

**CENTRAL POLLUTION CONTROL BOARD**

(Hazardous Waste Management Division)

**DELHI -110 032**

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**Minutes of 15<sup>th</sup> Meeting of the 'Expert Committee on Bio-medical Waste Management for Evaluation of the New State-of-the-Art-Treatment Technologies for Treatment of Bio-medical Waste' held on October 10, 2013 at CPCB, Delhi**

1. The list of the participants of the meeting is enclosed at **Annexure I**.
2. **Opening remarks by the Chairman of the Expert Committee:**

Dr.T.K.Joshi, Chairman, Expert Committee welcomed all the members of the Expert Committee and requested Shri B. Vinod Babu to apprise members on the issues /proposals to be discussed in the meeting.

3. **Briefing by Shri B.Vinod Babu, I/c HWMD:**

Shri B. Vinod Babu, I/C HWMD informed the members the inability of Shri J.S.Kamyotra, Member Secretary, CPCB in attending the today meeting because of his departure urgently to Mumbai. He informed that in reference to the minutes of 14<sup>th</sup> meeting of the Expert Committee held on January 07, 2013, Chairman, CPCB has suggested approving by a generic name for treatment methods adopted with a set of conditions as necessary rather than trade or patent name. Shri Babu also informed that so far provisional approval has been granted to i) Sharp Blater (Needle Blaster) ; ii) PIWS-3000 in the name of a company called M/s Safe Environment Solutions Ltd. & M/s Trade International and (iii) 'Plasma Pyrolysis Technology' proposed by the proponent namely 'Facilitation Centre for Industrial Plasma Technology (FCIPT), Gandhinagar. The committee was also apprised of other important issues namely (i) mushrooming of CBWTFs in some of the States contrary to 'Guidelines for CBWTFs' issued by CPCB; and (ii) necessity for installation of ETP/STP in the hospitals. Further, he also informed that CPCB is in receipt of two applications from M/s Med Freshe (A division of Unison Narula Group) and M/s Safe Medical Microwaves Ltd., UK for technology approval and letters from Dr. A.K.Sabhpathy (M/s Krishna Hospital, Cochin) as well as Additional Secretary for Principal Secretary to the

Government, Environment (B) Department, Government of Kerala regarding the status of grant of approval for disposal of bio-medical waste by PABR technology, which also need to be discussed.

4. The three technologies for which provisional approval has been granted by CPCB as per recommendations of the Committee were discussed in detail and technology-wise decisions taken by the Committee are given below:

**(a) Plasma Pyrolysis:** The request made by the proponent namely 'Facilitation Centre for Industrial Plasma Technology (FCIPT), Gandhinagar' for inclusion of waste category 7 also in addition to the category no.1,2, 5 & 6 in the provisional approval was deferred considering that the bio-medical waste category no. 7 listed under Schedule I of the BMW Rules also includes solid waste such as waste tubings, catheters, intravenous sets etc. which may be PVC based and may contribute to release of toxic gases such as 'HCl and Dioxins & Furans' during combustion. As regards renaming the above technology, Committee members suggested that the 'plasma pyrolysis technology' can be categorized under the combustion process - 'Plasma Pyrolysis/Gasification & High Temperature Thermal Destruction.

**(b) Sharp Blaster (Needle Blaster):** As regard to the 'Sharp Blaster', Dr. Baghotia, Representing DHS, Government of Delhi raised the issue of disposal of 'compressed canister' containing waste sharps as the hospitals having adopted the said technology are facing problem for disposing the same as the CBWTF operators in Delhi are not accepting the treated waste. Dr. Anu Agarwal, accompanying Shri Ravi Agarwal, Toxics Link informed that some of the hospitals in Delhi where the 'sharp blaster/needle blaster' is installed are not having 'compression unit' for compressing the treated canisters. The Committee members felt that 'sharp blaster' is an effective method of treatment and disposal of needles as the treated needles are embedded with plastic in the canister and sharps encapsulated in crushed container ensure no chance for removal of needle for reuse purpose. The Committee members were of the view that approval granted to 'Sharp Blaster' should be renewed w.r.to the final disposal of treated 'canisters'. The Committee after deliberating on the pros & cons of sharp blaster technology recommended that the sharp blaster technology be named as 'Waste Sharps

Sterilization followed by Destruction/Encapsulation' and the provisional approval renewed by changing the existing condition with regard to the final disposal of treated canister (s) by means of 'shredding or compression followed by disposal by landfill or deep burial/take back system.

- (c) **PIWS-3000:** With regard to PIWS-3000, the Committee was of the view that the said technology is yet to be installed by the proponent and changing name of the same can be taken up later.

**5. Confirmation/Review of Draft minutes of 14<sup>th</sup> meeting of Expert Committee held on January 07, 2013:**

The Committee ratified the decisions taken in its 14<sup>th</sup> meeting. However, with regard to the permission to the new technologies recommended earlier, the Committee suggested that approval to the new-state-of-the-art technologies shall be given only after assessment and verification by CPCB. Naming of the technology with generic treatment and standards can be suggested by the Committee only after satisfactory assessment by CPCB. Accordingly, amendments as specified at 4 (a) to 4 (c) above, if required may be incorporated.

**6. Requirements of ETP/STP in HCFs:**

Shri J.Chandra Babu, Scientist 'C' appraised the committee members regarding the liquid waste treatment & disposal options (disinfection by chemical treatment with 1% hypochlorite solution and discharge into drains) as per Schedule I as well as standards for discharge of liquid waste by the hospitals as stipulated under Schedule V of the existing BMW Rules, 1998 as amended and the existing provisions concerning installation of ETP/STP by the Health Care Facilities. The Members expressed the concern about different types of liquid waste generated from the hospitals which include infectious body fluids, hazardous chemicals being discharged into the public drains or sewers by the hospitals without imparting any treatment and the possible implications in the end of pipe treatment.

The Committee suggested to form a sub-committee comprising 'CPCB, representative of SPCBs namely Maharashtra Pollution Control Board (MPCB),



Gujarat Pollution Control Board (GPCB), Andhra Pradesh Pollution Control Board (APPCB) and Karnataka State Pollution Control Board (KSPCB) and Toxics Link' to assess the requirement of installation of ETP/STP by the hospitals for ensuring proper treatment of liquid waste generated from the hospitals before disposal in compliance to the BMW Rules.

**7. Mushrooming of CBWTFs in some of the States:**

In some of the States (especially Haryana), SPCBs are permitting mushrooming of the CBWTFs without considering economic viability and feasibility in operation of the CBWTFs in compliance with the BMW Rules in spite of CPCB 'Guidelines on CBWTFs' .

The Committee members suggested that the CPCB's guidelines for CBWTFs may be made mandatory since the guidelines are issued with an aim to protect human health and environment, safety of the workers and economically viable operation of the CBWTFs as well as ensuring compliance to the BMW Rules. To avoid mushrooming of the CBWTFs, the Committee suggested that the existing guidelines for CBWTFs as well as existing BMW Rules may be reviewed and provision for interstate transportation of bio-medical waste for final treatment and disposal with the prior approval of the concerned States/UTs incorporated on the same lines as done for hazardous waste under the Hazardous Waste (Management, Handling and Transboundary Movement) Rules, 2008 as amended. The Committee suggested that CPCB may write in this regard to the MoEF.

**8. 'Med Freshe Integrated Sterlizer & Shreder and Shredder' and 'Microwave 60':**

As regards to the two proposals received from M/s Med Freshe (A division of Unison Narula Group) and M/s Safe Medical Microwaves Ltd., UK for treatment of bio-medical waste, the committee observed that the proposal is similar to hydroclave which are already permitted, however, it was suggested that a copy of the proposals be circulated to all the members of the Committee for their views/comments and CPCB may communicate the decision accordingly.



**9. Miscellaneous Issues:**

- (i) Shri Ravi Agrawal expressed his concern on the safety of nurses, staffs, patients etc while handling cytotoxic drugs in Cancer hospitals and suggested that guidelines for 'Management & Handling of Cytotoxic Drugs' be prepared. Dr. T.K. Joshi volunteered to prepare the guidelines and its circulation within a month to all the members, for their views/comments.
  
- (ii) With regard to PAB Reactor technology, Dr. Joshi informed that during November 2013, he will be in Kerala and suggested that officials of CPCB can join him during that period to assess the PABR Technology adopted in Kerala and take decision in the matter.

The meeting ended with vote of thanks to the chair.

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**List of Members / Participants**

**15<sup>th</sup> Meeting of the 'Expert Committee on Bio-medical Waste Management for Evaluation of the New State-of-the-Art-Treatment Technologies for Treatment of Bio-medical Waste' held on October 10, 2013 at CPCB, Delhi**

<b>Sl. No.</b>	<b>Name of the Member / Participants</b>
1.	Dr. T.K. Joshi, Chairman of the Committee & Director (Occupational Health & Hazard), Moulana Azad Medical College, Delhi
2.	Sh. Ravi Aggarwal, Member, Toxics Link, New Delhi
3.	Dr. D.K.Sharma, Medical Superintendent, All India Institute of Medical Sciences (AIIMS), New Delhi- 110 029
4.	Dr. K.S. Baghotia, Addl. Director (MHS), Directorate of Health Services, NCT of Delhi, Govt. of Delhi.
5.	Dr (Mrs). Bina R. Sawhney, Addl DDG, Directorate General of Health Services, Ministry of Health & Family Welfare, Nirman Bhawan, New Delhi - 110 108
6.	Prof. (Dr.) B.K.Das, Member & Professor, SCB Medical College & Hospital, Cuttack
7.	Mrs. Anu Aggarwal, Toxics Link, New Delhi
8.	Shri B.Vinod Babu, SC.'D', & I/c HWMD, CPCB, Delhi
9.	Shri. J.Chandra Babu, Sc. 'C', CPCB, Delhi
10.	Shri. R. N. Pankaj, Sc. 'C', CPCB, Delhi
11.	Mrs. Youthika, Sc. 'B', CPCB, Delhi