Central Pollution Control Board
WM Division, Delhi

Sub: Minutes of the Sixth Meeting of the Technical Expert Committee for "Evaluation of proposal for utilization of the hazardous and other wastes under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016".

1. Sixth meeting of the Technical Expert Committee on "Evaluation of proposal for utilization of the hazardous and other wastes under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016" was held at CPCB, Delhi on 04.03.2017. List of the participants is enclosed at ***Annexure I***.

2. Shri Bharat K Sharma, Additional Director & Divisional Head, WM-II, welcomed the members and invitees of the Committee. The following 06 draft Standard Operating Procedures (SoPs) & Check list of Minimal Requisite facilities for utilization of hazardous waste, prepared by WM-II Div., CPCB, based on trial study conducted in accordance with the trial run monitoring protocol, were reviewed by TEC. Recommendations of the TEC are as below:

S.No	Agenda	TEC Recommendations
1.	Standard Operating Procedure (SoP) for utilization of Spent Sulphuric Acid (generated during manufacturing of 4, 4'-Diamino Benzene Sulphananilide) in manufacturing of 2-NADAPSA and 6-Acetyl OAPSA.	SoP & Checklist of Minimal Requisite Facilities for the said utilization of Spent Sulphuric Acid, as recommended by TEC after incorporating suggestions, is given at ***Annexure – II***.
2.	Standard Operating Procedure (SoP) for utilization of Spent Acid Containing Molybdenum (generated during manufacturing of filaments in bulb/lamp Industry) for manufacturing of Ammonium Molybdate	SoP & Checklist of Minimal Requisite Facilities for the said utilization of Spent Acid Containing Molybdenum, as recommended by TEC after incorporating suggestions, is given at ***Annexure – III***.
3.	Standard Operating Procedure (SoP) for utilization of Flue Gas Cleaning Residue for extraction of Zinc Sheet/Strip for recovery of Zinc.	The committee observed that, issues of extent of recycling of liquid electrolyte from electrolysis tank has not been addressed in the Trial Study Report. In order to assess generation of spent electrolyte, if any, after some cycles of recycling of the liquid electrolyte, and requirement of treatment & disposal of the same, characteristics of the same requires to be assessed along with suitable method of disposal. Further, lead content in the residue generated from Filter Press after reaction tank-II also needs to be assessed in various batches of the Flue Gas cleaning residue. In view of above, the committee recommends that the proponent may be permitted for further trial study for three months. During this period, CPCB/ Punjab SPCB shall collect and analyze: (i) samples of electrolyte from electrolysis tank

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		at different stage of recycling with respe. to pH, COD, TDS, Chloride, ammonia as N, TKN, Total Metal, Fe, Zn, Pb, Ni, Cd, Cr (VI), Mn and Magnesium, so as to ascertain generation of spent electrolyte and their disposal. (ii) Bleed water from scrubber shall also be analysed for pH, COD, TDS, Chloride, ammonia as N, TKN, Total Metal, Fe, Zn, Pb, Ni, Cd, CN (Total), Cr (VI), Pb, Cl, SO4, Nitrate, so as to assess possibility of reuse of the same in leaching reactor. (iii) Residue generated from Filter Press after reaction tank-II at different batches of Flue gas cleaning residue for total concentration of Lead. SOP for utilization of Flue Gas cleaning residue may be prepared incorporating necessary provisions based on the findings of the above.
4.	Standard Operating Procedure (SoP) for Utilization of Spent Pot Lining (SPL) (generated from Primary Aluminium Smelting Industries) for manufacturing of Industrial Carbon fuel	SoP & Checklist of Minimal Requisite Facilities for the said utilization of Spent Pot Lining (SPL), as recommended by TEC after incorporating suggestions, is given at ***Annexure – IV.***
5.	Standard Operating Procedure (SoP) Utilization of Coal Tar/Tarry Residue (generated Coal Gasifier Units) as a fuel in furnace for manufacturing of Frit	SoP & Checklist of Minimal Requisite Facilities for the said utilization of Coal Tar/Tarry Residue, as recommended by TEC after incorporating suggestions, is given at ***Annexure – V.***
6.	Standard Operating Procedure (SoP) for utilization of Distillation Residue and ETP sludge (generated in pharma and chemical industries) for energy recovery in Captive Boiler	The committee observed that the unit has proposed utilization of Distillation Residue and ETP sludge, as energy recovery, in its captive boiler which has temperature of about 600°C whereas standards of incineration for Pharmaceutical (Manufacturing and Formulation) industry notified vide G.S.R.149 (E), dated 4.3.2009 under the Environment (Protection) Second Amendment Rules, 2009, prescribes minimum temperature of 850+25°C in primary chamber and 950°C in secondary combustion chamber and with a gas residence time in secondary combustion chamber not less than 2 (two) seconds. Achievement of the said operational parameters has not been reported during the trial period besides non-measurement of TOC and heavy metals in stack emissions of

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		the boiler during trial study. In view of the above, the committee rejects the said utilization proposal. The unit shall dispose the said Distillation Residue and ETP sludge in incinerator complying with the standards/provisions stipulated under the Environment (Protection) Act, 1986.

3. The committee also discussed issues raised by Regional Directorate, CPCB, Vadodara, regarding numbers of ambient air quality monitoring to be conducted during trial study of utilization of spent Aluminium Chloride for production of Aluminium Hydroxy Chloride in case of M/s Arun Industries Products ,Varsola, Dist Kheda, Gujarat. Copy of the issues raised is given at Appendix.

   The committee recommends that either of the proposed three options (given in Appendix) may be considered by the joint team of CPCB and GPCB depending upon compatibility of wastes, batch capacity, raw material availability, etc.

4. The meeting ended with vote of thanks to the Chair.

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Annexure I

CENTRAL POLLUTION CONTROL BOARD
DELHI- 110 032

Date: March 04, 2017

Venue: 2nd Floor, Conference Room, Parivesh Bhawan, CPCB, Delhi- 110 032

Sixth Meeting of the Technical Expert Committee for "Evaluation of proposal for utilization of the hazardous and other wastes under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016

List of Participants

S. No	Name	Designation	Member of the Committee / Invitee
1.	Dr R.K. Singh	Retired Scientist 'F', Bureau of Indian Standard.	Chairperson
2.	Prof. Rajeev Gupta	Department of Chemistry University of Delhi	Member
3.	Shri A.V. Shah	Environmental Engineer, Gujarat Pollution Control Board	Member
5.	Shri Dinabandu Gouda	Additional Director, PCI-I, CPCB, Delhi	Member
6.	Sh. B. Vinod Babu	I/C & Additional Director, WMD, CPCB, Delhi	Member
7.	Dr. Sonu Singh	Joint Director, MoEF&CC, New Delhi	Member
8.	Sh. Bharat K Sharma	Additional Director, WMD, CPCB, Delhi	Member Convener
9.	Ms. P K Selvi	Environmental Engineer, WMD, CPCB, Delhi	Invitee
10.	Ms. Vineeta	Senior Scientific Assiatant, WMD, CPCB, Delhi	Invitee
11.	Dr. Chandan Singh	Research Associate, WMD, CPCB, Delhi	Invitee
12.	Dr. Sandeep Kumar Dixit	Research Associate, WMD, CPCB, Delhi	Invitee

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