Dr. Subhash C. Pandey vs Bhopal Municipal Corporation on 31 July, 2023

Item No.02

BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONAL BENCH, BHOPAL

(By Virtual Mode)

Original Application No.18/2023(CZ)

Dr. Subhash C. Pandey Applicant(s)

Versus

Bhopal Municipal Corporation & Ors. Respondent(s)

Date of hearing: 31.07.2023

CORAM: HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER
HON'BLE DR. AFROZ AHMAD, EXPERT MEMBER

For Applicant(s) : Dr. Subhash C. Pandey, applicant in person
For Respondent(s) : Mr. Sachin K. Verma, Advocate for State of MP
Ms. Parul Bhadoria, Advocate for MPPCB
Mr. Brajesh Sharma, RO, MPPCB, Bhopal

ORDER

1. Heard parties and respective Counsels.

2. The complaint made before us by the means of present Original Application (hereinafter referred to as 'OA') filed under Sections 14, 15, 17 read with Section 18 of National Green Tribunal Act, 2010, (hereinafter referred to as 'NGT Act, 2010') is that there was a newspaper report that Municipal Solid Waste (hereinafter referred to as 'MSW') dumping site at Adampur Chhavani has caught fire on 24.02.2023 again. The fire had caused huge emission of smoke resulting in severe air pollution and could not be controlled despite deployment of 2 dozens of fire fighters till late night. In fact, as per subsequent newspaper reports, fire continued for a few days. Fire was extended to 2 acres of legacy waste spread at the site in the last 5 years having a total quantity of about 7 lakhs tonnes of legacy waste. This is the fifth time when Adampur dumped site caught fire. There was complete negligence on the part of Bhopal Municipal Corporation (hereinafter referred to as 'BMC') in protecting the site from catching fire in as much as no fire-fighting treatment, no fire-fighting equipments, no high drains, no functioning of bore well were installed at the site.

3. The complaint was considered by Tribunal on 02.03.2023 and it found appropriate to obtain a Factual Report, for the purpose whereof, it constituted a Joint Committee comprising one representative from Central Pollution Control Board (hereinafter referred to as 'CPCB'), one

representative from Madhya Pradesh Pollution Control Board (hereinafter referred to as 'MPPCB'), one expert form Indore Municipal Corporation looking after waste disposal and one expert Professor from MANIT, Bhopal nominated by its Director.

4. Joint Committee visited the site on 10.04.2023 and submitted report stating that about 1.5 lakhs cubic meters of old legacy waste was found at MSW site which was brought from Bhanpur Khanti; some steps for processing of waste were taken; a scientific sanitary landfill with a capacity of 380000 cubic meter with High Density Polyethylene (HDPE) geo-membrane 1.5 mm site was developed at MSW site for disposal of inert waste material remaining after processing of solid dry waste and wet waste; ETP plant of 50 KLD capacity was set up for the treatment of leachate generated from the landfill site.

5. Committee also found during inspection that solid waste stored at the site was up to a height of about 20-25 feet on the raw land. Accumulation of leachate/seepage was observed in the drains located in the premises. The leachate/seepage was collected in the rain pit of the stored solid waste. Garland drains/leachate collection drains developed around the waste collection site were found broken at many places due to movement of heavy machinery and lack of proper repairs. As per analysis results of village Padariya and Chhawani, Pathat Naka tubewells samples, value of iron was found above prescribed limit.

6. With respect of the status of fire, Committee found that there was no active fire smoke at the time of inspection but ash generated from the fire incident was found at several places. Dump Site Management informed Committee that fire occurred on 24.02.2023 and 01.04.2023 on some portions of segregated dry waste stored in the dump site premises.

7. There was no active emergency response plan found with the operator for fire, which is clear violation of directions dated 26.05.2022 issued by CPCB which are as under:

> "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."

8. Committee also found that 5000 trees have been planted by BMC in north direction, adjacent to the MSW site, but no plantation on south side and west side.

9. Committee recommended environmental compensation from 15.12.2021 to the date of inspection i.e., 10.04.2023. Compensation was calculated at the rate of Rs. 10 lakhs per month in the light of this Tribunal's order dated 14.12.2020 passed in OA 606/2018, In re:

Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues and it had recommended environmental compensation of Rs. 1.50 Crores.

10. Beside, Committee also made several recommendations. Relevant extract of Committee's Report is reproduced as under:

"The following are the observations made by the committee:

Description of the Site:-

1. The Municipal Solid Waste Disposal Site is located at Village Koluakhurd, Bhopal at Latitude and Longitude viz 23.2662N & 77.56111E. It is 15 km away from Bhopal on Bhopal-Raisen Road.

2. Adampur Chawani, Haripur, Arjun Nagar, Koluakhurda, Padariya Kachhi and Bilkhiriya are the villages situated nearby among which the nearest villages

Koluakhurda and Padariya Kachhi are situated at a distance of Approx. 650 meters and 750 meters respectively from this site.

3. Ajnal River and Ajnal Dam are located at a distance of about 2.20 km in downstream of MSW site

4. Rahwasi Village and Raisen Road SH 146, situated at a distance of about 1.26 kms. The google map showing the about places is as per Annexure-1.

Status of Environmental Clearance:-

5. A 21 MW power plant with integrated MSW facility was proposed at this site by Municipal Corporation Bhopal. Whose public hearing was completed on 04.07.2018. Thereafter, the environmental clearance of this project was received in the name of M/s Bhopal Municipal Solid Waste Private Limited on 11.01.2019, whose copy is as per Annexure-2.

6. Environmental clearance was obtained by M/s Bhopal Municipal Solid Waste Private Limited for 21 MW capacity Municipal Solid Waste based power plant. As per point no 16 of environmental clearance issued by MoEF a secured landfill at an area of 22.63 hact is mentioned in this point. This 21 MW capacity Municipal Solid Waste based power plant was not established.

7. Presently M/s Green Resource Solid Waste Management Pvt. Ltd. Bhopal applied for public hearing for obtaining Environmental clearance under EIA Notification 2006 for the establishment of integrated solid waste management facility consisting of processing plant of 850 TPD capacity and secure land fill site of 380000 cubic meter capacity.

8. The Public hearing of the case was held on dated 09/01/2023 and the proceedings of the public hearing are sent to MPSEIAA. The matter is under process.Copy is as per Annexure-3.

9. Establishment/production consent has not been obtained from the board for carrying out this activity which is in violation of environmental regulations.

The status of municipal solids waste facility:-

10. The MSW at Adampur site is currently being managed by M/s Green Resource Solid Waste Management Pvt Ltd. without any valid EC/ CTE/ CTO/ Authorization.

11. Processing units of dry and wet urban waste have been established at Adampur Chawani. Plastic and recyclable materials are separated from the dry waste by rag pickers at the initial stage. After that, RDF is separated by Mechanical Traummel

screening machines depending upon size of waste.

12. Currently there are 14 Mechanical Traummel screening machines working at the site where each machine is having the capacity of 20 TPH. The working hours are 8-9 hours daily.

13. Approx 150-200 tons/day RDF is sent for co-processing in waste to energy plant, Jabalpur and A.C.C Cement, Katni.

14. An organic compost plant of 200 tonnes per day capacity has also been set up at the MSW site for processing of wet waste, in which the wet waste is mixed with compost decomposer for 30 days and kept in the wind-row for decomposing. After that the compost is packed in bags and sold directly to farmers or to various institutes through Government Agency.

15. A dump of about 1.5 lakh cubic meters of old legacy waste was found at the MSW site during inspection, which was brought from Bhanpur Khanti. According to the information provided by the representative of M/s Green Resource Solid Waste Management Pvt Ltd., bioremediation of the old legacy waste dump is in progress. About 600- 700 tonnes/day of waste is processed and the segregated RDF is provided to cement plants for co- processing.

16. A scientific sanitary landfill with a capacity of 380000 cubic meter with High density polyethylene (HDPE) geo-membrane 1.5 mm site has been developed at the MSW site for disposal of inert waste material remaining after processing of solid dry waste and wet waste. ETP plant of 50 KLD capacity has been set up for the treatment of leachate generated from the landfill site. Copy of executive summery is enclosed as Annexure - 4

17. During inspection, it was found that the solid waste at the MSW site has been stored up to a height of about 20-25 feet on the raw land. Accumulation of leachate/seepage was observed in the drains located in the premises. The above leachate/seepage is collected in the rain pit of the stored solid waste. The sample of leachate has been collected for analysis and the results will be submitted as soon as received from the laboratory division.

18. Garland drains/leachate collection drains developed around the waste collection site were found broken at many places due to movement of heavy machinery and lack of proper repairs. Leachate collection pit, in which the leachate is collected, was also found damaged. Leachate/seepage flow was also observed in some pits outside the premises near MSW site.

19. Analysis of the ground water at village Padariya, at plantation site adampur chhawani, village Kolua, Chhawani Pathar Naka are being done by MPPCB. The

analysis data is attached at Annexure-5

20. As per the analysis results of village Padariya & Chhawani Pathar Naka tubewells water samples, the values of Iron are found above prescribed limit.

21. Large amount of sheet spread was observed inside the MSW site and also outside the boundary wall to some extent. Therefore, it is necessary to install a wired-mesh/chain link mesh screen of sufficient height above the boundary wall to prevent polythene bags from spreading around in summer and in case of strong wind.

The status of fire in the municipal solids waste dump:-

22. During the inspection of the dump site joint committee observed no active fire and smoke from the MSW dump at Adampur Chawani dump site, But ash generated from the fire incident was found at several places.

23. The dump site management informed the committee that the fire was occurred on dated 24/02/2023 and on 01/04/2023 on some portions of segregated dry waste stored in the dump site premises, which was control by the deployment of fire brigades.

24. There is no active Emergency Response Plan found with the operator for fire, which is clear violation of Guidelines issued by CPCB.

25. The ambient air quality sample monitoring was conducted by RO, MPPCB, Bhopal at two stations adjacent to the MSW site during fire incident reported on 24/02/2023 and on 01/04/2023. As per analysis report of the samples collected, the results of PM10 are found 271.7 µg/m3& 366.0 µg/m3 and 383.9 µg/m3& 288.9 µg/m3 .The results are found more than the prescribed standards of PM10of 100 µg/m3 .The analysis data is attached at Annexure-

6. Plantation:-

26. About 5000 trees have been planted by the Municipal Corporation in the north direction adjacent to the MSW site.

27. Plantation on south side and west side is not done. Environmental Compensation for the legacy waste:-

As per the observation and information provided by the MSW dump site management there is a stock of 1.50 lacs tons of legacy waste accumulated at the site. In this regard the environmental compensation is calculated as per the order of Hon'ble NGT (PB) in OA No. 606/2018 dated 14.12.2020. Details are under:-

As per point no. 4 of the order for the cities having population more than 10 lakhs may be levied a compensation of Rs. 10 lacs per month basis.

The calculation is as under:-

Particulars	Number of months	Rate of Compensation (in Rs.)	Compensation	Remarks
Months of violation	15 months	Rs. 10 lacs per month	1.50 Cr.	The violation months are calculated from MPPCB inspection dated 15.12.2021 upto 10.04.2023

Recommendations:-

1. The integrated municipal solid waste management facility working at village Adampur Chawani should obtain environmental clearance under EIA notification 2006 and consents (CTE/CTO) under Water (Prevention and Control of Pollution) Act 1974 and Air (Prevention and Control of Pollution) Act 1981.

2. To prevent the surface runoff generated due to rains, garland drains should be provided around the dump site and maintained regularly.

3. Pacca (RCC) platform should be provided for the storage of municipal solid waste to prevent seepage of liquid in the ground.

4. For the prevention of accidental fire, municipal solid waste should be stocked in small heaps of area 20x30 feets each and each heap should be separated by a gap of at least 1.5 meters.

5. The site should be equipped with fire hydrates at suitable places to prevent any fire misshape along with proper protective gears for the workers.

6. The site should install a wired-mesh/chain link mesh screen of sufficient height above the boundary wall to prevent polythene bags from spreading around in summer and in case of strong wind.

7. The site should be cover with a boundary wall around the site with wire mesh railing of at least 20 feet high.

8. The legacy waste stored at the site should be processed and disposed of on priority.

9. Green belt should be provided all around the premises.

10. All the important records of waste management must be kept in the Campus. Designated official be made responsible to sit in the office for supervising the work and the maintenance of records.

11. The Routine Health Check up (annually/half yearly) for the workers as well as well as the near by Residents to prevent the workers from Occupational Health Hazards and the Residents from (a). Dermatitis, (b). Respiratory Diseases right from Allergic Bronchitis to Malignancy, (c) Gastro enteritis, (d) Eye Diseases etc.

12. Proper SOP to be put at the site of the working of Installed Machine.

13.Annual Maintenance Contract to be initiated and required to be done routinely to overcome the accidents and proper prevention of Occupation Health Hazards.

14. The workers to be kept for short term because those exposed to the machine and other work for longer period will develop the Health Problems.

15. A supply of safe drinking water be made to the nearby residents.

16. Insurance for the workers must be initiated."

11. Applicant has filed reply dated 09.05.2023 to the inspection report filed by MPPCB. Commenting on Joint Committee Report, it is said that route cause of the problem has not been given stressed in the report; existing processing plant has only 850 TPD capacity which run for 8-9 hours daily wherein daily waste generation in Bhopal city is nearly 1500 TPD; there is a vast gap between generation and processing of municipal solid waste resulting in conversion almost 650 TPD legacy waste on daily basis; this is in addition to the old legacy waste of more than 2 lakh tons and that's why the problem persists; no comment has been made on the ETP treated waste analysis; an organic compost plant for processing of wet waste is functioning at the dump site and after mixing decomposer for 30 days, compost is placed in bags and sold directly to farmers and other stakeholders without scientific testing as to whether the said compost is fit for agriculture purposes or not; this is a gross violation on the part of BMC in compliance of Solid Waste Management Rules, 2016; and in absence of proper testing of said compost, there is every possibility that it may have heavy metals, hazardous organic and inorganic chemicals etc., which may have negative impact and cause damage to soil and plants.

12. Respondent 1 i.e., BMC has filed a short reply cum action taken report dated 15.04.2023, stating that BMC executed an agreement with NTPC on 12.10.2021 to set up a MSW Torrefied Charcoal Plant Facility for the purpose of management, treatment, processing and disposal of municipal solid waste; 400 tonnes of dry Municipal Solid Waste will be processed and torrefied charcoal will be

produced which will be further used as fuel in NTPC Thermal power plants; NTPC will invest 100 Crores on the said project; further, a concession agreement was executed between BMC and M/s. Bhopal RNG Limited on 12.10.2021 for designing, building, financing, opiating and transferring of Bio-CNG plant for treatment of 200 tonnes per day biodegradable Municipal Solid Waste at Adampur Chhavani, Bhopal on PPP Model; and since there was an increase in supply of bio-degradable waste, a supplementary agreement was executed between BMC and M/s. Bhopal RNG limited on 21.03.2022 for augmentation of processing capacity of bio CNG plant at Adampur Chhavani, Bhopal from 200 tonnes per day to an integrated 400 tonnes per day facility. M/s. Bhopal RNG Limited will set up a plant by investing about Rs.120 Crores. On the question of fire extinguishing arrangements, reply of BMC said as under:

> (i) 9 fire tenders having foam media are available in BMC to control any fire incidents,
>
> (ii) 3 dedicated fire tenders are available at site for fire extinguishing.

Order in this regard was issued on 06.02.2023, copy whereof is filed as annexure R-1 to its reply,

(iii) Site has 2 borewell and one fire hydrant recently installed at site for immediate refilling of fire tenders, and

(iv) Adequate storage of sand/solid is kept at site in case of emergency fire happening at site.

13. From the above discussion, it is clear that factum of fire on two occasions is not in dispute. The fire control took days together is also not in dispute. The steps to be taken or already taken talk of future but presently, it is evident that toxic smoke was emitted with potential for air borne diseases.

14. Legacy waste dump site are like time bombs since they constantly generate explosive gases like Methane which may escape through vertical and lateral ways, posing a constant threat of explosion and that may be a reason of repeated fire of the solid waste at dumped site.

15. BMC is under Statutory obligation to manage dump site in a scientific manner but it is evident that its functioning is far from satisfaction and various environmental laws have been violated in one or the other manner.

16. In absence of any substantive reason or objections, we find it justified to accept Joint committee Report to the effect of establishing deleterious effect of operating land fill site in a crude manner and no remediation done for legacy waste management.

17. We are also of the view that recommendations made by Joint Committee in its report be complied with by respondents. Further, appropriate environmental compensation should also be imposed on BMC on the principle of 'Polluter Pays' for having caused damage to air as also for contaminating ground water due to seepage of leachate at the dump site.

18. Committee has recommended compensation from 15.12.2021 to 10.04.2023 at the rate of Rs.10 lakhs per month and total compensation of Rs. 1.5 Crore. Since we are at the end of July 2023, therefore, we add 3 months' more compensation i.e., upto 10.07.2023 and impose environmental compensation at the rate recommended by joint committee by computing compensation as per this Tribunal's order dated 14.12.2020 passed in OA 606/2018, In re: Compliance of Municipal Solid Waste Management Rules, 2016 and other environmental issues to Rs.1.80 Crores.

19. The amount of environmental compensation shall be deposited by respondent 1 i.e., BMC with MPPCB within 2 months.

20. We also direct that in pursuance to Tribunal's order dated 10.11.2022 passed in OA 606/2018 (supra) (in respect of State of Madhya Pradesh), wherein waste processing facilities are to be established of adequate capacity and no legacy waste is added and current land fill site(s) be remediated and land be recovered for plantation and establishing waste processing facility, the directions issued in the said order be also complied with by respondents. Relevant part of order dated 10.11.2022 reads as under:

> "Use of reclaimed land occupied by legacy waste sites
>
> 32. As already mentioned earlier, legacy waste dump sites have resulted in huge damage to the environment and population in the vicinity of such dump sites who have suffered in safety, health and comfort. For compensating them for such damage, one third of land occupied by legacy dump sites (on reclamation) needs to be reserved for dense forest and in the process of afforestation, Campa Funds can be utilized in accordance with the provisions of Compensatory Afforestation Fund Management and Planning Authority Act, 2016 (CAMPA Act). One third of reclaimed land out of the said dump site needs to be reserved for integrated waste management facilities. Remaining one third can be used for any other purpose, consistent with the above purposes, including a part of it being utilized for monetizing, if funding is required for tackling the legacy waste. Legacy waste clearance has to be in minimum further time as laid down statutory timelines have already expired and serious damage is taking place. It may be noted that remediation of legacy sites may be one time affair and such situations should not arise in future. User of land, to be reclaimed, needs to be declared in advance so that further steps can be taken in that direction. This is in line with order of this Tribunal dated 11.10.2022 in OA No. 300/2022, In re:
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> 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". Relevant part thereof is quoted below:-
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> "xxx .....xxx.....xxx

> 37. Restoration measures will include scientific disposal of the accumulated garbage as per statutory Rules and environmental norms, fire control and mitigation measures, construction of boundary wall/biofencing by trees and shrubs/ afforestation, plantation, leachate treatment facility. Course of action planned and executed at other places8 where legacy waste dumpsites are reported to have been remediated may also be studied.

Ground Water Authority may examine the extent of leachate flow into the ground water on which remedial action may be taken.

38. It is to be ensured that current waste is not added to legacy waste dumpsites. After collection, the same be taken to the destination such as Integrated Waste Management Facility or stand alone Waste Management Facilities such as Composting Centres, C&D Waste Centres and RDF Units, Waste to Energy Units, Cement Factories, Road Construction and filling up identified low lying areas, as per norms. This requires careful planning and execution with the involvement of senior level officers instead of leaving the task to junior officers as appears to be currently happening. Precautions in light of report of the Committee headed by Justice S.P. Garg, retired Judge, Delhi High Court need to be taken forthwith. To control foul smell and improve aesthetics, turfing of landfill sites must be done forthwith either in the form of a boundary walls with necessary entry and exit gates or fencing by plantations of at least three rows of native fast growing and tall native trees requiring minimum water in the periphery of landfill sites as well as complying with other criteria for development of facilities at such sites following the provisions under the Schedule I of MSW Rules, 2016. A clear action plan with defined course of action needs to be drawn up after brain storming and studying the remediation processes adopted at other places. Consequences of overshooting timeline against identified officers/service providers may be specified and enforced. The Committee may consider undertaking visits to appropriate sites.

39. One of the crucial links in management of remediation work based on bio-mining and bio-remediation is the utilization and disposal of rejects like inert, RDF, stabilized bio-earth. Segregated fractions and components which are in high quantity be safely utilized and disposed. Bulk users of RDF, three waste to energy projects should utilize the RDF and if required enhance their capacity without compromising environmental norms and public safety.

40. To compensate the affected citizens of the area, the authorities are under obligation to develop dense forest in at least on one third of the land occupied by the dumpsite, after the sites are cleared. One third can be utilized for setting up Integrated Waste Management Facilities or other like infrastructure. The remaining one-third can be utilized for any other purpose, including raising of funds consistent with environment concerns without affecting the use of the two-third, as earlier mentioned. The authorities may explore setting up a tourism and recreational centre with the involvement of an appropriate agency on PPP or Hybrid Annuity Model or other mechanism so that investment is made which is allowed to be recovered from the tourists visiting such centres. Creation of an appropriate water body may be considered as part of such recreational centre. Possibility of setting up an Interpretation Centres at all the three sites to facilitate study for creating awareness for the citizens may also be considered.

41. Community involvement including the Welfare Associations, Educational Institutions, Volunteers, corporates, charitable and other social organisations and individuals may be explored. Such involvement may be explored for plantation drives also. There is also need to strengthen the Control Room and set up Grievance Redressal Mechanism accessible to the citizens to extend immediate help in emergencies within a month."

21. The amount of environmental compensation directed above shall be utilized for remediation and restoration of damaged environment in accordance with the plan which shall be prepared by Joint Committee comprising MPPCB, CPCB and District Collector, Bhopal and Divisional Forest Officer, Bhopal who shall prepare the plan within 2 months from today and, thereafter, the plan shall be executed within 3 months thereafter. MPPCB shall be the nodal agency for co-ordination and compliance of this order.

22. BMC is also directed to comply with all the recommendations made in the Committee Report. A compliance/progress report shall be filed by BMC and MPPCB by 15.11.2023 before Registrar, Central Zonal Bench, Bhopal by e-mail at ngtczbbho-mp@gov.in preferably in the form of searchable PDF/OCR Support PDF and not in the form of Image PDF, who shall, if find necessary, place the matter before the Bench for further order.

23. Subject to above direction, Original Application is disposed of.

Sudhir Agarwal, JM Dr. Afroz Ahmad, EM July 31, 2023 Original Application No.18/2023(CZ) R