude of the State and hope the State makes amends in compliance now.**

15. The Tribunal has been receiving progress reports from States as well as monitoring Committees wherever functioning which have been considered by further orders.

Further Review after completing round of interaction with all Chief Secretaries by order dated 12.9.2019

16. The matter was then reviewed on 12.09.2019 in the light of report of the CPCB dated 09.09.2019 **showing wide gaps in compliance of solid waste, plastic waste, bio-medical waste management, rejuvenation of identified polluted river stretches, polluted industrial clusters and non-attainment cities.** A fresh schedule for appearance of the Chief Secretaries was issued. Vide order dated 07.01.2020, the Tribunal directed CPCB to ascertain Compliance of Solid Waste Management Rules, 2016 in terms of MSW generated, segregated and treated, gaps in the waste processing, enforcement of statutory timelines and orders of this Tribunal, number of sites remediated, and quantity of legacy waste therein and timelines for completing remediation. It was further directed that on the subject of sewage treatment, CPCB has to ascertain quantity of sewage generated and treated in the State, gap in the sewage treatment and timelines to bridge the gap, including strategy for use of treated water for secondary purpose. CPCB was accordingly directed to redesign its formats for securing relevant quantifiable information.

Order dated 28.02.2020

17. Accordingly, the Chief Secretaries of 18 States/UTs appeared and filed updated status reports. Since there still existed huge gaps in compliance, further directions were issued by way of different orders. Last such order is of 28.2.2020. Other orders are on same pattern. The direction part of the said order is reproduced below:

“41. In view of above, consistent with the directions referred to in Para 29 issued on 10.01.2020 in the case of UP, Punjab and Chandigarh which have also been repeated for other States in matters already dealt with, we direct:

h. *In view of the fact that most of the statutory timelines have expired and directions of the Hon’ble Supreme Court*

*and this Tribunal to comply with Solid Waste Management Rules, 2016 remain unexecuted, **interim compensation scale is hereby laid down for continued failure after 31.03.2020. The compliance of the Rules requires taking of several steps mentioned in Rule 22 from Serial No. 1 to 10 (mentioned in para 12 above). Any such continued failure will result in liability of every Local Body to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body from 01.04.2020 till compliance. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today. CPCB may prepare a template and issue an appropriate direction to the State PCBs/PCCs for undertaking such an assessment in the light thereof within one month.***

- i. ***Legacy waste remediation was to ‘commence’ from 01.11.2019 in terms of order of this Tribunal dated 17.07.2019 in O.A. No. 519/2019 para 28⁶ even though statutory timeline for ‘completing’ the said step is till 07.04.2021 (as per serial no. 11 in Rule 22), which direction remains unexecuted at most of the places and delay in clearing legacy waste is causing huge damage to environment in monetary terms as noted in para 33 above, pending assessment and recovery of such damage by the concerned State PCB within four months from today, continued failure of every Local Body on the subject of commencing the work of legacy waste sites remediation from 01.04.2020 till compliance will result in liability to pay compensation at the rate of Rs. 10 lakh per month per Local Body for population of above 10 lakhs, Rs. 5 lakh per month***

⁶ The Chief Secretaries may ensure allocation of funds for processing of legacy waste and its disposal and in their respective next reports, give the progress relating to management of all the legacy waste dumpsites. Remediation work on all other dumpsites may commence from 01.11.2019 and completed preferably within six months and in no case beyond one year. Substantial progress be made within six months. We are conscious that the SWM Rules provide for a maximum period of upto five years for the purpose, however there is no reason why the same should not happen earlier, in view of serious implications on the environment and public health.

per Local Body for population between 5 lakhs and 10 lakhs and Rs. 1 lakh per month per other Local Body. If the Local Bodies are unable to bear financial burden, the liability will be of the State Governments with liberty to take remedial action against the erring Local Bodies. Apart from compensation, adverse entries must be made in the ACRs of the CEO of the said Local Bodies and other senior functionaries in Department of Urban Development etc. who are responsible for compliance of order of this Tribunal. Final compensation may be assessed and recovered by the State PCBs/PCCs in the light of Para 33 above within six months from today.

- j. Further, with regard to thematic areas listed above in para 20, steps be ensured by the Chief Secretaries in terms of directions of this Tribunal especially w.r.t. plastic waste, bio-medical waste, construction and demolition waste which are linked with solid waste treatment and disposal. Action may also be ensured by the Chief Secretaries of the States/UTs with respect to remaining thematic areas viz. hazardous waste, e-waste, polluted industrial clusters, reuse of treated water, performance of CETPs/ETPs, groundwater extraction, groundwater recharge, restoration of water bodies, noise pollution and illegal sand mining.
- k. The compensation regime already laid down for failure of the Local Bodies and/or Department of Irrigation and Public Health/In-charge Department to take action for treatment of sewage in terms of observations in Para 36 above will result in liability to pay compensation as already noted above which are reproduced for ready reference:
- iv. **Interim measures for phytoremediation/ bioremediation etc. in respect of 100% sewage to reduce the pollution load on recipient water bodies – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per drain by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.**
 - v. **Commencement of setting up of STPs – 31.03.2020. Compensation is payable for failure to do so at the rate of Rs. 5 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2020.**

vi. Commissioning of STPs – 31.03.2021. Compensation is payable for failure to do so at the rate of Rs. 10 lakh per month per STP by concerned Local Bodies/States (in terms of orders dated 28.08.2019 in O.A. No. 593/2017 and 06.12.2019 in O.A. No. 673/2018) w.e.f. 01.04.2021.

- 1. Compensation in above terms may be deposited with the CPCB for being spent on restoration of environment which may be ensured by the Chief Secretaries’ of the States/UTs.
- m. An ‘Environment Monitoring Cell’ may be set up in the office of Chief Secretaries of all the States/UTs within one month from today, if not already done for coordination and compliance of above directions which will be the responsibility of the Chief Secretaries of the States/UTs.
- n. Compliance reports in respect of significant environmental issues may be furnished in terms of order dated 07.01.2020 quarterly with a copy to CPCB.

18. Timelines under the Rules referred to in sub para (a) above are :

“22. Time frame for implementation:- Necessary infrastructure for implementation of these rules shall be created by the local bodies and other concerned authorities, as the case may be, on their own, by directly or engaging agencies within the time frame specified below:

Sl. No.	Activity	Time limit from the date of notification of rules
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
1.	Identification of suitable sites for setting up solid waste processing facilities.	1 year
2.	Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more.	1 year
3.	Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities.	2 years
4.	Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source.	2 years
5.	Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities.	2 years

6.	<i>ensure separate storage, collection and transportation of construction and demolition wastes.</i>	<i>2 years</i>
7.	<i>setting up solid waste processing facilities by all Local Bodies having 100000 or more population.</i>	<i>2 years</i>
8.	<i>Setting up solid waste processing facilities by Local Bodies and census towns below 100000 population.</i>	<i>3 years</i>
9.	<i>setting up common or stand alone sanitary landfills by or for all Local Bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules.</i>	<i>3 years</i>
10.	<i>setting up common or regional sanitary landfills by 3 years all Local Bodies and census towns under 0.5 million population for the disposal of permitted waste under the rules.</i>	<i>3 years</i>
11.	<i>bio-remediation or capping of old and abandoned dump sites.</i>	<i>5 years</i>

19. **Our comments with regard to compliance of directions dated 28.2.2020 remain the same as in para 13 above.**

Order dated 02.07.2020

20. The matter was then considered on 02.07.2020. Having regard to the pandemic, appearance of remaining Chief Secretaries was deferred.

Order dated 14.12.2020

21. The matter was further considered on 14.12.2020 for review of progress. Scheduled appearance of remaining Chief Secretaries was dispensed with but it was directed that monitoring at the level of Chief Secretaries may continue and quarterly status reports be filed with CPCB so that CPCB may file a consolidated report every six months before the Tribunal. It was further directed that compensation in terms of earlier orders be recovered and credited to a separate account with the Environment Department of concerned State to be used for restoration of environment. It was also observed that in these proceedings Solid Waste

Management also will be monitored, other issues being considered in separate proceedings.

22. **As already noted above, there is nothing to show compliance by the State of Maharashtra on the issue of deposit of compensation and its utilization as directed.**

Further review on 30.11.2021 – huge gaps still found and hence, another round of interaction with Chief Secretaries proposed

23. The matter was thereafter taken up on 30.11.2021 to consider the report of CPCB dated 25.10.2020 giving compliance status in 32 States/UTs as in March, 2021 as follows:-

“Solid Waste Management

4.0 SUMMARY & CONCLUSIONS

- a. *Total No. of ULBs in 29 States/UTs is 4186.*
- b. ***As per information provided by 29 States/UTs - total waste generated is 150858.951 TPD of which 94435.318 TPD is processed, which is 62.6% of the total waste generated in these States/UT. 11772.4538 TPD (7.8%) of the waste is landfilled and the gap in Solid waste management in 29 States is 45071.771 TPD which is 29.8% of the waste generated in these States/UTs.***
- c. *Information on MRF has been provided for 28 States/UTs covering 77% of ULBs in these States/UTs.*
- d. *Information on Recycling facilities have been provided for 22 States/UTs covering 39% of ULBs in these States/UTs*
- e. *Information on Composting facilities has been provided for all 29 States/UTs covering 70% of ULBs in these States/UTs*
- f. *Information on WtE has been provided for 25 out of 29 States/UTs covering 1.9% of ULBs in these States/UTs.*
- g. *Information on RDF has been provided for 24 out of 29 States/UTs covering 12.4% of ULBs in these States/UTs.*
- h. *Information on Biomethanation has been provided for 27 out of 29 States/UTs covering 7.1% of ULBs in these States/UTs.*
- i. ***Information on Landfills has been provided in 24 out of 29 States/UTs covering 18.9% of ULBs in the States.***

- j. 498 of 2111 (23%) dumpsites in 25 States/UTs have been cleared and Remediation has been initiated in 23% (496) of the dumpsites.
- k. Model Town/Cities have been identified in 25 States/UTs.
- l. 16 States /UTs have established environmental cells.
- m. **15 States /UTs have standardised rates for procurement of services/equipment required for solid waste management.**
- n. *In view of above, States/UTs need to develop of ULB wise action plan for collection, segregation, transportation and processing of waste and lay down an appropriate governance framework at state and district levels.”*

24. The Tribunal in its order dated 30.11.2021 observed:-

“1 to 17....xxxx.....xxx.....xxx

18. We are of the view that hence forthwith proceedings in this matter need to cover Solid Waste Management and Sewage Management, these issues being crucial and required to be monitored by this Tribunal by the Hon’ble Supreme Court. Absence of management of waste results in adding to air and water pollution in a big way. All the legacy waste dump sites in the country need to be remediated to reduce methane gas, foul smell and leachate and also to release valuable land occupied by such sites which can be used for waste management/plantation or raising funds. Waste collected must be scientifically processed and disposed at the earliest in the interest of hygiene and public health. It needs to be ensured that instead of remediating the legacy waste sites, the garbage is not shifted to new sites which is not a solution to the problem. It only results in shifting the problem from one place to the other without any advancement of environment protection. What is necessary is that the garbage must be finally disposed of and land reclaimed. The authorities must move towards zero garbage at the end of the day by ensuring that instead of garbage being collected and dumped, it is taken to destination where it is finally processed scientifically and appropriately, except for reused/recycling of such residues as is possible. This is also the mandate of Swachh Bharat Mission, initiated by the Central Government. Similarly, sewage has to be scientifically treated to give effect to the mandate of Water (Prevention and Control of Pollution) Act, 1974 in the interest of availability of clean water in rivers and other waterbodies. Central Governments programmes also provide for initiatives on these subjects. On both aspects, compensation regime has been laid down which is necessary to enforce the rule of law and for protection of environment and public health. The compensation laid down has to be duly collected and utilized for restoration of environment, by being kept in a separate account. Accountability for the failures needs to be fixed by

way of ACRs and departmental action as such failures result in crimes under the law of land and damage to public health. Such failure is also breach of Constitutional obligation to uphold the Right to Life. The country is committed to Sustainable Development Goals of providing clean air and safe drinking water.

19. In view of above, continued failure of Rule of Law must be remedied in terms of mandate of orders of the Hon'ble Supreme Court in Writ Petition No. 888/1996, Almitra H. Patel Vs. Union of India & Ors. and Paryavaran Suraksha vs. Union of India,⁷ followed by orders of this Tribunal. It is necessary that Chief Secretaries continue the monitoring and interact with this Tribunal periodically by video conferencing. Accordingly, we lay down following further schedule for personal appearance of the Chief Secretaries, by Video Conferencing, with the status of compliance in respect of each of the States/UTs on the subject of Solid Waste Management and Sewage Management. The data to be furnished should cover all categories of areas in the State – big cities, towns and villages.

20. The hearing on each of above dates will commence at 10:30 a.m. sharp. The Chief Secretaries may not delegate the responsibility. As far as possible, they may adjust other work for which long advance notice is being given. In case adjustment is found difficult for any unforeseen reason, request for change of date may be mailed by e-mail at judicial-ngt@gov.in.

21. All the States/CPCB may undertake process of verification of data after having interaction on video conferencing with the concerned States/UTs within one month. The Secretaries, Environment, Urban Development Department and Irrigation Department may also coordinate with the Member Secretaries of State Legal Services Authorities in all State/UTs in the light of background mentioned in paras 3 and 4 above for the awareness programmes on the subject.”

Separate orders dated 28.8.2019, 12.9.2019, 6.12.2019 and 22.02.2021 on the subject of Liquid Waste Management

25. Issue of liquid waste management was separately dealt with in OA 593/2017 on directions of Hon'ble Supreme Court and in suo motu proceedings for restoration of 351 identified polluted river stretches in OA 673/2018. Vide order dated 28.08.2019, the Tribunal directed that 100% sewage treatment must be ensured by all local bodies. Vide further order

⁷ (2017) 5 SCC 326

dated 06.12.2019 in O.A. No. 673/2018⁸, the Tribunal directed that for failure to commence in-situ remediation, compensation will be payable at the rate of Rs. 5 lakh per month per drain after 31.03.2020 and for failure to commence setting up of STPs after 31.03.2020 compensation is to be paid at the rate of Rs. 5 lakh per month per STP. For failure to complete the project, compensation has to be paid at the rate of Rs. 10 lakh per STP per month after 31.03.2021. Relevant part of the order is quoted below:

***“47. (i) 100% treatment of sewage may be ensured as directed by this Tribunal vide order dated 28.08.2019 in O.A. No. 593/2017 by 31.03.2020 atleast to the extent of in-situ remediation and before the said date, commencement of setting up of STPs and the work of connecting all the drains and other sources of generation of sewage to the STPs must be ensured. If this is not done, the local bodies and the concerned departments of the States/UTs will be liable to pay compensation as already directed vide order dated 22.08.2019 in the case of river Ganga i.e. Rs. 5 lakhs per month per drain, for default in in-situ remediation and Rs. 5 lakhs per STP for default in commencement of setting up of the STP.*”**

ii. Timeline for completing all steps of action plans including completion of setting up STPs and their commissioning till 31.03.2021 in terms of order dated 08.04.2019 in the present case will remain as already directed. In default, compensation will be liable to be paid at the scale laid down in the order of this Tribunal dated 22.08.2019 in the case of river Ganga i.e. **Rs. 10 lakhs per month per STP.”**

26. Both the matters were disposed of vide order dated 22.02.2021 with a direction that further monitoring be continued at the level of the Chief Secretaries in States and Central Monitoring Committee headed by Secretary, Ministry of Jal Shakti at the national level.

Today’s hearing in the presence of Chief Secretary, Maharashtra to ascertain compliance status and way forward

⁸ News item published in "The Hindu" authored by Shri Jacob Koshy Titled "More river stretches are now critically polluted: CPCB"

Compliance status in Maharashtra presented

27. The presentation filed by the Chief Secretary, Maharashtra on 07.09.2022 shows following data:

SUMMARY OF STATUS

A: <u>Solid Waste Management</u>					
Quantity of waste generation in the State (in TPD)	Waste Processed (in TPD)	Gap in generation and Processing (in TPD)	Quantity of waste being disposed in landfills (in TPD)	Quantity of Legacy waste in the State (Tones)	Status of Bio-mining
24,951 (403 ULBs)	20,294	1776	2881	3,94,19,287	189 out of 273 dump sites cleared

B): <u>Sewage Management</u>					
Quantity of sewage generation in the State (in MLD)	Utilized capacity (in MLD)	Current Gap in treatment (in MLD)	Utilization of treated sewage in		
			Agriculture/ Horticulture purpose	Industrial purpose	Any other purpose
9758.53	4338.2	5420.33	320 MLD		

Our Observations findings and Directions

28. It is disappointing to see from the data presented by the Chief Secretary that after 24.1.2020 when the Chief Secretary, Maharashtra last appeared before the Tribunal in the present matter, there is no meaningful progress. There are huge gaps in management of solid as well as liquid waste.

29. The above data shows that legacy waste is to the extent of 3,94,19,287. Data of rural areas has not been given. It is stated that 189 sites out of 273 dump sites have been cleared but it is not clear how much quantity of waste is remediated. Area of land recovered through this process has not been

mentioned. Further, more waste is being added on daily basis. Legacy waste remains source of air, water and land pollution resulting in damage to environment and public health, as noted in para 24 earlier. Since statutory timelines for remediation of legacy waste having expired, further steps have now to be taken in a mission mode and for past violations liability of the State has to be quantified on 'Polluter Pays' principle by way of monetary compensation to be utilised for restoration of damage to the environment.

30. On the issue of liquid waste/sewage, gap is to the extent of 5420.33 MLD. The said data does not cover the compliance status in rural areas. Figure of utilisaton of treated sewage shows that much work remains to be done. Unless treated sewage is usefully deployed for non potable purpose, potable water may be used for such purposes and sewage may mix with potable water or go to storm water drains or rivers which has to be avoided. Timeline for the establishing requisite treatment systems in terms of judgment of Hon'ble Supreme Court in *Paryavaran Suraksha vs. Union of India*, supra has long expired. This Tribunal had also directed that for delay after 01.04.2020, coercive measures are to be taken. Till the gaps are bridged, untreated liquid waste will continue to remain source of degradation of environment and damage to public health, including deaths and diseases which the society can ill afford. Hence, the urgency of the situation for good governance for ensuring emergent measures in public interest to protect the environment, natural resources and public health as per mandate of the Constitution. We have to levy compensation for continuing violation on polluter pays principle to be utilised for restoration measures.

31. As already noted and observed in the judgement of the Hon'ble Supreme Court in *Paryavaran Surakhsha*, supra, quoted earlier, the

matter falls in 12th Schedule to the Constitution and it is constitutional responsibility of the State and the Local Bodies to provide pollution free environment and to arrange funds. Being part of right to life, which is also basic human right and absolute liability of the State, lack of funds cannot be plea to deny such right. While there may be no objection to any central funds being availed, the State cannot avoid its responsibility or delay its discharge on that pretext.

32. It is a matter of concern that even after 48 years of enactment of Water (Prevention and Control of Pollution) Act, 1974 and expiry of timelines for taking necessary steps for solid waste management in terms of Solid Waste Management Rules, 2016 and binding direction in the judgment of the Hon'ble Supreme Court and this Tribunal in *Almitra H. Patel vs. Union of India & Ors.* and *Paryavaran Suraksha vs. Union of India*, supra, huge gaps still exist. Are there insurmountable difficulties for State authorities or lack of will and determination? We find it difficult to believe the first. In our view, it is lack of good governance and determination responsible for the situation which needs to be remedied soonest.

33. We have suggested change in approach in realizing that remedial action cannot wait for indefinite period as is being proposed by the Administration. Sources of funding are laid down in the orders of the Hon'ble Supreme Court. Responsibility of the State is to have comprehensive plan to control pollution which is its absolute liability, which is not being understood. If there is deficit in budgetary allocations, it is for the State and state alone to have suitable planning by reducing cost or augmenting resources. By way of suggestion, one may consider harnessing traditional knowledge and community involvement. People must be involved in the problem by appropriate awareness and strategies

to encourage public participation and contribution. At the cost of repetition, health issues cannot be deferred to long future. Long future dates which, breach of which is established from the track record of last several decades, is not convincing solution. There is no accountability for the past breaches. It is poor substitute for compliance. This approach may project lack of concern or not realizing the grim ground situation crying for emergent remedial measures on priority. There is no time for leisure, reflected in timelines proposed for bridging the acknowledged gaps.

34. It is the mindset and determination to act in a mission mode which can produce results.

35. Segregation of the solid waste at source and its earliest processing nearest to the point of generation with defined destination is imperative. In particular, adequate composting/vermicomposting/bio-methanation centers need to be set up and upgraded nearest to the source of generation of wet solid waste, listing people's involvement. Waste generators can themselves be required to process the waste under guidance and handholding by the Administration, with the assistance of identified empaneled service providers. This may perhaps reduce planned expenditure.

36. Similarly, sewage can be required to be processed by conventional cost-effective methods at least at several identified locations with least expenses. Decentralized treatment plants can be explored, apart from imposing condition of ZLD on industries, Group Housing Societies etc. Reduced load can be processed partly with the help of water using commercial establishments requiring water for their processes enforcing consent conditions in CTEs and CTOs whereby State's financial burden can be reduced. In this context, the draft Notification of MoEF&CC dated

25.02.2022⁹ etc. and the relevant part of the draft Notification in context of sewage and solid waste management is reproduced below:

“xxxxxx.....xxx
C. Management of sewage/waste water, Reuse and recycle of treated wastewater by dual plumbing system

10. Dual Plumbing System shall be implemented - one for supplying fresh water for drinking, cooking and bathing etc. and another for supply of treated water for flushing.

11. Only treated water shall be used for flushing.

12. In no case, sewage or untreated waste water generated within the project area shall be discharged through storm water drains or otherwise into water bodies nor discharged/injected into the ground water by any mode.

13. Subject to Clause (3) of this notification, the project authority may opt or avail to common off-site treatment facility, as feasible, for treatment with reuse & recycle of corresponding quantity of treated water through the dual plumbing system for flushing and other non-potable use.

A. For projects with built up area of 5,000 sq.mtrs. to 20,000 sq.mtrs. –

i. In areas where there is no municipal sewage network,

a. Either Onsite Sewage Treatment Systems with capacity to treat 100% waste water may be installed with appropriate tertiary treatment system with disinfection for black & grey water. Such treated water should be used with dual plumbing system for flushing and other non-potable use;

OR

b. In case of usage of septic tank, only black water shall be discharged in the septic tank. Grey water may be treated through natural treatment systems or other secondary treatment as feasible. Such treated water should be used with dual plumbing system for flushing and other non-potable use;

⁹ https://www.compfi.com/wp-content/uploads/2022/03/01032022_EHS_02.pdf

The excess treated water should conform to the general discharge norms of CPCB/MoEF&CC.

ii. In areas where there is municipal sewage network

a. Either Onsite Sewage Treatment Systems with capacity to treat 100% waste water may be installed with appropriate tertiary treatment system with disinfection for black & grey water. Such treated water should be used with dual plumbing system for flushing and other non-potable use;

OR

b. The project authority may opt to discharge only black water in such municipal sewage network subject to availability of trunk sewer line. For this purpose, two separate pipeline network– one for black water discharge and other for collection of grey water shall be installed. Grey water may be treated through natural treatment systems or other secondary treatment as feasible. Such treated water should be used with dual plumbing system for flushing and other non-potable use;

B. For projects involving built-up area of 20,000 sq. mts. or more –

14. Subject to Clause (3) of this notification, Onsite Sewage Treatment Plant with capacity to treat 100% waste water generated within the project area through tertiary treatment shall be installed. Treated waste water shall be reused on site for landscape, flushing, HVAC, fire-fighting, and other end-uses.

15. The adequacy of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the authorized agency.

16. Discharge of excess treated wastewater outside the premises, after treatment in STP, should meet the discharge standards as notified by CPCB/MoEF&CC from time to time.

17. Wastewater and treated water quantification system through metering/sub-metering shall be installed.

18. Sludge from the onsite sewage treatment shall be collected, conveyed and disposed as per the Central Public Health and Environmental Engineering Organization (CPHEEO) Manual,

Ministry of Housing and Urban Affairs, on Sewerage and Sewage Treatment Systems.

19. Where Common Sewage Treatment Plan facility has been availed, it shall be ensured that treated waste water is recycled back to respective building for reuse.

D. Solid Waste Management

20. Subject to Clause (3) of this notification, onsite solid waste management facility should be developed and a formal contractual arrangement shall be ensured with authorized recyclers/concerned municipal agency for disposal of all non-biodegradable waste.

21. Subject to Clause (3) of this notification, where there is no alternate arrangement for disposal of biodegradable waste, Organic waste composter/Vermiculture pit with a minimum capacity of 1.0 kg/150 sqm. of built-up area/day shall be installed & operated.”

37. Treated water can also be used by establishments like malls, industrial estates, automobile establishments, power plants, playgrounds, railways, bus stands, local bodies, universities etc. to save potable water for drinking. The treated sewage can be utilized for industrial/agricultural/other non-drinking uses like washing railway wagons/yards, buses, roads, water sprinkling. Several such models reportedly exist¹⁰.

¹⁰ <https://www.newindianexpress.com/cities/chennai/2019/jul/31/chennai-industries-to-now-use-treated-sewage-water-2011837.html>
<https://timesofindia.indiatimes.com/city/surat/surat-water-reuse-model-goes-global/articleshow/85668103.cms>
<https://www.aninews.in/news/national/general-news/surat-generating-massive-revenue-by-selling-treated-water-to-industries20201217051127/>
<https://swachhindia.ndtv.com/surat-generating-massive-revenue-by-selling-treated-water-of-river-tapi-to-industries-54411/>
https://m.timesofindia.com/city/ahmedabad/amc-offers-rs43/kl-treated-wastewater-for-industries/amp_articleshow/87169850.cms <https://theprint.in/india/governance/nagpur-to-become-the-first-indian-city-to-treat-and-reuse-90-of-its-sewage/180493/>
https://www.business-standard.com/content/press-releases-ani/india-s-1st-and-largest-ppp-on-waste-water-reuse-completed-in-record-time-during-pandemic-bags-ficci-water-award-2020-121022500841_1.html
https://mpcb.gov.in/sites/default/files/focus-area-reports-documents/NMC_%26_KTPS_success_story_28052019.pdf
<https://cpcb.nic.in/success-stories/upload/1501156301.pdf>

38. Thus, it may be necessary to brain storm with available experts and other stake holders in the State at different levels, evolve models which can be fast replicated, initiate special campaigns with community/media involvement in the larger interest of protecting environment and public health with determination for prompt action. Such brain storming sessions may enable capacity enhancement of the regulators and the processes. Campaigns and community involvement may result in reducing the financial and administrative load on the administration.

39. Compliance of environmental norms on the subject of waste management has to be on high on priority. Tribunal has come across cases of serious neglect and continuing damage to the environment in absence of inadequate steps for treatment of solid and liquid waste.¹¹ We are of the

http://cpheeo.gov.in/upload/uploadfiles/files/engineering_chapter7.pdf

¹¹

- (i) O.A. No. 142/2016(THC), Sheikh Rashid Charitable Foundation, (Malegaon) & Ors. v. UOI & Ors., order dated 05.12.2017, relating to release of amount for functioning of sewage treatment plant in Malegaon.
- (ii) O.A. No. 177/2016(THC), Kaustubha Ghokhale & Anr. v. State of Maharashtra Through Chief Secretary & Ors., order dated 23.10.2017, relating to grant of public hearing in case of grant of EC to MSW Processing Plant at Umbarde and Barave.
- (iii) O.A. No. 177/2016(THC), Kaustubha Ghokhale & Anr. v. State of Maharashtra Through Chief Secretary & Ors., order dated 23.10.2017, relating to grant of public hearing in case of grant of EC to MSW Processing Plant at Umbarde and Barave.
- (iv) O.A. No. 122/2017, Dileep Gopal Mangankar v. State of Maharashtra & Ors. order dated 31.01.2018, seeking direction the respondents to take steps in order to manage, collect, segregate, transport and disposal of the msw as per Rules.
- (v) O.A. No. 168/2017, Mr. Omkar Ajit Keni V/s The Deputy Director (Forest) Sawantwadi, & Ors., order dated 17.07.2018, relating to removal of garbage dumped around Dhamapur Lake, Sindhudurg District.
- (vi) O.A. No. 179/2017, Mr. Atul Kishor Karle & Ors. V/s The Collector, Pune & Ors., order dated 21.07.2017, seeking direction against respondent for not dumping msw and its proper disposal.
- (vii) O.A. No. 11/2018, Amir Shaikh & Ors. v. Haji Ali Dargah Trust & Ors., order dated 25.08.2022, seeking direction against respondents to immediately stop releasing excrement/untreated sewage into the sea.
- (viii) O.A. No. 40/2019, Rajkumar Kukreja & Anr. v. Ulhasnagar Municipal Corporation & Ors., order dated 23.08.2022, seeking direction against respondents to stop unauthorized dumping of municipal solid waste.
- (ix) Original Application No. 60/2019(WZ), Ganesh Dadarao Anasane v. Amravati Municipal Corporation & Anr. order dated 07.09.2022, relating to illegal dumping of solid waste at Sukali Dumping ground in Amravati, Maharashtra.

view that issues have been identified and monitored by the Tribunal for a long time. It is high time that the State realizes its duty to law and to citizens and adopts further monitoring at its own level.

Conclusion with expression of hope for future remedial action

40. We hope in the light of interaction with the Chief Secretary, Maharashtra that he will take further measures in the matter by innovative approach, stringent monitoring at appropriate level, including at the level of the District Magistrates (who execute the

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- (x) Original Application No. 14/2020(WZ), Mohan Nanasahab Kudale v. Pune Municipal Corporation & Ors., order dated 17.01.2022 relating to operation of an incinerator plant for disposal of animal carcass on land situated at Keshavnagar, Mundhwa, Pune.
 - (xi) Original Application No. 29/2020(WZ), Suraj Pradip Ajmera v. Aurangabad Municipal Corporation, order dated 09.03.2022, relating to absence of scientific management of sewage problem in Aurangabad city.
 - (xii) Original Application No.59/2020 (WZ), Riverdale Vista Co-operative Housing Society v. MoEF &CC & Ors., order dated 16.11.2021 relating to Common Municipal Solid Waste Management Facility Site at Revenue Village Barave in contravention of Solid Waste Management Rules 2016.
 - (xiii) Original Application No.62/2020 (WZ), Dagadkhan Asanghatit Kamgar Vikas Parishad Maharashtra v. State of Maharashtra & Ors., order dated 17.11.2021 relating to Illegal dumping of municipal solid waste by the Wagholi Gram Panchayat and Pune Metropolitan Region Development Authority on common land next to residential apartments and hutments of quarry workers at Wageshwarnagar in Village Wagholi, Taluka Haweli, District Pune.
 - (xiv) Original Application No. 84/2020 (WZ), Dhananjay Balwant Kokate & Anr. v. Union of India & Ors., order dated 08.12.2021 relating to Setting up of a Garbage Processing Plant at Survey No. 51/10, Ambegaon Bk., Pune.
 - (xv) Original Application No. 32/2021(WZ), Charan Ravindra Bhatt v. Vasai-Virar City Municipal Corporation & Anr. order dated 07.12.2021 relating to Failure of Vasai – Virar Municipal Corporation in performing its statutory obligation of providing clean environment by scientific disposal of solid and liquid waste.
 - (xvi) Original Application No. 55/2021(WZ), Tousif Bagnikar v. Nix Paolymers & Ors., order dated 03.12.2021 relating to illegally dumping, untreated toxic effluent by respondent no.1 from the polyester resin plant into Maharashtra Industrial Development Corporation (MIDC Drain) which in turn flows into river Krishna.
 - (xvii) Org. Application No. 75/2021(WZ), The Cliff Gardem Condominium B & C v. Gram Panchayat, Maan & Ors., order dated 10.03.2022 relating to failure of Authorities in the State of Maharashtra to follow Solid Waste Management Rules, 2016 in Village Maan, Tal. Mulshi, Dist. Pune, near housing society - Cliff Garden Condominium, MIDC infotech Park, Maan, Pune.
 - (xviii) Original Application No. 33/2022(WZ), Sanjay Vishwanath Lature & Ors v. Solapur Municipal Corporation & Ors., order dated 18.07.2022 relating to land filling site- to remove the set-up of abandoned processing plant at survey nos. 73 and 74/1 of Village Kasabe Solapur, Taluka-North Solapur, District Solapur.

District Environment Plans) and the Chief Secretary, ensuring that the gap in solid and liquid waste generation and treatment is bridged at the earliest, shortening the proposed timelines, adopting alternative/interim measures to the extent and wherever found viable.

41. The Chief Secretary may consider designating a Senior Nodal Officer at the rank of ACS to regularly assess the progress in bridging the gaps in sewage and solid waste management and establishing stocktaking at district level. Existing and upcoming STPs need to have linkages with industries and other bulk users including Agriculture/horticulture for using treated sewage. Legacy waste sites need to be remediated and reclaimed areas utilized for setting up of waste processing plants so to process day-to-day waste generation. More and more green belts/dense forests need to be set up to mitigate adverse impact of waste. Based on the gained experience, standardized processing and treatment methodologies be replicated for areas of other Corporations, Municipalities and Panchayats.

42. Laid down statutory norms need to be complied as per prescribed timelines and directions in the judgments of Hon'ble Supreme Court and this Tribunal, including directions in orders dated 25.4.2019, 28.2.2020 and 14.12.2020 and other orders in individual cases. In the light of observations in paras 14, 19 and 22 above, accountability be fixed for erring officers and compensation collected and utilised, as already directed.

Need for monitoring by NMCG and MoUD NMCG, SBM and Amrut schemes

43. In view of continuing huge gap in solid and liquid waste generation and treatment, it is high time that Ministry of Housing and Urban Development (MoUD) and National Mission for Clean Ganga (NMCG) who have programmes like Swachh Bharat Mission (SBM), AMRUT - 1 and 2.0 and River Cleaning, appropriately monitor compliance of waste management norms by concerned States and take remedial action on their part. MoEF&CC and CPCB may continue monitoring as per MSW Rules and the Water Act.

Determination of liability for compensation for restoration of environment

44. **Apart from compliance in future, the liability of the State has to be fixed for the past violations in the light of earlier binding orders passed in pursuance of orders of Hon'ble Supreme Court dated 2.9.2014 in WP 888/1996, Almitra Patel and dated 22.2.2017 in WP 375/2012, Paryavaran Suraksha. Order dated 22.12.2016 in Almitra Patel clearly laid down liability for compensation for breach of statutory timelines. Similarly, liability for compensation was laid down for failing to install water pollution control devices after 31.3.2020.** The Tribunal has to follow 'Polluter Pays' principle under Section 20 of the NGT Act. The State Authorities contributing to the pollution by failing in their constitutional duties are to be held accountable on this principle. Admittedly, timelines under Supreme Court orders and orders of this Tribunal for preventing water pollution and statutory timelines for solid waste management are over. Thus, atleast from 01.01.2021, the 'Polluter Pays' principle has to be applied. Compensation has to be equal to the loss to the environment and also taking into account cost of remediation.

45. In our recent order dated 01.09.2022 in O.A No. 606/2018 (in respect of State of West Bengal), considering scale of compensation adopted in earlier cases including in OA No. 1002/2018, *Abhisht Kusum Gupta vs. State of Uttar Pradesh & Ors.*, compensation was determined @ Rs. 2 Crore per MLD for untreated liquid waste and in OA No. 286/2022 for unprocessed legacy waste compensation was fixed @ Rs. 300 per MT to be utilized for restoration measures, including preventing discharge of untreated sewage and solid waste treatment/processing facilities, as per appropriate mechanism for planning and execution that may be evolved, within three months. Operative part of the said order is reproduced below:-

“Conclusion about quantum of compensation

49. *In the light of above and considering damage to the recipient environment, we hold that apart from ensuring compliance at the earliest, compensation has to be paid by the State for past violations. The amount of compensation is fixed @ Rs. 2 crore per MLD (at which rate compensation has been levied against Noida and DJB in OA No. 1002/2018, Abhisht Kusum Gupta vs. State of Uttar Pradesh & Ors, referred to in para 48 above for detailed reasons mentioned therein). As noted earlier, **gap in generation and treatment in West Bengal, as per data furnished is 1490 MLD. Thus, under this head, liability of the State of West Bengal is to pay compensation of Rs. 2980 crores, rounded off to Rs. 3000 crore in view of continuing damage. For failure to process solid waste, unprocessed legacy waste being 1.20 crore MT, compensation is assessed @ Rs. 300 per MT (at which approximate rate compensation has been awarded in OA No. 286/2022 against Municipal Corporation, Ludhiana, for the reasons given therein). This works out to Rs. 366 crore but adding 134 crore for continuing addition of unprocessed waste @ 13469.19 TPD, the total amount is rounded off to Rs. 500 crore. Thus, final amount of compensation under the two heads (solid and liquid waste) is assessed at Rs. 3500 crores which may be deposited by the State of West Bengal in a separate ring-fenced account within two months, to be operated as per directions of the Chief Secretary and utilised for restoration measures, including preventing discharge of untreated sewage and solid waste treatment/processing facilities, as per appropriate mechanism for planning and execution that may be evolved, within three months. If violations continue, liability to pay additional compensation may have to be considered. Compliance will be the responsibility of the Chief Secretary.”***

46. Following the above pattern, we determine compensation payable by the State of Maharashtra. In respect of **gap in treatment of liquid waste/ sewage i.e. 5420.33 MLD, compensation works out to Rs. 10840.66 crores and compensation for un-remediated legacy waste to the extent of 3,94,19,287 works out roughly to about Rs. 1200 crores. We round off the compensation amount @ Rs. 12,000/- crores which may be deposited by the State of Maharashtra in a separate ring-fenced account within two months, to be operated as per directions of the Chief Secretary and utilised** for restoration measures. The restoration measures with respect to sewage management would include setting up of sewage treatment and utilization systems, upgrading systems/operations to ensure utilization of their full capacities, ensuring compliance of standards, including those of fecal coliform and setting up of proper fecal sewage and sludge management in rural areas. With regard to solid waste management, the action plan would include setting up of required waste processing plants and remediation of left out 84 sites. Bio-remediation/bio-mining process need to be executed as per CPCB guidelines and the stabilized organic waste from biomining as well as from compost plants need to comply with laid down specifications. Other material recovered during such processes are to be put to use through authorized dealers/handlers/users. This restoration plan needs to be planned and executed in a time bound manner without further delay. If violations continue, liability to pay additional compensation may have to be considered. Compliance will be the responsibility of the Chief Secretary.

47. Award of above compensation has become necessary under section 15 of the NGT Act to remedy the continuing damage to the environment and to comply with directions of the Hon'ble Supreme Court requiring this Tribunal to monitor enforcement of norms for solid and liquid waste

management. Moreover, without fixing quantified liability necessary for restoration, mere passing of orders has not shown any tangible results in the last eight years (for solid waste management) and five years (for liquid waste management), even after expiry of statutory/laid down timelines. Continuing damage is required to be prevented in future and past damage is to be restored.

Directions for further follow up

48. Further, six monthly progress reports may be filed by the Chief Secretary with a copy to the Registrar General of this Tribunal by e-mail at judicial-ngt@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF. Copies thereof may be furnished to the NMCG, MoUD and CPCB and also be placed on the website of the State Government.

IA No. 163/2021 stands dismissed in light of today's proceedings.

A copy of this order be forwarded for compliance to the Chief Secretary, Maharashtra, Secretary, Ministry of Housing and Urban Development, MoEF&CC, GoI, National Mission for Clean Ganga and CPCB.

On report being filed with the Registrar General of this Tribunal, the same may be placed before the Bench, if found necessary.

If any grievance survives, it will be open to the aggrieved parties to take further remedies as per law.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Prof. A. Senthil Vel, EM

September 08, 2022
Original Application No. 606/2018

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

**MISCELLANEOUS APPLICATION NO.79/2023
IN
ORIGINAL APPLICATION NO.758/2022**

IN THE MATTER OF:

PALDAN PHUNCHOG

Secretary,
Gram Panchayat Shallen,
City Development Block
Post Office- Kalath, Tehsil – Manali
District – Kullu
State of Himachal Pradesh

...Applicant(s)

Versus

- 1. STATE OF HIMACHAL PRADESH**
Through Chief Secretary,
E-201B, E-Ellerslie Building,
Himachal Pradesh Government Secretariat,
Shimla – 171002
- 2. HIMACHAL PRADESH STATE POLLUTION CONTROL BOARD**
Through its Member Secretary,
Him Parivesh, Phase-III,
New Shimla-171009
- 3. DISTRICT MAGISTRATE,**
Kullu, Himachal Pradesh,
Office of Deputy Commissioner, Kullu,
Himachal Pradesh-175101
- 4. EXECUTIVE OFFICER**
Municipal Council, Manali,
Dhalpur, Kullu,
Himachal Pradesh-175101

5. PRINCIPAL SECRETARY,

Urban Development, Shimla, Himachal Pradesh

...Respondent(s)

COUNSELS FOR RESPONDENT(S):

Mr. Divyanshu Kumar Srivastava, Advocate for R-1 and 3 (Through VC)

Ms. Navya Nanda, Advocate for R-2 (Through VC)

Mr. Anant Kumar Vatsya and Mr. Karan Thakur, Advocates for R-4

CORAM:**HON'BLE MR. JUSTICE PRAKASH SHRIVASTAVA, CHAIRPERSON****HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER****HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

RESERVED ON: APRIL 05, 2024**PRONOUNCED ON: MAY 29, 2024**

JUDGMENT**BY HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER**

1. This Original Application (hereinafter referred to as '**OA**') has been registered under Sections 14 and 15 of National Green Tribunal Act, 2010 (hereinafter referred to as '**NGT Act 2010**') on a letter petition dated 25.05.2022 sent by Paldan Phunchog, Pradhan, Gram Panchayat Shallen, City Development Block, Post Office – Kalath, Tehsil – Manali, District – Kullu, State of Himachal Pradesh. He had made a complaint of illegal dumping of solid waste in Gram Panchayat area causing health hazards to the local residents. The complainant has said that the local residents of Gram Panchayat, Shallen are facing lot of problems due to foul smell and scattered waste lying in an area of two kilometers from the Waste Management Unit which has made lives of people, hell, and also causing health hazards for them. Within 15 to 100 meters of the Waste Management Unit, there are educational institutions like Saraswati Vidya

Mandir, DAV School and Bodh Shiksha Sansthan where students and teachers, both are facing several problems due to illegal dumping of solid waste. On account of eating of decomposed garbage thrown on open land, cattle in the area are dying and about 40 cattle have already died. It is also said that the waste thrown in open land is ultimately reaching water of River Beas, causing contamination of water.

Tribunal's Order dated 04.01.2023:

2. OA was considered by Tribunal on 04.01.2023. Tribunal observed that the complaint at the first instance can be looked into at the District Authority's level, therefore, it constituted a Joint Committee comprising Himachal Pradesh State Pollution Control Board (hereinafter referred to as '**HPSPCB**') and District Magistrate, Kullu to find out whether there is any violation of environmental laws and norms and if so, to take appropriate remedial action in accordance with law, expeditiously, in any case, within two months. They were also directed to submit a Report to Registrar General of this Tribunal with a further direction to Registrar General that if any further direction is required, the Report shall be placed before Tribunal. Joint Committee was also required to ensure that waste processing plant is duly authorized and complying with Solid Waste Management Rules, 2016 (hereinafter referred to as '**SWM Rules 2016**'). With the above directions, OA was disposed of.

Joint Committee Report dated 12.05.2023 (M.A. No. 79/2023):

3. Pursuant to the order dated 04.01.2023, Joint Committee submitted its Report dated 12.05.2023 which was registered as **M.A. 79/2023** and placed before Tribunal for further directions.

4. Joint Committee Report shows that spot inspection was conducted at the waste processing plant, functioning at Rangree, Tehsil Manali, on 27.01.2023. During the course of spot inspection, the complainant Paldan Phunchog, representatives of nearby schools, local residents, Executive Officer, Municipal Council, Manali and Prem Sharma, Manager, M/s. Nextgen Chemicals Pvt. Ltd. which is the agency employed by Municipal Council Manali to operate waste processing plant at Rangree, Tehsil Manali, were present. The complainant, representatives of schools and local residents explained their grievances to the Joint Committee as under:

- “1. There is regular foul smell from the plant spreading in nearby area.*
- 2. The solid waste is being littered outside the boundary of the plant.*
- 3. There is unhygienic conditions and lots of flies and mosquitoes originating from the waste site may lead to spread diseases in vicinity.*
- 4. There is a lot of waste dumped/legacy waste is present at site due to which the unhygienic conditions may lead to major health hazards.*
- 5. There are a lot of stray animals/dogs in area which are destroying crops of nearby fields.*
- 6. There is impact on admissions and in general on health of students in the nearby three schools due to foul smell being arisen from the plant and hostel of one school has also been closed.”*

5. In the backdrop of the above grievances, Joint Committee made its inspection and found that

- i. Solid waste processing plant was not in operation at the time of inspection;
- ii. Composite pits provided at the plant were empty;

- iii. Foul smell was observed in the vicinity;
- iv. Mixed solid waste was found at the site;
- v. Heap of organic waste mixed with plastic contents was found stored without any further treatment;
- vi. No separate compartments provided for collection of e-waste, domestic hazardous waste etc.;
- vii. Untreated leachate was flowing towards River Beas;
- viii. Work for construction of leachate collection pits was in progress;
- ix. Installed Effluent Treatment Plant (hereinafter referred to as **'ETP'**) and compactor were not functional;
- x. Legacy waste was spilled over the retaining wall towards the bank of River Beas;
- xi. Processing of legacy waste lying at the site has not started;

6. Joint Committee Report also said that after noticing the above violations, Executive Officer, Municipal Council, Manali who was also present at the time of inspection, informed the Joint Committee that Municipal Council, Manali has awarded tender to process legacy waste to M/s. Rekart Innovation Pvt. Ltd. and work of approach road has been completed by Municipal Council. It was also pointed out by Executive Officer, Municipal Council, Manali that the operating agency i.e., Rekart Innovation Pvt. Ltd., now, will install their machines i.e., trommel, shredder, JCB etc. at the site and work for removal of legacy waste will start in February 2023. Joint Committee Report also stated that Executive Officer, Municipal Council, Manali further informed that fresh solid waste is processed by M/s. Nextgen Chemicals Pvt. Ltd.; part of solid waste converted into Refused Derived Fuel (hereinafter referred to as **'RDF'**) was

being sent to cement plants for co-processing; M/s. Nextgen Chemicals Pvt. Ltd. was operating solid waste processing plant at Rangree, Tehsil Manali; mixed waste is being received at the site; company is spraying Hydrogen Peroxide in the plant on daily basis to control smell and has maintained log book for the same.

7. Regional Officer, HPSPCB, Kullu who was Member of Joint Committee apprised that solid waste processing plant at Rangree, Tehsil Manali was granted Consent to Operate (hereinafter referred to as 'CTO'), valid upto 31.03.2023 for processing municipal solid waste and converting into RDF. In past, for earlier violations, various notices were issued from time to time and environmental compensation of Rs. 5 lakhs was imposed on Municipal Council, Manali for violation of environmental laws.

8. In this backdrop, Joint Committee issued following directions to Executive Officer, Municipal Council, Manali and representative of M/s. Nextgen Chemicals Pvt. Ltd. and required them to ensure compliance in a time bound manner:

1. *The Executive Officer, Municipal Council, Manali shall start massive IEC campaign for door to door segregation of waste and he **shall make efforts to ensure that no mix waste is sent/received at the Plant and also ensure that the plant shall function strictly as per MSW Rules, 2016 and take all necessary remedial measures in this regards.***
2. *The Municipal Council, Manali shall **immediately stop the flow of leachate towards the river Beas** and provide adequate collection tank and treatment plant to treat the leachate in scientific manner to meet the prescribed norms.*
3. *The Municipal Council, Manali shall **immediately start the processing of legacy waste** and submit report on legacy waste processed and sent to cement plant.*
4. *The Municipal Council, Manali shall take necessary steps to*

increase the height of the wall towards the road side along the NH-03 and complete it up to edge of legacy waste approach road.

5. *The Municipal Council, Manali shall take necessary **steps to increase the height of the retaining wall towards the river Beas and adjacent Nallah and lift the legacy waste overflow towards the bank of river Beas.***
6. *The Municipal Council, Manali shall provide Material Recovery Facility for sorting of recyclables with separate compartments for e-waste, domestic hazardous waste etc & Nextgen Chemicals Pvt Limited shall ensure sorting of recyclable from waste by providing separate bins for storage of bio-degradable waste painted as green, Recyclables bins painted as white and black painted bins for other inert waste.*
7. *The Nextgen Chemicals Pvt limited **shall make the existing composting facility i.e. compost pits functional to treat the wet waste through these pits regularly and convert it to the compost.***
8. *The Nextgen Chemical Pvt Limited shall immediately provide at least 3 nos CCTV cameras along the boundary of plant towards NH-03 to keep vigil on vehicles throwing solid waste outside the plant and submit regular reports to the authorities.*
9. *The Nextgen Chemicals Pvt Limited shall operate the plant regularly to ensure that that the fresh waste is processed on daily basis and carryout chemical spray regularly chemicals as per CPCB guidelines to control the foul odour and maintain the hygienic conditions in the plant and carryout spray of suitable insecticide for control of flies and mosquitoes in and around the plant.*
10. *The Nextgen Chemical Pvt Limited shall carryout plantation of suitable species/trees aromatic flowers in and around the plant.*
11. *The Municipal Council, Manali & Nextgen Chemicals Pvt. limited **shall lake necessary steps to provide the Bio- Composting Bio-methenation plant of adequate capacity and treat the bio-degradable waste in a scientific manner.***

9. Joint Committee has also filed a copy of Compliance Report dated 01.05.2023 submitted by Municipal Council, Manali, District Kullu in

reference to the directions given by Joint Committee during the spot inspection as annexure-4 which says as under:

- “1. *The IEC activities with respect to DTD segregation of solid waste has been started by engaging a NGO named Healing Himalaya. The Segregation work has been started in the city and the people are advised to segregate the MSW and hand over the segregated waste (i.e., Wet and Dry) to the garbage contractor. Fines have also been imposed on habitual offenders for non-segregation of waste, and signboards have also been installed in the major hot spots of the city regarding littering of MSW. The fresh MSW has also been processed into RDF on a daily basis and the same has been sent to cement plants for end disposal. The WTE Plant has sent 10455 MT of RDF to different cement plant for end disposal, and the council has also borne the 50% transportation cost for the RDF.*
2. *The Municipal Council Manali has constructed the three leachate collection pits on the boundary of the legacy waste site, currently, all the leachate is being collected in the pits and the same will be lift up with the help of an electric pump, and treated in the existing Effluent Treatment Plant already provided at plant for which process has been initiated.”*

10. M/s. Nextgen Chemicals Pvt. Ltd. also submitted a compliance Report dated 02.03.2023 which was made annexure-3 to Joint Committee Report, showing compliance which were supposed to be made by the above agency which are as under:

- “1. **PROCESSING OF ORGANIC WASTE (Point No-07)** - *Sir, currently, we have FIVE pits for converting the wet/biodegradable waste into compost. These pits are fully operational and ready for converting the waste into compost, reasonable quantity of organic waste received from MMC has been dumped in the pits biodegradation process, and conversion into compost.*

Photograph omitted.

2. **INSTALLATION OF CCTVS TOWARDS NH-03 (Point No -08)**- *As instructed, we have installed three CCTV cameras on the NH-03 side borders of the WTE plant to monitor the offenders for littering in the surrounding area. The report will be submitted, if someone is caught doing non-compliance activity against the*

cleanliness in the area, and for this, the warning notice signboards have also been installed.

Photograph omitted.

3. **OPERATIONAL STATUS OF WTE PLANT (Point No -09)**- Daily incoming MSW is being converted into RDF on the same day (except on rainy days), and the RDF is sent to cement industries on for further processing, on a daily basis, **but, due to strike of truck unions since last two moths the RDF dispatch had slowed down.** Now that the cement plants are operational, the RDF will be sent to cement plants on a regular basis. So far, **7936 MT of RDF** has been sent to different cement plants for end disposal.
4. **PLANTATION AT THE ENTRANCE OF THE WTE PLANT (Point No-10)**- Sir, as instructed, we have prepared a small garden, in which **different types of fragrant flower plants will be planted,** and if the trial is successful, their number will be increased.

Photograph omitted.

5. **INSTALLATION OF BIO-COMPOSTER/ BIO-METHANATION/ PROCESSING OF WET WASTE (Point No 11):** - Sir, we would like to bring to your notice that, **we are receiving wet waste, which cannot be processed at this time due to the unavailability of space, and, the requisite equipment for processing/ composting.** The Hon'ble DC Kullu constituted a procurement committee (your good-self being a member) for the purchase of Bio-Digester in order to sort the issue of wet waste processing. The committee undertook a tour to Chamba, HP on 29/11/2021 to inspect the Bio-Digester installed at the location, the report for which, has already been submitted to the Hon'ble DC Kullu for further consideration and the needful.

Photograph omitted.

6. **INSTALLATION OF SEPARATE BINS FOR E-WASTE, HAZARDOUS WASTE, AND SANITARY WASTE (POINT NO-06)**- As instructed, the separate bins for E-waste, hazardous waste, and sanitary waste have been installed at the WTE plant for the purpose of storage of different types for waste.”

11. Joint Committee Report after referring to the above Compliance Reports of Municipal Council, Manali and M/s. Nextgen Chemicals Pvt. Ltd. has observed in its Report dated 12.05.2023 that as per the information given by plant operating agency, it was spraying chemical i.e., Peroxide daily to mitigate foul smell as per Guidelines of CPCB; processing fresh waste on daily basis; waste after segregation and processing converted into RDF is being sent to cement plants for co-processing; it has sent 10676 Metric Tonne of RDF to cement plants till 30.04.2023; CCTV cameras were provided along National Highway; fresh plantation near entry gate to the plant was carried out and there was no littering of solid waste outside the plant. Committee also found that M/s. Rekart Innovation Pvt. Ltd. had installed Trommel machine for processing of legacy waste and the same was found functional; Municipal Council, Manali has provided boundary wall towards roadside and 03 numbers of leachate collection pits along the boundary of legacy waste site for collection of leachate. Committee also observed that treatment of wet waste compost pits was provided and process of purchase of Bio-composter through GEM Portal has been initiated and will be procured shortly whereafter wet waste shall be processed.

12. Regional Officer, HPSPCB, Kullu informed that it is continuously inspecting/monitoring the Waste Processing Facility, Rangree, from time to time and CTO of waste processing plant which was valid up to 31.03.2023 has expired but in the meantime, operating agency has further applied for renewal of CTO for one-year up to 31.03.2024 and the said application is in process.

Tribunal's Order dated 14.09.2023:

13. This Report was considered by Tribunal on 14.09.2023. Tribunal found that the Report is unsatisfactory particularly in terms of quantification of waste for generation, processing, remediation of legacy waste and destination of rejects/residue components like RDF, bio-degradable waste etc. Consequently, Tribunal issued notice to Executive Officer, Municipal Council, Manali for filing a fresh Status Report besides informing about action taken, if any, against Service Provider, if it is not performing as per norms.

Tribunal's order dated 08.12.2023:

14. The matter was again taken up by Tribunal on 08.12.2023 when it found that neither any Status Report was filed by Executive Officer, Municipal Council, Manali nor he was present personally nor through Counsel. Since the matter was initiated on a letter petition exercising *suo-moto* jurisdiction, Tribunal in order to give opportunity to all concerned parties, impleaded following respondents:

- i. State of Himachal Pradesh;
- ii. HPSPCB;
- iii. District Magistrate, Kullu, Himachal Pradesh; and
- iv. Executive Officer, Municipal Council, Manali

15. Tribunal issued notices to the respondents, requiring them to file their response and Executive Officer, Municipal Council, Manali in particular was directed to appear in person besides filing current Status Report in quantifiable terms as already directed by order dated 14.09.2023.

Status Report dated 19.01.2024 filed on 23.01.2024 by Executive Officer, Municipal Council, Manali:

16. Pursuant to order dated 08.12.2023 read with 14.09.2023, Status Report dated 19.01.2024 was filed on 23.01.2024 before Tribunal by Executive Officer, Municipal Council, Manali. On the question of waste quantification, it is said that at Municipal Solid Waste Plant, Rangree, Manali, waste is arriving not only from the area of Municipal Council, Manali but also from the entire District of Kullu and sometimes from Keylong, District Lahaul and Spiti also. From January 2023 to December 2023, 16363 MT of municipal solid waste was received whereagainst after segregation/processing, 7386 MT RDF sent to different plants of State of Himachal Pradesh and rest 15% of reject/inert material quantified as 2500 MT is lying at site due to non-availability of scientific landfill site in the area. Approximately, 5-7% (i.e., 1145 MT) of recyclable material like glass, plastic, rubber, iron and other recyclable was recovered from municipal solid waste and sold out to the scrap dealers. About 33% of municipal solid waste i.e., 5399 MT including bio-degradable material is still lying at the site due to non-processing. There is no space for scientific processing of bio-degradable waste. Report also says that there is legacy waste of about 40000 MT where against 14600 MT has been processed by M/s. Rekart Innovation Pvt. Ltd. and 445.515 MT RDF has been sent to thermal plants for end disposal. The Report further mentions compliance measures and action taken against Service Provider. We may reproduce relevant extract of the Report as under:

“Waste Quantification:

The Municipal Council has conducted a thorough analysis of waste generation, processing, and the end destination of rejects/residue components like RDF, biodegradable, etc.

Sr. No.	Month	MC Manali (Tons)	TDC Council (Tons)	MC Kullu (Tons)	NP Bhunter (Tons)	Panchayat (Tons)	Private hotel (Tons)	Total (Tons)	RDF (Tons)
1	Jan-23	408	336	147	73	105	212	1282	119
2	Feb-23	303	273	156	77	135	161	1104	284
3	Mar-23	371	360	209	94	181	199	1413	1253
4	Apr-23	446	386	180	106	160	216	1495	1530
5	May-23	511	463	240	115	190	305	1824	683
6	Jun-23	611	494	242	94	257	330	2026	1032
7	Jul-23	161	150	70	22	84	90	577	368
8	Aug-23	400	363	462	84	111	37	1457	359
9	Sep-23	219	238	215	86	107	50	916	686
10	Oct-23	360	288	384	117	146	41	1338	311
11	Nov-23	373	421	463	116	143	25	1540	64
12	Dec-23	475	421	220	89	138	45	1389	565
Total		4639	4191	2989	1075	1758	1711	16363	7386

1. Total 16363 MT of Municipal Solid Waste (MSW) has been received in last year (January 2023 to December 2023) from which the 7386 MT (45%) of Refuse Derived Fuel has been sent to different plants of Himachal Pradesh, and **the rest 15% of rejects/inert material (2500 MT) is lying out at site due to non-availability of scientific landfill site in the area.**
2. Approximately 5-7 % of recyclable (Glass, Plastic, Rubber, Iron, and other recyclable) material has been recovered from the MSW (1145 MT) and sold out to the scrap dealers.
3. Approximately **33% of MSW (5399 MT) included Bio-degradable material is still lying at site due to non-processing. We have no space for the scientific processing of Bio degradable waste.**

However, the **contribution of Municipal council Manali is only 28% (4639 MT) in the entire incoming MSW**, which is coming to Municipal Solid Waste Management (MSWM) site at Rangri, Manali. **The rest MSW is coming from the entire district of Kullu, and sometimes from Keylong, District Lahaul & Spiti also.**

It is submitted that the Pirdi MSWM site of Municipal Council Kullu has been shut down by the orders of Hon'ble NGT due to some local residents' issues in October 2018, and after that the **district administration has diverted the Municipal Council Kullu's, Nagar Panchayat Bhunter's and other area's MSW to MSWM site at Rangri on a temporary basis, until the new site is identified by the District Administration. After completion of more than four years the site has still not been identified by the district administration and the MSW of entire district is being sent to the Rangri site, Manali.**

*It is submitted that currently the fresh waste has been handled by M/s Nextgen Chemicals, who commenced their operation on Feb 25, 2020, and the Municipal Council Manali has signed a MOU with company on 08.09.2017 for the handling of MSW for Twenty-five years, and the company will generate energy from waste, and the **company has commissioned the first phase of project on Feb 25, 2020, i.e., production of Refuse Derive Fuel from MSW.***

*The **second phase of project i.e., installation of incinerator and turbine is still pending** due to two years of Covid -19 pandemic and after that Low calorific value (1500-1800 KCAL) of produced RDF (Required 3500 KCAL).*

Currently the company has produced RDF from fresh waste and is sending to cement plants for end disposal. Till date Nextgen Chemicals has sent over 15000 MT of RDF to cement plants for end disposal.

Quantum of Legacy Waste

*It is submitted that the Urban Development Department Shimla has awarded a tender in July 2021 to M/s Rekart Innovation Pvt Ltd for the Bio remediation and Bio-mining of **legacy waste** for a quantity of **40,000 MT**. Till date the **company has processed 14600 MT of legacy waste and has sent 445.515 MT of Refused Derived Fuel to Thermal Plants for end disposal.** (Annexure.1 Attached)*

Compliance Measures:

The Municipal Council has taken immediate corrective measures to address the violations and lapses observed during the inspections.

1. Processing of Municipal Solid waste:

- A. Dry Waste is being currently processed in to Refused Derived Fuel and sent to cement plants for end disposal. (Annexure.2 attached)*
- B. Wet Waste: Presently Municipal Council Manali generates approximately three to four tons of wet waste. MC Manali has six composting pits at MSWM site, Rangri. **Due to extreme cold weather conditions at Manali, it takes longer than usual to convert wet waste into compost.** To overcome this problem, **Municipal council is purchasing Organic Waste Converter for processing of wet waste.** A letter has been sent to DC Kullu and Director of Urban Development for approval of funds. Regional officer, HPPCB, Kullu has also*

been asked for approved technology for wet waste processing. (Annexure.3 & 7 attached).

C. *Mixed Waste- The MSW is coming from entire district of Kullu, i.e., Tourism development Council, Municipal Council Kullu, Nagar Panchayat Bhunter and Rural areas of district panchayats. The Nextgen Chemicals has been instructed not to accept MIXED waste.*

D. *Inert/Rejects- Request has been sent to district administration for availability of land for scientific landfill site. (Annexure.4 attached)*

2. *Bad Odor - The spray for arresting the bad odor has been used at site on daily basis.*

Action Against Service Provider:

The Municipal Council has initiated actions against the service provider for any non-compliance with the prescribed norms.

1. ***A notice has been issued to M/s Nextgen Chemicals for processing of 100% fresh waste, and arrest of bad odor in the area. (Annexure.5 Attached).***
2. *For the processing of Organic waste, Municipal council is purchasing Organic Waste Converter. A letter has been sent to Deputy Commissioner, Kullu and Director of Urban Development for approval of funds. (Annexure.3 attached)*
3. ***Request has been sent to district administration for availability of space for designing of scientific land fill site for dumping of rejects/inert. (Annexure.4 Attached).***
4. *A notice has been issued to M/s Rekart Innovation Pvt. Ltd. for speedy processing for clearance of Legacy waste, and informed for fine as applicable as per the tender's terms and conditions. (Annexure.6 Attached)."*

17. The above Compliance Report also appended with annexure-8, which is a copy of the letter dated 05.12.2023 sent by Executive Officer, Municipal Council, Manali to this Tribunal, giving status report of solid

waste management with regard to Municipal Council, Manali and the said letter gives following details:

- “1. **Removal of Legacy Waste:** The Council have signed MOU with Reekart Company to process the Legacy Waste **but the company is not processing the waste.** The matter has been brought into notice of Govt. The Principal Secretary during VC held with Deputy Commissioner have issued direction to visit the spot. The spot has been visited by the DC Kullu alongwith representative of M/S Reekart and Municipal Council Manali, **after** spot inspection the Deputy Commissioner Kullu directed Municipal Council Manali to construct approach road to Legacy waste site where land can be made available to set up Waste processing plant. The Municipal Council Manali has **started the C/O approach road for which the MC will have to spent Rs 57 Lacs for approach road and platform etc. for setting up Legacy Waste processing plant.** Municipal Council Manali has incurred expenditure about Rs 30.00 Lac.

MC Manali has also applied the electricity connection for Legacy waste processing site and amount **Rs. 13,10,590/-** deposited with HPSEBL for the same.

M/S Reekart company has processed 2521.39 Tonnes of Legacy waste till date and sent 60.50 Tonnes of processed RDF to Cement plants for final disposal.

2. The Waste to Energy plant has sent **13873** Tonnes of RDF to cement factory for which Municipal Council Manali have spent Rs **79,64,656/-** for transportation of RDF on 50% cost of Transport expenditure basis.

15,30,000/- imposed by the Member Secretary HPSPCB vide notice no. PCB (44) MSW/MC Manali/ 2023- 1794-98 dated 10-05-2023. The **MC Manali has handed over the entire site alongwith old structure to the said company to set up waste to energy production plant at Rangari** vide resolution no. 227 dated 15-10-2018 on BOT Basis for a period of 25 years. But the **company has failed to install the Waste to Energy plant and has already installed the plant upto RDF production section.** The MC Manali vide resolution no. 319 dated 31-05-2023 has decided to write a letter to PCB for waving off the Compensation imposed on MC Manali. The MC Manali vide letter no. MCM/Garbage/2023-1199-1205 dated 07-08-2023, and no. MCM/Garbage/2023- 1896-1907 dated 16-09-2023 intimated the M/S Waste To Energy Plant to do the needfull as

per the resolution passed by the MC Manali on dated 31-05-2023.”

Response of HPSPCB (respondent 2) dated 24.01.2024 filed on 24.01.2024:

18. A separate response dated 24.01.2023 was filed by HPSPCB stating that site inspection of municipal solid waste facility, Village Rangri, Tehsil Manali, District Kullu was conducted on 03.01.2024 and during inspection, it found heaps of fresh mixed waste lying at the site; lot of legacy waste was also found at the site which required to be processed scientifically; compost pits provided at the facility were filled with mixed waste, bio-methanation facility and bio-composter were not provided despite repeated directions by HPSPCB; retaining wall around legacy waste towards river Beas was found damaged near Gau-Sadan and waste was found overflowed towards the bank of River Beas due to over stacking of fresh waste over legacy waste site; leachate collection pits were washed away during flash floods and leachate was found flowing into River Beas without any treatment; and ETP provided at the site was found dis-functional.

19. HPSPCB further said that several notices and directions were issued to Municipal Council, Manali to take remedial action but it has failed to do so. Vide order dated 17.06.2021, HPSPCB imposed environmental compensation of Rs.05 lakhs for improper management of solid waste and vide Office Order dated 10.05.2023, a further environmental compensation of Rs.15,30,000/- was imposed upon Municipal Council, Manali for discharge of untreated leachate into River Beas and not meeting the prescribed standards for leachate during the period of violation i.e., from 08.04.2022 to 08.09.2022. A fresh notice has also been issued on

24.01.2024, proposing imposition of environmental compensation of Rs.31,80,000/- for violation of SWM Rules 2016 during the period of 28.10.2022 to 11.09.2023.

Response dated 24.01.2024 filed by State of Himachal Pradesh through Chief Secretary and District Magistrate, Kullu i.e., respondents 1 and 3:

20. Respondents 1 and 3 i.e., State of Himachal Pradesh through Chief Secretary and District Magistrate, Kullu have also filed their response dated 24.01.2024 stating that District Magistrate, Kullu **visited the site on 15.01.2024** alongwith with Assistant Environmental Engineer, HPSPCB, Kullu; Executive Officer, Municipal Council, Manali; the complainant and representative of nearby Schools; Manager, M/s. Nextgen Chemicals Pvt. Ltd. and representative of M/s. Rekart Innovation Pvt. Ltd. It found that M/s. Nextgen Chemicals Pvt. Ltd. was hired by Municipal Council, Manali for processing daily waste while M/s. Rekart Innovation Pvt. Ltd. was hired for processing legacy waste. **M/s. Nextgen Chemicals Pvt. Ltd. had sent approximately 15041 Tons of RDF to cement plants and M/s. Rekart Innovation has processed approximately 13000 Ton of legacy waste.** The observations made during the said inspection have been referred to in the said response as under:

“xxx.....xxx.....xxx
*During the course of inspection of plant, it has been observed that the Solid Waste Processing Plant was in operation during the time of inspection and processing the waste, however the **compost pits provided at the plant were found filled with the mixed plastic contents and the foul smell was observed in the vicinity, the heap of the fresh mixed waste was found at the site.** That, during the previous inspection on 27.01.2023 the Municipal Council, Manali was directed to construct leachate collection pits to avoid overflow of leachate into the Beas River and accordingly, Municipal Council, Manali had constructed the leachate collection pits, however, unfortunately the already constructed collection pits for collection of leachate were washed away due to the unprecedented flood in the*

month of July, 2023 and **untreated leachate was flowing towards the river Beas**. Moreover, the retaining walls provided in the periphery of the legacy waste site found damaged towards the Gau Sadan and eroded towards the river Beas due to the massive flooding of Beas River. **The waste was found spilled over the retaining wall towards the bank of river Beas.**

That, the processing of legacy waste lying at the site was started by M/s Rekart Innovation Pvt. Ltd. The Executive Officer, Municipal Council, Manali apprised that the company **M/s Rekart Innovation Pvt. Ltd. has processed approx. 13000 Tons of legacy waste out of 40,000 Tons and sent approx. 430 Tons RDF (Refused Derive Fuel) to the Delhi MSW solutions Limited Pragati Power Plant Pocket-N1, Sector-5, Bawana Indu-Area New Delhi-110039**. He further apprised that Municipal Council, Manali is in process of procurement of the Organic Waste Composter of capacity 02 tons. The Manager of Nextgen Chemicals Pvt. Limited (operator of plant) apprised the company is spraying the Hydrogen Peroxide in the plant on daily basis to control the smell and maintained the logbook for same and also apprised that they have **sent approx. 15041 ton of RDF to the cement plants for further processing till date**. The Regional Officer, HPSPCB, Kullu apprised that the State Board is conducting regular inspection & monitoring of the plant and already issued various notices for non-compliances from time to time and already **imposed Environmental Compensation amounting to Rs.5 Lacs on Municipal Council, Manali for improper handling of solid waste and Rs. 15,30,000/- for discharge of untreated leachate into river Beas.**”

21. The response further said that District Magistrate, Kullu issued directions to Executive Officer, Municipal Council, Manali and two operating agencies to undertake remedial measures within 15 days.

Tribunal’s order dated 25.01.2024:

22. The above Reports and responses were considered by Tribunal on 25.01.2024. Tribunal found that the waste generated and collected is not processed as per SWM Rules 2016; on account of mismanagement, waste is getting disposed into streams/river; issue of processing of waste coming from other places in Kullu District is unresolved for which State Urban

Department needs to take steps to ensure that appropriate waste processing is done with allocation of finances and there are serious lapses on the part of Municipal Council, Manali in remediating solid waste and clearing the legacy waste as also treating the daily generated waste. Tribunal also found that environmental compensation imposed by HPPCB as stated above was not deposited, hence direction was issued to Municipal Council, Manali to comply with the order of imposition of environmental compensation. Tribunal also required Municipal Council, Manali to indicate progress in remedial measures by filing a fresh Report.

23. Since the issue involved areas beyond Municipal Council, Manali, therefore, Tribunal impleaded Principal Secretary, Urban Development, State of HP as respondent 5 and notice was issued to it with an opportunity to file its response.

Report dated 26.03.2024 filed on 28.03.2024 by Executive Officer, Municipal Council, Manali:

24. Pursuant to above order dated 25.01.2024, Report dated 26.03.2024 has been filed before Tribunal on 28.03.2024 by Executive Officer, Municipal Council, Manali. Report says as under:

“1. Quantum of Legacy Waste: *It is submitted that the Urban Development Department Shimla has awarded a tender in July 2021 to M/s Rekart Innovation Pvt. Ltd for the Bio remediation and Bio-mining of legacy waste for a quantity of 40,000 MT. **Till date the company has processed 18331 MT of legacy waste and has sent 476 MT of Refused Derived Fuel to Thermal Plants for end disposal. Due to heavy snowfall and rainfall in the month of February, the processing of legacy waste was slower down. The copy is submitted as Annexure-1***

2. Processing of Municipal Solid waste:

a) *It is submitted that the Dry Waste is being currently processed in to Refused Derived Fuel by M/s NextGen Chemicals Pvt. Ltd. Company and is being sent to cement plants for end disposal. **Till***

now, 15864 MT of RDF has been sent to cement plants. The copy is submitted as Annexure-2.

- b) **Wet Waste:** Presently Municipal Council Manali generates approximately three tons (average) of wet waste. Municipal Council Manali has six composting pits at MSWM site, Rangri.

Challenges faced: -Due to extreme cold weather conditions at Manali, it takes longer than usual to convert wet waste into compost. To overcome this problem, **Municipal council is purchasing Organic Waste Converter for processing of wet waste.** A letter has been sent to Election Commission of India for permission to float tender. The copy is submitted as **Annexure-3.**

- c) **Mixed Waste:** Municipal Council Manali is receiving MSW from entire district of Kullu, i.e., Tourism development Council, Municipal Council Kullu, Nagar Panchayat Bhunter and Rural areas of district panchayats. The Nextgen Chemicals has been instructed not to accept MIXED waste. The copy is submitted as **Annexure-4.**

3. **Inert/Rejects-** It is submitted that the **Request has been sent to district administration for availability of land for scientific landfill site.** The copy is submitted as **Annexure-5.**

4. **Bad Odor-** The spray for arresting the bad odor has been used at site on daily basis.

5. **Retaining wall:** It is submitted that the Municipal Council Manali has awarded tender for the construction of retaining wall near Gau Sadan which was damaged during monsoon floods. Work for the construction of retaining wall has been started on dated 06.03.2024. Waste which was lying at the bank of River Beas due to stacking of fresh waste over legacy waste has been cleared up by Municipal Council Manali. The Copy is submitted as **Annexure-6.**

6. **Environmental Compensation:** It is submitted that as per the order and Direction of this Hon'ble Tribunal the **Environmental Compensation of Rs. 5,00000/ (Rupees Five lakhs)- & 15,30,000/-(Rupees Fifteen lakhs thirty thousand) respectively has been paid** by Municipal Council Manali. The copy is submitted as **Annexure-7.**

7. **Effluent Treatment Plant:** It is submitted that the Leachate collection pits were washed away by monsoonal flash floods in

July 2023. Again, tender has been awarded for the construction of leachate pits on dated 21.02.2024. Work has been started on 06.03.2024. Work shall be completed within three months. After that leachate shall be lifted through sludge pump and ETP can be made operational after that. The copy is submitted as **Annexure-8.**”

Response dated 03.04.2024 filed by Principal Secretary, Urban Development, State of HP

25. Principal Secretary, Urban Development, State of HP has also filed its response dated 03.04.2024. It has stated in para 4 to 7, as under:

4. That it is humbly submitted that there are five Urban Local Bodies in the entire Distt. of Kullu namely Kullu, Manali, Bhunter, Banjar and Nirmand, and status of Municipal Solid Waste (MSW) as per the information provided by these Urban Local Bodies is as Follows:

Status of Solid Waste Management in Municipal Council, Manali.

Sr. No.	Status		
1.	Estimated Waste Generation	4. 77 TPD (15-20 TPD during tourist season)	
2.	Estimated Wet Waste	2.62 TPD (9-12 TPD during tourist season)	
3.	Estimated Dry Waste (TPD)	1.91 TPD (6-8TPD during tourist season)	
4.	Door to Door Garbage Collection	100%	
5.	Segregation	85-90 %	
6.	Transportation Facility	14 no. of vehicle has been deployed for waste collection.	
7.	Scientific Disposal	Wet Waste Treatment	06 No. of Composting pits has been made for wet waste treatment.
		Dry Waste Treatment	Dry waste is processed through Trommel machine, Baling machine and Shredder at SWM plant Rangri, Manali.
8.	Land Status for Solid Waste	MC Manali has already SWM site at Rangri, Manali for Solid waste	
9.	Legacy Waste	The work of processing of legacy waste is in progress and	

		approx. 17,852 tonne legacy waste has been processed and the remaining balance is 22,648 tonnes
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5. It is further submitted that a Waste to Energy (WTE) Plant was set up through M/s Next Gen. Chemicals for 35 TPD capacities, for which an agreement was executed between M.C, Manali and M/S Next Gen. Chemicals on 05.08.2017, but **inspite of best efforts by M.C. Manali, the Plant could not be made functional by M/s Next Gen. Chemicals.** As such concerned Municipal Council is facing great difficulties in processing the waste because there is also not any other land to set up composting and processing Plant by the Municipal Council. The Municipal Council, Manali has issued many notices (Annexure- A to C) to the said firm i.e. M/S Next Gen. Chemicals for making the Plant operational. However **permission to purchase Organic Waste Converter has been given by Director, Urban Development to Municipal Council, Manali vide letter dated 29.01.2024 Annexure-D.**

6. It is also submitted that Municipal Council, Manali generates 5-20 TPD Waste which can be managed by the concerned ULB, but **at present the Waste of all the adjoining Panchayats and adjoining District is coming to the Waste Management site daily which is beyond the capacity of M.C. Manali.** For this Meeting, minutes of which are Annexed as Annexure-E, was convened by Respondent with Deputy Commissioner, Kullu on 13.03.2024 and the concerned Deputy Commissioner has been directed to ensure proper Waste Management facilities on adjoining Gram Panchayats which falls under Rural Development Department as the Municipal Council Manali is unable to enforce the regulatory measures under SWM Rules and environmental Laws beyond its limits. Similar Directions have been given to Rural Development Department as recorded in the Minutes of the Meeting held on 13.03.2024.

Status of Solid Waste Management in Municipal Council, Kullu.

Sr. No.	Status	
1.	Estimated Waste Generation	7.49 TPD
2.	Estimated Wet Waste	4.12 TPD

3.	<i>Estimated Dry Waste (TPD)</i>		<i>3TPD</i>
4.	<i>Door to Door Garbage Collection</i>		<i>100%</i>
5.	<i>Segregation</i>		<i>70-75 %</i>
6.	<i>Transportation Facility</i>		<i>09 No. Vehicles have been deployed for waste collection</i>
7.	<i>Scientific Disposal</i>	<i>Wet Waste Treatment</i>	<i>03 TPD Organic waste composter has been installed at MRF site Kullu for the treatment of wet waste and some eatable food items is also sent to Gausadan and also taken by local Milk suppliers who came from neighbouring villages on daily basis</i>
		<i>Dry Waste Treatment</i>	<i>Currently Dry waste is sent to WTE plant Rangri, Manali for final disposal. MC Kullu has also installed a 1000 kg/hr shredder but due to some technical problem the shredder could not be operational.</i>
8.	<i>Land Status for Solid Waste</i>		<i>MC Kullu and NP Bhunter has Jointly identified a SWM land at Bhrain Panchayat.</i>
9.	<i>Legacy Waste</i>		<i>The work of processing of legacy waste site Pirdi is in progress and approx. 32,467 tonne legacy waste has been processed and the remaining balance is 5533 tonne at site.</i>

Status of Solid Waste Management in Nagar Panchayat, Bhuntar.

<i>Sr. No.</i>	<i>Status</i>	
1.	<i>Estimated Waste Generation</i>	<i>1.81 TPD</i>
2.	<i>Estimated Wet Waste</i>	<i>0.99 TPD</i>
3.	<i>Estimated Dry Waste (TPD)</i>	<i>0.72 TPD</i>
4.	<i>Door to Door Garbage</i>	<i>100%</i>

	<i>Collection</i>		
5.	<i>Segregation</i>		75%
6.	<i>Transportation Facility</i>		03 vehicles have been deployed for waste collection
7.	<i>Scientific Disposal</i>	<i>Wet Waste Treatment</i>	03 No. of composting pits has been made for wet waste.
		<i>Dry Waste Treatment</i>	Dry waste is sent to WTE plant Rangri, Manali for disposal.
8.	<i>Land Status for Solid Waste</i>		Nagar Panchayat Bhuntar and MC Kullu have jointly identified a SWM land at Bhrain Panchayat but NOC is pending with concerned Gram Panchayat.

Status of Solid Waste Management in Nagar Panchayat, Banjar.

<i>Sr. No.</i>	<i>Status</i>		
1.	<i>Estimated Waste Generation</i>	0.57 TPD	
2.	<i>Estimated Wet Waste</i>	0.31 TPD	
3.	<i>Estimated Dry Waste (TPD)</i>	0.23 TPD	
4.	<i>Door to Door Garbage Collection</i>	100%	
5.	<i>Segregation</i>	70%	
6.	<i>Transportation Facility</i>	01 vehicle has been deployed for waste collection	
7.	<i>Scientific Disposal</i>	<i>Wet Waste Treatment</i>	Currently the Nagar Panchayat is facing problems in processing Waste because the Waste Processing site has been damaged in the last year floods. However funds have been provided for redevelopment of the site.
		<i>Dry Waste Treatment</i>	Dry waste is sent to WTE plant Rangri, Manali for disposal.
8.	<i>Land Status for Solid Waste</i>		A SWM land has been identified by NP Banjar at Manglore Gram Panchayat but Gram Panchayat has

		<i>refused to give NOC. Now the matter has been taken up with Deputy Commissioner, Kullu for intervention, by the Nagar Panchayat.</i>
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Status of Solid Waste Management in Nagar Panchayat Nirmand

Sr. No.	Status	
1.	<i>Estimated Waste Generation</i>	<i>0.61 TPD</i>
2.	<i>Estimated Wet Waste</i>	<i>0.34 TPD</i>
3.	<i>Estimated Dry Waste (TPD)</i>	<i>0.24 TPD</i>
4.	<i>Door to Door Garbage Collection</i>	<i>90%</i>
5.	<i>Segregation</i>	<i>50%</i>
6.	<i>Transportation Facility</i>	<i>01 vehicle has been deployed for waste collection</i>
7.	<i>Scientific Disposal</i>	<i>Wet Waste Treatment</i>
		<i>Dry Waste Treatment</i>
		<i>0.20 TPD Wet waste is treated through old composting pit.</i>
		<i>0.11 TPD Dry waste is treated at temporary MRF site where recyclable items are picked by rag pickers</i>
8.	<i>Land Status for Solid Waste</i>	<i>A new land of 3 Bigha has been identified in Chillanalat Gadej Panchyat for which joint inspection has been carried out and NOC of the concerned Gram Panchayat has been received by Nagar Panchayat Nirmand. Nagar Panchayat has applied for the issue of the non-availability of non-forest land certificate for setting up of solid waste management plant in favour of Himachal Pradesh Urban Development Deptt. (Nagar Panchayat Nirmand), a request regarding this has been made</i>

		to the Deputy Commissioner Kullu.
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7. *That the Department is making every effort to maintain good environment at Solid Waste Management Plant and garbage is being processed in scientific manner according to SWM Rules.*

In view of the above submissions, it is, respectfully prayed that the Reply on behalf of Respondent may kindly be taken on record in the interest of justice, equity & fair play.”

26. Alongwith the response of Principal Secretary, Urban Development, also appended with annexure-E i.e., minutes of the meeting dated 13.03.2024 wherein certain directions were issued by him and the relevant extract therefrom reads as under:

“...After detailed discussion and deliberation with DC Kullu and Eos/Secretaries of ULBs of Kullu District, following decisions were taken/directions were issued:

- *The EO Manali raised the issue regarding solid waste being transported to Manali site from rural areas/other local bodies and even from District of Lahaul and Spiti. The issue of transportation of waste from Gram Panchayats and other areas to MC Manali was discussed and it was directed that RDD may own its responsibilities and process their waste at their own level. Deputy Commissioner, Kullu will hold a meeting with local Gram Panchayats and Tourism Department within 15 days who are transporting their garbage at the Rangri Plant, Manali and may issue directions that Gram Panchayats shall manage their waste at their own by creating disposal facility within 1 to 3 Months. The handholding support of the Gram Panchayats for FCA cases if required shall also be done by District Administration. The similar action may also be taken by DC Lahaul and Spiti.*
- *It was also directed that MC Kullu, Bhuntar and Banjar may also develop their own waste management facilities and no waste may be transported to MC Manali site.*
- *It was apprised that **land transfer cases of ULBs of Kullu/Bhuntar, Banjar and Nirmand are pending** at different levels for which interventions of Deputy Commissioner*

is required. Therefore, It was decided that Deputy Commissioner, Kullu shall expedite the land transfer cases of these ULBs and monitor them on weekly basis. In case of NP Nirmand, NOC to be issued by District Administration at the earliest and PCA case to be uploaded within 10 days.

- It was **decided that all ULBs may identify bulk waste generators and they may be directed to treat their waste onsite at their own as per the provisions of SWM Rules, 2016.** Whereby ULBs may coordinate with the tourism department accordingly.
- During the discussion, it was observed that Concessionaire i.e., **M/s Nextgen Chemicals is not working properly.** It was decided that Contract Agreement of M/s Nextgen Chemicals shall be reviewed by Deputy Commissioner, Kullu and Director, UDD. Further, for violation of agreement, if any arises, the case for blacklisting the concessionaire shall be forwarded to the Govt.
- **EO MC Manali apprised that currently there is lack of wet waste treatment facility with MC Manali.** In this regard, Director UD apprised that permission for installation of composting machine has already been granted to MC Manali. As such, it was directed that MC Manali shall create wet waste treatment facility within 3 months at their own level or by engaging some private agency if required.”

Action Taken Report dated 01.04.2024 filed on 02.04.2024 by Member Secretary, HPSPCB, Shimla:

27. Member Secretary, HPSPCB, Shimla has also filed a fresh Action Taken Report dated 01.04.2024 on 02.04.2024 and it says as under:

“...the State Board vide office order dated 17.06.2021 had imposed the Environment Compensation amounting to Rs. 5,000,00/- (Rupees Five lakhs) on M.C. Manali for improper management of the solid waste. Thereafter, vide office order dated 10.05.2023 further Environmental Compensation of Rs. 15,30,000/-(Rupees Fifteen lakhs thirty thousand) was imposed on the Municipal Council, Manali for discharge of untreated leachate into the River Beas and not meeting the prescribed standards for leachate.

In this regard, it is intimated that the EC amount of Rs. Five lakh rupees imposed on dated 17.06.2021 had already been deposited by M.C. Manali (Annexure R-2/1). The matter was further

taken up with MC Manali and the Department of Urban Development for the recovery of the remaining Environmental Compensation of Rs. 15,30,000/- (Rupees Fifteen lakhs thirty thousand) and in this regard, it is intimated that the remaining Environmental Compensation amounting to Rupees 15,30,000/- has now been deposited in the account of HPPCB on dated 07.03.2024 (Annexure R-2/2).

It is submitted that the Environmental Compensation collected by HPSPCB shall be utilised for remediation/restorative measures in the concerned affected area. In this regard, Action Plan for utilisation of the amount of Environmental Compensation has been submitted by M.C. Manali (Annexure R-2/3) according to which MC Manali will utilise the amount for construction of leak proof leachate collection pits for collection & treatment of leachate and procurement of Organic Waste Composter for treatment of wet waste.”

28. The said Report says that environmental compensation of Rs.5,00,000/- and Rs.15,30,000/- imposed by HPSPCB's order dated 17.06.2021 has been deposited by Municipal Council, Manali.

29. The above Reports and the entire matter were considered on 05.04.2024. On behalf of respondents 1 and 3, Shri Divyanshu Kumar Srivastava, Advocate through virtual mode while on behalf of respondent 2 i.e., HPSPCB, Ms. Navya Nanda, Advocate through virtual mode, appeared. On behalf of Municipal Council, Manali, Shri Anant Kumar Vatsya and Shri Karan Thakur, Advocates appeared before Tribunal.

30. The above Advocates advanced their submissions and the matter was heard at length.

31. None has appeared on behalf of applicant.

32. However, record show that the complaint made by applicant in substance is true. Management of solid waste in the territorial area of Municipal Council, Manali is in pathetic condition and in utter violation of

SWM Rules 2016. Neither, daily generated solid waste is being managed, handled and processed regularly nor even legacy waste has been managed, handled and processed in a reasonable time and in a systematic, scientific and planned manner. It is also evident from record that solid waste of some other urban local bodies/municipal areas is being transported and dumped at Municipal Solid Waste Management Site (hereinafter referred to as '**MSWM Site**') at Rangree, Manali which is in the teeth of provisions of SWM Rules 2016. Approach of the respondent authorities for management, handling and processing of solid waste in the area of respondent 4 is very shoddy, in direct contradiction of the procedure prescribed in the Rules and in fact, causes much more damage to the environment instead of helping to protect it and thereby, also causing health hazards to the local people who have fundamental right of clean environment, enshrined under Article 21 of the Constitution.

33. Learned Counsels appearing for respondents 1 and 4 referred to various reports and replies and said that though it is true that the entire daily generated waste as also legacy waste is not being managed and processed regularly or in an appropriate manner but respondents are taking all possible steps to deal with the situation and may achieve the target in future but no time limit can be ascertained on account of limitations being faced by the authorities concerned with regard to availability of appropriate land for authorised landfill site or processing tenders etc.

34. With regard to transportation of solid waste from certain urban local bodies i.e., Municipal Council, **Kullu**, Nagar Panchayat **Bhunter**, Nagar Panchayat, **Banjar** and Nagar Panchayat, **Nirmand to** Municipal Counsel

Manali is concerned, it is said that at those places, there is no landfill site available, therefore, solid waste generated thereat is being transported and dumped at MSWM Site at Rangree, Manali but efforts are being made to find out suitable sites in the respective urban local bodies and whenever sites will be available, transport of solid waste to MSWM Site at Rangree shall be stopped.

ISSUES:

35. In view of the above arguments and also from the facts borne out from pleadings, Reports and other documents, in our view, following substantial questions relating to environment have arisen which require adjudication by this Tribunal:

- (I) Whether Municipal Council, Manali is managing solid waste in accordance with SWM Rules 2016 or there is violation of the said Rules?
- (II) Whether respondents 3, 4 and 5 have acted in violation of the provisions of SWM Rules 2016?
- (III) Whether District Administration is committing any violation of environmental laws, by allowing transfer of solid waste of different local bodies like Municipal Council, Kullu, Nagar Panchayat Bhunter, Nagar Panchayat, Banjar and Nagar Panchayat, Nirmand to MSWM Site at Rangree, Manali and dumping thereat and thereby, violating provisions of SWM Rules 2016?
- (IV) Whether by virtue of violation of provisions of SWM Rules 2016, the concerned authorities are committing offence under

Section 15 of Environment (Protection) Act, 1986 (hereinafter referred to as '**EP Act 1986**'), requiring appropriate action against the violators?

- (V) Whether the violators are liable to pay environmental compensation by application of principle of 'Polluter Pays' for violation of the provisions of SWM Rules 2016 by treatment of solid waste in an illegal manner and thereby causing damage to environment?
- (VI) What further appropriate remedial, punitive or preventive action is required in this matter and what order would be justified which should be passed by this Tribunal so as to protect environment, prevent damage to environment caused on the part of respondents and to remediate the damage already caused to environment?

36. The issues I and II both, in our view, can be taken together. For considering **Issues I and II** formulated above, it would be appropriate first to examine the requirement of Statutory provisions with regard to handling, management and processing of solid waste in the territory of an urban local body.

37. In State of Himachal Pradesh, functions, duties, responsibilities and other provisions dealing with Municipality were initially governed by Himachal Pradesh Municipal Act, 1968 (HP Act No. 19 of 1968).

38. In order to make local bodies, including Municipalities more effective, responsible and accountable, provisions were made in the

Constitution by inserting Part IXA by Constitution (Seventy-fourth Amendment) Act, 1992 which came into force on 01.06.1993.

39. In Part IXA, provisions were made to deal with Municipalities.

40. Article 243Q refers to three kinds of municipalities i.e., (a) Nagar Panchayat (by whatever name called) for a transitional area, that is to say, an area in transition from a rural area to an urban area; (b) a Municipal Council for a smaller urban area; and (c) a Municipal Corporation for a larger urban area.

41. Powers, authorities and responsibilities of Municipalities were provided in Article 243W which reads as under:

“243W. Powers, authority and responsibilities of Municipalities, etc. –

Subject to the provisions of this Constitution, the Legislature of a State may, by law, endow –

- (a) *the Municipalities with such powers and authority as may be necessary to enable them to function as institutions of self-government and such law may contain provisions for the devolution of powers and responsibilities upon Municipalities, subject to such conditions as may be specified therein, with respect to—*
 - (i) *the preparation of plans for economic development and social justice;*
 - (ii) *the **performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule;***
- (b) *the Committees with such powers and authority as may be necessary to enable them to carry out the responsibilities conferred upon them including those in relation to the matters listed in the Twelfth Schedule.”*

42. Twelfth Schedule, Item 6 deals with the subject of public health, sanitation conservancy and solid waste management. It reads as under:

[TWELFTH SCHEDULE]
(Article 243W)

6. *Public health, sanitation conservancy and **solid waste management.***”

43. In view of the above provisions made in the Constitution, in State of HP, a new enactment was made to deal with all the three types of municipalities i.e., Himachal Pradesh Municipality Act, 1994 (hereinafter referred to as ‘**HPM Act 1994**’) which came into force on 30.05.1994. The Act, per se, did not make any specific provision for handling and management of solid waste. However, bye-laws were framed i.e., Himachal Pradesh Municipal Business Bye-Laws 2006 wherein, duties of Medical Officer of Health were prescribed in Bye-Law 39 which reads as under:

“39. DUTIES OF MEDICAL OFFICER OF HEALTH. (1) *The Municipal Medical Officer of Health shall be **incharge of the Sanitation, Public Health and Health Departments of a municipality. He shall supervise the sanitary conditions of all buildings and lands, burial and burning places, markets slaughter houses, streets, drains sewerage, latrines, urinals, filth receptacles, cesspool, flushing appliances, farms, filth depots, dairies, milk shops, cow sheds, stables, meat shops and all shops dealing in edibles, bakeries, aviated water factories, wells and dhobi ghats etc.***

(2) He shall also check the house unfit for human habitation, offensive trades, foods and drinks, plants and stores.

(3) He shall be responsible for the land buildings, machinery, plants and stores intended for the use of the sanitation department and shall maintain registers and stock books as laid down in the municipal account code in which these items shall be entered.”

44. In order to deal with municipal solid waste, Government of India, Ministry of Environment, Forest and Climate Change (hereinafter referred to as ‘**MoEF&CC**’) framed Municipal Solid Wastes (Management &

Handling) Rules, 2000 (hereinafter referred to as '**MSWMH Rules 2000**') in exercise of the powers conferred by Sections 3, 6 and 25 of EP Act 1986. These Rules were enforced w.e.f. the date of publication of Official Gazette i.e., 03.10.2000. The term 'Municipal solid Waste' was defined in Rule 3(xv) as under:

"3. Definitions. -- In these rules, unless the context otherwise requires, -

*xv. "**municipal solid waste**" includes commercial and residential wastes generated in a municipal or notified areas in either solid or semi-solid form excluding industrial hazardous wastes but including treated bio-medical wastes;"*

45. Rule 4 very categorically said that every Municipal Authority shall, within the territorial area of the municipality, be responsible for implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes. Rule 4 reads as under:

"4. RESPONSIBILITY OF MUNICIPAL AUTHORITY: -

1. *Every municipal authority shall, within the territorial area of the municipality, be responsible for the implementation of the provisions of these rules, and for any infrastructure development for collection, storage, segregation, transportation, processing and disposal of municipal solid wastes.*
2. *The **municipal authority or an operator of a facility shall make an application in Form-I, for grant of authorization for setting up waste processing and disposal facility including landfills** from the State Board or the Committee in order to comply with the implementation programme laid down in Schedule I.*
3. *The **municipal authority shall comply with these rules as per the implementation schedule laid down in Schedule I.***
4. *The municipal authority shall furnish its annual report in Form-II, -*

- a. *to the Secretary-incharge of the Department of Urban Development of the concerned State or as the case may be of the Union territory, in case of a metropolitan city; or*
- b. *to the District Magistrate or the Deputy Commissioner concerned in case of all other towns and cities, with a copy to the State Board or the Committee on or before the 30th day of June every year.”*

46. The term “Municipal Authority” was defined in Rule 3(xiv) which included Municipal Corporation, Municipality, Nagar Palika, Nagar Nigam, Nagar Panchayat etc.

47. Rule 7 provided that municipal solid waste generated in a city or a town shall be managed and handled in accordance with the compliance criteria and the procedure laid down in Schedule-II. Sub-rule 2 of Rule 7 provided that waste processing and disposal facilities to be set up by Municipal Authority on their own or through an operator of a facility, shall meet the specifications and standards as specified in Schedules III and IV. Rule 7 read as under:

“7. MANAGEMENT OF MUNICIPAL SOLID WASTES. –

- 1. *Any municipal solid waste generated in a city or a town, shall be managed and handled in accordance with the compliance criteria and the procedure laid down in **Schedule-II**.*
- 2. *The waste processing and disposal facilities to be set up by the municipal authority on their own or through an operator of a facility shall meet the specifications and standards as specified in **Schedules III and IV.**”*

48. Schedule II gave details of compliance criteria under the parameters of collection of municipal solid waste, Segregation of municipal solid wastes, Storage of municipal solid wastes, Transportation of municipal

solid wastes, Processing of municipal solid wastes and Disposal of municipal solid wastes.

49. Schedule III provided specification for landfill sites and Schedule IV dealt with standards for composting, treated leachates and incineration.

50. MSW Rules 2000 were repealed and substituted by SWM Rules 2016 which came into force on the date of publication in Official Gazette i.e., 08.04.2016 and these rules are presently operating. Rule 2 deals with application of SWM Rules 2016 and reads as under:

“2. Application.- *These rules shall apply to every urban local body, outgrowths in urban agglomerations, census towns as declared by the Registrar General and Census Commissioner of India, notified areas, notified industrial townships, areas under the control of Indian Railways, airports, airbases, Ports and harbours, defence establishments, special economic zones, State and Central government organisations, places of pilgrims, religious and historical importance as may be notified by respective State government from time to time and to every domestic, institutional, commercial and any other non-residential solid waste generator situated in the areas except industrial waste, hazardous waste, hazardous chemicals, bio medical wastes, e-waste, lead acid batteries and radio-active waste, that are covered under separate rules framed under the Environment (Protection) Act, 1986.”*

51. Rule 3 contains certain definitions and for the present purpose, we find it appropriate to reproduce definitions of ‘authorization’, ‘biodegradable waste’, ‘bio-methanation’, ‘buffer zone’, ‘composting’, ‘contractor’, ‘disposal’, ‘dry waste’, ‘dump sites’, ‘facility’, ‘handling’, ‘inert’, ‘leachate’, ‘local body’, ‘materials recovery facility’, ‘non-biodegradable waste’, ‘operator of a facility’, ‘processing’, ‘recycling’, ‘refuse derived fuel’, ‘residual solid waste’, ‘sanitary land filling’, ‘solid waste’, ‘transportation’, ‘treatment’ and ‘vermi composting’ hereunder:

“3. Definitions – (1) *In these rules, unless the context otherwise*

requires, -

3. **“authorisation”** means the **permission given by the State Pollution Control Board or Pollution Control Committee, as the case may be, to the operator of a facility or urban local authority, or any other agency responsible for processing and disposal of solid waste;**
4. **“biodegradable waste”** means any organic material that can be degraded by micro-organisms into simpler stable compounds;
5. **“bio-methanation”** means a process which entails enzymatic decomposition of the organic matter by microbial action to produce methane rich biogas;
7. **“buffer zone”** means **zone of no development to be maintained around solid waste processing and disposal facility, exceeding 5 TPD of installed capacity.** This will be maintained within total area allotted for the solid waste processing and disposal facility.
12. **“composting”** means a controlled process involving microbial decomposition of organic matter;
13. **“contractor”** means a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job for service providing authority;
16. **“disposal”** means the **final and safe disposal of post processed residual solid waste and inert street sweepings and silt from surface drains on land as specified in Schedule I** to prevent contamination of ground water, surface water, ambient air and attraction of animals or birds;
19. **“dry waste”** means waste other than bio-degradable waste and inert street sweepings and includes recyclable and non recyclable waste, combustible waste and sanitary napkin and diapers, etc;
20. **“dump sites”** means a **land utilised by local body for disposal of solid waste without following the principles of sanitary land filling;**
22. **“facility”** means any establishment wherein the solid waste management processes namely segregation, recovery, storage, collection, recycling, processing, treatment or safe disposal are carried out;

25. **“handling”** includes **all activities** relating to **sorting, segregation, material recovery, collection, secondary storage, shredding, baling, crushing, loading, unloading, transportation, processing and disposal of solid wastes;**
26. **“inerts”** means wastes which are not bio-degradable, recyclable or combustible street sweeping or dust and silt removed from the surface drains;
29. **“leachate”** means the liquid that seeps through solid waste or other medium and has extracts of dissolved or suspended material from it;
30. **“local body”** for the purpose of these rules means and includes the municipal corporation, nagar nigam, municipal council, nagarpalika, nagar Palikaparishad, municipal board, nagar panchayat and town panchayat, census towns, notified areas and notified industrial townships with whatever name they are called in different States and union territories in India;
31. **“materials recovery facility”** (MRF) means a facility where non-compostable solid waste can be temporarily stored by the local body or any other entity mentioned in rule 2 or any person or agency authorised by any of them to facilitate segregation, sorting and recovery of recyclables from various components of waste by authorised informal sector of waste pickers, informal recyclers or any other work force engaged by the local body or entity mentioned in rule 2 for the purpose before the waste is delivered or taken up for its processing or disposal;
32. **“non-biodegradable waste”** means any waste that cannot be degraded by micro organisms into simpler stable compounds; 33. **“operator of a facility”** means a person or entity, who owns or operates a facility for handling solid waste which includes the local body and any other entity or agency appointed by the local body;
35. **“processing”** means any scientific process by which segregated solid waste is handled for the purpose of reuse, recycling or transformation into new products;
36. **“recycling”** means the process of transforming segregated non-biodegradable solid waste into new material or product or as raw material for producing new products which may or may not be similar to the original products;
38. **“refused derived fuel”** (RDF) means fuel derived from

combustible waste fraction of solid waste like plastic, wood, pulp or organic waste, other than chlorinated materials, in the form of pellets or fluff produced by drying, shredding, dehydrating and compacting of solid waste ;

39. **“residual solid waste”** means and includes the waste and rejects from the solid waste processing facilities which are not suitable for recycling or further processing;
40. **“sanitary land filling”** means the **final and safe disposal of residual solid waste and inert wastes on land in a facility designed with protective measures against pollution of ground water, surface water and fugitive air dust, wind-blown litter, bad odour, fire hazard, animal menace, bird menace, pests or rodents, greenhouse gas emissions, persistent organic pollutants slope instability and erosion;**
46. **“solid waste”** means and includes solid or semi-solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweepings, silt removed or collected from the surface drains, horticulture waste, agriculture and dairy waste, treated bio-medical waste **excluding industrial waste, bio-medical waste and e-waste, battery waste, radio-active waste** generated in the area under the local authorities and other entities mentioned in rule 2;
52. **“transportation”** means **conveyance of solid waste**, either treated, partly treated or untreated from a location to another location **in an environmentally sound manner through specially designed and covered transport system** so as to prevent the foul odour, littering and unsightly conditions;
53. **“treatment”** means the method, technique or process designed to modify physical, chemical or biological characteristics or composition of any waste so as to reduce its volume and potential to cause harm;
55. **“vermi composting”** means the process of conversion of biodegradable waste into compost using earth worms;”

52. Rule 11 talks of the **duties of the Secretary-in-charge, Urban Development in the States and Union territories** and sub-rule (d)

makes it incumbent upon such authority to ensure implementation of provisions of these rules by all local authorities.

53. Clause (f) of Rule 11 says that officer concerned shall ensure identification and allocation of suitable land to local bodies within one year for setting up of processing and disposal facilities for solid waste and incorporate them in the master plans of State or as the case may be, cities through metropolitan and district planning committees or town and country planning department.

54. Rule 15 deals with duties and responsibility of local bodies and village Panchayats which reads as under:

“15. Duties and responsibilities of local authorities and village Panchayats of census towns and urban agglomerations. – The local authorities and Panchayats shall, –

(a) *prepare a solid waste management plan as per state policy and strategy on solid waste management **within six months from the date of notification of state policy and strategy** and submit a copy to respective departments of State Government or Union territory Administration or agency authorised by the State Government or Union territory Administration;*

(b) *arrange for door to door collection of segregated solid waste from all households including slums and informal settlements, commercial, institutional and other non residential premises. From multi-storage buildings, large commercial complexes, malls, housing complexes, etc., this may be collected from the entry gate or any other designated location;*

(c) *establish a system to recognise organisations of waste pickers or informal waste collectors and promote and establish a system for integration of these authorised waste-pickers and waste collectors to facilitate their participation in solid waste management including door to door collection of waste;*

(d) *facilitate formation of Self Help Groups, provide identity cards and thereafter encourage integration in solid waste management including door to door collection of waste;*

(e) frame bye-laws incorporating the provisions of these rules within one year from the date of notification of these rules and ensure timely implementation;

(f) prescribe from time to time user fee as deemed appropriate and collect the fee from the waste generators on its own or through authorised agency;

(g) direct waste generators not to litter i.e., throw or dispose of any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, fruit peel, wrappers, etc., or burn or burry waste on streets, open public spaces, drains, waste bodies and to segregate the waste at source as prescribed under these rules and hand over the segregated waste to authorised the waste pickers or waste collectors authorised by the local body;

(h) set up material recovery facilities or secondary storage facilities with sufficient space for sorting of recyclable materials to enable informal or authorised waste pickers and waste collectors to separate recyclables from the waste and provide easy access to waste pickers and recyclers for collection of segregated recyclable waste such as paper, plastic, metal, glass, textile from the source of generation or from material recovery facilities; Bins for storage of bio-degradable wastes shall be painted green, those for storage of recyclable wastes shall be printed white and those for storage of other wastes shall be printed black;

(i) establish waste deposition centres for domestic hazardous waste and give direction for waste generators to deposit domestic hazardous wastes at this centre for its safe disposal. Such facility shall be established in a city or town in a manner that one centre is set up for the area of twenty square kilometers or part thereof and notify the timings of receiving domestic hazardous waste at such centres;

(j) ensure safe storage and transportation of the domestic hazardous waste to the hazardous waste disposal facility or as may be directed by the State Pollution Control Board or the Pollution Control Committee;

(k) direct street sweepers not to burn tree leaves collected from street sweeping and store them separately and handover to the waste collectors or agency authorised by local body;

(l) provide training on solid waste management to waste-pickers and waste collectors;

(m) collect waste from vegetable, fruit, flower, meat, poultry and fish market on day to day basis and promote setting up of decentralised compost plant or bio-methanation plant at suitable locations in the markets or in the vicinity of markets ensuring hygienic conditions;

(n) collect separately waste from sweeping of streets, lanes and by-lanes daily, or on alternate days or twice a week depending on the density of population, commercial activity and local situation;

(o) set up covered secondary storage facility for temporary storage of street sweepings and silt removed from surface drains in cases where direct collection of such waste into transport vehicles is not convenient. Waste so collected shall be collected and disposed of at regular intervals as decided by the local body;

(p) collect horticulture, parks and garden waste separately and process in the parks and gardens, as far as possible;

(q) transport segregated bio-degradable waste to the processing facilities like compost plant, bio-methanation plant or any such facility. Preference shall be given for on site processing of such waste;

(r) transport non-bio-degradable waste to the respective processing facility or material recovery facilities or secondary storage facility;

(s) transport construction and demolition waste as per the provisions of the Construction and Demolition Waste management Rules, 2016;

(t) involve communities in waste management and promotion of home composting, bio-gas generation, decentralised processing of waste at community level subject to control of odour and maintenance of hygienic conditions around the facility;

(u) phase out the use of chemical fertilizer in two years and use compost in all parks, gardens maintained by the local body and wherever possible in other places under its jurisdiction. Incentives may be provided to recycling initiatives by informal waste recycling sector.

(v) facilitate construction, operation and maintenance of solid waste processing facilities and associated infrastructure on their own or with private sector participation or through any agency for optimum utilisation

of various components of solid waste adopting suitable technology including the following technologies and adhering to the guidelines issued by the Ministry of Urban Development from time to time and standards prescribed by the Central Pollution Control Board. Preference shall be given to decentralised processing to minimize transportation cost and environmental impacts such as –

a) bio-methanation, microbial composting, vermi-composting, anaerobic digestion or any other appropriate processing for bio-stabilisation of biodegradable wastes;

b) waste to energy processes including refused derived fuel for combustible fraction of waste or supply as feedstock to solid waste based power plants or cement kilns;

(w) **undertake on their own or through any other agency construction, operation and maintenance of sanitary landfill and associated infrastructure as per Schedule 1 for disposal of residual wastes in a manner prescribed under these rules;**

(x) *make adequate provision of funds for capital investments as well as operation and maintenance of solid waste management services in the annual budget ensuring that funds for discretionary functions of the local body have been allocated only after meeting the requirement of necessary funds for solid waste management and other obligatory functions of the local body as per these rules;*

(y) **make an application in Form-I for grant of authorisation for setting up waste processing, treatment or disposal facility, if the volume of waste is exceeding five metric tones per day including sanitary landfills from the State Pollution Control Board or the Pollution Control Committee, as the case may be;**

(z) **submit application for renewal of authorisation at least sixty days before the expiry of the validity of authorisation;**

(za) **prepare and submit annual report in Form IV on or before the 30th April of the succeeding year to the Commissioner or Director, Municipal Administration or designated Officer;**

(zb) **the annual report shall then be sent to the Secretary-in-Charge of the State Urban Development Department or village panchayat or rural development**

department and to the respective State Pollution Control Board or Pollution Control Committee by the 31st May of every year;

(zc) educate workers including contract workers and supervisors for door to door collection of segregated waste and transporting the unmixed waste during primary and secondary transportation to processing or disposal facility;

(zd) ensure that the operator of a facility provides personal protection equipment including uniform, fluorescent jacket, hand gloves, raincoats, appropriate foot wear and masks to all workers handling solid waste and the same are used by the workforce;

(ze) ensure that provisions for setting up of centers for collection, segregation and storage of segregated wastes, are incorporated in building plan while granting approval of building plan of a group housing society or market complex; and

(zf) **frame bye-laws and prescribe criteria for levying of spot fine** for persons who litters or fails to comply with the provisions of these rules and delegate powers to officers or local bodies to levy spot fines as per the bye laws framed; and

(zg) create public awareness through information, education and communication campaign and educate the waste generators on the following; namely:

- (i) not to litter;
- (ii) minimise generation of waste;
- (iii) reuse the waste to the extent possible;
- (iv) practice segregation of waste into bio-degradable, non-biodegradable (recyclable and combustible), sanitary waste and domestic hazardous wastes at source;
- (v) practice home composting, vermi-composting, bio-gas generation or community level composting;
- (vi) wrap securely used sanitary waste as and when generated in the pouches provided by the brand owners or a suitable wrapping as prescribed by the local body and place the same in the bin meant for nonbiodegradable waste;
- (vii) storage of segregated waste at source in different bins;
- (viii) handover segregated waste to waste pickers, waste collectors, recyclers or waste collection agencies; and
- (ix) pay monthly user fee or charges to waste collectors or local bodies or any other person authorised by the local body for sustainability of solid waste management.

(zh) stop land filling or dumping of mixed waste soon after the timeline as specified in rule 23 for setting up and operationalisation of sanitary landfill is over;

(zi) allow only the non-usable, non-recyclable, non-bio-degradable, non-combustible and non-reactive inert waste and pre-processing rejects and residues from waste processing facilities to go to sanitary landfill and the sanitary landfill sites shall meet the specifications as given in Schedule-I, however, every effort shall be made to recycle or reuse the rejects to achieve the desired objective of zero waste going to landfill;

(zj) investigate and analyse all old open dumpsites and existing operational dumpsites for their potential of bio-mining and bio-remediation and wheresoever feasible, take necessary actions to bio-mine or bio-remediate the sites;

(zk) in absence of the potential of bio-mining and bio-remediation of dumpsite, it shall be scientifically capped as per landfill capping norms to prevent further damage to the environment.”

55. Rule 16 of SWM Rules 2016 lays down duty of SPCBs or SPCCs. It says that these Regulators shall enforce SWM Rules 2016 in their State through local bodies in their respective jurisdiction and review implementation of these rules at least twice a year in close coordination with concerned Directorate of Municipal Administration or Secretary-in-charge of State Urban Development Department. Statutory Regulators shall also monitor environmental standards and adherence to conditions as specified under Schedule I and Schedule II for waste processing and disposal sites; examine the proposal for authorisation and make such inquiries as deemed fit, after receipt of the application in Form I from the local body or any other agency authorised by the local body; while examining the proposal for authorisation, the requirement of consents under respective enactments and views of other agencies like State Urban Development Department, Town and Country Planning Department,

District Planning Committee or Metropolitan Area Planning Committee, as may be applicable, Airport or Airbase Authority, Ground Water Board, Railways, power distribution companies, highway department and other relevant agencies shall be taken into consideration and they shall be given four weeks' time to give their views, if any. Rule 16 of SWM Rules 2016 also makes it obligatory for Statutory Regulator to issue authorisation within a period of sixty days in Form II to the concerned local body or an operator of a facility or any other agency authorised by local body stipulating compliance criteria and environmental standards as specified in Schedules I and II including other conditions, as may be necessary. Statutory Regulator shall also synchronize validity of said authorisation with the validity of the consents, suspend or cancel authorization issued any time, if local body or operator of the facility fails to operate the facility as per the conditions stipulated after giving due opportunity of hearing to the concerned body. In case of renewal of authorisation, it shall renew for next five years, after examining every application on merit and subject to the condition that the operator of the facility has fulfilled all the provisions of the rules, standards or conditions specified in the authorisation, consents or Environmental Clearance. For valid reasons, authorisation can also be denied by a written order after giving opportunity of hearing. Statutory Regulator have also been empowered to issue directions to local bodies for safe handling and disposal of domestic hazardous waste deposited by waste generators at hazardous waste deposition facilities.

56. Rule 19 talks of criteria for duties regarding setting up solid waste processing and treatment facility and reads as under:

“19. Criteria for Duties regarding setting-up solid waste processing and treatment facility. – (1) The department in-charge

of the allocation of land assignment shall be responsible for providing suitable land for setting up of the solid waste processing and treatment facilities and notify such sites by the State Government or Union territory Administration.

(2) The operator of the facility shall design and set up the facility as per the technical guidelines issued by the Central Pollution Control Board in this regard from time to time and the manual on solid waste management prepared by the Ministry of Housing and Urban Affairs.

(3) The operator of the facility shall obtain necessary approvals from the State Pollution Control Board or Pollution Control Committee.

(4) The State Pollution Control Board or Pollution Control Committee shall monitor the environment standards of the operation of the solid waste processing and treatment facilities.

(5) The operator of the facility shall be responsible for the safe and environmentally sound operations of the solid waste processing and or treatment facilities as per the guidelines issued by the Central Pollution Control Board from time to time and the Manual on Municipal Solid Waste Management published by the Ministry of Housing and Urban Affairs and updated from time to time.

(6) The operator of the solid waste processing and treatment facility shall submit annual report in Form III each year by 30th April to the State Pollution Control Board or Pollution Committee and concerned local body.”

57. In hilly area, a separate provision in respect of criteria and actions to be taken for solid waste management has been made in Rule 20 which reads as under:

“20. Criteria and actions to be taken for solid waste management in hilly areas.–In the hilly areas, the duties and responsibilities of the local authorities shall be the same as mentioned in rule 15 with additional clauses as under:–

(a) Construction of landfill on the hill shall be avoided.
A transfer station at a suitable enclosed location shall be setup to collect residual waste from the processing facility and inert waste. A suitable land shall be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. The residual waste from the transfer station shall be disposed of at this sanitary landfill.

(b) *In case of non-availability of such land, efforts shall be made to set up regional sanitary landfill for the inert and residual waste.*

(c) *Local body shall frame Bye-laws and prohibit citizen from littering wastes on the streets and give strict direction to the tourists not to dispose any waste such as paper, water bottles, liquor bottles, soft drink canes, tetra packs, any other plastic or paper waste on the streets or down the hills and instead direct to deposit such waste in the litter bins that shall be placed by the local body at all tourist destinations.*

(d) *Local body shall arrange to convey the provisions of solid waste management under the bye-laws to all tourists visiting the hilly areas at the entry point in the town as well as through the hotels, guest houses or like where they stay and by putting suitable hoardings at tourist destinations.*

(e) *Local body may levy solid waste management charge from the tourist at the entry point to make the solid waste management services sustainable.*

(f) *The department in-charge of the allocation of land assignment shall identify and allot suitable space on the hills for setting up decentralised waste processing facilities. Local body shall set up such facilities. Step garden system may be adopted for optimum utilisation of hill space.”*

58. A perusal of Rule 20 shows that construction of landfill on hills is required to be avoided. Transfer station at a suitable enclosed location is required to be setup to collect residual waste from processing facility and inert waste. A suitable land is required to be identified in the plain areas down the hill within 25 kilometers for setting up sanitary landfill. Residual waste from the transfer station is required to be disposed of at such sanitary landfill. Where no such land is available, Rule 20 requires that efforts shall be made to set up regional sanitary landfill for the inert and residual waste. Bye-laws are required to be made by the concerned local body to regulate littering wastes by residents and tourists and to prevent disposal of waste in unscientific and indistinct manner in the area concerned and also to levy solid waste management charges from tourists at the entry point to make solid waste management services sustainable.

The department in-charge of the allocation of land assignment is required to identify and allot suitable space on the hills for setting up decentralised waste processing facilities which shall be set up by local body.

59. Rule 22 lays down time frame for implementation of SWM Rules 2016 and we find that it varies from one year to five years. Rule 22 reads as under:

<i>Sl No.</i>	<i>Activity</i>	<i>Time limit from the date of notification of rules</i>
<i>(1)</i>	<i>(2)</i>	<i>(3)</i>
1.	<i>Identification of suitable sites for setting up solid waste processing facilities</i>	<i>1 year</i>
2.	<i>Identification of suitable sites for setting up common regional sanitary landfill facilities for suitable clusters of local authorities under 0.5 million population and for setting up common regional sanitary landfill facilities or stand alone sanitary landfill facilities by all local authorities having a population of 0.5 million or more</i>	<i>1 year</i>
3.	<i>Procurement of suitable sites for setting up solid waste processing facility and sanitary landfill facilities</i>	<i>2 year</i>
4.	<i>Enforcing waste generators to practice segregation of bio degradable, recyclable, combustible, sanitary waste domestic hazardous and inert solid wastes at source</i>	<i>2 year</i>
5.	<i>Ensure door to door collection of segregated waste and its transportation in covered vehicles to processing or disposal facilities</i>	<i>2 year</i>
6.	<i>Ensure separate storage, collection and transportation of</i>	<i>2 year</i>

<i>construction and demolition wastes</i>		
7.	<i>Setting up solid waste processing facilities by all local bodies having 100000 or more population</i>	<i>2 year</i>
8.	<i>Setting up solid waste processing facilities by local bodies and census towns below 100000 population</i>	<i>3 year</i>
9.	<i>Setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules</i>	<i>3 year</i>
10.	<i>Setting up common or stand alone sanitary landfills by or for all local bodies having 0.5 million or more population for the disposal of only such residual wastes from the processing facilities as well as untreatable inert wastes as permitted under the Rules</i>	<i>3 year</i>
11.	<i>Bio-remediation or capping of old and abandoned dump sites</i>	<i>5 year</i>

60. For the purpose of the present case, we find that the entire timeline prescribed in Rule 23 has already lapsed, in any case, by 2021 and now, no local body can take any excuse for not taking steps for implementation of the provisions of SWM Rules 2016. If there is still any lapses or latches, the same have to be treated as violations in respect of compliance of SWM Rules 2016, therefore, contravention of the provisions of the above Rules read with EP Act 1986 which is also an offence under Section 15 of EP Act 1986 and attract all remedial, preventive and prohibitory directions or steps.

61. Schedule I of SWM Rules 2016 deals with specifications for Sanitary Landfills and for the purpose of present case, we may refer to only paras A and B which deal with criteria for site selection and criteria for development of facilities at the sanitary landfills and the same are reproduced as under:

“SCHEDULE I
[see rule 15 (w), (zi), 16 (1) (b) (e), 16 (4)]
SPECIFICATIONS FOR SANITARY LANDFILLS

(A) Criteria for site selection. –(i) The department in the business allocation of land assignment shall provide suitable site for setting up of the solid waste processing and treatment facilities and notify such sites.

(ii) *The sanitary landfill site shall be planned, designed and developed with proper documentation of construction plan as well as a closure plan in a phased manner. In case a new landfill facility is being established adjoining an existing landfill site, the closure plan of existing landfill should form a part of the proposal of such new landfill.*

(iii) *The landfill sites shall be selected to make use of nearby wastes processing facilities. Otherwise, wastes processing facility shall be planned as an integral part of the landfill site.*

(iv) *Landfill sites shall be set up as per the guidelines of the Ministry of Housing and Urban Affairs, Government of India and Central Pollution Control Board.*

(v) *The existing landfill sites which are in use for more than five years shall be improved in accordance with the specifications given in this Schedule.*

(vi) *The landfill site shall be large enough to last for at least 20-25 years and shall develop “landfill cells” in a phased manner to avoid water logging and misuse.*

(vii) The landfill site shall be 100 meter away from river, 200 meter from a pond, 200 meter from Highways, Habitations, Public Parks and water supply wells and 20 km away from Airports or Airbase. However, in a special case, landfill site may be set up within a distance of 10 and 20 km away from the Airport/Airbase after obtaining no objection certificate from the civil aviation authority/ Air force as the

case may be. The Landfill site shall not be permitted within the flood plains as recorded for the last 100 years, zone of coastal regulation, wetland, Critical habitat areas, sensitive eco-fragile areas.

(viii) The sites for landfill and processing and disposal of solid waste shall be incorporated in the Town Planning Department's land-use plans.

(ix) A buffer zone of no development shall be maintained around solid waste processing and disposal facility, exceeding five Tonnes per day of installed capacity. This will be maintained within the total area of the solid waste processing and disposal facility. The buffer zone shall be prescribed on case to case basis by the local body in consultation with concerned State Pollution Control Board.

(x) The biomedical waste shall be disposed of in accordance with the Bio-medical Waste Management Rules, 2016, as amended from time to time. The hazardous waste shall be managed in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended from time to time. The E- waste shall be managed in accordance with the e-Waste (Management) Rules, 2016 as amended from time to time.

(xi) Temporary storage facility for solid waste shall be established in each landfill site to accommodate the waste in case of non-operation of waste processing and during emergency or natural calamities.

(B) Criteria for development of facilities at the sanitary landfills. – (i) Landfill site shall be fenced or hedged and provided with proper gate to monitor incoming vehicles, to prevent entry of unauthorised persons and stray animals

(ii) The approach and / internal roads shall be concreted or paved so as to avoid generation of dust particles due to vehicular movement and shall be so designed to ensure free movement of vehicles and other machinery.

(iii) The landfill site shall have waste inspection facility to monitor waste brought in for landfilling h, office facility for record keeping and shelter for keeping equipment and machinery including pollution monitoring equipment. The operator of the facility shall maintain record of waste received, processed and disposed.

(iv) Provisions like weigh bridge to measure quantity of

waste brought at landfill site, fire protection equipment and other facilities as may be required shall be provided.

(v) Utilities such as drinking water and sanitary facilities (preferably washing/bathing facilities for workers) and lighting arrangements for easy landfill operations during night hours shall be provided.

(vi) Safety provisions including health inspections of workers at landfill sites shall be carried out made.

(vii) Provisions for parking, cleaning, washing of transport vehicles carrying solid waste shall be provided. The wastewater so generated shall be treated to meet the prescribed standards.”

62. Schedule II deals with standards of processing and treatment of solid waste. For the purpose of present case, it would be appropriate to reproduce the same as under:

“SCHEDULE II
[see rule 16 (1), (b), (e), 16 (4)]
STANDARDS OF PROCESSING AND TREATMENT OF SOLID WASTE

A. Standards for composting. – The waste processing facilities shall include composting as one of the technologies for processing of bio-degradable waste. In order to prevent pollution from compost plant, the following shall be complied with namely: –

(a) The incoming organic waste at site shall be stored properly prior to further processing. To the extent possible, the waste storage area should be covered. **If, such storage is done in an open area, it shall be provided with impermeable base with facility for collection of leachate and surface water run-off into lined drains leading to a leachate treatment and disposal facility;**

(b) Necessary precaution shall be taken to minimise nuisance of odour, flies, rodents, bird menace and fire hazard;

(c) In case of breakdown or maintenance of plant, waste intake shall be stopped and arrangements be worked out for diversion of waste to the temporary processing site or temporary landfill sites which will be again reprocessed when plant is in order;

(d) **Pre-process and post-process rejects shall be removed from the processing facility on regular basis and**

shall not be allowed to pile at the site. Recyclables shall be routed through appropriate vendors. The non-recyclable high calorific fractions to be segregated and sent to waste to energy or for RDF production, co-processing in cement plants or to thermal power plants. Only rejects from all processes shall be sent for sanitary landfill site(s).

(e) The windrow area shall be provided with impermeable base. Such a base shall be made of concrete or compacted clay of 50 cm thick having permeability coefficient less than 10.7 cm/sec. The base shall be provided with 1 to 2 per cent slope and circled by lined drains for collection of leachate or surface run-off;

(f) Ambient air quality monitoring shall be regularly carried out. Odour nuisance at down-wind direction on the boundary of processing plant shall also be checked regularly.

(g) **Leachate shall be re-circulated in compost plant for moisture maintenance.**

(h) **The end product compost shall meet the standards prescribed under Fertilizer Control Order notified from time to time.**

(i) In order to ensure safe application of compost, the following specifications for compost quality shall be met, namely: –

Parameters	Organic Compost (FCO 2009)	Phosphate Rich Organic Manure (FCO 2013)
(1)	(2)	(3)
Arsenic (mg/Kg)	10.00	10.00
Cadmium (mg/Kg)	5.00	5.00
Chromium (mg/Kg)	50.00	50.00
Copper (mg/Kg)	300.00	300.00
Lead (mg/Kg)	100.00	100.00
Mercury (mg/Kg)	0.15	0.15
Nickel (mg/Kg)	50.00	50.00
Zinc (mg/Kg)	1000.00	1000.00
C/N ratio	<20	Less than 20:1
pH	6.5-7.5	(1:5 solution) maximum 6.7
Moisture, percent by weight, maximum	15.0-25.0	25.0
Bulk density (g/cm ³)	<1.0	Less than 1.6

Total Organic Carbon, per cent by weight, minimum	12.0	7.9
Total Nitrogen (as N), per cent by weight, minimum	0.8	0.4
Total Phosphate (as P ₂ O ₅) percent by weight, minimum	0.4	10.4
Total Potassium (as K ₂ O), percent by weight, minimum	0.4	-
Colour	Dark brown to black	-
Odour	Absence of foul Odor	-
Particle size	Minimum 90% material should pass through 4.0 mm IS sieve	Minimum 90% material should pass through 4.0 mm IS sieve
Conductivity (as dsm- 1), not more than	4.0	8.2

* **Compost (final product) exceeding the above stated concentration limits shall not be used for food crops.** However, it may be utilized for purposes other than growing food crops.

B. Standards for treated leachates.—The disposal of treated leachates shall meet the following standards, namely:-

S. No	Parameter (FCO 2009)	Standards (Mode of Disposal)		
		Inland surface water	Public sewers	Land disposal
(1)	(2)	(3)	(4)	(5)
1.	Suspended solids, mg/l, max	100	600	200
2.	Dissolved solids (inorganic) mg/l, max.	2100	2100	2100
3.	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
4.	Ammonical nitrogen (as N), mg/l, max.	50	50	-
5.	Total Kjeldahl nitrogen (as N), mg/l, max.	100	-	-

6.	Biochemical oxygen demand (3 days at 27° C) max.(mg/l)	30	350	350
7.	Chemical oxygen demand, mg/l, max.	250	-	-
8.	Arsenic (as As), mg/l, max	0.2	0.2	0.2
9.	Mercury (as Hg), mg/l, max	0.01	0.01	-
10.	Lead (as Pb), mg/l, max	0.1	1.0	-
11.	Cadmium (as Cd), mg/l, max	2.0	1.0	-
12.	Total Chromium (as Cr), mg/l, max.	2.0	2.0	-
13.	Copper (as Cu), mg/l, max	3.0	3.0	-
14.	Zinc (as Zn), mg/l, max	5.0	15	-
15.	Nickel (as Ni), mg/l, max	3.0	3.0	-
16.	Cyanide (as CN), mg/l, max.	0.2	2.0	0.2
17.	Chloride (as Cl), mg/l, max.	1000	1000	600
18.	Fluoride (as F), mg/l, max	2.0	1.5	-
19.	Phenolic compounds (as C ₆ H ₅ OH) mg/l, max.	1.0	5.0	-

Note. – While discharging treated leachates into inland surface waters, quantity of leachates being discharged and the quantity of dilution water available in the receiving water body shall be given due consideration.

C. Standards for incineration: –The Emission from incinerators/thermal technologies in Solid Waste treatment/disposal facility shall meet the following standards, namely: –

Parameter	Emission standard	
(1)	(2)	(3)
Particulates	50 mg/Nm ³	Standard refers to half hourly average value
HCl	50 mg/Nm ³	Standard refers to half hourly average value

SO ₂		200 mg/Nm ³	Standard refers to half hourly average value
CO		100 mg/Nm ³	Standard refers to half hourly average value
		50 mg/Nm ³	Standard refers to daily average value
Total Carbon	Organic	20 mg/Nm ³	Standard refers to half hourly average value
HF		4 mg/Nm ³	Standard refers to half hourly average value
NO _x (NO and NO ₂ expressed as NO ₂)		400 mg/Nm ³	Standard refers to half hourly average value
Total dioxins and furans		0.1 ng TEQ/Nm ³	Standard refers to 6-8 hours sampling. Please refer guidelines for 17 concerned congeners for toxic equivalence values to arrive at total toxic equivalence.
Cd + Th + their compounds		0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Hg and its compounds		0.05 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
Sb + As + Pb + Cr + Co + Cu + Mn + Ni + V + their compounds		0.5 mg/Nm ³	Standard refers to sampling time anywhere between 30 minutes and 8 hours.
<i>Note. - All values corrected to 11% oxygen on a dry basis.</i>			

Note: – (a) Suitably designed pollution control devices shall be installed or retrofitted with the incinerator to achieve the above emission limits.

(b) Waste to be incinerated shall not be chemically treated with any chlorinated disinfectants.

(c) Incineration of chlorinated plastics shall be phased out within two years.

(d) if the concentration of toxic metals in incineration ash exceeds

the limits specified in the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules, 2008, as amended from time to time, the ash shall be sent to the hazardous waste treatment, storage and disposal facility.

(e) Only low sulphur fuel like LDO, LSHS, Diesel, bio-mass, coal, LNG, CNG, RDF and bio-gas shall be used as fuel in the incinerator.

(f) The CO₂ concentration in tail gas shall not be more than 7%.

(g) All the facilities in twin chamber incinerators shall be designed to achieve a minimum temperature of 950°C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds.

(h) Incineration plants shall be operated (combustion chambers) with such temperature, retention time and turbulence, as to achieve total Organic Carbon (TOC) content in the slag and bottom ash less than 3%, or the loss on ignition is less than 5% of the dry weight.

(i) Odour from sites shall be managed as per guidelines of CPCB issued from time to time.”

63. In the backdrop of the above Statutory provisions, we may look into the facts of the present case to find out the manner in which respondents have complied with the provisions of SWM Rules 2016 read with EP Act 1986.

64. At the outset, we may observe that there are large scale violations/non-compliances on the part of respondent 4 in respect of handling, management and processing of solid waste in the jurisdictional area of respondent 4. Different Reports and replies have come at different times but the common feature is that violation is visibly evident and demonstrable in all such Reports/replies.

65. Pursuant to Tribunal's first order dated 04.01.2023 whereby cognizance was taken and factual Report was called from Joint Committee,

we find from Joint Committee Report dated 12.05.2023, the following violation on the part of respondent 4 in handling, management and processing of solid waste in the area of Municipal Council, Manali:

- (i) At the time of inspection, solid waste processing plant was not found operational;
- (ii) Compost Pits provided at the plant were empty and foul smell was observed in the vicinity;
- (iii) Mixed solid waste was found at the site;
- (iv) Heap of organic waste mixed with plastic contents was found stored without any measures taken for treatment;
- (v) Untreated leachate was flowing towards River Beas;
- (vi) Even legacy waste was found to be spilled over the retaining wall towards the bank of River Beas;
- (vii) Processing of legacy waste lying at the site had not been commenced till the time of inspection though the processing work was awarded to M/s Rekart Innovation Pvt. Ltd. by Municipal Council, Manali;
- (viii) Even machines for the processing work were not installed and Report says that the information given to Committee that the Service Provider i.e., M/s Rekart Innovation Pvt. Ltd. shall install machines like trommels, shredders, JCB etc. at the site and the work will start in February 2023;
- (ix) Daily generated solid waste was entrusted for its processing to Service Provider namely M/s. Nextgen Chemicals Pvt. Ltd. who informed the Committee that it shall make compost pits functional to treat wet waste and shall operate the processing plant regularly.

66. Compliance Report dated 19.01.2024 filed by respondent 4 shows that up to July 2021, total quantum of legacy waste was about 40,000 MT where against, 14600 MT was processed by M/s Rekart Innovation Pvt. Ltd. when the compliance Report dated 19.01.2024 was filed (i.e., in last two and half years). 445.515 MT of RDF sent to Thermal Plants for end disposal. When we enquired as to what happened to the remaining inert/residual waste, neither the said Status Report provided any answer nor the same could be replied by Learned Counsel appearing for respondent 4.

67. Report also shows that in 12 months of 2023 i.e., from January 2023 to December 2023, 16363 MT was received wherefrom 7386 MT of RDF was generated and sent to different plant of Himachal Pradesh. Details of the said plants have not been given in the said Report nor informed to us at the time of arguments. Be that as it may, it is admitted that about 2500 MT of inert/reject waste remained dumped at the site due to non-availability of scientific landfill site in the area. The status report does not show that the entire 16363 MT of municipal solid waste received in 2023 was processed. In fact, Report shows that quantum of RDF was 45% and inert/reject waste was 15%. What had happened to the remaining waste, the reply is totally silent. Obviously, this must have added to the quantum of legacy waste as computed in January 2021, therefore, cannot be taken the same since on the one hand there was some processing and on the other hand, apparently, there was regularly addition due to lack of processing of daily waste generated within the jurisdiction of Municipal Council, Manali. The Report also shows that against 16363 MT of municipal solid waste, 5-7 % i.e., 1145 MT recyclable waste was recovered which was sold to scrap dealers. It is an admitted position that 5399 MT

of municipal solid waste against 16363 MT received from January 2023 to December 2023 remained unprocessed and continued to remain dumped at the site. In computation of legacy waste, this quantity of unprocessed and untreated waste has to be added and this is only of the year 2023 while computation of legacy waste of 40,000 MT was in July 2021. Quantity of the waste received from August 2021 to December 2022 has not been disclosed. Thus, we have not hesitation but to infer that what has happened for the municipal solid waste received in 2023, the same conditions must have prevailed in respect of municipal solid waste received from August 2021 to December 2022 and, therefore, virtually the legacy waste as it was in July 2021 is continuing same and there is no substantial reduction in its quantity due to a smaller amount of legacy waste processed by the service provider.

68. This also shows that M/s. Nextgen Chemicals Pvt. Ltd. which has been awarded contract for treatment and processing of daily generated waste, is not capable of treatment of entire daily generated waste in a regular manner and that is how it is adding to the legacy waste.

69. We may also place on record that the data supplied by respondent 4 in its reply dated 19.01.2024 does not appear to be very accurate in as much as in the response dated 24.01.2024 submitted on behalf of respondents 1 and 3, different figures have been supplied. It is said in para 2 that M/s. Rekart Innovation Pvt. Ltd. has processed approximately 13000 tonnes of legacy waste while in the reply of respondent 4, it is claimed that 14600 MT of legacy waste was processed. In respect of daily generated municipal solid waste when received at the site in question, reply of respondents 1 and 3 states that service provider i.e., M/s. Nextgen

Chemicals Pvt. Ltd. has processed and sent 15041 tonnes of RDF to cement plants but on what basis this figure has been derived, no material has been placed on record. On the contrary, respondent 4 who has direct information on the subject and stated in its reply that from January to December 2023, total municipal solid waste received was 16363 MT whereagainst 7386 MT RDF was generated and sent to different plants, 2500 MT reject/inert was generated which is lying at the site, 1145 Mt recyclable was recovered which was sold to scrap dealers and 5399 MT of waste was still lying at the site, therefore, in total, against the daily generated solid waste of the year 2023 i.e., 16363 MT, 5399 MT unprocessed waste and 2500 MT inert/reject/residue as per respondent 4 was lying at the site and this is not consistent with the information supplied by respondents 1 and 2.

70. Admitting that there was violation, HPSPCB imposed environmental compensation of Rs. 5 lakhs and Rs. 15,30,000/- which has not been challenged by respondent 4 and on the contrary, it has paid the amount of environmental compensation as stated in its Compliance-cum-Status Report dated 26.03.2024, in para 5, which reads as under:

“6. **Environmental Compensation:** It is submitted that as per the order and Direction of this Hon’ble Tribunal the Environmental Compensation of Rs. 5,00000/ (Rupees Five lakhs)- & 15,30,000/- (Rupees Fifteen lakhs thirty thousand) respectively has been paid by Municipal Council Manali. The copy is submitted as **Annexure-7.**”

71. Further Report dated 26.03.2024 filed by respondent 4 shows an admission on the part of respondent 4 that it is receiving daily three tonnes of wet waste but not capable to process the same regularly due to cold weather conditions prevailing at Manali which require longer time for

composting and there are only 06 composting pits available at MSWM site, Rangree which are insufficient/inadequate and respondent 4 is proposing to purchase an Organic Waste Converter for processing of wet waste.

72. Inert/reject waste is still lying at the site as scientific landfill site is not available with respondent 4.

73. It is also admitted that the leachate collection pits were washed away in Monsoon flash floods in July 2023 and no arrangement was made for the same till the filing of the reply dated 26.03.2024 meaning thereby, from July 2023 and onwards, continuously leachate is causing contamination of water of River Beas or is contaminating ground water if there is seepage downwards to the earth.

74. Reply dated 03.04.2024 submitted by Principal Secretary, Urban Development i.e., respondent 5 shows that despite execution of agreement for setting up of a waste to energy plant of 35 TPD capacities between Municipal Council, Manali and M/s. Nextgen Chemicals Pvt. Ltd. on 05.08.2017, such plant has not been made functional till the date the said reply was filed.

75. Reply of respondent 5 also admits that huge quantity of solid waste of different local bodies i.e., about 7.49 TPD from Municipal Council, Kully, 1.80 TPD from Nagar Panchayat, Bhuntar, 0.57 TPD from Nagar Panchayat, Banjar and 0.61 TPD from Nagar Panchayat, Nirmand is also being transported and dumped at municipal solid waste site of respondent 4 but under which authority that has been transported and dumped has not been stated. Every local body has its own statutory responsibility to

have its own processing plants, landfill sites/sanitary landfill sites but the same is not being observed in the case in hand.

76. It is also nobody's case before us that respondent 4 has obtained any authorisation from HPSPCB for any processing, treatment or disposal facility or landfill site, under SWM Rules 2016 though the total quantum of waste received is more than five metric tons and, therefore, the entire dumping of solid waste is wholly unauthorised and illegal in utter violation of Rule 15 of SWM Rules 2016. No annual report in Form IV, as required under rule 15 (za), has been submitted.

77. There is nothing to show that standards of processing and treatment of solid waste as provided in Schedule II, was observed. Discharge of leachate (untreated) directly in River Beas shows contamination of water which is a serious violation of the part of respondent 4 since it had continued for months together.

78. Violation of non-compliance of SWM Rules 2016 is also writ large on the part of other authorities in as much as Deputy Commissioners, Kullu i.e., respondent 3 has failed to facilitate identification and allocation of suitable land for setting up solid waste processing and disposal facilities to local authorities in his District within one year from the date of notification of SWM Rules 2016 i.e., 08.04.2016. It has also failed to review the performance of local bodies at least once in a quarter on waste segregation, processing, treatment and disposal of solid waste and also in taking corrective measures in consultation with other authorities. Deputy Commissioner, Kullu has clearly violated the requirement of Rule 12 of SWM Rules 2016.

79. Secretary Incharge, Urban Development i.e., respondent 5 has also failed to ensure implementation of SWM Rules 2016 by local authorities and, therefore, has violated the mandate of Rule 11 of SWM Rules 2016.

80. In view of the above discussion, the only conclusion obvious and evident is that respondents 3, 4 and 5 have utterly and miserably failed to discharge their statutory functions of compliance of the provisions of SWM Rules 2016 and in fact have functioned in utter violation, therefore, **issues I and II are answered accordingly and against respondents 3, 4 and 5.**

ISSUE III:

81. Now coming to issue III, we find that responsibility of making efforts for identification and allocation of suitable land as per Rule 11(f) of SWM Rules 2016 for setting up solid waste processing and disposal facilities lie upon District Magistrate or District Collector or Deputy Commissioner as the case may be of the concerned district.

82. Rule 12 deal with the duties of District Magistrate or District Collector or Deputy Commissioner and reads as under:

“12. Duties of District Magistrate or District Collector or Deputy Commissioner. - The District Magistrate or District Collector or as the case may be, the Deputy Commissioner shall, -

(a) facilitate identification and allocation of suitable land as per clause (f) of rules 11 for setting up solid waste processing and disposal facilities to local authorities in his district in close coordination with the Secretary-in-charge of State Urban Development Department within one year from the date of notification of these rules;

(b) review the performance of local bodies, at least once in a quarter on waste segregation, processing, treatment and disposal and take corrective measures in consultation with the Commissioner or Director of Municipal

Administration or Director of local bodies and secretary-in-charge of the State Urban Development.”

83. Admittedly, no such land has been made available and allocated to respondent 4 and other local bodies by respondent 3 and it has not performed its statutory functions as contemplated under Rule 12 of SWM Rules 2016. **We, therefore, answer issue III against respondent 3** and hold that it has also committed breach and violation of requirement of Rule 12 of SWM Rules 2016.

ISSUE IV:

84. This issue can be answered very briefly. Section 15 of EP Act 1986 clearly provides that whoever fails to comply with or contravenes any of the provisions of EP Act 1986, or the Rules made or orders or directions issued thereunder, shall in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years or with fine which may extend to Rs. One Lakh or with both. In case of failure or contravention continues, further severe punishment is provided. Section 15 reads as under:

“15. Penalty for contravention of the provisions of the Act and the rules, orders and directions. —

(1) Whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued thereunder, shall, in respect of each such failure or contravention, be punishable with imprisonment for a term which may extend to five years or with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention.

(2) If the failure or contravention referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to seven years.”

85. We have already held while returning issues I, II and III that respondents 3, 4 and 5 have violated the provisions of SWM Rules 2016 which have been framed in exercise of the powers under Section 3, 6 and 25 of EP Act 1986. Therefore, the provisions of SWM Rules 2016 framed under EP Act 1986 are violated and offence is committed and the violators are liable for appropriate action for committing an offence under Section 15 of EP Act 1986.

86. Procedure for taking cognizance under EP Act 1986 is prescribed in Section 19 which reads as under:

“19. Cognizance of offences.

-No court shall take cognizance of any offence under this Act except on a complaint made by

(a) the Central Government or any authority or officer authorised in this behalf by that Government; or

(b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer authorised as aforesaid.”

87. Section 16 deals with the cases where the offence is committed by companies and Section 17 deals where the offence is committed by Government Departments. *Pari-materia* provisions are contained in Water Act 1974 and Air Act 1981.

88. In **Noorulla Khan vs. Karnataka State Pollution Control Board & Anr., (2021) SCC OnLine SC 601**, Supreme Court while referring to **Karnataka State Pollution Control Board vs. B. Heera Naik and Others, (2020) 16 SCC 298** said, in the context of Section 48 of Water Act 1974 that Commissioner of Municipal Corporation or Chief Officers of

Municipal Councils may not strictly be called “heads of the departments” but such officials would still come under the provisions of Section 47 of Water Act 1974. The law laid down in **Karnataka State Pollution Control Board vs. B. Heera Naik (supra)** was summarized in para 11 of judgment in **Noorulla Khan (supra)**, as under:

“11. What emerges from these decisions of this Court is:

- i. *If the violation of the provisions of the Water Act was at the hands of a Department, subject to the satisfaction of the requirements under Section 48 of the Water Act, “the Head of the Department” would be deemed to be guilty. This would of course be subject to the defences which are available to him to establish whether the offence in question was committed without his knowledge or that he had exercised all due diligence to prevent the commission of such offence.*
- ii. *By virtue of the decision of this Court in V.C. Chinnappa Goudar (Supra), because of deeming fiction under Section 48 of the Water Act, the protection under Section 197 of the Code would not be available and the matter ought to be considered de hors such protection.*
- iii. *If the concerned public servant happens to be a Chief Officer or Commissioner of a Municipal Council or Town Panchayat, he cannot strictly be called “the Head of the Department of the Government”. Therefore, in terms of decision of this Court in B. Heera Naik (Supra), the matter would not come under Section 48 of the Water Act. **But the matter would come directly under Section 47 of the Water Act.** According to said decision, even in such cases, the deeming fiction available under Section 47 of the Water Act would dis-entitle the public servant from the protection under Section 197 of the Code.*
- iv. *If the offenders are other than public servants or where the principal offenders are corporate entities in private sectors, the question of protection under Section 197 would not arise.”*

89. We may also observe that cognizance can be taken by Magistrate, of offence, without insisting for sanction under Section 197 Cr.P.C. since

Supreme Court in ***V.C. Chinnappa Goudar vs. Karnataka State Pollution Control Board & Anr., (2015) 14 SCC 535*** and ***Noorulla Khan (supra)*** has held that Section 197 is not attracted for offences when prosecution is initiated under Water Act 1974 against the public servants with reference to Sections 47 and 48 of Water Act 1974.

90. The officer incharge (or with whatever designation is called) of Municipal Council, Manali, therefore, has to be dealt with in accordance with Sections 15 and 16 read with Section 19 of EP Act 1986 while District Magistrate and Secretary, Urban Development who are Government Officers have to be dealt with under Sections 15, 17 read with 19 of EP Act 1986.

91. We, therefore, hold that respondents 3, 4 and 5 are liable to be proceeded against by initiating criminal proceedings for committing offence under Section 15 of EP Act 1986 and appropriate action may be taken either by Central Government of India or any authority authorized by it or by Member Secretary, HPSPCB if there is no authorisation by Government of India under Section 19(a) who shall proceed after giving two months' notice as contemplated in Section 19(b) of EP Act 1986.

92. **We answer issue IV accordingly in affirmation and against respondents 3, 4 and 5.**

ISSUES V AND VI:

93. It is established now that there is violation of environmental laws and norms in respect of handling, management and processing of solid waste in the area of Municipal Council, Manali. When municipal solid waste is allowed to be handled and managed in unscientific and illegal

manner, it causes bad odour, generation of leachate which contaminates water whether ground water by seepage or surface water by over flowing therein and in this matter, it is surface water of River Beas and also creates all kinds of health hazards to local residents. Thus, damage to environment is evident.

94. When environment is damaged on account of act of anyone, on account of illegal activities which are in violation of environmental laws and norms, such violator is liable to share the cost which may be incurred for remediation and rejuvenation of damaged environment. Supreme Court on this aspect has categorically has said that the violator is liable to share cost which may be required for remediation of environment which is damaged on account of illegal activity of such violator. For this purpose, Supreme Court has recognized the principle of 'Polluter Pays'.

95. This Principle was recognized as part of environmental law in India in ***Indian Council for Enviro-Legal Action vs. Union of India, (1996) 3 SCC 212***. Certain industries producing assets were dumping their waste. Even untreated waste water was allowed to flow freely polluting atmosphere and sub-terrain supply of water which ultimately caused darkening and dirtiness of wells and the streams water rendering it unfit for human consumption. Certain environmentalists' organizations broadly alleging severe damage to villager's health, filed a Writ petition as PIL in 1989 before Supreme Court. By that time, some of the units were already closed. Referring to Article 48-A in Directive Principles of State Policy and 51-A in the Fundamental duties of citizens, Supreme Court observed that said provisions say that State shall endeavour to protect and improve environment and to safeguard the forest and wildlife of the country. One

of the fundamental duties of citizens is to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion for living creature. Where a **Proponent has established its commercial unit and operate contrary to law flouting norms provided by law, Statutory Regulator is bound to act and if it fails, a judicial forum can direct it to act in accordance with law.**

96. Referring to Oleum Gas leak case, i.e., *M.C. Mehta vs. Union of India, (1987) 1 SCC 395*, Court observed in para 58 that the constitution bench held that **enterprise must be held strictly liable for causing such harm as a part of social cost of carrying on the hazardous or inherently dangerous activity.** Hazardous or inherently harmful activities for private profits can be tolerated only on the condition that the enterprise engaged in such hazardous or inherently dangerous activity indemnifies all those who suffer on account of carrying on of such hazardous or inherently dangerous activity, regardless of whether it is carried on carefully or not.

97. Court also referred to its earlier decision in *Indian Council for Enviro Legal action vs. Union of India, (1995) 3 SCC 77*, wherein concerned Pollution Control Board identified about 22 industries responsible for causing pollution by discharge of their effluent and a direction was issued by Court observing that they were responsible to compensate the farmers. It was the duty of State Government to ensure that this amount was recovered from the industries and paid to the farmers. In para 67 of the judgment, Court said that the **question of liability of respondent units to defray the costs of remedial measures can also be looked into from another angle which has now come to be**

accepted universally as a sound principle, for example, ‘Polluter Pays’ principle. On this aspect, Court further observed as under:

*“67. ...The **Polluter Pays principle demands that the financial costs of preventing or remedying damage caused by pollution should lie with the undertakings which cause the pollution, or produce the goods which cause the pollution.** Under the principle it is not the role of government to meet the costs involved in either prevention of such damage, or in carrying out remedial action, because the effect of this would be to shift the financial burden of the pollution incident to the taxpayer. The ‘Polluter Pays’ principle was promoted by the Organization for Economic Co-operation and Development (OECD) during the 1970s when there was great public interest in environmental issues. During this time there were demands on government and other institutions to introduce policies and mechanisms for the protection of the environment and the public from the threats posed by pollution in a modern industrialized society. Since then, there has been considerable discussion of the nature of the polluter pays principle, but the precise scope of the principle and its implications for those involved in past, or potentially polluting activities have never been satisfactory agreed.*

*Despite the difficulties inherent in defining the principle, the European Community accepted it as a fundamental part of its strategy on environmental matters, and it has been one of the underlying principles of the four Community Action Programmes on the Environment. The current Fourth Action Programme ([1987] OJ C 328/ 1) makes it clear that **the cost of preventing and eliminating nuisances must in principle be borne by the polluter**, and the polluter pays principle has now been incorporated into the European Community Treaty as part of the new Articles on the environment which were introduced by the Single European Act of 1986. Article 130-R(2) of the Treaty states that environmental considerations are to play a part in all the policies of the Community, and that action is to be based on three principles: the need for preventative action; the need for environmental damage to be rectified at source; and that the polluter should pay.”*

98. Court further said that **according to the above principle of ‘Polluter Pays’, responsibility for repairing the damage is that of the offending industry.** Sections 3 and 5 of Environment (Protection) Act, 1986 empower Central Government to give directions and take measures for giving effect to this principle. Court further said:

“...In all the circumstances of the case, we think it appropriate that the task of determining the amount required for carrying out the remedial measures, its recovery/realisation and the task of undertaking the remedial measures is placed upon the Central Government in the light of the provisions of the Environment [Protection] Act, 1986. It is, of course, open to the Central Government to take the help and assistance of State Government, R.P.C.B. or such other agency or authority, as they think fit.”

99. The above principle has been followed in **Vellore Citizen Welfare Forum vs. Union of India, 1996 (5) SCC 647**. In para 25, direction no.

2 reads as under:

2. The authority so constituted by the Central Government shall implement the “precautionary principle” and the “polluter pays” principle. The authority shall, with the help of expert opinion and after giving opportunity to the concerned polluters assess the loss to the ecology/environment in the affected areas and shall also identify the individuals/families who have suffered because of the pollution and shall assess the compensation to be paid to the said individuals/families. The authority shall further determine the compensation to be recovered from the polluters as cost of reversing the damaged environment. The authority shall lay down just and fair procedure for completing the exercise.

100. In **Bittu Sehgal and Another vs Union of India & Others, (2001) 9 SCC 181**, referring the earlier judgments, Supreme Court has said that ‘Precautionary Principle’ and ‘Polluter Pays Principle’ have been accepted as part of the law of the land.

101. In **Research Foundation for Science vs. Union of India & Ors., (2005) 13 SCC 186**, in para 26 and 29, Court, on ‘Polluter Pays’ Principle, has said as under:

“26. The liability of the importers to pay the amounts to be spent for destroying the goods in question cannot be doubted on applicability of precautionary principle and polluter-pays principle. These principles are part of the

environmental law of India. There is constitutional mandate to protect and improve the environment. In order to fulfill the constitutional mandate various legislations have been enacted with attempt to solve the problem of environmental degradation.

29. The polluter-pays principle basically means that the producer of goods or other items should be responsible for the cost of preventing or dealing with any pollution that the process causes. This includes environmental cost as well as direct cost to the people or property, it also covers cost incurred in avoiding pollution and not just those related to remedying any damage. It will include full environmental cost and not just those which are immediately tangible. The principle also does not mean that the polluter can pollute and pay for it. The nature and extent of cost and the circumstances in which the principle will apply may differ from case to case.”

102. In **Karnataka Industrial Areas Development Board vs. C. Kenchappa & Others, (2006) 6 SCC 371**, principle of ‘Polluter Pays’ has been explained in detail referring to the earlier judgments in **Indian Council for Enviro-Legal Action vs. Union of India (supra) and Vellore Citizen Welfare Forum (supra)**.

103. Even this Tribunal under Section 20 of NGT Act 2010 has been empowered to decide matters by applying the principle of ‘sustainable development’, ‘precautionary principle’ and principle of ‘Polluter Pays’.

104. Learned Counsel appearing for respondent 4 stated that respondents 4 has already paid environmental compensation of Rs. 5 lakhs and Rs. 15,30,000/-, respectively, imposed by HPSPCB. From the report dated 02.04.2024 filed by HPSPCB, we find that for improper management of solid waste by respondent 4, environmental compensation of **Rs. 5 lakhs** was imposed by HPSPCB vide order dated **17.06.2021** and another order of environmental compensation was passed on **10.05.2023** imposing **Rs.15,30,000/-** upon respondent 4. It is the admitted case of

respondent 4 that he has deposited the said amount. However, it is not shown to us as to what period of violations has been covered by the orders dated 17.06.2021 and 10.05.2023 passed by HPSPCB. However, we may safely proceed on the basis that the period prior to 10.05.2023 has been covered for imposition of environmental compensation.

105. Further it has been brought to our notice that for the period of 28.10.2022 to 11.09.2023. A notice dated 24.01.2024 has been issued proposing imposition of environmental compensation of Rs.31,80,000/-.

106. The fact is that violations in regard to management, handling and processing of municipal solid waste are still continuing on the part of respondent 4 even till this date. Therefore, for the period from 12.11.2023 till the date when the judgment was reserved by Tribunal i.e., 05.04.2024, we can safely held respondent 4 liable to pay environmental compensation.

107. No categorical information has been given about the generation of municipal solid waste everyday in the area of Municipal Council, Manali but the facts and figures of year 2023 have been given stating that from January to December 2023, total municipal solid waste generated was 16363 MT.

108. Taking it as a basis for calculation for subsequent period, we find that the daily generation of municipal solid waste in the area of Municipal Council, Manali comes to **44.83 MT per day** (16363 MT ÷ 365 days) which is being dumped at MSWM Site at Rangree. Total quantity of municipal solid waste for the period between 12.11.2023 to 05.04.2024 would be 6545.18 MT (44.83 MT per day × 146 days).

109. Besides daily generation, we may also take into account the legacy waste continued to remain dumped at the site which is more than 25000 MT for the entire period. However, for the purpose of computation of environmental compensation, we may restrict ourselves to 25000 MT. Total municipal solid waste which has been dealt with by respondents 1, 3, 4 and 5 in the area of Municipal Council, Manali thus, is 31545.18 MT (25000 MT + 6545.18 MT).

110. Now the question is on what basis, environmental compensation must be computed and what methodology should be adopted.

Methodology for computation of environmental compensation:

111. The question of **assessment of environmental compensation** includes the principles/factors/aspects, necessary to be considered for computing/assessing/determining environmental compensation. Besides judicial precedents, we find little assistance from Statute. Section 15 of NGT Act 2010 talks of relief of compensation and restitution. It confers wide powers on this Tribunal to grant relief by awarding compensation for the loss suffered by individual(s) and/or for damage caused to environment. Section 15 reads as under:

“15. Relief, compensation and restitution-(1) *The Tribunal may, by an order, provide-*

*a) **relief and compensation** to the victims of pollution and **other environmental damage arising under the enactments** specified in the Schedule I (including accident occurring while handling any hazardous substance);*

*b) **for restitution of property damaged;***

*c) **for restitution of the environment** for such area or areas, as the Tribunal may think fit.*

*(2) **The relief and Compensation and restitution of property and***

environment referred to in clauses (a), (b) and (c) of sub-section of (1) shall be in addition to the relief paid or payable under the Public Liability Insurance Act, 1991 (6 of 1991).

(3) No application for grant of any compensation or relief or restitution of property or environment under this section shall be entertained by the Tribunal unless it is made within a period of five years from the date on which the cause for such compensation or relief first arose:

Provided that the Tribunal may, if it is satisfied that the' applicant was prevented by sufficient cause from filing the application within the said period, allow it to be filed within a further period not exceeding sixty days.

*(4) The Tribunal may, **having regard to the damage to public health, property and environment**, divide the compensation or relief payable under separate heads specified in Schedule II so as to provide compensation or relief to the claimants and for restitution of the damaged property or environment, as it may think fit.*

(5) Every claimant of the compensation or relief under this Act shall intimate to the Tribunal about the application filed to, or, as the case may, be, compensation or relief received from, any other Court or authority.

112. Sub-section 1 of Section 15 enables Tribunal to make an order providing relief and compensation to (i) the victims of pollution, (ii) other environmental damage arising under the enactments specified in the Schedule I.

113. Tribunal is also conferred power to pass an order providing relief for restitution of property damaged. Section 15(1)(c) enables Tribunal to pass an order providing relief for restitution of the environment for such area or areas, as Tribunal may think fit. Section 15 sub-section 4 says that Tribunal may divide compensation or relief payable under separate heads specified in Schedules II, having regard to the damage to public health, property and environment so as to provide compensation or relief, (i) to the claimants and (ii) for restitution of the damaged property or environment,

as it may think fit.

114. Schedule II of NGT Act 2010 gives a list of heads under which compensation or relief for damage may be granted. It has 14 heads in total out of which items (a) to (f), (l), (m) and (n) relate to loss, damage etc. sustained to the person or individual or their property. Items (i) to (k) relate to harm, damage, destruction etc. of environment or environmental system including soil, air, water, land, and eco-system. Items (i) to (k) of Schedule II of NGT Act 2010 are as under:

“(i) Claims on account of any harm, damage or destruction to the fauna including milch and draught animals and aquatic fauna;

(j) Claims on account of any harm, damage or destruction to flora including aquatic flora, crops, vegetables, trees and orchards;

(k) Claims including cost of restoration on account of any harm or damage to environment including pollution of soil, air, water, land and eco-systems;”

115. Items (g) and (h) relate to expense and cost incurred by State in providing relief to affected person; and loss caused in connection with activity causing damage.

116. The damage to environment covers a very wide variety of nature as is evident from definition of environment under Section 2(c) which is inclusive and says; ‘environment includes water, air, and land and the interrelationship, which exists among and between water, air and land and human beings, other living creatures, plants, micro-organism and property’.

117. Even Rules framed under NGT Act 2010 are silent on this aspect. Issue of determination of EC is significant in the sense that it should be

proportionate to or bears a reasonable nexus with the environmental damage and its remediation/restoration. Similarly in case of compensation to be determined for a victim, it needs to co-relate to injury caused or damage suffered by such person as also cost incurred for treatment/remediation. Computation of environmental compensation may involve some degree of subjectivity but broadly it must be based on objective considerations as it saddles financial liability upon the violator.

118. Taking into consideration multifarious situations relating to violation of environmental laws *vis-a-vis* different proponents, nature of cases involving violation of environmental laws can be categorized as under:

- (i) Where Project/Activities are carried out without obtaining requisite statutory permissions/consents/clearances/NOC etc., affecting environment and ecology. For example, EC under EIA 2006; Consent under Water Act, 1974 and Air Act, 1981; Authorisation under Solid Waste Management Rules, 2016 and other Rules; NOC for extraction and use of ground water, wherever applicable, and similar requirements under other statutes.
- (ii) Where proponents have violated conditions imposed under statutory Permissions, Consents, Clearances, NOC etc. affecting environment and ecology.
- (iii) Where Proponents have carried out their activities causing damage to environment and ecology by not following standards/norms regarding cleanliness/pollution of air, water etc.

119. The above categories are further sub-divided, i.e., where the polluters/violators are corporate bodies/organizations/associations and group of the people, in contradistinction, to individuals; and another category, the individuals themselves responsible for such pollution.

120. Further category among above classification is, where, besides pollution of environment, proponents/violators action also affect the community at large regarding its source of livelihood, health etc.

121. The next relevant aspect is, whether damage to environment is irreversible, permanent or is capable of wholly or partial restoration/remediation/rejuvenation.

122. Determination/computation/assessment of environmental restoration/remediation/rejuvenation should also take care of damage caused to the environment, to the community, if any, and should also be preventive, deterrent and to some extent, must have an element of “being punitive”. The idea is not only for restoration/remediation or to mitigate damage/loss to environment, but also to discourage people/proponents from indulging in the activities or carrying out their affairs in such a manner so as to cause damage/loss to environment.

123. To impose appropriate ‘environmental compensation’ for causing harm to environment, besides other relevant factors as pointed out, one has to understand the kind and nature of ‘Harmness cost’. This includes risk assessment. The concept of risk assessment will include human-health risk assessment and ecological risk assessment. U.S. Environmental Protection Agency has provided a guideline to understand harm caused to environment as well as people. For the purpose of human-

health risk assessment, it comprised of three broad steps, namely, planning and problem formulation; effects and exposure assessment and risk categorization. The first part involves participation of stakeholders and others to get input; in the second aspect health effect of hazardous substances as well as likelihood and level of exposure to the pollutant are examined and the third step involves integration of effects and exposure assessment to determine risk.

124. Similarly, ecological risk assessment is an approach to determine risk of environmental harm by human activities. Here also we can find answer following three major steps, i.e., problem codification; analysis of exposure and risk characterization. First part encompasses identification of risk and what needs to be protected. Second step insists upon crystallization of factors that are exposed, degree to exposure and further comprised of two components, i.e., risk assessment and risk description.

125. In totality, problem is multi-fold and multi-angular. Solution is not straight but involves various shades and nuances and vary from case to case. Even Internationally, there is no thumb-rule to make assessment of damage and loss caused to environment due to activities carried out individually or collectively by the people, and for remediation/restoration. Different considerations are applicable and have been applied. As the term suggest, compensation means a return for loss or damage sustained. Therefore, it must always be just and not based on a whim or capricious.

126. In India, where commercial activities were carried out without obtaining statutory permissions/consents/clearance/NOC, Courts have determined, in some matters, compensation by fixing certain percentage of cost of project. In some cases, volume of business transactions,

turnover, magnitude of establishment of proponent have also been considered as guiding factors to determine environmental compensation. In some cases, a lump sum amount has been imposed.

127. In an article, '*the cost of pollution-Environmental Economics*' by Linas Cekanavicius, 2011, it has been suggested, where commercial activities have been carried out without consent etc., and pollution standards have been violated, Total Pollution Cost (hereinafter referred to as '**TPC**') can be applied. It combines the cost of abatement of environmental pollution and cost of pollution induced environmental damage. The formula comes to **TPC(z)=AC(z)+ED(z)**, where **z** denotes the pollution level. Further, clean-up cost/remediation cost of pollution estimated to be incurred by authorities can also be used to determine environmental compensation.

128. When there is collective violation, sometimes the issue arose about apportionment of cost. Where more than one violator is indulged, apportionment may not be equal since user's respective capacity to produce waste, contribution of different categories to overall costs etc. would be relevant. The element of economic benefit to company resulting from violation is also an important aspect to be considered, otherwise observations of Supreme Court that the amount of environmental compensation must be deterrent, will become obliterated. Article 14 of the Constitution says that unequal cannot be treated equally, and this principle must also be given due consideration and be taken care.

129. Determination/assessment/computation of environmental compensation cannot be arbitrary. It must be founded on some objective and intelligible considerations and criteria. Simultaneously, Supreme Court also said that its calculations must be based on a principle which is

simple and can be applied easily. In other words, it can be said that wherever Court finds it appropriate, expert's assessment can be sought but sometimes experts also go by their own convictions and belief and fail to take into account judicial precedents which have advanced cause of environment by applying the principles of 'sustainable development', 'precautionary approach' and 'polluter pays', etc. In such circumstances, it is the ultimate responsibility of Court's to assess and compute environmental compensation, rationally.

130. Clean-up cost or TPC, may be a relevant factor to evaluate damage, but in the diverse conditions as available in this Country, no single factor or formula may serve the purpose. Determination should be a quantitative estimation; the amount must be deterrent to polluter/violator and though there is some element of subjectivity but broadly assessment/computation must be founded on objective considerations. Appropriate compensation must be determined to cover not only the aspect of violation of law on the part of polluter/violator but also damage to the environment, its remediation/restoration, loss to the community at large and other relevant factors like deterrence, element of penalty etc.

131. This Tribunal vide order dated 31.08.2018 passed in **OA 593/2017, Paryavaran Suraksha Samiti and another vs. Union of India and others** observed that "*CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment*".

132. Pursuant thereto, CPCB published a Report on 15.07.2019 suggesting methodology for assessment of environmental compensation

which may be levied or imposed upon industrial establishments who are guilty of violation of environmental laws and have caused damage/degradation/loss to environment. The above Guidelines do not encompass individuals, statutory institutions and Government etc. and since in the present case, we are concerned with the Statutory body like Municipal Council, Manali which is constituted under HPM Act 1994, therefore, we are not going into the details of the said Guidelines as the same have no application to the present case.

133. In some cases, compensation has been awarded by Tribunal on lump sum basis without referring to any methodology. For example: (i) ***in Ajay Kumar Negi vs Union of India, OA No. 183/2013***, Rs.5 Crores was imposed. (ii) In ***Naim Shariff vs M/s Das Offshore Application no. 15(THC) of 2016***, Rs.25 Crores was imposed (iii) ***Hazira Macchimar Samiti vs. Union of India***, Rs. 25 Crores was imposed.

134. In ***Goa Foundation vs. Union of India & Others (2014) 6 SCC 590***, Supreme Court relied on ***Samaj Parivartana Samudaya & Others vs. State of Karnataka & Others (2013) 8 SCC 209*** and held that **ten per cent of the sale price** of iron ore during e-auction should be taken as compensation. To arrive at the above view, Court observed that this was an appropriate compensation given that mining could not completely stopped due to its contribution towards employment and revenue generation for the State. Further, Court directed to create a special purpose vehicle, i.e., “Goan Iron Ore Permanent Fund” for depositing above directed compensation and utilization of above fund for remediation of damage to environment.

135. In ***Goel Ganga Developers vs Union of India and Others, (2018)***

18 SCC 257, Tribunal imposed Rs.195 Crores compensation since construction project was executed without EC. Supreme Court made it **Rs.100 Crores or 10% of project cost whichever is higher**. Supreme Court also upheld Rs. 5 Crores imposed by Tribunal vide order dated 27.09.2016. Thus, total amount exceeded even 10% of project cost.

136. In ***Mantri Techzone Private Limited vs. Forward Foundation & Others, (2019) 18 SCC 494***, Supreme Court affirmed imposition of environmental compensation by Tribunal, considering cost of the project, where there was violation regarding EC/consent and proponent proceeded with construction activities violating provisions relating to EC/Consent. Tribunal determined environmental compensation at 5% and 3% of project cost of two builders. 5% of project cost was imposed where PP had raised illegal constructions while 3% was imposed where actual construction activity was not undertaken by PP and only preparatory steps were taken including excavation and deposition of huge earth by creating a hillock. Besides, Tribunal also directed for demolition and removal of debris from natural drain at the cost of PP.

137. On the issue of assessment of compensation for damage to environment in the matter of illegal mining, recently Supreme Court in ***Bajri Lease LOI holders Welfare Society vs. State of Rajasthan and others, SLP (Civil) No. 10584 of 2019*** (order dated 11.11.2021) has said that compensation/penalty to be paid by those indulging in illegal sand mining cannot be restricted to be value of illegally mined minerals. The cost of restoration of environment as well as the cost of ecological services should be part of compensation. 'Polluter Pays' principle as interpreted by this Court means that absolute liability for harm to the environment

extends not only to compensate victims of pollution but also cost of restoring environmental degradation. Remediation of damaged environment is part of the process of “sustainable development” and as such the polluter is liable to pay the cost the individual sufferers as well as the cost of reversing the damaged ecology.

138. Recently, in respect of pollution of River Yamuna due to violations caused by Nagar Nigam, Agra and Nagar Nigam, Mathura-Vrindavan in **OA 840/2022, Sanjay Kulshresthra vs. Government of Uttar Pradesh & Ors.** and **OA 773/2022, Rajesh Pareek vs. Government of Uttar Pradesh & Ors.** passed on 24.04.2024, this Tribunal has computed environmental compensation by applying the rate of compensation at Rs. 0.01 per MLD since that was a case of discharge of untreated sewage in River Yamuna.

139. In the present case, respondent 4 is a statutory local body and, therefore, even if we take a very considerate view, the rate of computation of environmental compensation cannot be less than Rs. 0.01 i.e., One Paisa per KG per day of illegally dumped solid waste which has not been properly handled, managed and disposed by Municipal Council, Manali.

140. Accordingly, we compute environmental compensation at the above rate for 146 days on 31545.18 MT (31545180 KG) of solid waste as under:

Environmental compensation:

31545180 KG × 146 days × Rs. 0.01 = Rs. 4,60,55,962/- (round-off)

141. We accordingly, hold that respondent 4 is liable to pay environmental compensation by application of principle of ‘Polluter Pays’ for the period from 12.11.2023 to 05.04.2024 i.e., 146 days environmental

compensation of Rs. 4,60,55,962/-. The said amount shall be paid within three months and deposited with HPSPCB.

142. The said amount of environmental compensation as also the amount already paid by respondent 4 or likely to be paid pursuant to notice dated 24.01.2024 shall be utilized by HPSPCB for the purpose of remediation, rejuvenation and restoration of damaged environment. For the aforesaid purpose, we constitute a Joint Committee comprising District Magistrate, Kullu, Member Secretary, CPCB and Member Secretary, HPSPCB. The said committee shall prepare an environmental rejuvenation plan within two months and execute the same within next six months.

143. District Magistrate, Kullu shall be the nodal agency for compliance and co-ordination.

144. We also direct that in case violation of the part of respondent 4 in handling, management and processing of municipal solid waste continues, HPSPCB shall on monthly basis determine environmental compensation in the light of the discussion made above and recover the same from respondent 4 till there is complete compliance with SWM Rules 2016 on the part of respondent 4.

145. **Issues V and VI are answered accordingly.**

146. In the result and in view of above discussion, this M.A. is disposed of with the following directions:

- (i) Respondent 4 is liable to pay environmental compensation of Rs. 4,60,55,962/- and shall deposit the same HPSPCB within three months from today.

- (ii) In view of the findings recorded in respect of issues I, II and III, action for criminal prosecution under Sections 15, 16, 17 and 19 of EP Act 1986 as the case may be, shall be taken against respondents 3, 4 and 5 by Government of India or any authority authorised by it or HPSPCB as directed above, within two months and Compliance Report shall be submitted in the next one month with Registrar General of this Tribunal.
- (iii) The amount of environmental compensation pursuant to this order, already deposited, and may be deposited in future, shall be utilized by HPSPCB for the purpose of remediation, rejuvenation and restoration of damaged environment on the basis of a Rejuvenation Plan which shall be prepared jointly by a Joint Committee comprising of District Magistrate, Kullu, Member Secretary, CPCB and Member Secretary, HPSPCB within two months and executed within next six months.
- (iv) Compliance/Progress Report shall be submitted by Joint Committee constituted above firstly by 15.09.2024 and thereafter, by 15.02.2025 before Registrar General of this Tribunal and if finds necessary, he may place the matter before the Bench for further orders.
- (v) Environmental compensation on monthly basis be determined by HPSPCB in case of violation on the part of respondent 4 in handling, management and processing of municipal solid waste continues and Compliance Reports shall be filed in the next one month before Registrar General of this Tribunal.

147. Copy of this judgment shall also be forwarded to Chief Secretary, State of Himachal Pradesh, Principal Secretary, Urban Development, District Magistrate, Kullu, Member Secretary, CPCB and Member Secretary, HPSPCB by e-mail for information, necessary action and compliance.

PRAKASH SHRIVASTAVA,
CHAIRPERSON

SUDHIR AGARWAL,
JUDICIAL MEMBER

DR. A. SENTHIL VEL,
EXPERT MEMBER

May 29, 2024
M.A. No. 79/2023
In Original Application No. 758/2022
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