

**BEFORE THE NATIONAL GREEN TRIBUNAL
CENTRAL ZONE BENCH, BHOPAL**
(Through Video Conferencing)

Original Application No.10/2021(CZ)

Nitin Singh Solanki

Applicant (s)

Versus

State of M.P. & Ors.

Respondent(s)

Date of hearing: **15.09.2021**

Date of uploading : **20.09.2021**

**CORAM: HON'BLE MR. JUSTICE SHEO KUMAR SINGH, JUDICIAL MEMBER
HON'BLE DR. ARUN KUMAR VERMA, EXPERT MEMBER**

For Applicant(s):

Mr. Nitin Singh Solanki,
In person

For Respondent(s):

Mr. Abhijeet Singh, Adv.
Ms. Parul Bhadoria, Adv.
Mr. Om Shankar Shrivastav, Adv.
Mr. Yadvendra Yadav, Adv.
Mr. Gauranvit Jain

ORDER

1. By way of filing this application, the applicant has raised the issue of violation of environmental norms being done by Respondent No. 7, who does not have valid permission/consent to operate as required under law and also by not adhering to Bio Medical Waste Management Rules causing pollution by discharging smoke and causing odour problem thereby damaging flora, fauna and health of local people.
2. It is further alleged that validity of consent to operate expired on 19.05.2020 and representation was submitted by villagers raising their grievance regarding pollution caused by respondent No. 7. Chief Medical and Health Officer, Satna found that pollution is being caused by respondent No. 7 thereby putting health of local villagers in danger.

Respondent No. 7 applied for renewal of consent which was rejected on 26.11.2020 by the competent authority. It is further alleged that the unit is in operation without valid consent and in violation of environmental norms.

3. The matter was taken up by this Tribunal on 19.05.2021 and a committee was constituted to submit the factual and action taken report in the following terms :

“9. We deem it just and proper to call a report on the matter in issue in present application, from a Joint Committee consisting of:-

- (i) District Collector, Satna, Bhopal
- (ii) Central Pollution Control Board, Bhopal
- (iii) Madhya Pradesh Pollution Control Board

10. The Committee is directed to visit the place and submit the factual and action taken report within six weeks. The State PCB will be the nodal agency for coordination and logistic support.”

4. In compliance thereof the joint committee consisting the Member of State Pollution Control Board, District Collector and Central Pollution Control Board submitted the report which is as follows:

“ In view of the above direction of the Tribunal the M/s Indowater Management & Pollution Control Corporation, Satna M.P. (further mentioned as 'Unit') which is functioning as Common Biomedical Waste Treatment Facility (CBWTF) has been visited by the joint committee on 16 June, 2021 to assess the compliance status of Bio-medical Waste Management, Rules 2016 and Guidelines issued in this regard from time to time. The joint committee comprised of the following officers :

1. Sh.Rajesh Sahi SDM, Satna
2. Sh. Milind Nimje Scientist 'C' Regional Directorate, CPCB, Bhopal
3. Dr. Anoop Chaturvedi, Scientist 'B' Regional Directorate, CPCB, Bhopal
4. Sh.K.P.Soni, Regional Officer, MPPCB Satna

5. Sh S K Mishra Junior Scientist MPPCB Satna

Sh. Amol Mohane proprietor of the said CBWTF was also present during the inspection and informed about present waste management practice and status of legal compliance.

The main issues raised in the petition by the applicant regarding the CBWTF unit and verification points as per 19.5.2021 order are as under :-

1. Status and validity of Consents and Authorization
2. Improper collection, storage and treatment of waste
3. Air pollution caused by inappropriate APCD installation
4. Status of OCEMS and Bar coding
5. Incinerator not complying the norms
6. Issues related to odor, plastic recycling and CSR activity etc.

To verify the factual status the team has visited the unit and observed the Biomedical Waste Management related activity which includes verification of storage and segregation practice adopted, treatment equipments, record keeping, data transmission, APCD and ETP status etc. The plant was operational at the time of visit. During the visit the team also interacted with Manager, Machine Operator, Driver and helpers of unit to find out the awareness level and subject knowledge of work assigned.

During visit geographical coordinates, photographs and other relevant information were also collected which are incorporated in the Report. The main observation of the team is given below:

ISSUE I - Status and validity of Consents and Authorization

1. The unit has been operational since the year 2009. The consent was granted on 04.07.2009. The renewals were obtained by the unit on a regular basis. The application for renewal of consent was filed by the unit on 16.10.2020 however the same was rejected on 26.11.2020 due to technical deficiencies. Thereafter, the renewal for combined Air, Water consents and authorization under BMW, Rules 2016 was granted by MPPCB vide letter no 112603 dated 28.04.2021 and is valid upto 19.05.2022. The consent renewal letter dated 28.04.2021 is enclosed.

2. The unit has valid authorization under Hazardous Waste Management Rules 2016 upto 19.5.2025 and the same has been enclosed.

ISSUE 2 – Collection, segregation and storage of waste

1. The CBWTF cater the services in Satna, Rewa, Sidhi, Singrouli, Panna, Chattarpur and Damoh districts and having 7785 beds or 678 member hospitals as per 2020 annual report has been submitted by unit.

2. The waste is collected from urban areas on daily basis and from rural and remote area on alternate days. At the time of visit, approx 1000 kg yellow category, 400 kg red category and 100 kg blue category of waste was found stored.

3. In compliance of CPCB guidelines for management of Covid waste revision-4, the unit has provided separate waste collection mechanism with dedicated vehicle but same could not be physically verified because all the vehicles were in the field for waste collection.

4. The unit has provided separate area for treated and untreated waste storage (20 ft X 40 ft) and seems it is sufficient to fulfill the present requirement of waste storage. However proper drainage system of floor washings and its connection to ETP was not provided. It was observed that proper segregated and bar coded waste is not received at the facility hence operator re-segregated the waste at the facility for sorting the recyclable material. If segregated waste is not received from HCFs then unit has to inform the MPPCB in this regard.

5. It was also observed that significant quantity of recyclable waste collected and received in yellow category bag which is further autoclaved. The traceability of this type of bags could not be done as there is no bar coding system and nothing mentioned on the bag regarding its identification.

ISSUE 3 - Treatment of Waste

1 . During visit manual feeding was practiced as mechanical feeding system was not functional, even the present incinerator is not compatible for mechanical feeding system as it has front loading system and for mechanical feeding system double door and top loading system is required. This is further non compliance of BMWWM, Rules.

2. As informed by the unit representative the up-gradation work of present incinerator is under progress hence burner of the secondary chamber has been removed just few days before and incineration is going on by primary chamber only. It was observed that the present incinerator is very old mortuary type of incinerator and its retrofication or up-gradation for 2 second residence time with PLC control is not possible. The same observation was communicated to unit by CPCB and MPPCB during recent visits. In spite of that operator has failed to rectify the issue.

3. As per authorization, the unit has 100 kg,/Hr incinerator (M/s Micro ignite make), 350 Ltr autoclave and two shredders of 250 and 40 kg/Hr. On average basis 750 kg waste treated per day in which 400 to 450 kg waste is incinerable category. The unit has also provided concrete make sharp pit for disposable of metal sharp and needles.

4. It was observed that the PLC system is not attached with the incinerator and incinerator is operated on manual basis without any digital proof. It is informed by the facility operator just the previous night (15.06.2021) of committee visit due to heavy rain and voltage fluctuation PLC and control panel of incinerator was damaged.

5. As given in schedule-II of BMWM, Rules 2016 the present incinerator is not fulfilling the basic requirements as incinerator does not have secondary chamber, inefficient burning system in primary chamber, absence of mechanical feeding system non availability of temper proof PLC system, inefficient ID fan to maintain negative draft etc. The present operation of facility is in grave violation of BMWM, Rules 2016.

6. The temperature of primary chamber and secondary chamber appeared to be malfunctioning. The primary and secondary chamber temperature online data sheet for the duration of Jan. 2021 to June 2021 has been enclosed.

7. The hollow structure of iron sheet without roof has been showcased on the name of secondary chamber. This is a contravention of BMWM, Rules.

8. The efficiency/functionality of the autoclave could not be verified as autoclave was not in operation at the time of visit due to power fluctuation. The unit has three DG sets (43,25 & 15

KVA) but it seems that they are under capacity and not able to take care of electrical load of autoclave operation also the 15 KVA DG Set is installed without a canopy. Spore test of each batch and records were not maintained as per rules.

9. The unit has provided three DG sets for emergency operation of plant and machinery but it seems it is under capacity to fulfill the present requirement of power supply.

ISSUE 4 - Air pollution control device and Effluent treatment plant:

1. The unit has provided Air Pollution Control Device (APCD) which comprises ventury scrubber, demister, stack etc but its performance is very poor because there is no system of scrubber sludge removal; no provision for alkali addition for neutralization; no arrangement for negative draft measurement in ventury scrubber; corrosion and degradation of O-rings in joints and under capacity ID fan observed.

2. The ID fan of the incinerator is under capacity as it is not able to create negative draft during incineration as a result low velocity observed in stack and all the roof and side walls of the incinerator room become black due to deposition of unburnt carbon particles.

3. For the treatment of waste water generated from floor washing, vehicle washing and scrubber the unit has provided 20 KL capacity ETP which comprised of Oil and Grease trap, Chemical dosing tank, co-agulation Chamber, Primary Settling Tank, biological Treatment process, secondary settling Tank, PSF & ACF, Disinfection Tank.

4. At the time of visit ETP was not functioning at its optimum capacity hence water sample could not be collected to assess the performance because there was no overflow from the tanks. As informed by operator treated water is stored in over head tank and further used in horticulture and gardening purpose.

ISSUE 5 - OCEMS and Bar coding facility:

1. As per the guideline of CPCB, the unit has installed M/sVasthi, Hyderabad made CEMS in incinerator stack to monitor primary & secondary chamber temperature, CO and CO₂. The displayed data was doubtful as calibration protocol has not been followed since long back

2. The CEMS data available at CPCB and MPPCB website which was verified during visit and it was observed to be manipulated. As at the time of visit there is no existence of secondary chamber but temperature at CEMS displayed 1050 °C with minor fluctuation. The sensor of CO and CO₂ was also not observed but it shows continuous linear reading. The OCMS data sheet for the duration of January 2021 to June 2021 has been enclosed.

3. The unit has started the bar coding facility but its implementation at ground level was found poor. As per the record most of the HCFs are still not adopting the bar coding system due to lack of awareness in the matter. As on date out of 678 member hospitals approx 30 to 40 have adopted the bar code system which is less than 5%. However implementation of the bar code system is the joint responsibility of the Occupier as well as Operator of a CBWTF.

4. At the time of visit it is observed that the unit was not able to produce authentic data regarding present status of the bar code and how they are doing the bar coding in member hospitals. However the unit intimated to member hospitals from time to time to adopt bar code system. As example one reminder letter issued by unit to members is has been enclosed.

ISSUE 6 - Record keepings :

The overall record keeping was found poor. Manual log book for incinerator and autoclave operation was maintained however as per norms PLC prints out or electronic tamper proof record is not being maintained. The other log books i.e. ETP operation, shredder operation, recyclable waste sale out, diesel consumption, sharp quantity, ash disposal etc. has been kept but not maintained and updated in a proper manner. Log books of vehicle movement and waste collection were maintained but necessary entries w.r.t. to date of collection, category and quantity of waste collected etc. not mentioned properly.

ISSUE7-Emission and Ambient Air Quality Monitoring

1. 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.N	Location	PM (mg/NIm ²)	NO _x (mg/NIm ²)	So ₂ (mg/NIm ²)	Remarks
01	Incinerat or stack	225	740	116	Result shows

Standard limit	50	400	--	Poor performance of APCD.
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All the emission results were found above the limit, as given in authorization. The leakage from the various joints of the APCD also negatively affect the actual emission values. The stack emission result sheet has been enclosed.

2. On the basis of above emission results it reveals that the vantury scrubber is not working as all the unbumed particles emitted out from the stack.

3. Higher values of NO_x reveal that acidic gases not get dissolved in the scrubber water due to under capacity. Ordinary type of burner at the place of low NO_x burner installed in the primary chamber it may also the probable reason of higher value of NO_x. The pH of the scrubber water was also observed in the range of 4 to 5 at the time of visit.

4. To assess the air quality in the vicinity of the unit ambient air monitoring performed at two locations i.e. inside the plant premises and one km down wind direction near M/s Lacchilal sons Industry. The result of ambient monitoring as given below

No.	Location	PM ₁₀ (ug/Nm ³)	SO ₂ (ug/Nm ³)	NO ₂ (ug/Nm ³)	Remarks
01	Inside the plant premises	76	BDL	7.0	Monitoring affected due to intermittent rains
02	Near M/s Lacchilal sons 1 km down wind	94	BDL	7.0	
Standard		100	80	80	

The ambient monitoring results shows that all the values are well within the limit. The ambient air monitoring result sheet has been enclosed.

5. As the point mentioned in petition regarding high emission from incinerator stack and the issues also raised by the locals in this regard in the form of complaint. This fact can't not be ruled out and the probable reasons for this are: during initial light up

the incinerator excess quantify of black smoke comes out; APCD not working effectively; due to insufficient temperature un burnt carbon particles emitted from stack and more importantly at the time of visit incinerator was operational on primary chamber only. The secondary chamber as per BMW Rules did not exist.

Others:

6. As informed by facility operator in-spite of organizing so many awareness programme and personnel interaction with cleaning staff and CHC & PHC, problem of waste segregation at source is not solved even some of the hospital not willing to give waste and also not obtaining the membership of CBWTF.

7. The unit has obtained authorization under HW Rules for generation of incineration ash (category-37.2) and used oil (category 5.1). As informed by the unit representative recently they have disposed first time 17.84 MT of ash through TSDF, Pithampur. It was observed still 3 to 4 MT of ash still stored inside the room for disposal. The unit has displayed the hazardous information board at main gate of the unit but it was not updated properly. Copy of the manifest has been enclosed.

8. The plastic and other recyclable material collected from various hospitals is being stored inside the room for further treatment. The collected plastic disinfected and shredded and sold to authorized plastic waste recycler i.e. M/s Mishra Traders, Satna. Recently the unit has sold out 13.34 T of shredded plastic which includes PPE kits, saline bottle, tubing, piston barrel of injection etc. to authorized recycler and record of the same has been maintained. The receipt of plastic waste acceptance by M/s Mishra Traders, Satna has been enclosed.

9. As per the CPCB guideline the unit has downloaded the 'COVIDI9BWM, app and submitting the covid waste collection data on it.

10. In case of any breakdown in the facility a MoU has been signed with M/s Elites Engineers, Jabalpur on dated 27.7 .2017 as alternate arrangement which is about 200 km from the facility.

11.The facility has made its own website (www.indocbwtf.com) in which detailed information related to annual report, health care facilities details etc.has been available.

12.The unit has 2 acres of lands but proper green belt has not been developed.

13.The facility has done all the necessary vaccination to staff engaged in waste collection and treatment i.e. Tetanus and Hepatitis-B.

14.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.

15.CPCB visited the same facility on 8 January 2020 under random inspection of the CBWTF and issued direction on 9 March 2021 under section 5 of EPA 1986, the major points of directions are still not complied. The copy of the CPCB direction has been enclosed.

16.That in reference to a complaint received against the unit and newspaper publication regarding the re-use of PPE kits, a joint inspection by the members from District Administration, CPCB and MPPCB was conducted on 28.05.2021. Due to the shortcomings found during the inspection, a show cause notice dated 01.06.2021 was issued to the unit. The Unit is yet to submit the reply to the same. The copy of the Joint committee report dated 28.05.2021 has enclosed. The copy of the show cause notice dated 01.06.2021 has been also enclosed.

ACTION TAKEN BY MPPCB :-

1. The MPPCB has issued closure direction dated 12.07.2021 to the unit, directing them not to operate the incinerator till proper rectifications are done. The yellow category waste (that is required to be incinerated as per the BMW Rules) shall be sent to the CBWTFs in Guna and Sagar for incineration. The copy of letter dated 12.07.2021 is enclosed.

2. The other category wastes (i.e. Blue, Red and Mrite) are allowed to be autoclaved by the unit itself.

3. Due to the overburden on the medical facilities and large quantities of BMW waste being generated as a result of the outbreak of second wave of COVID-19 pandemic, and the importance of CBWTF for the disposal of bio-medical waste, the said facility was allowed to operate for the time being, and not it has been directed to close the unit and undertake the up gradation and rectification measures.

4. The MPPCB has imposed Environmental Compensation of Rs. 1,53,000 for the deficiencies and violations committed by the occupier. Details of the EC calculation are as follows :-

a) Violations Observed on 28.05.2021:

i. Incinerator retention time was recorded at 1 second during the inspection on 28/05/2021, which is supposed to be at 2 seconds as per CPCB Guidelines.

ii. CBWTF has three DG Sets of 43, 25 & 15 KVA, out of which the 15 KVA DG Set was installed without a canopy during the inspection dated at 28/05/2021.

iii. CBWTF industry during the inspection dated at 28/05/2021, it was observed by the inspectors that Hazardous Waste was stored at the premises, for more than 90 days and weighed over 10 tonnes, which both are a violation of HWMR, 2016.

iv. During the inspection dated at 28/05/2021, there was no reaction in the temperatures at Display Board for primary and secondary chamber of incinerator.

v. The Stack Monitoring results and Ambient Air Monitoring results of the occupier were not as per norms.

b) Violations observed on 16.06.2021

i. The capacity of the installed DG Sets was not capable to take care of the electrical load of autoclave operation.

ii. CBWTF has three DG Sets of 43, 25 & 15 KVA, out of which the 15 KVA DG Set was installed without a canopy during the inspection dated at 16/05/2021.

iii. CBWTF industry during the inspection dated at 16/06/2021 it was observed by the inspectors that Hazardous Waste was stored at the premises, for more than 90 days and weighed over 10 tonnes, which both are a violation of HWMR, 2016.

Formula for computation of Environmental Compensation for

CBWTF=PI x S x R x N

Where:

PI: Pollution Index

S: Size of Operation

R: Environmental Compensation Factor

N: Number of days of Violation

In case of the above CBWTF:

For Violation (a)

PI- 60 (As per CPCB Guidelines cases no: 1, 5, 5, 5 & 5)

S: 0.25

N: 20 days (28/05/2021 to 16/06/2021)

R: Rs.250

EC= 60*0.25*250*20= Rs. 75,000.00/- (Seventy-Five thousand only)

For Violation (b)

PI- 45 (As per CPCB Guidelines cases no: 3, 5 & 5)

S: 0.25

N: 26 days (17/06/2021 to 12/07/2021)

R: Rs.250

EC/ day= 45*0.25*250= Rs. 2,812.51/- per day

As per the guideline, minimum EC per day for CBWTF is Rs. 3000/-; therefore the EC in current CBWTF will be calculated at the minimum rate, i.e., Rs. 3000/- for 26 days.

EC: 3000*26= Rs. 78,000.00/- (Seventy Eight Thousand only)

TOTAL AMOUNT OF EC= Rs. 75,000.00 + 78,000.00

= Rs. 1,53,000/- (One Lac, Fifty Three Thousand only).

Recommendation:-

On the basis of the Joint Inspection and monitoring by Committee the following recommendations are given by the committee :-

1. At present the incinerator is not meeting the technical norms as given in BMWM, Rules 2016 schedule-II. It is recommended that till the time the present incinerator does not upgrade its unit, the waste generated in the coverage area of the unit should be handed over to an alternate nearest CBWTF as per MoU provided that receiver CBWTF having valid authorization, 2 second RT incinerator and OCEMS to treat the waste etc.
2. Environmental compensation of Rs 1,53,000/- shall be imposed on the unit for causing damage to the environment and for operation of the unit in violation of BMWM, Rules.
3. The unit should comply with all the directions given by CPCB and MPPCB and submit a time bond action plan.
4. Till the time unit is fully compliant with BMWM Rules, the closure direction issued by MPPCB under Section 5 of the EP Act, 1986 shall be effective and the incineration facility shall not be operated till further directions from MPPCB".
5. Learned Counsel for the CPCB has submitted that the CPCB authorities have calculated the environmental compensation to the tune of approximately Rs.30,81,250/- (rupees thirty lakhs eighty one thousand and two hundred fifty) and necessary directions have been given to the State Pollution Control Board for closure of the unit. The Learned Counsel for the State Pollution Control Board, Ms. Parul Bhadoria has submitted the calculation of environmental compensation which has been given at point no.2 of the report of the recommendation, relates to time/date and calculation which can be concluded up to the period of violation. In case any violation of environmental laws, notice of closure and calculation of environmental compensation are within the domain of CPCB & PCB and they have to act in accordance with law.
6. Learned Counsel for the State has sought short time for arguing the case but since the violations of environmental laws are implemented through PCB, CPCB and the Joint Committee report has been submitted by the PCB, representative of Collector Satna, representative of CPCB. Thus, Learned

Counsel appearing for all parties are in agreement with the fact that the Joint Committee report should be accepted and to be acted upon. Accordingly, we accept the Joint Committee report and direct the authorities concerned to do in accordance with law. It is for the State Pollution Control Board to dispose of the matter after hearing the closure notice and it is also within the domain of the State Pollution Control Board to make alternate arrangement for treatment. The recommendations submitted by the committee must be complied with.

Accordingly, the O.A. No. 10/2021 **stands disposed of.**

Sheo Kumar Singh, JM

Arun Kumar Verma, EM

September 15th, 2021
O.A. No. 10/2021(CZ)
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