

**AGENDA ITEMS FOR 89TH MEETING OF THE TECHNICAL REVIEW
COMMITTEE (TRC)**

Date: 23rd October, 2024

Time: 10:00 AM - 11:30 AM

Venue: In Hybrid mode

**Narmada Conference Hall, Jal Wing, Ground Floor, Indira Paryavaran
Bhawan, New Delhi**

Agenda.1. Request for permitting the use of Spent Sulphuric Acid for manufacturing of Single Super Phosphate (SSP) by M/s Gujarat Dyestuff Manufacturers Association (GDMA) and Ankleshwar Industries Association (AIA)

M/s Gujarat Dyestuff Manufacturers Association GDMA and AIA *vide* letters dated 16th April, 2024 & 18th April, 2024 has requested to consider Spent Sulphuric acid, a common by- product of the chemical industry which plays a critical role in the manufacturing process of phosphate fertilizers like SSP. However, it is categorized as hazardous under Hazardous & Other Waste Rules, 2016.

2. They further stated that recently CPCB conducted 23rd Technical Evaluation Committee meeting, proposing that manufacturers intending to use hazardous waste like spent sulfuric acid in land applications, human consumption, animal feed, drugs or similar end uses should seek approvals from relevant authorities such as the Department of Fertilizers, FSSAI, Pharmacopoeia commission and others. This approval process has hindered manufacturer' ability to utilize spent sulfuric acid, posing a significant challenge to SSP production.

3. They informed that during FY23, the total annual production capacity of SSP plants was 12.250 million MT. Two new SSP plants were commissioned in Gujarat during the same period. In India, there are 102 SSP plants out of which 93 were operational in FY 2023. Based on the usage pattern of various zones in India viz. East, West, North & South, 61 % of SSP is produced using spent sulphuric acid route, so any restriction will result in supply gap of 3,443 KT of SSP. This may also increase in the import demand of both pure Sulphuric acid/Sulphur and Di-ammonium Phosphate (DAP) as a substitute leading to higher carbon footprint.

4. The utilization of spent acid in the manufacturing of SSP plays a vital role in promoting circularity and reducing carbon foot print. If spent acid is not used in manufacturing so alternative disposal mechanism needs to be identified, other than in cement industry as the amount generated is much higher than the demand in the cement industry.

Agenda.2. Request to amend the Classification of Spent Sulphuric acid generated from LABSA process as "Hazardous Waste" to "By product" in new SOP issued by CPCB – Representation from M/s Indian Phosphate Limited, Udaipur

Indian Phosphate Limited, Udaipur has requested for amendment in the new SOP issued by CPCB for Classification of Spent Sulphuric acid generated from LABSA process as "Hazardous Waste" to "By product". They have mentioned various concerns/observations which arise due to classification of Spent Sulphuric acid (from LABSA Process) as

Hazardous Waste instead of By-Product.

2. It is mentioned that the raw material used for manufacturing process of LABSA are (a) Linear Alkyl Benzene (LAB) & (b) Sulphuric acid (98 %). During the process LABSA is produced alongwith dilute sulphuric acid after completing the reaction. This dilute acid is having similar product characteristics that of strong sulphuric acid with only difference that the dilution varies from 70% to 80%.

3. In India, since many decades the dilute acid produced from LABSA process (generation of approx. 8 lac MT/year is being used in manufacturing of SSP Fertilizer). As per Fertilizers association of India, Ministry of Chemicals & Fertilizers, during 2022-23 the total production of SSP was 56 lakh MT approx. out of which 16 lakh MT was produced using dilute acid from LABSA process.

4. The compliance of new SOP will restrict the SSP industries to buy dilute sulphuric acid which may lead to closure of the LABSA industries. Therefore, they have requested to amend the Classification of Spent Sulphuric acid generated from LABSA process as "Hazardous Waste" to "By product" in new SOP issued by CPCB.

Agenda 1 & 2 were last discussed in 88th TRC and the committee noted that there is already a committee constituted in each SPCB to decide whether a particular product is a waste or by product. Further, very recently, after a prolonged study, on request of some applicant, CPCB has come out with a detailed SOP under Rule 9 of HOWM Rules for use of sulfuric acid in the superphosphate industry. The representative of the applicant could not explain what exactly was the issue being agitated before the TRC, but presumably they would like sulfuric acid to be classified uniformly as a by-product.

Committee felt that more discussion is required regarding the grading of the spent sulphuric acid, equipment/technology, demand & supply ratio, tracking of movement etc. Committee also desires to have the views of some of the SPCBs and have technically knowledgeable persons present the case on behalf of the applicants. Therefore, committee recommended to defer the case for further discussion in the next meeting.

GPCB vide mail dated 4th October, 2024 informed the following:

The trial run for utilization of Spent Sulphuric acid generated from LABSA process in manufacturing of Single Super Phosphate (SSP) for use as fertilizer has been carried out at Nirma Limited, Gujarat during dt. 08/09/2020 and 09/09/2020.

- The subsequent toxicology report, Chemical analysis results of SSP by CSIR- IITR Lucknow, long term study report etc. was carried out and submitted to CPCB, Delhi.
- This case has been discussed multiple times in various CPCB TEC meetings after which the SOP was finalized and published on 04/06/2024.
- The typical characteristics of spent sulphuric acid generated from LABSA have been listed in the SOP No. 102 published by CPCB.

Further, the trial run for utilization of spent sulphuric acid generated during Diazotization Reaction, Nitration and Sulphonation Reaction in manufacturing of Single Super Phosphate (SSP) was carried out at M/s. Aarti Industries Ltd, Vapi during 22/11/2022 to 24/11/2022. Unit has submitted letters to CPCB to issue TOR for long term study which is awaited.

As it was proposed during 38th TEC, since the long term study will at least take 2 years, so it is suggested that conditional permission to units may be issued prescribing necessary precautionary measures viz. purity >70%, pre-treatment to reduce TOC < 500 mg/L in spent sulphuric acid, following online manifest system (as done in Gujarat) and maintaining

consumption records etc.

Accordingly, the matter is placed before TRC for deliberation/decision.

Agenda.3. Appeal on Standard Operating Procedure (SOP) with respect to Utilization of Spent/ Diluted Sulphuric Acid produced during the production of Linear alkyl Benzene Sulphonic Acid (LABSA) – Representation from All India Federation of Soaps, Detergents & Homecare Products’ Manufacturers

All India Federation of Soaps, Detergents & Homecare Products’ Manufacturers has mentioned that the Standard Operating Procedure (SOP) issued by the Central Pollution Control Board (CPCB) in June 2024, which reclassifies SSA generated during the LABSA process as hazardous waste instead of a by-product, has had far –reaching and detrimental consequences. This reclassification has led to significant operational challenges, including increased documentation, formalities and transportation issues associated with handling hazardous waste, hence it is clearly against Government of India Policy of Ease of Doing Business.

2. It is mentioned that LABSA is sold as a finished raw material to detergent manufacturing industry and diluted sulphuric acid is sold as finished raw material to manufacturers of SSP, Magnesium Sulphate, Alum, Di-Calcium Phosphate etc. Many facts are there which are supporting the utility of the Sulphuric acid generated from manufacture of SSP production and its non- hazardous nature, some of them are as follows.

- The toxicology study was carried out (by CSIR-IITR Lucknow) for utilizing with SSP produced from 100% Spent sulphuric acid and 100% pure sulphuric acid. The experimental results show that no fish mortality was observed in control and 100 mg/l SSP manufactured from pure Sulphuric acid exposed groups throughout the study duration. The percent mortality was observed in control and 100 mg/l SSP manufactured from pure Sulphuric acid exposed groups throughout the study duration. The percent mortality at the end of 96 hours was recorded to be 0% in control and treatment groups.
- The Ministry of Chemicals and Fertilizers, in their letter dated 13th May 2024 to CPCB concluded that it is further important to mention here that as per the long term study (conducted by the Anand Agricultural University for SSP manufactured from spent acid and pure acid), it was concluded that there was no difference found in various parameters of study with the use of SSP produced either from Spent Sulphuric Acid or Pure Sulphuric Acid. Therefore, there should not be any restriction or labelling on use of Spent Sulphuric Acid for production of SSP”

3. In view of the above, it is requested to reassess and reverse the classification of spent/Dilute Sulphuric Acid generated from LABSA process as hazardous waste. Accordingly, the matter is placed before TRC.

Agenda.4. Consideration of Hydrochloric Acid as by-product/ co-product as per the provisions of Hazardous & Other Waste Rules, 2016

- i. **Request for consideration of Hydrochloric Acid (HCL with purity 32 % and above) (Category: Schedule–II (B15)) as by-product produced from consented/permitted Benzyl products i.e. Benzyl Chloride, Benzaldehyde and Benzyl Alcohol - M/s KLJ Organics Limited (Unit II), Jhagadia, Gujarat**

M/s KLJ Organics Limited, Jhagadia, Gujarat has requested for consideration

of Hydrochloric Acid (HCL with purity 32 % and above) (Category: Schedule – II (B 15)) as by- product from Benzyl products i.e. Benzyl Chloride, Benzaldehyde and Benzyl Alcohol.

They have mentioned that in Environment Clearance (EC) and Consent to Establish (CTE), HCL produces having purity 32% and above were obtained as By Product /Co-product from Product Benzyl Chloride, Benzaldehyde & Benzyl Alcohol but in subsequent CC&A Amendment it is produced as Hazardous Waste. They have submitted the following documents:

- Equipment /technology available to get HCL with Purity 32% and above Analysis Reports for said purity of HCL issued by NABL and MoEFCC approved laboratory
- Certificate issued by Institute of Chemical Technology (Mumbai) stating that produced HCL (32% and above) by M/s KLJ Organic Limited (Unit II) is not falling under Hazardous waste category in Schedule I, III, IV & VI of Hazardous & Other Waste (Management & Trans Boundary Movement) Rules, 2016 and it is a By- Product.
- List of End users to whom the HCL is to be supplied along with MoU

ii. Request for consideration of Hydrochloric Acid as by-product produced from manufacturing process of Benzo Trichloride (BTC) & Vinylidene Difluoride (VDF) - M/s Gujarat Fluorochemicals Limited, Bharuch, Gujarat

The applicant has mentioned that HCL produced during the manufacturing process are not hazardous but SPCB recognized HCL as hazardous waste due to which their supplies to end user industries are getting badly affected due to protocol for these industries to not to use any hazardous waste in their process and the high economy loss is tuned. They have further requested to consider the HCL as by-product.

iii. Request for consideration of Hydrochloric Acid as by-product produced from manufacturing process of R-22 & R -142b - M/s Gujarat Fluorochemicals Limited, Panchmahal, Gujarat

The applicant has mentioned that HCL produced during the manufacturing process are not hazardous but SPCB recognized HCL as hazardous waste due to which their supplies to end user industries are getting badly affected due to protocol for these industries to not to use any hazardous waste in their process and the high economy loss is tuned. They have further requested to consider the HCL as by-product.

Agenda.5. Consideration of Hydrochloric Acid generated from manufacturing of Monochloroacetic acid (MCA) as product/ by-product/ co-product as per the provisions of Hazardous & Other Waste Rules, 2016 by M/s Anaven LLP, Valsad, Gujarat

M/s Anaven LLP, a joint venture company of Atul and Nouryon (erstwhile known as Akzonobel), Netherland is the largest manufacturer of Monochloroacetic acid (MCA) in India. The Company manufactures MCA using Nouryon's state-of-the-art proprietary technology involving the reaction of acetic acid with chlorine. MCA is presently

imported largely from China and it is used for manufacturing of pharmaceuticals like Ibuprofen, agrochemicals, liquid soaps, detergent and other cleaning products.

2. The plant is having valid Environment Clearance (EC) no. J-11011|286|2018 |IA II (I) dated August 11, 2020 and valid Consent to Operate (CTO) no. AWH 119535 dated July 27, 2022. Later we also received an EC EC22A021GJ120716 dated December 03, 2022 and subsequently CTO amendment no. WH 131858 respectively for the expansion in the capacity from 32,000 TPA to 38,400 TPA. MoEFCC has given HCl as a product in both the ECs granted. Also the analysis report in this regard from NABL and MoEF certified laboratories are provided by the applicant.

3. Despite all the above approvals and documents submitted to GPCB for consideration of Hydrochloric Acid generated from manufacturing of Monochloroacetic acid (MCA) as product/ by-product/ co- product as per the provisions of Hazardous & Other Waste Rules, 2016, GPCB granted HCl as a waste making whole predicated business calculations wrong as it cannot be sold in open market neither can be export though company invested Rs. 4.5 Cr for the purification of HCl. This investment apart from the recurring cost is in vein.

4. GPCB are additionally asking for the recommendation letter issued from the HSM division to consider HCl as a product. Therefore, applicant requested Ministry to consider the same for decision.

Agenda 3 & 4 were last discussed in 88th TRC and the committee was of the opinion that non-compliance of the condition stipulated in Ministry's OM dated 23rd February, 2023 allowing that the HCL generated from manufacturing of Chlorinated Paraffin Wax (CPW) with purity 32% and above may be considered as product/by-product by the respective SPCBs (state of origin), to be supplied to end user only subject to certain condition is still a matter of high concern as its impact on the environment is irreversible. In the instant cases wherein HCL is generated from the process other than the manufacturing of CPW, its grading and comparison of its purity must be analyzed. Committee felt that more discussion is required in the matter. Therefore, committee recommended that views/comments from CPCB/SPCB may be obtained for further discussion/deliberation on the issue.

Now, GPCB vide mail dated 4th October, 2024 informed the following:

- This office was in receipt of letter from CPCB, Delhi dt. 27/12/2023 with reference to discussion done during 81st TRC held on dt. 16/09/2023 to co-ordinate with CPCB RD- Vadodara for joint inspection, monitoring and report preparation of the three units (M/s KLJ Organics Limited (Unit II), Jhagadia, M/s Gujarat Fluorochemicals Limited, Bharuch and M/s Gujarat Fluorochemicals Limited, Panchmahal).
- Subsequent to which officers from corresponding Regional Offices, GPCB joined CPCB-RD, Vadodara officials in monitoring. Report has been prepared by CPCB-RD, Vadodara and it is understood that the report is submitted directly to CPCB, New Delhi.
- It is suggested that monitoring by CPCB shall be arranged for the inspection and sampling for the analysis of the parameters for the CoCs in case of M/s Anaven LLP, Valsad, Gujarat

Agenda.6. Request to permit import of scrap tyre for pyrolysis – Representation from All India Rubber & Tyre Recyclers Association (AIRTRA).

AIRTRA has requested to allow import of scrap tyres for pyrolysis plants. They have mentioned that all categories of manufacturers should be allowed to import scrap tyres as long as they are meeting the norms of state pollution control board and import SOP. Since the import is restricted for pyrolysis, so there is no advancement in technology as entrepreneurs are not investing huge amount due to lack of raw material assurance.

2. Further, they have suggested that Ministry should impose stricter environmental norms such as installation of thermal oxidizer, dust collector and continuous monitoring system. It is therefore requested that above suggestion of permitting import for pyrolysis be considered for the growth of India Economy, the recycling sector, saving foreign Exchange and Technological advancement

The matter was last discussed in 87th TRC meeting held on 20th May, 2024 and the committee noted that tyre pyrolysis poses significant challenges regarding flue gas treatment, handling of char and possible presence of rubber additive derived contaminants in the tyre pyrolysis oil. The committee also noted that import of waste is allowed only for resource/ material recovery and it is for these reasons, import of waste tyres for pyrolysis has not been hitherto considered. The committee however took note of the applicants' argument that pyrolysis oil will substitute for imported fuel, and tyre pyrolysis saves on the energy consumption and carbon emissions inherent in crude refining. The Committee recommended that the applicant may be asked to provide detailed information on standards, technologies and pollution control measures of tyre pyrolysis oil used elsewhere in the world. The applicants may specifically explain why tyre pyrolysis has not become a widely acceptable form of tyre disposal in several parts of the world. The Committee also noted that in the waste treatment hierarchy, material recovery in the form of crumb stood higher compared to pyrolysis. While taking note of the applicants' submission that eventually the downcycled rubber products have to be subjected to pyrolysis to avoid dumping into landfills, the committee requested the applicants to provide their detailed views on the same. In view of the aforesaid, the Committee felt that the matter may be taken after the receipt of required information. CPCB may also be requested to provide its further inputs on this issue.

Now, the applicant has submitted the details. Accordingly, the matter is placed before TRC for deliberation/decision.

Agenda.7. Clarification on categorization of ETP sludge as hazardous or non-hazardous - Representation by M/s United Breweries Limited (UBL)

United Breweries Limited (UBL), a subsidiary of Heineken NV, is India's largest beer company and a market leader. The applicant has mentioned that in the month of January, 2024 UBL had approached the Hon'ble Madras High Court, challenging orders of Tamil Nadu Pollution Control Board (TNPCB) seeking to immediately close the operations in their breweries. During the proceedings, the Hon'ble High Court had appointed National Environmental Engineering Research Institute (NEERI) to conduct inspection.

2. Now, as per NEERI inspection report dated June 5, 2024, the ETP sludge has been found to be non-hazardous. However, observing the fact that there is a difference in the opinion between UBL and TNPCB regarding the hazardous nature of the ETP Sludge, NEERI recommended the matter to be referred to the TRC for clarification on categorization of the waste as hazardous or non-hazardous.

The matter was last discussed in 88th TRC meeting held on 20th August, 2024 and after deliberating the issue committee recommended that M/s UBL has to submit the ETP sludge test report tested by Vimta Labs Limited and SGS India Private Limited as suggested by NEERI. The committee also recommended that there are many breweries in the country and the present practice being followed by different SPCBs may be ascertained by CPCB and also give its views/ comments.

Now, M/s United Breweries Limited (UBL) has submitted the test report tested by Vimta Labs Limited and SGS India Private Limited and it is mentioned that the reports demonstrate that the sludge is non-hazardous in nature. Accordingly, the matter is placed before TRC for deliberation/decision.

Agenda.8. Request to ban on export of Black mass – Representation by M/s Attero Recycling Private Limited, Noida

M/s Attero Recycling Private Limited, Noida mentioned that India is in the midst of a global raw materials race for strategically important critical minerals, REE, and precious metals. At the crux of the race for securing materials for the manufacture of batteries is 'black mass, the shredded remains of old lithium-ion batteries that contain critical minerals such as Lithium, Cobalt, Nickel, Manganese, Rhenium, Silicon, Tin, Titanium, Graphite, Iron etc. While India does not have many mines or resources from which these can be procured, waste streams of Electrical Electronics and Lithium-Ion batteries can be a rich sources of these extremely important materials.

2. From manufacturing solar panels and electric vehicles to all electronic devices, such critical minerals are vitally needed for modern technologies, and the net-zero economy. Several countries have started to impose strict regulation and bans on the export of these materials including - Black Mass which is a mixture of critical materials produced after the shredding of Lithium- ion battery cells.

3. In view of the above, it is requested that a ban on the export of Black Mass and other precious metal bearing waste may be imposed so that these critical and rare materials which are not available in India are kept available within India for domestic manufacturing.

Accordingly, the matter is placed before TRC.

ANY OTHER ITEMS WITH PERMISSION OF THE CHAIR
