

Item No.05

**BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONAL BENCH, BHOPAL**

(By Virtual Mode)

Original Application No.11/2023(CZ)
(I.A.No.22/2023)

Dhanna Ahirwar

Applicant(s)

Versus

Madhya Pradesh Pollution Board
Through Member Secretary & Ors.

Respondent(s)

Date of hearing: 25.07.2023

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

For Applicant(s) : Mr. Vikramaditya Singh, Adv.
For Respondent(s): Ms. Parul Bhadoria, Adv. for MPPCB
Mr. Sachin K. Verma, Adv. for Standing Counsel
State of M.P.
Mr. Yadvendra Yadav, Adv. for CPCB
Mr. Rohit Sharma, Adv. for R-7

ORDER

1. Learned Counsel for applicant Mr. Vikramaditya Singh has appeared before this Tribunal.
2. This Original Application has been filed under Sections 14, 15 and 18 of National Green Tribunal Act, 2010 (hereinafter referred to as '**NGT Act, 2010**') by Dhanna Ahirwar, resident of village Mohan, Tehsil – Chendari, District Ashok Nagar alleging that respondent 7, M/s J.K. Medical Waste Management System, Chanderi (District Ashok Nagar), State of Madhya Pradesh is functioning as common Bio-Medical Waste Treatment Facility in Districts Tikamgarh, Guna, Rajgarh, Ashok Nagar and Shivpur. The Bio-Medical Waste is not being properly collected, vehicles collecting bio medical waste are throwing and dumping bio medical waste illegally on open land and water bodies without any processing and treatment and thereby causing huge pollution. It is also

charging exorbitant rates as has been complained by Nursing Home Association, Tikamgarh and the vehicles are not sent regularly to hospitals and nursing homes for collection of bio medical waste in a regular manner.

3. The cognizance of complaint of applicant was taken note by this Tribunal on 08.02.2023 and it found appropriate to obtain a factual report for the purpose whereof a Joint Committee was constituted comprising District Magistrate, Gwalior or his representative, representative of CPCB and one representative of MPPCB.

4. The above committee visited the site of respondent 7 on 09.05.2023 and has submitted report on 31.05.2023. Committee has examined various issues raised by applicant and given its findings as under:

“To find out facts as well as to know the extent of problem, the committee visited the Mohanpura village and nearby area which is located n 1.0 km road distance from the CBWTF, Chanderi. For better coordination in the investigation, the committee also intracted with Sh. Dhanna Ahirwar who is the main applicant of the case and other local residents who give complaint in written to discuss the issue mentioned in the petition. During visit representative of Common Biomedical Waste Treatment Facility (CBWTF) Mrs. Pramila Sharma and Sh. Amit Rechariya were present and informed about present waste management practice and status of legal compliance.

To find out the probable and prominent source of the pollutants, the committee carried out the source emissions and collected the water sample from representative location for analysis. The main contention of the petitioner is Air pollution in Mohanpura village which is located outside of the buffer zone for settlement of air born dust or dilution of any other pollutants and removal of ash disposed. Generally, minimum buffer zone of 500 meter has been fixed for establishment of CBWTF and this village is located at much far distance from plant. The other houses including petitioner's house were located at the distance of 650 to 700 meter from the CBWTF.

The main issues in the petition raised by the applicant are as follows:-

- 1. Facility not having proper infrastructure and incapable for treatment and handling of Bio-Medical Waste (BMW).*
- 2. Facility has not obtained legal permissions for its operation i.e. consent, authorisation, EC etc.*
- 3. Facility treating the waste by 5 times above the sanctioned permission in Consent.*
- 4. CBWTF not collecting waste from member HCFs within the specified time frame and untreated BMW and ash being disposed in nearby field and water body.*
- 5. Other issues i.e., occupational health risk of workers, record keeping of waste, foul smell/odour in near vicinity, black smoke emit from*

stack etc.

During the visit the team also interacted with CBWTF staff that are associated with waste management and helpers to find out the awareness level and subject knowledge of work assigned, and also tried to fetch out any other information which is related to this matter. During visit geographical coordinates, photographs and other relevant information were also collected which are incorporated in the report.

About the CBWTF

M/s J.K. Medical waste management system is located at survey no. 55/5, Village- Godhan The.-Chanderi District-Ashoknagar (MP) and having valid consent and authorization from MPPCB for its operation. The unit has installed one incinerator of 100 kg/hr capacity with and Air pollution control measures. The unit has provided Online Continues Emission Monitoring System for measurement of pollutant emitting through the stack. The incinerator has temperature control system for primary and secondary combustion chambers. The unit has separate storage rooms for storage of yellow and red category BMW and separate rooms for storage of incineration ash. For treatment of recyclable BMW i.e. red category BMW the unit has Autoclaves of capacity 430 Ltr /Hr and one shredder of capacity 50 kg/Hr. and one sharp pit. For treatment of wastewater which is generated from floor washing, vehicle washing, scrubber etc. unit has provided 05 KL/Day capacity effluent treatment plant (ETP). Treated effluent is reused for plantation within the premises. The facility has around 273 HCFs and covering 5004 beds and 450 kg/day BMW collected and treated per day on average basis.

The committee made the following observation during site visit on the above mentioned issues:-

ISSUE 1- Facility not having proper infrastructure and incapable for treatment and handling of Bio-Medical Waste (BMW).

1. The facility is located at Godhan, Chanderi at 1.30 acre plot and as per guidelines more than 1.0 acre plot is required for setting up the facility. Presently, the facility catering the services in Ashoknagar, Guna, Shiwपुरi, Rajgarh and Tikamgarh district.
2. The unit has provided BMW treatment facilities inside a covered shed area apart from treated waste and ash storage area. The following treatment units were found installed in the premises:
 - a. Incinerator 100 Kg/hr (M/s Arawali Thermal, Sonipat make)
 - b. 01 Autoclave of (430 liters) supply by M/s Arawali Thermal.
 - c. 01 Shredder of(50 Kg/hr) supply by M/s Arawali Thermal.
 - d. 01 Sharp pit with covered top.
 - e. ETP of 5 KLD
 - f. 06 Vehicles for waste collection and 02 as stand by with GPS tracking system.
3. To store the collected bio-medical waste, the facility provides four separate rooms as per colour category. The size of the waste storage room is 10 ft. x 8 ft. which is quite adequate to store all wastes transported to CBWTF. In waste storage room, waste was stacked with clear distinction as per color coding.
4. The storage rooms are properly ventilated, glazed tiles upto 4 feet height, inside floor washing facility connected to ETP and free

space to movement has been provided by the facility.

5. One room 15Ft X 12Ft which provided treated waste mostly autoclaved plastic is stored for shredding. At the time of visit 120 to 150 kg plastic waste found stored. Treated and shredded plastic is being sold to authorized recycler i.e. Ms Haryana Plastic Solutions, Sonipat. The consent of authorized recycler is enclosed as Annexure-02.
6. The facility has provided six vehicles for collection of waste from different part of the area allotted and all the vehicles are GPS enabled. The facility has also provided 2 standby vehicles. The details of online tracking are (URL: www.waypals.com ID-jkmedical@gmail.com and PW-jkn123). The vehicles have labeled with the bio-hazard symbol (as per Schedule IV of the BMWM Rules) and displayed the name, address etc.
7. The CWTF also provided bar coding facility for end to end tracking of waste, however, it is partially implemented.
8. It was observed that unit have 100 kg/Hr static type double chamber incinerator and with 2 second residence time as per certificate provided by manufacturer. Copy of the certificate provided by the manufacturer is enclosed as Annexure-03.
9. At the time of visit, the incinerator was found operational and equipped with mechanical feeding system. It is partially operated with PLC system to control operations and also fitted with sensors for real time monitoring data capturing to send the data to MPPCB server.
10. Incinerator having temperature sensors to measure real time temperature in primary and secondary chamber. The OCEMS system is having LED display and storage arrangement for all the data of primary and secondary chamber including temperature.
11. The operation of incinerator and feeding of BMW process is observed by the committee. The temperature in primary and secondary, chambers was Observed in the range of 840°C to 887°C and 1033°C to 1076°C respectively. The minimum temperature in primary and secondary chamber is 800°C + 50°C and 1050°C + 50°C as per the BMWM Rules.
12. The unit has installed thermocouple at appropriate location i.e. in primary chamber before admission of secondary air and in secondary chamber, at the end of chamber or before admission of dilution medium to cool gas.
13. The incinerator is found equipped with Air Pollution Control Device (APCD) which comprises ventury scrubber, droplet separator, packed bed, mist eliminator and ID fan attached with 30 meter stack. The water is used as the medium in ventury scrubber to suppress the dust emission from laden flue gas. The dust emission trapped in water is collected as sludge in the settling tank of ETP.
14. The unit has one pre-vacuum type autoclave and capacity is 430 lt/batch. The autoclave was found operational at the time of visit. The unit has provided separate energy meter for autoclave and found operational during inspection.
15. At the time of visit shredder was found functional and was kept in instrumentation room fixed on RCC foundation and a separate energy meter has been provided for shredder. Manual log book for shredder operation was maintained.
16. The unit has also provided one pit made up of concrete with cover top. The dimension of pit is 6ft. X 6 X6 ft. for disposable of sharp and needles.

17. The major source of waste water generation is floor, vehicle and equipment washing and scrubber for which the unit has provided 05 KL capacity ETP which comprised of collection pit, chemical dosing tank, coagulation chamber, primary settling tank, Pressers sand filter & Activated carbon filter. The treated water is being reused in gardening and scrubbing purpose inside the plant premises hence ZLD status maintained. At the time of visit, no outside discharge of waste water was observed.
18. It was observed that the facility has provided vehicle washing platform near stack with impermeable surface and generated liquid effluent is being conveyed and treated in an effluent treatment plant.
19. The facility has developed sufficient green belt at periphery of the plant and also developed lawns with ornamental plants and carpet grass.
20. As per the waste collection data of CBWTF it was observed that less quantity of plastic waste reached for treatment hence the possibility of its pilferage from the HCFs especially from government sector may not be ruled out.
21. The unit has provided DG sets for emergency operation of plant and machinery in case of power supply failure.
22. In view of the above facts, it seems that the facility has required equipment and sufficient infrastructure for disposal of presently collected BMW.

ISSUE 2 - Facility has not obtained legal permissions for its operation i.e. consent, authorisation, EC etc.

1. The facility has valid Consent and authorisation (No.AWB-57275) upto 31.1.2028 which is enclosed as Annexure-04 and under hazardous waste management rules 2016 is also valid upto 28.2.2027 which is enclosed as annexure-05.
2. The facility has obtained Environmental Clearance vide letter no 4757/SEIAA/2016 dated 14.12.2016 and NOC from CGWB which is valid from 25.3.2023. However, NOC is not required as units comes under MSME category and water withdrawal is also less than 10 KLD which is enclosed as Annexure-06
3. The unit also obtained the membership of the TSDF, Pithampur for disposal of incinerated ash and manifest of the same also maintained.

ISSUE 3 - Facility treating the waste by 5 times above the sanctioned permission in consent.

1. To verify the above facts, log book of waste collection and machine running log book have been verified and it was observed that on average basis 400 to 500 kg waste collected by the facility each day, in which 250 to 350 kg on average basis is yellow category which has to be incinerate and remaining is recyclable waste.
2. The unit has installed 100 kg/Hr incinerator for waste treatment and for disposal of 300 kg of waste maximum 4 Hr/day operation time is required including warm-up time hence the present incinerator having sufficient capacity to treat the waste and as per the present consent the facility allowed to incinerate 800kg of waste in a day. Hence no irregularity was observed W.r.to treatment of above the sanctioned limit.
3. At the time of visit CBWTF was operational at full capacity. As per

consent, the unit is having 50 kg/hr capacity shredder and 430 It/cycle autoclave. On average basis 100 to 150 kg waste red and blue category is being treated through it hence the present capacity is sufficient to treat the recyclable waste. Similar to above no irregularity was observed w.r.to treatment of recyclable items.

4. The recyclable plastic waste is autoclaved followed by shredder. The unit has also provided concrete make sharp pit for disposable of metal sharp and needles.
5. The unit has provided separate area for treated and untreated waste storage (15 ft X 12 ft) and seems it is sufficient to fulfill the present requirement of waste storage. It was observed that proper segregated and bar coded waste is not being received at the facility.

ISSUE 4 - CBWTF not collecting waste from member HCFs within the specified time frame and untreated BMW and ash are being disposed in nearby field and water body.

1. The facility has installed the GPS system in all the waste collection vehicles and after verification of GPS data and running log book of the vehicles it seems that waste is being collected. As informed by the facility representative the vehicles collected waste every day from major generators and alternate day from minor generators i.e. non-bedded HCFs but before 48 hours.
2. The facility has adopted bar code system for tracking of waste movement and it was observed that less HCFs are adopting the bar code system and HCFs of government sector HCFs located in rural areas are yet to adopt the bar code system.
3. The unit has Authorization under HOWM Rules, 2016 and valid till 28.2.2027. The hazardous wastes generated from CBWTF are Chemical sludge from waste water treatment (Cat. 35.3) Ash from incinerator (Cat.Z23) and spent oil (Cat. 5.1) for disposal of it the unit has obtained the membership of TSDF, Pithampur. Copy of the membership is enclosed as Annexure-07. The unit has disposed 7.580 MT, 8.815 MT and 21.370 MT of ash in April 2022, May 2022 and Feb 2023 respectively. Copy of recent manifest is enclosed as Annexure-08.
4. The unit has provided separate shed (20 ft. X 12 ft.) for incinerator ash storage inside premises. During visit approximate 500 to 600 kg of ash found stored. The unit has also installed the display board of hazardous information at main gate and updated as per record.
5. Surrounding area of the CBWTF was also inspected and the inspection team found that ash was disposed at Mohanpura village near the field of Shri. Shreepad Sen. The CBWTF operator claimed that this ash does not belong to him and was disposed by an unknown person deliberately. However, after the instruction of the committee facility collect back the ash next day on 10.5.2023 and stored it inside the premises for further disposal at TSDF. The local villagers have had also demanded the removal and safe disposal of ash before the committee. The action taken and Panchnama submitted by CBWTF as proof of abandoned ash has been removed is enclosed as Annexure-09
6. In view of the above facts, it has been observed that presently CBWTF is disposing incineration ash to TSDF Pithampur as per the Authorization and maintained the record also.

ISSUE 5 - Other issues i.e. occupational health risk of workers, record keeping of waste, foul smell/odour in near vicinity, black smoke emit from stack etc.

1. The facility has done all the necessary vaccination to staff engaged in waste collection and treatment i.e. Tetanus Hepatitis-B and COVID.
2. During inspection, it is informed by the CBWTF that OCEMS data is being transferred to the MPPCB server through internet but due to poor internet connectivity in this area data transfer is sometimes hampered.
3. The unit has started the bar coding facility but its implementation at ground level was not very effective. As per the record most of the HCFs are still not adopting the bar coding system due to lack of awareness in the matter. However, implementation of the bar code system is the joint responsibility of the Occupier as well as Operator of a CBWTF.
4. The overall record keeping was found average and it need to improvement through digital type of proof rather than manual. Manual log book for incinerator, autoclave, shredder and ETP operation were maintained, however, as per norms PLC prints out or electronic tamper proof record is to be maintained.
5. As the unit is collecting and storing the medical waste so it is obvious some foul smell is generated inside the untreated waste storage room but outside the premises there was no foul feel observed by committee members during the visit. However, unit is spraying disinfectant solution on regular basis to control the odor related problem, if any. During the visit of Mohanpura village no foul smell or any other obnoxious odor was felt by the committee members.
6. The applicant informed about that black smoke is emitted intermittently from the incinerator stack and in this regard he also showed a previous record of Dec 2022. The committee also investigates this matter and concluded that if power supply is interrupted during incinerator operation then to restore its operation it will switch over to the generator. This changeover took a few minutes and during this period APCD may not function hence, the possibility of high emission for a fraction of time may not be ruled out and it is common phenomena of any incineration system.

Emission monitoring

During the visit the team conducted the stack emission monitoring to assess the performance of APCD and emission value are given in the table below:

S.No	Location	PM (mg/Nm ³)	NOx (mg/ Nm ³)	Remarks
01	Incinerator Stack	26	172*	Emmission values complying the norms.
Standard limit		50	400	

*analysed by Testo analyser

All the emission results were found to be within the limit, as given in BMW Rules, 2016. Combustion efficiency was also measured by using Testo Flue Gas Analyser and observed values are CO2 7.8% and CO 1.375% on the basis of that combustion efficiency

was calculated as 92.0 % which in result is less than 99% as given under Schedule-II. It may be because of mix type of waste burned during monitoring.

Water monitoring:

Applicant complained about water pollution and claimed that the water in the nearby Mohanpura ponds is getting polluted by the Unit. To assess the present status water sample of pond collected and analyzed in laboratory and analysis report enclosed as Annexure-10. The main results of water analysis as given below:

S.No	Location	pH	TSS	COD	BOD	DO
1	Mohanpura Talab	7.31	74	18	1.6	7.0

As per BIS IS: 2296 water quality comes under 'A' category. The Dissolved Oxygen and Biological Oxygen demand value shows that there is no contamination in Mohanpura pond at the time of visit. The CBWTF also maintained zero liquid discharged system and the distance between the facility and the pond is approx 1 km at upper gradient side hence the possibility of water pollution caused by the facility may not arise presently.

Others Issues:

1. As informed by facility operator in-spite of organizing so many awareness program and personnel interaction with cleaning staff and CHC & PHC, problem of waste segregation at source is not solved. Even some of the HCFs are not willing to give their generated wastes and also abstains from obtaining the membership of CBWTF.
2. During interaction with Mohanpura village resident it was observed majority of the people have no problem with the facility and they are giving written statement in this regard which is enclosed as Annexure-11
3. The hospital owner of the Tikamgarh area has also withdrawn its complaint regarding the misbehaviour of CBWTF staff, charging of excess amount and timely collection of waste and mentioned that presently they have no issue with CBWTF. The statement in writing of HCFs in this regard is enclosed as Annexure-12. CMHO of Tikamgarh has also issued a letter to CBWTF on 8.5.2023 mentioning that the services provided by CBWTF are satisfactory. Letter enclosed as Annexure-13.
4. The issue of HCFs complaining about excess cost being charged by the CBWTF may be resolved mutually. However, for any dispute about rates may be revised by the State Advisory Committee in consultation with SPCB, IMA and CBWTF.
5. Committee also interacted with main applicant Shri Dhanna Ahirwar at Mohanpura village and prepared a Panchnama which is enclosed as Annexure-14
6. The committee observed that in case of complaint or communication received from other authority regarding operation, maintenance and functioning of CBWTF, the MPPCB has taken appropriate action after due inspection.

Conclusion :

M/s J.K. Medical Waste Management System possess valid consent and authorization from MPPCB for its operation and is established on 1.3 Acres of land. The Unit has installed one incinerator of 100 kg/hr, autoclaves of 430 Ltr /Hr and one shredder of 50 kg/Hr. with one sharp pit. For treatment of wastewater, the Unit has provided 05 KL/Day effluent treatment plant. The unit also have 8 vehicles which are enabled with GPS and also initiated the bar coding system. Hence, presently unit have sufficient infrastructure to treat the BMW as per quantity given in authorization.

To control the emission from the stacks, the unit has provided proper APCD which is sufficient to control emission if operated properly and stack emissions values were also found to be in desired limit. Moreover, the abandoned ash lying in the vicinity of CBWTF has been collected by the Unit and kept inside the shed of the CBWTF which is the main contention of the petitioner and also main demand of the complainants. The distance between CBWTF and Mohanpura village is sufficient for dispersion and dilution of air pollutants, if any. However, the committee recommended the following points for further improvement in CBWTF operations.

Recommendation :-

On the basis of the monitoring and inspection conducted by Joint Committee on 9 May, 2023 the following recommendations may be communicated to CBWTF for further improvement:

- 1. To provide all necessary help to State Government regarding awareness, training and establishment of bar code system.*
- 2. The facility should follow up with IT Division of MPPCB for continuous data transmission on server and resolve all the issues related to OCEMS for online data submission and calibration in consultation with MPPCB.*
- 3. To inform the name of the HCFs in writing to MPPCB those who are not giving their generated waste, have not obtained the membership and not adopting the bar code system so far.*
- 4. For the improvement of the combustion efficiency of the plant it requires to put more emphasis on the spot segregation or whatever rectification required in this regard.*
- 5. Proper record of ash generation and disposal should be maintained and all the ash should be stored inside the room with proper locking arrangement.*
- 6. To maintain all the logbooks properly and it should be temper proof which are related to incineration system, waste movement, collection system and treated waste disposal.*
- 7. To organize more awareness activity and interaction with member hospitals so that waste could be segregated properly at source.*
- 8. To maintain all the safety measure and good housekeeping at all times.*
- 9. The ULBs of the CBWTF jurisdiction may obtain the membership for proper disposal of BMW generated from households and CBWTF may facilitate the same.”*

5. Broadly, committee has observed that respondent 7 has requisite machines and system to process permitted quantity of bio medical waste and for its processing the vehicles are regularly collecting bio medical waste from the hospitals etc. and the same is also being processed in regular manner.

6. However, with regard to the barcode system it has found that in government hospitals where from bio medical waste is collected by Respondent 7, it is not being properly followed and there are some other precautionary measures which may be taken for better functioning of Respondent 7 hence, some recommendations have also been made.

7. No objection to the said report has been filed by any of the parties.

8. We, therefore, find no reason but to accept the said report.

9. Learned counsel for applicant stated that directions be issued for compliance of the recommendations of Joint Committee, made in its report and that will serve the purpose.

10. We accordingly accept the report and direct concerned officials of MPPCB and district administration to ensure that recommendations made in the joint committee report are complied with in letter and spirit and compliance report shall be submitted to the Registrar, CZB, Bhopal by 22.11.2023.

11. With regard to establishment of Barcode System in Government hospital, Additional Chief Secretary/Principal Secretary (Health), State of M.P. shall take appropriate steps making barcode system applicable and available in government hospitals so that bio medical waste collection and processing may be done in accordance with law and in an appropriate and

reliable manner. Compliance report shall be submitted by Additional Chief Secretary/Principal Secretary (Health), State of M.P. by 15.11.2023.

12. With the aforesaid directions, Original Application is disposed.

Sudhir Agarwal, JM

Dr. Afroz Ahmad, EM

July 25, 2023
Original Application No.11/2023(CZ)
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