

Central Pollution Control Board
WM - II Division, Delhi

Sub: Minutes of the Fifteenth 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. Fifteenth 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 31.12.2018. List of the participants is enclosed at Annexure A.
2. Sh Bharat K Sharma, Head, Waste Management-II division welcomed the members of the committee.
3. He briefed the committee that noticing large number of utilization applications from Gujarat and in endeavour of adopting efficient procedures in preparing SOPs covering wider sources of hazardous wastes and better facilitation to proponents of hazardous waste utilization, CPCB vide letter dated 01.11.2018 has communicated to Gujarat PCB that Gujarat PCB may examine, evaluate and prepare trial run protocols, conduct trial run in presence of representative from RD, CPCB and forward draft SOP for placing before this TEC for its evaluation and recommendations to CPCB for grant of approval. Gujarat PCB was suggested to constitute an expert committee for the purpose wherein representative from CPCB RD Vadodara may participate. Scope of evaluation of utilization proposals, developing trial run monitoring protocol and SOP preparation were also forwarded to Gujarat PCB.

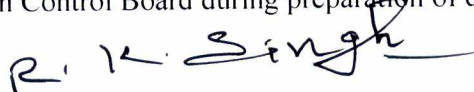
Gujarat PCB has requested CPCB vide letter dated 26/12/2018 that an official from CPCB, Delhi, may be nominated as a representative of TEC to participate in meeting at Gujarat PCB while evaluating applications and preparing draft trial protocol and SoP.

Sh. D M Thaker, Head, Hazardous Waste Management Division, Gujarat PCB, expressed that such participation would bring better harmony in evaluating the applications/proposals and preparation of draft SoPs and avoid chances of repetition of trial run or rejection of draft SoP proposed by Gujarat PCB at its final stage by this TEC, if any.

After detailed discussion, the committee recommended that in cases where Gujarat SPCB necessitates that trial run protocol prepared by them requires examination by the TEC constituted by CPCB, the same may be referred to this TEC and Gujarat PCB may proceed for trial run incorporating TEC suggestions, if any, and thereafter upon development of draft SoP the same may be placed before this TEC. However, sending all draft trial run protocols to this committee for examination may defeat the purpose initiated by CPCB and, therefore, selective draft trial run protocol which necessitates detailed examination by this TEC may only be forwarded by Gujarat PCB.

The committee also recommended that trial run protocol and trial run being conducted by Gujarat PCB for various types of hazardous waste utilization be shared with CPCB and vice versa regularly, so as to avoid repetition of work.

Gujarat PCB has requested to nominate official of CPCB, Delhi to remain present in initial few meetings at Gujarat Pollution Control Board during preparation of draft SOP.



4. One 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 report, was reviewed by TEC. Details of the same and recommendations of the TEC are as below:

Sl. No.	Agenda	TEC Recommendation
1.	Standard Operating Procedure (SoP) for utilization of Aluminium Dross Rejects/Residues (generated aluminium smelting industries) for production of synthetic slag (calcium aluminate).	SoPs & Checklist of Minimal Requisite Facilities for the said utilization, as recommended by TEC, after incorporating suggestions, is given at <i>Annexure – I</i>

5. The proposal of M/s Colourtex Industries Pvt. Ltd. (Unit-II), Gujarat, about utilization of Multi Effect Evaporator (MEE) concentrate (generated during manufacturing of para nitro aniline/ortho chloro para nitro aniline) in brine chilling plant as secondary refrigerant, was discussed in 13th TEC meeting. Trial run protocol was recommended by TEC and the trial run was recommended to conduct @ 20 KL of MEE concentrate for seven days at M/s Colourtex Industries Pvt. Ltd. (Unit-II). However, later the unit, vide its email dated 12/09/2018, informed that 100 KL of MEE concentrate would be required for conducting the trial run.

The matter was discussed and recommendation made by the committee is given at *Annexure B*.

6. Sh Bharat K Sharma informed that the SoP for utilization of Tarry Residue (generated from coal gasifier units) for production of Creosote Oils and Coal Tar Pitch was recommended by the committee in 10th Meeting of TEC held on 12/03/2018, however, the same has been kept in abeyance by CPCB as matter related to coal gasifier is before the Hon'ble NGT in the matter of OA No. 20/2017 and OA No. 42/2017 and the same was apprised to the Committee in its 11th meeting held on 07/05/2018. M/s Deepak Petrochem Limited, Gujarat and M/s Concept Energy & Hydrocarbons, Gujarat, have made representations to CPCB with regard to release of the said SoP and the same was briefed by him.

While recalling the background for keeping the above SoP in abeyance, he informed that in the matter of application number 20/2017 and 40/2017 a committee constituted by the Hon'ble NGT comprising of CPCB, GPCB & NEERI has submitted its report in the Hon'ble NGT, Pune. The committee has recommended in its report that any gasifier generating condensate waste water & coal tar should not be permitted in the Morbi-Wankaner area. Hence, it was decided that the said SoP for the utilization of tarry residue be kept in abeyance till judgement/orders of the Hon'ble NGT, Pune in the said matter.

It was also informed that the applicant, M/s Deepak Petrochem Limited, Gujarat, had filed a petition vide Civil Application No. 6151 of 2018 in the Hon'ble High Court of Gujarat, Ahmedabad, for release of the SOP by CPCB and the same has been rejected by the Hon'ble High Court vide orders dated 12/06/2018.

With the above background, Sh. Sharma requested committee to suggest further course of action regarding release of the said SoP. Sh. B. R. Naidu, Director, RD CPCB Vadodara

B. R. Naidu

informed that the aforesaid matter in the Hon'ble NGT has been listed for hearing on 10/1/2019.

After detailed discussion and observations that (a) the matter is being heard by the Hon'ble Tribunal with regard to operation of coal gasifiers in Morbi and Wankaner area and generation of Tarry Residue thereof for which utilization SoP is under abeyance; (b) hearing of the matter is scheduled on 10/1/2019; and anticipating that final judgement/orders of the Hon'ble NGT may come soon, the committee recommended that CPCB may continue keeping the SoP in abeyance till judgment/orders of the Hon'ble NGT in the matter of OA No. 20/2017 and OA no. 42/2017.

However, with regard to utilization of tarry residue waste generated from Coke Oven plant, the committee recommended to invite such proponent in the next TEC meeting along with details of process of generation of the tarry residue, characteristics of the tarry residue generated from such process, comparison in characteristics of tarry residue generated from Coke Oven Plant and Coal Gasifiers, comparison in characteristics of products derived by utilizing the said two tarry residues, etc.

7. The committee was briefed about recommendations made in the 14th TEC meeting about SoPs & Checklist of Minimal Requisite Facilities for the utilization of ammonium carbonate generated during dye & dye intermediate (i.e CPC blue manufacturing) for manufacturing zinc sulphate/copper sulphate. Ammonium sulphate is generated from such utilization and the proponent had proposed to use the same in alum manufacturing. However, there is need to review the same so as to incorporate appropriate management of Ammonium sulphate generated in the said SoP.

Thereafter, representatives of M/s Krishanraj Fertichem Pvt. Ltd., Plot No.: 5 & 6, Gozariya GIDC, Gozariya, Distt. Mehsana, Gujarat, was requested to clarify on end-use of Ammonium sulphate proposed by them.

After detailed discussions, the committee observed that Ammonium sulphate generated during the said utilization may have contaminants such as heavy metals, organic compounds etc. and alum so produced may not be environmentally safe. Therefore, the committee recommended that the application of alum, so produced shall only be allowed in Dye & dye Intermediate manufacturing, Leather tanning process or other industrial process application etc., and shall not be permitted for use in manufacture of fertilizer or in water treatment. In case, the said end-use application of ammonium sulphate is not possible, the same may be disposed in TSDF. The committee recommended the aforesaid SoP as recommended in the 14th TEC meeting stipulating the said restricted use/disposal of Ammonium sulphate in it.

8. The committee was briefed about the representation received from Group of SSP Manufacturers to consider the proposal for utilization of Spent Sulphuric acid (60 – 75 %) generated from Linear Alkyl Benzene Sulphonic Acid (LABSA) for manufacturing Single Super Phosphate (SSP). Sh D M Thaker, Head, Hazardous Waste Management Division, Gujarat PCB briefed that the said proposal may be examined, as such Spent Sulphuric acid is less contaminated as compared to the other sources of spent sulphuric acid.

The committee was informed that, in one of the similar utilization the proponent, M/s Coromandel Ltd., was communicated decisions of this committee (taken in 13th TEC meeting dated 10.08.2018), vide letter dated 10/09/2018, to provide analysis reports of hazardous waste and the product for the parameters (viz., individual concentration of all raw materials/products and by-products/possible organic compounds utilized during each of the generation processes

Dr. R. Singh

as well as Total Organic Compound (TOC), Fluoride and heavy metals). However, the same has not been submitted by the applicant yet.

The committee examined the characteristics of Spent Sulphuric Acid generated during manufacturing of LABSA and noted that TOC is less than other spent sulphuric acids generation process such as Nitration, Sulphonation & Other manufacturing processes. Therefore, the committee recommended that the Group of LABSA Manufacturers may submit a detailed proposal in consultation with reputed Agricultural Universities or Institutes for assessing immediate/delayed adverse impact to the environment by means of bioaccumulation or toxic effects on biotic system or both. On receipt of the said proposal, the matter may be considered in the subsequent TEC for further discussion.

The meeting ended with vote of thanks.

R. K. Singh

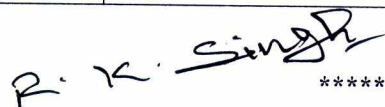
**CENTRAL POLLUTION CONTROL BOARD
DELHI- 110 032**

Date: December 31, 2018

Venue: Conference Hall, Second Floor,
Parivesh Bhawan, CPCB, Delhi- 110 032

List of Participants

Sl. No	Name	Designation and Organization	Member of the Committee / Invitee
1.	Dr. R.K. Singh	Retired Scientist 'F', Bureau of Indian Standard, New Delhi	Chairman
2.	Sh. D.M. Thaker	Hazardous waste management, Gujarat Pollution Control Board, Gandhinagar	Member
3.	Dr A K Swar	Chief Environmental Engineer, Odisha State Pollution Control Board	Member
4.	Dr Rajiv Gupta	Professor, Department of Environmental Sciences, University of Delhi	Member
5.	Sh. Dinabandu Gouda	Additional Director, IPC-I Div, CPCB, Delhi	Member
6.	Dr. C.S. Sharma	Ex. Additional Director, CPCB, Delhi	Member
7.	Sh. B.R. Naidu	Regional Director, CPCB, Vadodara	Invitee
8.	Sh Bharat K Sharma	Additional Director & Head, WM-II Div, CPCB, Delhi	Member Convener
9.	Ms P K Selvi	Scientist 'D', WM-II Div, CPCB, Delhi	Invitee
10.	Ms Deepti Kapil	Scientist 'D', WM-II Div, CPCB, Delhi	Invitee
11.	Sh Varun Prabhu	Junior Research Fellow, WM-II Div, CPCB, Delhi	Invitee



Recommendation of the committee for approval of proposals under Rule 9 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

Sl. No.	Name of the Industry	HW as Raw Material	Product	Process	Recommendations
1.	M/s Colourtex Industries Pvt. Ltd. (Unit-II), Plot No. 158/3, B/H. Fire station, GIDC, Pandesara, Surat-394221.	Multi Effect Evaporator (MEE) concentrate (hazardous waste) - category 35.3 as per the Schedule I of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 generated during manufacturing of para nitro aniline/ortho chloro para nitro aniline.	MEE concentrate will be used in brine chilling plant as secondary refrigerant.	MEE concentrate is proposed to be utilized in the brine chilling plant as secondary refrigerant. Secondary refrigerant is used to transfer heat from the substance being cooled to heat exchanger where heat is absorbed by primary refrigerant. The secondary refrigerant is cooled by primary refrigerant which comes in contact with the substance being cooled, thus absorbing heat from the substance being cooled warmer fluid is returned to the chiller and rejecting the heat to primary refrigerant.	<p>The proposal was already discussed in the 13th TEC meeting, wherein it was recommended to conduct trial run @ 20 KL of MEE concentrate for seven days at M/s Colourtex Industries Pvt. Ltd. (Unit-II). However, the unit vide email dated 12/09/2018, informed that 100 KL of MEE concentrate would be required for conducting the trial run.</p> <p>The committee observed that earlier proposal was to use 20 KL of MEE concentrate along with 80 KL of fresh calcium chloride solution; whereas, now the applicant proposed to utilize the entire quantity of secondary refrigerant material i.e. MEE concentrate instead of fresh calcium chloride. Thereby, it is observed that the current scenario will demonstrate the worst case inference of hazardous waste utilization.</p> <p>In view of above, the committee recommended to utilize 100 KL of MEE concentrate during trial run.</p>

R. K. Singh