

Decision of Ministry of Environment, Forest and Climate Change with respect to discussion on issues pertaining to clarifications sought on Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016, as approved by the Competent Authority on the basis of recommendation of the 86th Meeting of the Technical Review Committee (TRC) held on 03rd April, 2024.

Agenda.1. Gold recovered from exported Printed Circuit Boards (PCBs) to be considered for generation of EPR Certificates under E-Waste (Management) Rules, 2022 - matter referred by the Central Pollution Control Board -reg.

CPCB informed that Steering Committee constituted under E-Waste (Management) Rules, 2022 in its meeting held on 26.10.2023 discussed the issue of consideration of EPR Certificate for gold generated from exported printed Circuit Boards (PCBs) raised by the recycler's associations. Extract of relevant part of minutes of Steering Committee are as under:

- Material Recycling Association of India (MRAI) & Recycling and Environment Industry Association of India (REAI) made joint submission w.r.t consideration of exported PCBs for generation of EPR certificates. As per the Recyclers Associations due to better recovery & profits and limited capability of gold recyclers in the country, PCBs are getting exported on the basis of NOC issued by MoEF&CC. For the fulfillment of gold obligations, Recyclers Associations requested for considering PCB recycling done in the foreign land and crediting of corresponding EPR certificates into the account of recyclers based on supporting documents such as export bills, recovery of foreign currency etc.
- As per the committee, generation of EPR credits on exported PCBs will hinder the growth of gold recycling infrastructure in the country. Also CPCB has taken into consideration limitation of gold recycling while developing framework for generation of EPR certificates and have made provisions accordingly.
- It was decided that CPCB will forward above request of recyclers associations to MoEF&CC for decision on the same.

2. In view of the above, CPCB has requested Ministry for consideration of the issue of generation of EPR Certificate from exported PCBs and give direction to CPCB for further action in this regard.

3. The same has been examined in the Ministry and decided to refer the matter to TRC for deliberation/decision.

The matter was last discussed in 85th TRC meeting held on 12th March, 2024 and it was decided that a sub-committee comprising of Sh. Ashok Agarwal, Member, TRC, Sh. Anand Kumar, Director CPCB & Member TRC and representative of MoEFCC may visit MMTC-PAMP India Pvt. Ltd. Plant Mewat, Haryana and submit a report in this regard for further consideration of the case.

Sub-committee submitted its report to the Ministry. Accordingly, matter was considered by TRC for further deliberation/decision.

Deliberation: The committee deliberated upon the issue and heard the views of the sub-committee on the report submitted by them. It was observed by the sub-committee that the unit- M/s PAMP Precision Manufacturing India Private Limited, Rojka Meo, Nuh, Haryana has capability of processing Printed Circuit Boards (PCBs) recovered from e-waste and it can process 4 ton of waste PCBs per day. The unit is also planning for installation of the refining process depending on the availability of the PCBs waste in the near future. At present, the unit sends its precious metal containing black copper to its sister concern M/s MMTC-PAMP, located in an adjacent plot, for further processing for recovery of gold and silver as a job-work. M/s MMTC-PAMP unit was also visited by the sub-committee.

Recommendation: The committee recommended that CPCB may submit the details of capacity of M/s MMTC - PAMP and other such recycling plants to assess the overall national capacity of Gold and other precious metal recovery from PCBs waste along with projected expansion in near future by such plants, if any. The CPCB was also asked to incorporate the views of other recyclers recovering gold from the PCBs waste, annual processing capacity, issues faced by them in meeting the target of EPR etc. TRC also recommended that same Sub-committee may visit to some more recycling plants specially M/s Attero Recycling Pvt Ltd, Roorkee and M/s E-Parisaraa Private Limited, Bangalore to assess their annual gold recovery capacity and submit a report in this regard for further consideration of the case. Till then, the matter is deferred.

Agenda.2. Request to import 30,000 MT of waste tires for their upcoming plant at Varle, Maharashtra in the FY 2024-25 by M/s Tinna Rubber and Infrastructure Limited.

M/s Tinna Rubber and Infrastructure Limited vide letter dated 29.01.2024 requested Ministry to grant approval for import of 30,000 MT of waste tires for the FY 2024-25 for their upcoming plant at Varle, Maharashtra. Applicant has further stated in their letter that right now they have obtained CTE and in process to obtain CTO within few days.

2. M/s Tinna Rubber and Infrastructure Limited has informed that their greenfield plant is situated in village Varle, Taluka Wada, Dist. Palghar, Maharashtra, and having capacity to process 60,000 tons of old used passenger car tires annually. Applicant further informed that this plant is an extension of their existing plant located in same area, just 5 km away. The investment of over Rs. 50 Crores in this new establishment is crucial to meet growing production demands and maintain our commitment to the circular economy. They have taken a funding of Rs 25.45 Crores from SBI (copy attached for reference) and the balance funding has been done from other sources. With state-of-the-art technology, the goal is to provide materials for the production of a wide range of products. These include tires, conveyor belts, rubber mats, insulation, brake pads, sports turf, auto components, and roads, all made using recycled materials. Our vision is to create a sustainable and eco-friendly future, revolutionizing tire recycling and promoting responsible waste management practices. The plant for material recycling is with full automation and zero discharge. Point wise responses to the Ministry's queries are as under:

3. M/s Tinna Rubber and Infrastructure Limited has further stated that in this state-of-the-art plant, they propose to process tires to produce steel-free crumb rubber, which will be further utilized to create crumb rubber modifiers for roads and various other applications. The recovered steel flakes will be sold to the industry, and the generated fiber will be processed in-house to produce Nylon 6 compound. Economic Benefits Include:

- i. The recycling unit will create direct employment opportunities for over 750 people.
- ii. By utilizing recycled materials, we contribute to saving foreign exchange reserves. The raw materials we make are substitutes for higher value imports like bitumen and natural rubber.
- iii. Our process adds value of up to 4-5X to recycled materials, enhancing their utility and marketability.
- iv. The high-quality recycled products have significant potential for export markets, contributing to economic growth and trade. Also, our recycled rubber is extensively used by various industries employing tens of thousands of people making rubber products for exports. Adding our products increases their competitiveness and enables them to compete with other origins like China, Thailand and Vietnam. A classic example of this is the rubber matting industry based in Kerala.

4. The same has been examined in the Ministry noted that as per the existing practice in case of application for import of waste tyre/rubber, the applicants who have started operation recently or have not been able to carry out production, an adhoc quantity of 1,500 MT of waste tyre/rubber is recommended. In view, it has been decided to refer the matter to TRC for deliberation/ decision.

The matter was discussed in 85th TRC meeting held on 12th March, 2024 and it was decided that CPCB may provide details such as actual achievement of the different producers in terms of their EPR obligation, the quantities of raw material handled by the different recyclers and the availability of domestic scrap tyres. Committee also asked the applicant to provide the details w.r.t. (i) Electricity Connection load, (ii) proposed energy consumption, (iii) details of Equipment/Machinery installed, (iv) details of Pollution Control Equipment, (v) plant processing capacity in tons per hour or tons per 8 hour shift and (vi) processing capacity for each equipment.

CPCB and M/s Tinna Rubber and Infrastructure Limited provided/submitted requisite details. Accordingly, matter was considered by TRC for further deliberation/decision.

Deliberation: The committee deliberated upon the issue and opined that a slab system may be more appropriate for recommending adhoc quantity to the new applications & new units. The committee went through the report submitted by M/s Tinna Rubber and Infrastructure Limited. Further, CPCB provided details and update the committee with compliance of recyclers / producers on waste tyre portal, stating that in FY 2022-23, so far 9 Producers have purchased the EPR Certificates and in FY 2023-24 currently 3 producers have purchased the EPR Certificates. There is increase in domestic procurement in comparison to import in FY 2023-24 as it is 5:1 as compared to previous year which was 3:1 as per the current update provided by CPCB.

Recommendations: The committee recommended that CPCB may suggest policy based on gradation system referring investment in plant and machinery capacity w.r.t. setting up of new plant/unit by the existing company considering other parameters viz. 03 to 05 years track record of the existing unit, electricity connected load, domestic usage of waste tyre etc. Committee felt that more discussion on the subject is required for considered view/decision.

Agenda.3. 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.4. 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.

The above Agenda Items (Agenda Item 3 & 4) were last discussed in 85th TRC meeting held on 12th March, 2024. During the meeting the Committee felt the need to know impact and compliance of its earlier decision on HCL. Accordingly, TRC recommended that details about application received, processed, NOC given and subsequent details w.r.t. quarterly report of HCL produced and supplied by a unit to end user etc. should be obtained from GPCB/CPCB for considering the instant matter.

GPCB/CPCB had provided all the details. Accordingly, matter was considered by TRC for further deliberation/decision.

Deliberation & recommendation of TRC with respect to Agenda Item 3 &4

Deliberation: The committee deliberated upon the issue and heard the views of the representative of CPCB and GPCB. Representative of CPCB informed the committee regarding non-compliance of conditions suggested by TRC while recommending HCL generated from manufacturing of 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. The committee enquired from the GPCB since the HCL generated during manufacturing of CPW is not declared as By-product yet and is a hazardous waste, so why GPCB is not taking strict action against non-compiling units for not following manifest system.

GPCB informed the committee that after TRC recommendation, GPCB asked the applicant/units to provide (i) Detail characteristics of the Hydrochloric Acid (HCL) with purity 32% as recommended by TRC, (ii) List of actual users/owners along with other details for further verification and to assess their potential capacity to use HCl for further consideration of their cases for declaring HCl as product/by-product. However, no proper responses were received from their end.

Recommendations: **The committee noted that as per the report of CPCB and GPCB, units are not complying with the consent conditions for movement of hazardous waste and conditions 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. Therefore, TRC recommended that the HCL generated from manufacturing of CPW should be treated as hazardous waste and the units must follow consent conditions for movement of hazardous waste and all the norms as per the provisions of Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 as amended from time to time till the final decision taken up by GPCB for declaring HCL as product/by-product and submit report to Ministry. Till, then the Agenda Item 3 & 4 is deferred.**
