

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

IN

**APPLICATION NO 43 of 2017 (SZ)
[SUO MOTO]**

Applicant : **The Tribunal on its own motion on the
Implementation of the Bio-Medical Waste
Management Rules, 2016 in Kerala**

Respondents : **The State of Kerala & Others**

VOLUME 1

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Dated this the 12th day of October 2020

Rema Smrithi, Advocate
ADDITIONAL STANDING COUNSEL FOR THE 5th RESPONDENT

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI**

ORIGINAL APPLICATION NO 43 of 2017 (SZ)

[SUO MOTU]

**REPORT FILED BY THE SENIOR ENVIRONMENTAL
ENGINEER ON BEHALF OF THE 5th RESPONDENT**

Adv. Rema Smrithi.

ADDITIONAL STANDING COUNSEL FOR THE 5TH RESPONDENT:

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**REPORT FILED BY THE SENIOR ENVIRONMENTAL
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I, Vinaya K S, aged 49 years, W/o. K R Manoj, Senior Environmental Engineer Regional office Ernakulum do hereby submit that I am authorized to represent the 5th respondent and that I am conversant with the facts of the said case and I may state as follows as per the direction of the Hon'ble National Green Tribunal in the above application

1. I may humbly submit that the above original application relates exclusively to the implementation of Bio medical waste Rules in the State of Kerala. As per the order dated 19.08.2020 , the Hon'ble NGT directed the Kerala State Pollution Control Board to file a detailed report regarding the action taken against the violators in respect of those persons who are not complying with the Biomedical Waste Management Rules, 2016. KSPCB was also directed to submit a detailed compliance report regarding the guidelines given by the CPCB in dealing with Bio-medical Waste in the Covid-19 situation particularly the monitoring app developed.
2. It is respectfully submitted that, the Common Biomedical Waste Treatment Facility owned and operated by Indian Medical Association (IMA), IMAGE at Kanjikode in Palakkad district caters to the demand of healthcare facilities within the State. The records of IMAGE are verified by the Board Officials periodically. It may be pertinent to note that the total acquired land by IMAGE is 25 Acres in which 7 Acres are allocated to plant itself. The Board granted consent to establish to this plant on 26.03.2003 and this unit is now operating with a valid consent of the



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VINAYA K.S.
Senior Environmental Engineer

Board up to 30.06.2023 with 37 T/day. There are 5 incinerators, all of them having venturi scrubbers, packed bed scrubbers, 30 m height chimney etc as the pollution control measures. The authorities of IMAGE informed that if the incinerators are allowed to work in its full capacity, the plant capacity can be increased beyond 37 T/day with pollution control measures. As per the instruction of CPCB they have augmented the incinerator so as to get 2 second residence time in the secondary chambers. They have now applied for consent variation order for operating the full capacity. Usually bio medical waste such as disposable plastic like IV Tubes, Glouse, plastic portion of syringes are autoclaved, shredded and transferred to recycling units. Also there are 5 autoclaves and 3 shredders. They have currently working encapsulation pit of 20m x 15m x10m (depth). Hazardous waste generated like effluent treatment plant sludge is mixed up with incinerator ash and are transferred to KEIL(TSDF facility at Ambalamughal). They have provided an ETP having capacity 450 KLD for the effluent generated from the operation of the plant. The allowed maximum water usage is 384 KLD and effluent generation is 364 KLD. They are using this treated effluent for scrubbing and irrigating green belt etc. No deep burial is practicing at the facility of IMAGE. As per the annual report submitted by the IMAGE for the period of 01.01.2019 to 31.12.2019 the following details were provided.

- No. of health care facilities covered by CBMWTF – 15310
- No of beds covered by CBMWTF - 104185
- Installed treatment and disposal capacity of CBMWTF-49t/day (consent is granted for treating and disposing 37t/day)
- Quantity of Biomedical waste treated or disposed by CBMWTF- 36.85t/day
- Quantity of waste disposed in kg per annum (on monthly average basis)
 - (a) Red category -4413634Kg
 - (b) Yellow category- 7113221Kg
 - (c) Blue category- 1731860Kg
 - (d) White category- 192605Kg

The current operational status of incinerators by IMAGE is as follows:

Sl. No	Incinerator	Treatment capacity in kg/hr	capacity (kg/day)(for 24 hr)
1	Incinerator 5	300	7200



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2	Incinerator 4	500	1200
3	Incinerator 3	200	4800
4	Incinerator 2	200	8400
5	Incinerator 1	250	6000
Total			38400

3. It is respectfully submitted that, the Board has identified a total number of 13869 health care facilities in the State with 2126 bedded clinics and dispensaries- 71831, Veterinary institutions- 309, Pathological laboratories-2311, Blood banks-26, Clinical establishments-1358, Research Institutions -9 and Ayush -147. The total number of beds identified is 97794.

4. It is submitted that, total quantity of biomedical waste generated is 42932 kg/day. Total Biomedical waste treated and disposed by IMAGE and captive treatment facility is 40410 kg/day. Biomedical waste treated and disposed through captive treatment facility is 3557 kg/day and by IMAGE is 36853. No. of Health care facilities with captive treatment facilities are 52 nos. Some of the Govt. health care facilities in Kerala have not obtained consent/authorization of the Board even though they are disposing their BMW through IMAGE. Actions are being taken for bringing these HCFs under the purview of the Board. The Board is taking earnest effort through the Environmental Monitoring Cell attached to the Office of the Chief Secretary and is expected the full compliance soon. Notice has been issued to the following Departments for ensuring all health care facilities under their purview have obtained authorization.

1. Director, Directorate of Animal Husbandary
2. Director, Directorate of health services
3. The Director, Ayurveda Medical Education
4. Directorate of Medical Education
5. Indian System of Medicine
6. Directorate of Homoeopathy
7. Govt. Homoeopathy Medical College
8. The State Mission Director, National Health Mission
9. The Director, Directorate of Panchayats
10. The Director, Urban Local Body

The copy of the notices are attached herewith as **Exhibit R5(a)**.

5. It is respectfully submitted that in the wake of COVID 19 outbreak, isolation wards were setup in major medical college hospitals in all districts in the State. Moreover, to accommodate suspected persons,



Vinaya
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under observation, quarantine centers were also set up. CPCB released guidelines and revisions thereafter for handling, treatment and safe disposal of biomedical waste generated during treatment, diagnosis and quarantine of COVID 19 patients. The first guideline issued by CPCB on 18.04.2020. The Revision 4 guidelines dated 21.07.2020 is the latest revision and which was circulated to all departments concerned.

6. It is submitted that, the CPCB guidelines and revisions thereafter were communicated to all District Administrations, Directorate of Health services, Urban Local Bodies and Local Authorities from time to time and necessary guidance and support were continuously extending to the departments concerned in waste management. Training is being conducted through electronic media by the District Offices of the Board. If any faults in the management of COVID waste are being noticed necessary actions are being taken by the District Offices. Training was arranged, with the help of IMAGE, to all the health care facilities having COVID wards on the "management of COVID19 waste" conducted by "Toxic Links", an environmental research group. The Local authorities were entrusted to collect general waste after proper disinfection and dispose as per Solid Waste Rule. The Govt. issued separate order to manage general solid waste being generated at quarantine households. The Dos and Don'ts in local language have been circulated as part of awareness to the concerned. In light of CPCB guideline State Board also issued guidelines for management of BMW generated from the COVID isolation wards specifying to dispose BMW either through, the only one common biomedical waste treatment facility IMAGE, or through captive treatment facility installed in hospitals in the near proximity to the care centers, if the service of IMAGE is not easily accessible.
7. It is respectfully submitted the CPCB has developed COVID 19 BMW tracking App and made operational with effect from 09.05.2020 which is utilized by waste generators, waste handlers, CBWTF and KSPCB for entering real time data of COVID waste in the CPCB server. The daily quantity of COVID and non COVID waste generated and disposed per day is entering in the app. Before that the daily information on the COVID 19 BMW generated and disposed was being monitored through Electronic media from the waste generators through the District Offices of the Board and IMAGE. On getting the mobile app from CPCB, the Board and the Common facility IMAGE started entering data in the app. The health care institutions including fully COVID hospitals, isolation wards, testing centers and laboratories, CFLTS, quarantine centers and



Vinaya
 VINAYA K.S.
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home cares were also made compulsory to register in the app. The ULBs were instructed to make arrangements for general waste in home cares. IMAGE is also collecting and disposing waste from home cares on call basis. Training was given by IMAGE to the waste handlers and waste generators to implement the app. The status report on COVID 19 BMW generated and disposed starting from 19/03/2020 till 05/10/2020 is attached herewith as **Exhibit R5(b)**. As per the tracking app records the total quantity of COVID waste disposed from 09.05.2020 to 05/10/2020 is 1899 tonne. The non COVID waste disposed by IMAGE from 09.05.2020 to 05/10/2020, as per the tracking app, is 3419 tonne. In the current situation it is expected that the entire COVID waste can be disposed through IMAGE utilizing its full installed capacity utilization. Most of the HCFs with functional isolation wards are having septic tank-soak pit system for the disposal of sewage. HCFs with functional isolation wards provided with STPs for sewage disposal were strictly enforced not to reuse treated water for utility purposes. Instructions were also issued to the Kerala Water Authority, who is operating a common STP in Thiruvananthapuram district, to take additional precautionary measures.

8. The operation of a new CBWTF plant (of capacity 14-16t/day) by M/s. Kerala Infrastructure Limited (KEIL) has not yet commenced. In the unit, procurement activities of equipment are in progress.
 9. The Govt. allotted 3 acres of land for the second common biomedical waste treatment facility for IMAGE to set up at Brahmapuram.
- The Board is constantly monitoring the COVID as well as the non COVID biomedical waste treatment and disposal system with due seriousness and shall take necessary action to see that the biomedical waste rule is implemented in letter and spirit.

All that is stated above is true to the best of my knowledge, information and belief.

Dated this 12th October 2020



Vinaya
 VINAYA K.S.
 Senior Environmental Engineer