

SWS

**BEFORE THE HON'BLE NATIONAL GREEN
TRIBUNAL
AT NEW DELHI**

ORIGINAL APPLICATION NO. 300 OF 2022

IN THE MATTER OF: -

In re: News item published in News 18 dated 26.04.2022 titled "Delhi: Massive Fire at Bhalswa Dump Yard, Fourth This Year; 13 Fire Tenders on Spot"

NDOH : 11.10.2022

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Filed by


(Dr. K. S. Jayachandran)

Special Secretary (Environment)-cum-
Member Secretary, Delhi Pollution Control Committee

Respondents

New Delhi

Dated: 10.10.2022

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BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

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ORIGINAL APPLICATION NO. 300 OF 2022

IN THE MATTER OF: -

In re: News item published in News 18 dated 26.04.2022 titled "Delhi: Massive Fire at Bhalswa Dump Yard, Fourth This Year; 13 Fire Tenders on Spot"

RESPONSE OF GOVT. OF NCT OF DELHI WITH RESPECT TO INTERIM PROGRESS REPORT OF JOINT COMMITTEE DATED 21.09.2022 AND ORDER DATED 27.04.2022.

1. That this Hon'ble Tribunal in the above referred matter regarding fire incidents at the Bhalswa Dumpsite in Delhi has ordered on 27.04.2022 as given below :

" 4. Accordingly, we request the Committee already constituted, vide order dated 22.4.2022 in OA 288/2022, with modification of replacement of EDMC with NDMC and jurisdictional District Magistrates and DCPs for District Magistrates and DCPs of East Delhi to ascertain factual situation in respect of present incident also and suggest further course of action after interaction with the concerned stakeholders. It may consider the landfill dump as isolated and vulnerable site which requires On-site and Off-site fire and other disaster management plans and furnish its report within one month 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 with a copy to the Chief Secretary, Delhi, who may file response with a comprehensive plan about the course of action proposed

in the matter. Such plan may address preventing such incidents taking into account the fact that the sites in question are in close proximity of human population and not secure from potential for harm to public and environmental safety.

List for further consideration on 27.05.2022.

The Chief Secretary, Delhi may remain present in person by video conferencing on the next date for interaction about the remedial measures.

A copy of this order be forwarded to Chief Secretary, Delhi, Justice S.P. Garg, former Judge, Delhi High Court, CPCB, DPCC, Department of Urban Development, Delhi, NDMC, Delhi Disaster Management Authority and jurisdictional District Magistrate and DCP by e-mail for compliance."

2. That four meetings of the Joint Committee headed by Justice S.P. Garg, former Judge, Delhi High Court with members from CPCB, DPCC, Department of Urban Development, Delhi, erstwhile North DMC (Now MCD), Delhi Disaster Management Authority, District Magistrate (North District) and DCP (Outer North) were held and the Joint Committee filed its Interim Progress Report before the Hon'ble Tribunal on 21.09.2022.
3. That Bhalswa Dumpsite is not an Engineered Sanitary Landfill (SLF). It is a Dumpsite used for dumping of Municipal Solid Waste (MSW) mainly generated from the areas under the jurisdiction of erstwhile North DMC. The Dumpsite is in operation since 1994 and spread in an area of about 78 Acres. The earlier height of the Dumpsite was 65 meter in 2019. There was about 80 Lakh Tons of MSW dumped at the Bhalswa Dumpsite in July, 2019 as informed by erstwhile North DMC to Hon'ble Tribunal. Total generation of Municipal Solid Waste (MSW) from the six zones [Rohini, Civil Lines, Karol Bagh, SP City, Keshavpuram & Narela] under the jurisdiction of erstwhile North DMC is about 4800 TPD out of which about 2300 TPD is processed at Integrated MSW

Management Facility at Bawana [having Waste to Energy Plant, Compost Plant and Engineered Sanitary Landfill (SLF)] and rest of 2500 TPD generated mainly from the 3 Zones (KBZ, CSPZ & Narela Zone) is dumped at Bhalswa Dumpsite as no other alternative land is available with MCD.

4. That No. of Fire Incidents at Bhalswa Dumpsites in Last Six Years have been reduced significantly due to preventive measures taken by the erstwhile North Delhi Municipal Corporation (North DMC) as given in following Table :

Year	Total No. of Fire incidents	No. of Major Fire incidents	No. of Minor Fire incidents
2016-17	98	10	88
2017-18	131	11	120
2018-19	99	8	91
2019-20	32	3	29
2020-21	02	1	1
2021-22	02	2	0
2022-23	01	1	0
Total	365	36	329

5. That the major issues mentioned in the said Interim Progress Report of Joint Committee, and the plan of action to address the issues are briefed below:

(i) Bio-mining of Legacy Waste:

Bio-mining of Legacy Waste is being carried out by MCD at the three Dumpsites including Bhalswa Dumpsite since 01.10.2019 in compliance of the Orders of Hon'ble National Green Tribunal dated 17.07.2019 in OA No. 519 / 2019 and OA No. 386/2019.

Quantity of segregated materials expected to be generated after complete Bio-mining of Legacy Waste at the three Dumpsites in Delhi are given in the following Table:

Present Legacy Waste and Fractions based on Volumetric Assessment:

S.No	Particular	Ghazipur Dumpsite (Lakh Ton)	Bhalswa Dumpsite (Lakh Ton)	Okhla Dumpsite (Lakh Ton)	Total (Lakh Ton)
1	Total Legacy Waste Dumped	85	73	45	203
2	Inert (less than 30 mm sieve size) (70 %)	59.50	51.10	31.50	142.10
3	Refuse Derived Fuel (RDF) (15 %)	12.75	10.95	6.75	30.45
4	Construction & Demolition Wastes (15 %)	12.75	10.95	6.75	30.45

The total quantity of legacy waste bio-mined till 29.09.2022 at Bhalswa Dumpsite was about 26.18 Lakh Ton (32.73 %). The quantity of Bio-mining of legacy waste at three Dumpsites is given as below:

S.No.	Name of the Dumpsite	Quantity of Legacy Waste Dumped (As in July, 2019)	Total Quantity of Legacy Waste Processed (As on 29.09.2022)	No. of Trommel Operational
1	Ghazipur	140 Lakh Ton	13.21 Lakh Ton (9.44%)	12
2	Okhla	60 Lakh Ton	19.64 Lakh Ton (32.73%)	11
3	Bhalswa	80 Lakh Ton	26.18 Lakh Ton (32.73 %)	18
Total		280 Lakh Ton	59.03 Lakh Ton (21.08 %)	41

- a) Bio-mining will be continued by MCD using 14 Trommels, 4 Kleeman machines at the Dumpsite having processing capacity of 3800 TPD during dry season.
- b) MOU has been signed on 21.12.2021, 27.12.2021 & 26.07.2022 with NHAI for disposal of about 21.5 Lakh Tons of inert at their road projects. About

3.90 Lakh Tons of inert has been disposed at the sites of NHAI. NHAI has also requested to provide about 1 Lakh cum of the inert Bio-mining material to their other project in section of NH-44 (Old NH-1).

- c) Tenders have been invited by MCD on 03.08.2022 for “Disposal of 30 Lakh MT of legacy waste by bio-remediation and bio-mining at Bhalswa Dumpsite, Delhi” and the technical bid opening date for the tender was on 23.09.2022. Evaluation of technical bid has been done. The time for completion for the work is 18 months. The scope of work includes bioremediation of legacy waste and disposal / transportation of segregated material by the agency
- d) 100 % Bio-mining of Legacy Waste at the Bhalswa Dumpsite is likely to be completed by December, 2023 as per report of MCD. MCD will make its best endeavors to achieve the timeline of December, 2023 subject to availability of land and processing facilities for disposal of bio-mined material and budget.

(ii) Disposal of RDF

Month wise details of RDF disposed off in the last four months are as under:

S. No.	Month	Quantity of RDF Disposed off (in MT)
1	August, 2022	114.150
2	Sept, 2022 (Till 29.09.2022)	1771.680

MoU between MCD and J K Cement Ltd. for disposal of RDF recovered through bioremediation of legacy waste at Ghazipur, Bhalswa and Okhla Dumpsites has been signed on 25.08.2022 for lifting of 3000 Tons per month from all the three Dumpsites (1000 Tons per month from each Dumpsite).

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(iii) Status of Waste to Energy Plant

Integrated MSW Facility at Bawana of 2000 TPD having Waste to Energy Plant, Compost Plant and Engineered Sanitary Landfill (SLF)] is operational.

The said facility including Waste to Energy Plant at Bawana is being operated by M/s Delhi MSW Solutions Ltd. The WtE Plant was earlier lifting RDF from bio-mining of legacy waste at Bhalswa Dumpsite however M/s Delhi MSW Solutions Ltd has stopped lifting RDF from Bhalswa Dumpsite from 23.07.2022 as per the instructions from MCD.

A new Waste to Energy Plant of 3000 TPD is proposed at Narela - Bawana for which bid opening is due on 14.10.2022. A new Waste to Energy Plant of 2000 TPD capacity at Tehkhand is likely to be operational by November, 2022.

(iv) Disposal of Inert

The inert material generated from the Bio-mining of Legacy Waste at the Bhalswa Dumpsite is disposed of by MCD at NHAI sites (Holambi Kalan, Helipot, DDA Site in front of Kalimata Mandir land, Madanpur Dabas, Ghogha Dairy, Bhalswa Dairy) and other low-lying areas.

Month wise details of Inert disposed of in the last two months are as under: -

S. No.	Month	Quantity of Inert material Disposed off (In MT)
1	August, 2022	17524.335
2	September, 2022 (till 29.09.2022)	22429.345

Record is being maintained at the site regarding the quantity of material disposed of to NHAI & other sites. The progress of work was hampered in July and August, 2022 due to rainy season.

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An appeal has been made by MCD and published in the Newspapers for utilization of Inert Material generated from the Bio-mining of Legacy Waste. And so far, around 18000 MT of inert and C&D waste has been lifted by Private Agencies/individuals at their own cost.

The bio-mined inert material will continue to be disposed of at NHAI sites Holambi Kalan, Helipot, DDA site: In front of Kalimata Mandir land and other low-lying areas.

Disposal of Construction & Demolition Waste Generated from Bio-mining of Legacy Waste

Construction and Demolition Waste which is 10-15% of the total Bio-mined Legacy Waste is utilised at the Dumpsite in making roads for the movement of vehicles.

(v) Prevention of Fire Incidents

a. RCC Boundary Wall

Presently there is no boundary wall around the periphery of the Dumpsite.

An estimate amounting to about Rs. 23 Crores has been prepared for construction of RCC Boundary Wall of 04 meter height along with concertina coil fencing and the same has been sent to Urban Development Department, GNCTD for releasing requisite budget.

b. Installation of Spark Arrestors.

- (i) The concessioner namely M/s Metro Waste Handling Pvt. Ltd., engaged for Karol Bagh Zone for door to door collection of MSW has given the list of vehicles deployed for the work where it is mentioned that all the vehicles are equipped with catalytic convertor, hence no need to install spark arrestor and has provided the exempt list of spark arrestor vehicles alongwith exemption certificate.
- (ii) The concessioner namely M/s IPMSW Solutions Pvt. Ltd. for Narela Zone informed that all their vehicles are BSVI model and are equipped

with catalytic convertor which prevent fire incident. Therefore, there is no need to install spark arrestor. The list of exempted vehicles has been provided by MCD.

- (iii) The concessioner namely M/s AG Enviro informed that their vehicles are equipped with catalytic convertor, hence no need to install spark arrestor. The list of exempted vehicles has been provided by MCD.

c. Perforated Pipes for Release of Methane

06 No. of HDPE pipes have been provided at various vulnerable locations in fresh waste dumping site. In future it will be provided as and when required.

d. CO Monitors, Methane Detectors, Temperature Sensors & Fire Alarm

For checking the temperature of the inner surface of the Dumpsite at vulnerable locations, 03 No. temperature sensors are being procured.

e. CCTV Cameras

The number of CCTV Cameras installed have been increased from 21 to 31 and dedicated Control Room has also been provided at the Dumpsite.

f. Drone Survey of Bhalswa Dumpsite

Drone Survey of the Bhalswa Dumpsite has been carried out and the report has been submitted by the surveyor on June 2022. SLF site area is 78.47 Acres (31.76 Hectares) as per the survey report. SLF site area considered for volumetric assessment is 76.87 acres (31.11 Hectares). The contours of the landfill along with slopes analysis details have been given in the report. At 212 meter baseline level, waste volume is 73.0 Lakh Cubic meters as on 15.06.2022. Maximum Height is 62 meters from the ground.

g. Slope Stability to Prevent Landslide:

MCD is stabilizing the garbage dump by doing step cutting and maintaining slopes at regular interval of height. The garbage is regularly dressed and

compacted by laying a layer of C&D waste / debris on the garbage with helps of Heavy Earth moving machine.

a. Mock Drill at the Bhalswa Dumpsite

To sensitize the site staff at Bhalswa Dump site, a fire mock drill was conducted on 08.06.2022 by Delhi Disaster Management Authority and the instructions during the mock drill are being complied with by the field officers.

b. Authorization of Ragpickers:

Office of District Magistrate (North District) has engaged NGO (M/s Chintan Environmental Research and Action Group) for understanding the issues related to rag pickers community (dependent on Bhalswa Dumpsite) and thereby to integrate these informal waste pickers in the formal waste management system. A draft proposal in this regard has been prepared wherein the complete exercise has been broadly divided into three 3 phases i) survey of waste pickers at Bhalswa to understand their status and primary concerns ii) Training & other measures in consultation with stakeholder iii) integration & mainstreaming of waste pickers. First phase has already been completed.

c. Construction of Peripheral Road

Peripheral Road is already available around Bhalswa Dumpsite.

d. Surveillance Squad/ Patrolling Team

- Patrolling team has been formed by MCD to have strict vigil over the activities going on at the Bhalswa Dumpsite. 30 Civil Defense Volunteers have also been engaged for the surveillance of Dumpsite.
- Beat Constables have been deployed by Delhi Police for taking rounds of the Dumpsite.

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e. Lack of Land Availability for MSW Processing Facilities - Alternative

- 55 Acres Land at Ranikhera had been allotted by DDA to North DMC in 2017 however the said land is close to human habitation and not suitable as per the MSW manual for construction of Solid Waste Management Facilities (Buffer zone of about 200 meter is required which is difficult to provide).
- About 33 Acres land at Narela -Bawana is available near the existing Waste to Energy Plant at Bawana however there is issue of High Tension Line passing above the land. This land is proposed to be used for 3000 TPD Waste to Energy Plant.
- 49 Acres land at Sultanpur Dabas Village was allotted by DDA in 2018. However the said land is a protected forest land and having a large number of grown up trees, bushes etc. This land is proposed to be used for developing Engineered Sanitary Landfill (SLF).

f. Training of MCD Staff

A three day's training programme was organised by NDRF to the MCD Staff (One Batch per day). NDRF has provided training to 250 MCD staff till date. Further request has also been made to Delhi Fire Service for training programs.

On other issues mentioned in the Interim Progress Report of Joint Committee, Action Taken by MCD and Prospective Action Plan is briefed in following table:

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
Waste to Energy Plant			
1.	Detailed enquiry is required to be conducted as why Waste to Energy Plant at Bawana has been disengaged and there is no lifting of RDF From Bhalswa Dumpsite.	Under terms and conditions of the concession agreement agencies engaged to lift RDF were not doing their jobs up to the mark. Huge quantity of RDF accumulated around processing machines/ trommels and no working space left available for their functioning.	Efforts are made by engaging various waste management agencies (WMA) for disposal of RDF and recently approx. 200 Tonnes RDF is being transported daily to WtE plant Tehkhand. Apart from this, an integrated tender of Bio-mining has been called to process and dispose the legacy waste from the Dumpsite.
2.	More WtE Plants are required, WtE plant at Bawana is inadequate to meet the requirements	MCD has already invited tender for setting up WtE plant at Narela-Bawana of 3000 TPD capacity. Bid due date is 14.10.2022	MCD has already invited tender for setting up WtE plant at Narela-Bawana of 3000 TPD capacity. Bid due date is on 14.10.2022.
3.	The Committee took notice that problem related to dispose of RDF is not being taken seriously.	Bhalswa Dumpsite is a unique Dumpsite where RDF generation after processing of legacy waste is quite huge.	In this regard efforts are made by engaging various waste management agencies (WMA) for disposal of RDF. Recently approx. 200 Tonnes RDF is being transported daily to WtE plant Tehkhand

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
4.	Reason for Disengagement of agencies who were involved in disposal of RDF without making alternative arrangements	Under terms & conditions of the concession agreement agencies engaged to lift RDF were not doing their jobs up to the mark. Huge quantity of RDF accumulated around processing machines/ trommels and no working space was available.	Efforts are made by engaging various waste management agencies (WMA) for disposal of RDF. Recently approx. 200 Tonnes RDF is being transported daily to WtE plant Tehkhand. Apart from this, an integrated tender of Bio-mining has been called to process and dispose the legacy waste from the Dumpsite.
Discrepancies regarding functioning of the erstwhile North DMC			
1.	Total area of landfill site: The Commissioner MCD should collect relevant documents to find out the exact area of the landfill site to make proper future plans for removal of the garbage at the Dumpsite.	Drone Survey of the Bhalswa Dumpsite has been carried out and the report has been submitted by the surveyor on June 2022. SLF site area is 78.47Acres (31.76 Hectares) as per the survey report.	_____
2.	Number of Trommel machines: Apparently, different officers of MCD have given inconsistent and contradictory figures of trommel machines functioning at the spot. Detailed investigation is required to how many	Initially there were 51 trommels/ legacy waste processing machines installed and operational at Bhalswa landfill. In the month of July, 2022 competent authority accorded to disengage 23 No	Integrated tender has been called for Bio-mining and disposal of 30 Lakh MT of legacy waste from Bhalswa Dumpsite. The Bid has been opened on 23.09.2022 & evaluation of Technical Bid is in

	<p>trommel machines were in operation at the time of constitution of the Committee at landfill site; how many were in operation at the time of conduct of Drone Survey in June, 2022 and how many trommels machines were in operation in the last week of July, 2022 when 23 trommels machines were disengaged. It should also be enquired as to how many trommel machines are functional at present at the landfill site.</p>	<p>trommel machines installed at lower level/ ground level at Bhalswa Dumpsite due to which trommels machines were curtailed to 28. Further 10 trommels machines in Aug 2022 were disengaged after approval of the competent authority due to low performance of Bio-mining. At present 18 trommel machines/processing machines are installed and operational at site.</p>	<p>progress. The time of completion of the work is 18 months. In this the scope of work includes Bio-remediation of Legacy waste and disposal/ transportation of segregated material by same agency.</p>
3.	<p>Disposal of RDF</p> <ul style="list-style-type: none"> Agencies who were engaged in the disposal of RDF have been suddenly disengaged without making alternative arrangements for disposal of RDF which is being accumulated at the Dumpsite. Responsibility should be fixed for the lapses of the officers concerned The agencies involved in the disposal of RDF including WTE at Bawana for irregularities, if any. The Committee is of the view that alternative arrangement must be 	<p>As required under terms and conditions of the concession agreement agencies engaged to lift RDF were not doing their jobs up to the mark. Huge quantity of RDF accumulated around processing machines/ trommels and no working space left available for their functioning</p> <p>Efforts are being made by engaging various waste management agencies (WMA) for disposal of RDF and recently approx. 200 Tonnes RDF is being</p>	<p>MCD has already invited tender for setting up WtE plant at Narela-Bawana of 3000 TPD capacity. Bid due date is 14.10.2022. Further, Integrated tender has been called for Bio-mining and disposal of 30 Lakh MT of legacy waste from Bhalswa Dumpsite. The Bid has been opened on 23.09.2022 & evaluation of Technical Bid is in progress.</p>

	<p>ensured at the earliest to avoid accumulation of RDF at landfill site.</p> <ul style="list-style-type: none"> • The Committee is of the view that whole hearted approach is required to be adopted while making any proposal for disposal of RDF etc. 	transported daily to WtE plant Tehkhand.	
4.	Reason for not utilizing land allotted by DDA at various locations.	Inert is being disposed off at DDA site in front of Kalimata Mandir land and behind St. Xavior School near Shahbad Dairy Rohini.	Furthermore low lying areas / DDA sites are being identified for disposal of inert / C&D.
5.	<p>Lands available with MCD for Bhalswa landfill: Lands available with MCD should be utilized properly and impediments, if any, should be removed at the earliest. DDA has already informed that it was not possible to substitute/exchange the land at Sultanpur Dabas with any other land.</p>	No alternate land is available for Bhalswa Dumpsite so MCD is stabilizing the garbage dump by doing step cutting and maintaining slopes at regular interval of height, so that the available land could be optimally utilized.	_____
6.	<p>The Committee noted that the space/facility at Okhla can be utilized to dump MSW to lessen the load at Bhalswa dump-site. After the unification of all the Corporations, there should not be any difficulty in exploring the utilization of Okhla land fill site/facility to dump MSW temporarily.</p>	The Dumpsite at Okhla is over saturated and outlived its life, thus no MSW/Waste can be shifted from Bhalswa Dumpsite to Okhla Dumpsite.	_____

Bio-mining of Legacy Waste			
1.	Commissioner, MCD must enquire as to how much legacy waste has been processed till date. It should also be ascertained if proper record has been maintained at the landfill site regarding processing of the legacy waste and how the different figures have been arrived at.	Proper record is maintained of processed legacy waste. The segregated quantities of RDF, Inert and C&D waste are measured by the weigh bridge at site. Till 29.09.2022, 26.22 Lakh MT Legacy waste has been processed.	
2.	Segregation of Waste at source and compost at the colony level.	IEC activities are being carried out among the residents/generators to segregate the MSW at source. Sanitary Inspectors of the area impose penalty against the violators as per Solid Waste Management Rules 2016.	_____
3.	Commissioner, MCD should assess the total requirement of trommel machines to be installed/operated at landfill site so that the huge quantity of legacy waste lying at the landfill site along with fresh MSW is bio-mined or processed by the target date.	Presently 18 trommels machines are processing legacy waste at Bhalswa landfill site. Till 29.09.2022 26.22 Lakh MT of legacy waste has been processed.	Integrated tender has been called for Bio-mining and disposal of 30 Lakh MT of legacy waste from Bhalswa Dumpsite. The Bid has been opened on 23.09.2022 & evaluation of Technical Bid is in progress. In this the scope of work includes Bio-remediation of Legacy waste and disposal/ transportation of segregated material by same agency.

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
4.	No effective plans to reduce the height of the garbage mounds have been made. The Committee is of the view that segregation of the waste at source is the urgent need of the hour.	IEC activities are being carried out among the residents/generators to segregate the MSW at source. Sanitary Inspectors of the area impose penalty against the violators as per Solid Waste Management Rules 2016.	IEC activities are being regularly carried out.
5.	MCD must comply with directions issued by CPCB on 26.05.2022 & DPCC on 10.06.202 that fresh waste be not disposed at the dump-site. Organic waste from APMC and industrial waste be not disposed of at the dump-site. It is ensured that no industrial waste/e-waste/lithium battery is dumped at the site	The area of 6 Zones of MCD namely Rohini, Civil Line, Karol Bagh, S.P. City, Keshavpuram and Narela generates about 4800 TPD of MSW out of which 2300 TPD is being processed in Narela – Bawana and the remaining approx. 2500 TPD is being dumped at Bhalswa dump site. As there is no alternative land MCD has continued to use this landfill site for dumping of fresh garbage. Industrial and hazardous waste are not being dumped at Bhalswa Dumpsite.	As soon as proposed WtE plant at Narela – Bawana start to function fresh MSW and APMC waste will be stopped from dumping at Bhalswa Dumpsite.

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
6.	Prevention of dumping of fresh Municipal Solid Waste at Bhalswa Dumpsite.	The area of 6 Zones of MCD namely Rohini, Civil Line, Karol Bagh, S.P. City, Keshavpuram and Narela generates about 4800 TPD of MSW out of which 2300 TPD is being processed in Narela – Bawana and the remaining approx. 2500 TPD is being dumped at Bhalswa Dumpsite. As there is no alternative land MCD has continued to use this landfill site for dumping of fresh garbage.	As soon as proposed WtE plant at Narela – Bawana start to function fresh MSW will be stopped from dumping at Bhalswa Dumpsite.
7.	Prevention of dumping of industrial waste E-Waste/ Lithium Battery at Bhalswa Dumpsite.	Dumping of Industrial waste, E-waste/Lithium battery are already prevented.	_____
8.	Minimization, segregation, recycling and reuse of materials.	Segregation of waste is being ensured and 3R (Reduce, Reuse, Recycle) initiatives are also being ensured.	IEC activities among the generators/ residents will be continued.
9.	Levying of charges / penalty for dumping unsegregated MSW at Dumpsite.	Work of collection and transportation of MSW has been awarded and levy of penalty is ensured at zonal office.	_____

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
10.	Bye-laws notified in 2018 for Delhi placing the onus on those who generate it including households.	Generators are being made aware to ensure segregation of waste through IEC activities. As mandated in Bye-laws.	IEC activities among the generators/residents will be continued.
11.	The process of biomining is very slow and tardy. No effective steps seem to have been taken for bio-mining the waste. Steps planned by MCD that would ensure achievement of target of flattening the garbage mountain by December 2023.	Bio-mining of Legacy Waste is being carried out Bhalswa Dumpsite since Oct 2019 in compliance of the Orders of Hon'ble NGT. The total quantity of legacy waste bio-mined till 29.09.2022 is about 26.22 Lakh Ton (32.78 %). Also an appeal has been made by MCD to general public, Govt agencies, Department, RWAs, Pvt. Agencies and published in the Newspapers for utilization of Inert and C&D material generated from the Bio-mining of Legacy Waste. Around 19000 MT of inert and C&D waste has been lifted by Private Agencies/individuals at their own cost.	Integrated tender has been called for Bio-mining and disposal of 30 Lakh MT of legacy waste from Bhalswa Dumpsite. The Bid has been opened on 23.09.2022 & evaluation of Technical Bid is in progress.. In this the scope of work includes Bio-remediation of Legacy waste and at same time disposal of all recovered materials ie RDF, INERT,C&D in 18 months' time by same agency and reducing the quantity and height of garbage in all in time bound manner.

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
12.	Relevant document to find exact area of landfill to make proper future plans for removal of legacy waste at Dumpsite	Drone Survey of the Bhalswa Dumpsite has been carried out and the report has been submitted by the surveyor on June 2022. SLF site area is 78.47 Acres (31.76 Hectares) as per the survey report.	_____
13.	How many trommel machines are required at the landfill site to achieve the object of flattening of garbage mounds.	Presently 18 trommel machines are processing legacy waste at Bhalswa landfill site. Till 29.09.2022, 26.22 Lakh MT of legacy waste has been processed.	Integrated tender has been called for Bio-mining and disposal of 30 Lakh MT of legacy waste from Bhalswa Dumpsite. The Bid has been opened on 23.09.2022 & evaluation of Technical Bid is in progress. In this the scope of work includes Bio-remediation of Legacy waste and disposal/ transportation of segregated material by same agency and reducing the quantity and height of garbage in all in time bound manner.

S.No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
Inert from Bio-Mining of legacy waste			
1.	It is suggested that the Government agencies/Departments/R WAs be involved and mandatorily be asked to utilize Inert in their projects to the extent it is feasible	MOU has been signed with NHAI for disposal of inert at their various road projects and presently inert is being disposed off at DDA site in front of Kalimata Mandir Land and behind St. Xavior School Near Shahbad Dairy Rohini. Further an appeal has been made by MCD and published in the Newspapers for utilization of Inert Material generated from the Bio-mining of Legacy Waste. And so far, around 19000 MT of inert and C&D waste has been lifted by Private Agencies/individuals at their own cost.	Publishing appeal in Newspaper to all the general public, govt. & public agencies to utilize segregated material in their projects will be continued. More low lying areas / DDA sites are being identified. Further MCD is planning to increase the processing of legacy waste and supplying of inert to NHAI and other sites for which integrated tenders have been invited.

S. No	Issues w.r.t Bhalswa Dump site mentioned in Interim Progress Report of Joint Committee	Action taken / Remarks	Prospective Action Plan
Prevention of Fire Incidents			
1.	Deficiencies shortcomings noted at the time of fire mock drill	Emergency No. have been displayed. CCTV cameras are installed and working 24x7. Staff is deputed in shifts 24x7. The patrolling team is deployed to detect fire if any. There are separate entry and exit gates. SOPs for SLF is prepared and displayed.	To sensitize the staff at SLF Bhalswa. Plan prepared to install CCTV cameras all around the landfill to avoid unauthorized access.
2.	Separate Entry and exist gates	Separate Entry and exit gates are available at site	_____
3.	Establishment of an emergency control room which would be operational on 24x7.	Site office exist which is operational 24x7 equipped with CCTV cameras.	_____
4.	Preparation of SOPs disaster management plan and excavation plan and keep it at site.	SOP for SLF have been prepared and displayed at site.	SOP for SLF have been prepared and displayed at site.
5.	Recurring spots needs to be identified.	Fire generally occurs where fresh garbage is dumped, which have been identified.	Area is earmarked where fresh garbage is dumped.
6.	Increasing number of tankers for sprinkling of water.	04 Tankers for sprinkling of water are deployed in all shifts.	Action already taken
7.	Deployment of adequate heavy machinery at the Dumpsite.	Departments machinery i.e. 06 Bulldozers, 04 excavators and 02 backhoe loaders are	Action already taken

		working at site, in addition to the machinery being used in the bio-mining process of legacy waste.	
8.	Erection of security watch towers for proper ward and watch of the Dumpsite.	At present 31 cameras are working to cover /watch the SLF round the clock.	_____
Solid Waste Management Facility at Saligao			
1.	To examine the report and implement the same to the extent it is feasible in Delhi.	The report shall be studied and norms will be taken.	_____
Bio-Mining of Legacy Waste in Goa			
1.	To examine the report in detail and implement the best practices adopted by them which can be replicated in Delhi. Possibility of aggravating the problem at Bhalswa landfill site cannot be ruled out. Steps taken so far are not adequate.	As per order passed by Hon'ble NGT for original application No. 519/2019, the Bio-mining and Bio-remediation of legacy waste is already taken up by MCD at Bhalswa Dumpsite which is in similar lines of the model implemented by Indore Municipal Corporation	

6. Operational Waste to Energy Plants & Integrated Solid Waste Management Facilities, Gap Analysis on Solid Waste Management and proposed Waste Processing & Disposal Facilities in Delhi are given in following tables :

Operational Waste to Energy Plants & Integrated Solid Waste Management Facilities in Delhi

S. No	Name of Waste to Energy Plant	Existing Capacity	
		Waste Processing (in TPD)	Electricity Generation (in MW)
1.	Timarpur Okhla Waste management Company Ltd., Old NDMC Compost Site, Okhla	1950	23
2.	East Delhi Waste Processing Company Ltd., Ghazipur	1300	12
3.	Delhi MSW Solutions Ltd, Narela Bawana Road, Bawana [Integrated MSW Facility having Wasteto Energy Plant– 1300 TPD, Compost Plant –700 TPD & Engineered Sanitary Landfill (SLF)]	2000	24
	Total	5250	59

Gap Analysis on Solid Waste Management in Delhi

Generation (in TPD)	Total Capacity of Existing MSW Processing Facilities (Excluding Pit Composting & MRFs)	Gap in Processing Capacity	Capacity of proposed Processing Facilities
11357	5361 TPD	5996 TPD	6451 TPD

Proposed Waste Processing & Disposal Facilities in Delhi

S.No	MSW Facility	No.(s)	Location	Local Body	Capacity (in TPD)	Expected Timeline for Completion
1.	Waste to Energy Plant	1	Tehkhand	MCD	2000	Nov. 2022
2.	Waste to Energy Plant	1	Narela-Bawana [For 3 Zones (City-SP, Karol Bagh & Narela Zone)]	MCD	3000	Aug., 2025

3	Expansion of existing WtE at Okhla	1	Okhla	MCD	1000 (From 1950 TPD to 2950 TPD)	Public Hearing held on 16.08.2022 & Proceedings of Public Hearing sent to MoEF&CC on 24.08.2022.
4.	Bio CNG Plant	1	Okhla	MCD	300 TPD (From existing compost plant of 200 TPD to 300 TPD)	Sep, 2023
5.	Compressed Bio Gas (CBG) Plant	1	Hastsal	MCD	100 TPD	Apr, 2023
6.	Sorting cum Composter Plants	2	Kirby Place in Delhi Cantt.	DCB	50 TPD (Total Capacity of 2 Plants)	Dec, 2022
7.	Decentralised Composter Plants	1	Vishwas Nagar	MCD	1	Oct, 2022
8.	Engineered Sanitary Landfill(SLF)	1	Tehkhand	MCD	-----	Apr, 2023
	Total	08+ 01 SLF			6451 TPD	

Note:

- Bio-CNG Plants at Nangli Dairy (215 TPD), Goyla Dairy (215 TPD), Ghogha Village Dairy (290 TPD) by March, 2023 mainly for the Waste generated from Dairies.
- Two MRFs one each at Bhalswa Dairy (150 TPD by Dec, 2022) and Rampura (30 TPD extendable upto 50 TPD) are proposed.

7. That Government of NCT of Delhi will abide by the orders passed by this Hon`ble Tribunal.

Above report / response of Government of NCT of Delhi with respect to interim progress report of joint committee may please be taken on record for consideration/ further directions please.

(Dr. K.S. Jayachandran)

Special Secretary (Environment)-cum-
Member Secretary, Delhi Pollution Control Committee

New Delhi

Dated: 10.10.2022