

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 75th Meeting of the Technical Review Committee (TRC) held on 17th November, 2022-reg.

AGENDA No. 1. Clarification with respect to Hazardous and other Wastes (Management & Trans-boundary Movement) Rules, 2016

Agenda 1.1

i. Request for consideration of spent acid containing HCL as Co-product/by-product rather Hazardous Waste - M/s KLJ Organics Limited, Jhagadia, Gujarat

This is a representation of M/s KLJ Organics Limited, Jhagadia, Gujarat dated 24.05.2022 for consideration of spent acid containing HCL as Co-product/by-product rather Hazardous Waste. The unit manufactures Paraffin Wax and Benzyl products that produces spent acid containing Hydrochloric Acid.

They state that HCL was consented as Co-product (produced during chlorination of Paraffin) to them in EC, NoC and CCA in 2010; but in 2016, when they applied for addition of Benzyl Product (produced from chlorination of Toluene), the same was consented as Hazardous Waste in Environmental Clearance. Then they applied to the MoEFCC on 06.12.2018 for exemption of their product HCl from Hazardous Waste category under Rule - 9 along with all the tests reports (including all parameters as per Schedule II of Hazardous Waste Rules, 2016) and Pre-Feasibility Reports. All the results of our product, namely HCL, were within the prescribed norms.

The matter was heard in the Technical Committee meeting of MoEFCC on 17.01.2018 and then, MoEFCC vide letter dated 17.05.2019 directed them to get HCL analyzed in respect of two additional parameters, viz. Toluene and other chlor-compounds, from NABL accredited laboratory. As per their instructions, they got HCL tested from NABL accredited laboratory and submitted the analysis report to MoEFCC on 01.08.2019. The results of both the parameters were within the prescribed limits. Then, MoEFCC vide letter 13.01.2020 informed them that the matter was transferred to GPCB for taking decision.

Accordingly, they applied to GPCB for exemption of their product HCL from Hazardous Waste under Rule – 9. GPCB formed a Committee and then, heard their case and asked them to submit fresh reports analyzed by GCMS machines. Then, they got their HCL from NABL accredited laboratory as per advice of the Committee and submitted the reports. They state that in this case also, all the parameters were well within the limits. However, during the last hearing held on 25th March, 2022, they found their case rejected on the following grounds:

- a. GPCB has taken samples from two
- b. manufacturers of CPW i.e. Payal & Shivtech, of their HCL and found the organic matter in their HCL.
- c. GPCB informed us that HCL is corrosive in nature.

Then, GSPCB forwarded their application with pre-feasibility study report to TRC with its non-acceptance to their proposal to declare spent acid generated as by-product and, thus, the unit can only send/sell the spent acid as hazardous waste to facilities authorized under Rule – 9, Hazardous Waste Management Rules.

The unit had also informed that GSPCB as well as few other SPCBs have declared similar waste as by-product, thereby affecting utilization of their spent acid in the market for being labeled as 'hazardous waste'. The other reasons quoted are (i) other SPCBs do not have authorized facilities under Rule 9 and (ii) Transportation of hazardous waste becomes an issue between the States.

Now, CPCB, while referring the case to Technical Review Committee (TRC) for further examination vide letter dated 01.06.2022, urged TRC to examine the reason based on which GSPCB has denied declaring the spent acid from M/s KLJ Organics Limited as by-products, while they allegedly identified same waste from other industries as by-product. The CPCB assured TRC of providing any technical assistance in this case.

ii. **Request for consideration of hydrochloric acid 20-36% and sodium hypochlorite generated through industrial process as by product – M/s Shivtek Industries Private Limited.**

The unit belongs to MSME sector, export products and manufactures chlorinated paraffin plasticizer with process of chlorination with Paraffin and olefins. They state vide letter dated 09.07.2022 that their by-product hydrochloric acid 20-36% and sodium hypochlorite of more than 100 gpl have been declared as Hazardous waste since GPCB has caught many traders in throwing Hydrochloric Acid in Nala & barren land which causes pollution.

They state that hydrochloride acid produced by them is of 30-36% concentration and meets all parameters of by-product as defined in IS 265 1993 and meets all requirements of by-product in Hazardous waste management handling and Transboundary movement rules as amended in 2016 and calling our product as spent acid is totally unjustified. They state that hydrochloric acid 30-36% is by product in all states of India except Gujarat.

They refer to two Orders of GPCB where GPCB has already approved hydrochloric acid and sodium hypochlorite as by-product for export. The orders are as mentioned below:

- i. GPCB/BRCH-B/CCA-224/ID-27544/555392 dated 20/02/2022
- ii. GPCB/BRCH-B/CCA-224/ID-27544/564904 dated 20/07/2022

They state that they the Committee agreed to their submission and assured to visit their plant but the Committee has not visited the same so far. The state that they have installed state of art machinery with separator, buffer, knock out drums, condensers, coolers for HCL (30-36%), gravity filters & resin absorbers and air conditioning, plate heat enhance for sodium hypochlorite.

In view of above, M/s Shivtek Industries Private Limited requests for consideration of hydrochloric acid 20-36% and sodium hypochlorite generated through industrial process as by product.

iii. **Request for recognizing the HCL of Chlorinated Paraffin as by-product and application for recognizing Purified Hydrochloric Acid (Pharmaceutical Grade 33-35%) as product instead of Hazardous waste – M/s Payal Polyplast Pvt. Limited**

M/s Payal Polyplast Pvt. Limited, Bharuch, Gujarat, vide letter dated 04.08.2022 addressed to Ministry has stated that they manufacture (a) Chlorinated Paraffins and Sulpho-Chlorinated Parafinns, (b) Plasticizers, (c) Epoxidised Oils (d) Plastic compounds (Polymers), and (e)

Purified Hydrochloric acid (33-35%) – Pharmaceutical grade. It was considered in 74th meeting held on 20th September, 2022.

They invite attention to SPCB's amendment in CC&A issued to them on 12.07.2022 for the material wherein SPCB recognized HCL as hazardous waste due to which their supplies to pharmaceutical industries are getting badly affected due to protocol for these industries to not to use any hazardous waste in their process.

They cite their justification to recognize the HCL from CPW process as By-product as mentioned below:

- a. With change in technologies and demand of market, CPW manufacturing involves the usage of filtered water for scrubbing of HCL gas, hence, the chances of metallic impurities are least. It was not a practice of old time CPW manufacturers.
- b. The scrubbers for HCL gas absorption are of graphite and no metallic part comes in contact with HCL.
- c. A series of non-metallic knot out drums with packed media are installed to trap the organic mist to make the HCL organic free.
- d. Unlike the old technologies used for CPW manufacturing, where the lead line reactors were used, their plant is equipped with only Glass lined reactors and no lead part is involved in the manufacturing plant.

The state that they have obtained test certificate of HCL from MoEF approved laboratory, stating the purity of HCL as more than 33% and absence of impurities, making it acceptable for processing in various chemical industries.

As regards, justification to recognize the purified HCL 33-35% (Pharmaceutical Grade) from CPW process as product, they have following submissions:

- a. They have installed the purification plant to manufacture "Hydrochloric acid 33-35% (Pharmaceutical Grade) as per the technology developed by IIT, Kanpur having a specific grade of adsorbents to purify the HCL. It adsorbs the traces of Organic content and other heavier contents, if present. This further assures the quality of HCL to be suitable for Pharmaceutical Industries.
- b. Amendment of their purified HCL 33-35% - pharmaceutical grade from product to hazardous waste will increase the burden of another 9850 MT/month on Indian Industrial Infrastructure. Keeping our HCL as Product as per the country but brings foreign exchange to our country also, as they were exporting approximately half of their total HCL production. They submitted the data in this regard to GPCB.

They state that they have installed the plant for purification of HCL after getting appropriate CTE and CCA from Gujarat Pollution Control Board with a huge investment to consume the by-product HCL. A sudden change in the category of this well-established product will impact the feasibility of this plant badly.

Considering the criticality of HCL, they assure that they will:

- a. Ensure that their all vehicles handling HCL as Product/By-product will be GPS tracked and they will keep the data available for Authority for last one year.
- b. They will send material to end users only in India. They will make sure to have an MoU with a valid consent of end user prior to Dispatch.

The matter was discussed in 74th meeting of TRC held on 20.09.2022. After detailed deliberation, TRC recommended that CPCB will prepare inventory of the HCl produced in the country, analysis of different grades of HCl and compare the treatment of HCl in different SPCB jurisdictions. Also, the data available in public domain will be analyzed. The matter will be reconsidered by the TRC in forthcoming meeting. Accordingly, matter re-considered by TRC in its 75th meeting.

Deliberation: The committee deliberated upon the issue and heard the views of representatives of KLJ Organics, Shivtek Industries and Payal Polyplast. The committee also discussed the matter with CPCB representatives. The committee discussed on the different grades of HCL as per BIS Standards. The committee noted that HCl obtained from the chloralkali process is technical grade HCl with 30 %purity and is invariably classified by SPCBs as a by-product. On the other hand, HCl obtained during the manufacture of CPW is inconsistently classified sometimes as by product and sometimes as hazardous waste. The committee tried to get a material balance for hydrochloric acid within the country, but very little data could become available. Broadly, about 3.2 million tonnes of chlorine was manufactured in the country, of which around 18 percent was converted to HCl. Another 20 per cent was used in chlorination in the CPW industry, which would result in around at least half its weight of HCl. The committee recognized that some of this HCL may not have ready market. What has a genuine market is a product and what does not have a genuine demand is and will end as a waste. At the same time, a blanket classification of this product as a hazardous waste would restrict its use only by authorized recyclers or users, thereby restricting its sale to many users, especially in the pharma industry and almost entirely preventing exports. The committee has therefore tried to find a via media, which is contained in the following recommendation

Recommendation: It was decided that the HCL with purity 32% and above may be considered as product/by-product by the respective SPCBs/PCCs (state of origin), to be supplied to end user only, subject to the following:

- i. Type of equipment/technology used by the producer.
- ii. Sales to be made only to end users and no sales to be allowed to traders.
- iii. Submission of details of end users to whom the HCL is to be supplied and verification by the SPCB of the requirement of such end users, especially their capacity to use the HCL sought to be bought.
- iv. The movement of HCL from Producer to End User under GPS tracking.
- v. Quarterly report of HCL produced and supplied by a unit to end user should be submitted to the concerned SPCBs/PCCs.

The above details may be furnished to the SPCB which will place the matter before the committee which may classify the HCL as by-product based on the compliance of the above conditions. SPCBs may regularly check and ensure compliance of the condition stipulated in the permission granted to them.

NOTE: The competent authority has directed to get the report from CPCB as recommended in 74th Meeting of TRC before taking final decision in the matter.

Agenda 1.2 Representation from MAIT on the interpretation of the Local disposal of 10-15% of e-waste arising out of used equipment imported for refurbishing purpose.

MAIT has submitted a “Draft Electronics Repair Services Outsourcing (ERSO) Policy” to MeitY for consideration. ERSO involves outsourcing of defective and damaged electronic items to repair service organizations in India, to repair or refurbish or re-calibrate, such defective or damaged electronic items, to bring them to a perfect working condition.

As per the draft policy, MAIT has requested MoEFCC to take a decision on the allowance of local disposal of 10-15% of e-waste arising out of used equipment imported for refurbishing purpose. MeitY has forwarded the draft ERSO policy to Ministry for consideration. In the draft ERSO Policy following points pertain to MoEF&CC:

- i. Treatment of Electronics Goods Beyond Economic Repair: Imported defective goods which cannot be repaired due to techno-commercial reasons, may be permitted to be destroyed within the premises of the unit subject to applicable regulatory compliances for such destruction. Alternatively, such unrepairable items can be moved to recyclers authorized by Ministry of Environment. Obligation to re-export such unrepairable items will not be applicable on the unit. However, such unrepairable items cannot be more than 10% of the total imports. Anything in excess of this limit will have to be re-exported out of India.
- ii. Change in Export destination: Under the provisions of this Policy, an ERSO unit engaged in Repair and calibration services will not be under an obligation to export the imported electronics goods to its port / country of origin and will be permitted to redirect it to the port / country of choice basis communication from the owner to this effect. Thus, goods for repair may be imported from a country A but under this provision of the Policy, the owner of the goods may request for delivery to another destination in country B as long as requisite conditions under law are satisfied.

Matter was examined in the Ministry and it has been decided to refer the same to TRC for deliberation and recommendation.

Deliberation: The committee deliberated upon the issue and heard the views of representatives of MAIT. The committee also discussed the minutes of the meeting held by MeitY on this issue. Implication of the above decision on increase in e-waste in the country was also considered.

Recommendation: After detailed deliberation on the issue the committee recommended the following:

- i. **Regarding re-export of unrepairable items imported from OEMs for refurbish/repair, the committee recommended that 5% of unrepairable items, by weight, imported from OEMs for refurbishment/repair may be retained and sent to authorized recyclers only as per the prevailing Hazardous and Other Wastes**

(Management and Transboundary Movement) Rules and E-Waste (Management) Rules.

- ii. **Regarding re-export of the imported electronics goods after refurbishment/repair to another country from the country of import, the committee recommended that the used EEAs imported from OEMs for repair/refurbishment may be exported to other countries different from the imported country if proposed by OEMs. The committee also recommended that for the above recommendation, necessary amendments may be done in the HOWM Rules, 2016.**

Agenda 1.3 Representation from Gujarat Paper Mill Association regarding Streamlining of Import of Waste Paper.

M/s Gujarat Paper Mill Association (GPMA) has requested to withdraw the present norms under the Hazardous and Other Wastes (Management & Transboundary Movement) Rules 2016 and its subsequent amendments and OM issued by MOEF&CC dated 11-May-2010, specifying different out-throws for different kinds of waste paper. It was considered in 74nd meeting held on 20th September, 2022. They have requested to merge all grades as only one item Waste Paper and have a uniform allowable non-fiber as per below chart:

Norms Proposed for import of Waste paper		
Item	%	Remarks
All Kind of Plastic	5	
Wood	2	Combined max allowed
Sand		
Metal		
Textile		
Glass		
Bio Medical Waste, Municipal Solid Waste, Post Consumer domestic waste	0	If found, will be sorted out and sent to Cement Factory for co-incineration

Further, they have mentioned that in the rare case of higher prohibitive content received, currently the matter is put to litigation and drags on for years and some shipments are abandoned. Under the vision of “Vivad Se Vishwas”, such contaminations from rare shipments should be allowed to be incinerated at Kiln in Cement Industries for swift resolution, since Container detention and Ground rent at Port multiply daily leading to huge cost implications and Port congestions. Material can be taken to the paper mill, rejects to be sorted out and sent to Cement factory. Compliance format may be submitted to customs and SPCB's.

GPMA has also requested to stop Imports of all kinds of Waste Paper by Traders. This will ensure only genuine users are importing waste paper with sense of Responsibility and not profit only agenda.

The matter was put in 72nd Meeting of the TRC where the committee could only have an introductory meeting with the representatives of Gujarat Paper Bill Association (GPMA) due to paucity of time and considered to hear the case in 73rd Meeting of TRC.

In the 73rd Meeting of the TRC, the Committee held detailed deliberation on the issue and recommended that the capacity utilization and import data of last 2 years may be submitted by GPMA. Committee also recommended that Ministry may request CPPRI to provide the maximum percentage of plastic allowed for coating with paper and CPPRI also indicate the maximum reasonable impurities in the waste paper. Till then, the matter was deferred till the receipt of aforesaid information.

Accordingly, a letter has been sent to CPPRI. Also, applicant has been requested to provide the data.

The matter was again discussed in 74th meeting of TRC held on 20.09.2022. The committee noted that CPPRI has just forwarded the views/inputs received from Indian Agro & Recycled Paper Mills Association (IARPMA). IARPMA has also support the proposed 5% allowable for all types of plastic and 2% other impurities to be allowed in import of waste paper. In view, the TRC recommended to again ask CPPRI for their specific views/comments on maximum percentage of plastic allowed for coating with paper and also indicate the maximum reasonable impurities in the waste paper to be allowed. Committee also requested GPMA to provide capacity utilization and import data of last 2 years may be submitted by GPMA. The matter deferred till the receipt of aforesaid information.

GPMA has submitted requisite information. Accordingly, matter has been re-considered by TRC in its 75th meeting.

Deliberation: The committee deliberated upon the issues and heard the views of representatives from Gujarat Paper Mill Association (GPMA), took note of the NGT case in the matter as well as of the recommendations of the Expert Working Group set up by MoEFCC. The committee noted that the O.M dated 11/05/2010 follows the ISRI guidelines on Paper Sock Industries and these are mainly to standardize waste quality to facilitate trade in waste. The committee noted that the classification is too complex from the perspective of examination at the customs and needs to be simplified.

Recommendation: The committee reviewed the Ministry's OM dated 11.05.2010 regarding prescribed limits for non-paper recyclable-material in waste paper consignments being imported from other countries. After detailed deliberation, TRC recommended the following:

- i. Import and export of paper, paperboard and paper product wastes shall be regulated in accordance with the provisions laid down under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended from time to time.
- ii. Import of paper wastes shall be only for recovery/ manufacture at the paper- manufacturing unit and the imported material shall not be sold further.
- iii. The importers would have to ensure that all recyclable materials are actually recycled by them. There should be no disposal of materials other than by recycling or co-processing in cement kilns or through waste to energy plants.
- iv. The extent of recyclable material in a particular container shall not exceed the limits specified below. However, there shall be no

putrefiable organic matter at all in the imported waste paper consignment.

Item	Limit (%)
1. All Kind of Plastic, Wood, Sand, Metal, Textile and Glass 2. All other items in the above referred OM (including different types of paper waste)	5
Bio Medical Waste, Municipal Solid Waste, Post Consumer domestic waste and any other waste or contaminants not enlisted in this OM.	None-permitted

The committee recommends that the imports should be accompanied by a certificate of origin naming the foreign facility from where the material originated, whether it is a result of single stream or dual stream waste collection, and a credible pre-shipment inspection report based on a bale-break report. The committee further recommends, that the importer should obtain a quarterly certificate from the SPCB, that the non-paper waste included in the previous imports made in quarter preceding the immediately preceding quarter, has been scientifically disposed of and especially, the plastic has been sent to waste to energy plants or cement kilns. This certificate should be a mandatory document to be submitted to the customs authority at the time of clearance of the import consignment.

The committee further recommended that if any contaminants more than above is found in the consignment, the same shall be re-exported by the importer on its own. If re-export is not possible for any unavoidable reason, then importer shall pay penalty which will be 25% of the value of the container and whole material of that container will be handed over to cement kilns for co-processing or in waste to energy plants for energy generation under the supervision of respective SPCBs/PCCs. The importer shall have their own waste to energy plant or a standing arrangement with a waste to energy plant or a cement plant for this purpose.

This may be reviewed after 1 year.

Agenda 1.4 Representation from M/s Finster Black Private Ltd regarding grant of permission of import of 50,000 MT per annum of Used tyre scrap in baled/multicut form for a period of 10 years for manufacturing of Recovered Carbon Black.

M/s Finster Black Private Ltd has mentioned that currently India produces 16,00,000 tonnes of Virgin Carbon Black using CBFS carbon black feedstock (crude based oil) & pitch oil. This contributes more than 2 tons of CO₂ emitted to the atmosphere for every ton produced. CBFS is imported in the country. 90% of the virgin carbon black produced goes for the manufacturing of

rubber tyres and rubber products. Around the world countries have started promoting recovered carbon black as a substitute of virgin carbon black and save the environment. Recovered carbon black is produced by using rubber and tyre scrap as a raw material. NITI Aayog in its report on rubber and tyre scrap recycling has promoted the use of Recovered carbon black.

Further, it is mentioned by the applicant that Indian local tyre scrap is available in a limited way and quality of scrap is not good because of the multiple reuse and high ash content. In view of this and in order to kick start the recovered carbon black industry, M/s Finster Black Private Ltd has requested to grant of permission of import of 50,000 MT per annum of Used tyre scrap in baled/multicut form for a period of 10 years.

It was considered in 72nd TRC meeting held on 30th May and due to paucity of time, the committee decided to discuss these matter in the next TRC meeting.

Deliberation: The committee deliberated upon the issue and heard the views of representatives of Finster Black Private Ltd.

Recommendation: After detailed deliberation on the issue the committee is of the opinion that the more clarification in terms of process details, material balance and disposal of by-product is required. The committee also felt that the interaction with technology provider is required to understand the process and possibility of use of Indian tyre. The applicant may be requested to make a detailed presentation in next meeting incorporating above issues. Accordingly, matter was deferred by TRC for re-consideration in next meeting.

Agenda 1.5 Request to acknowledging de-lined Copper Inserted Cathode Bars (CICBs) as non-hazardous under category 3D of Basel Convention and necessitating State Pollution Board to issue necessary approval and allow to import these CICBs – TATA International Limited

Tata International Limited (PAI) Division supplies Cathode bars, Anode bars and Copper inserted cathode bars (CIBs) to Aluminium Smelters across Oceania, Asia, middle East, Africa, Europe and North America. TATA supplies more than 60,000 MT Cathode bars, Anode bars and Copper inserted cathode bars (CIBs) annually from India. Tata International Limited (PAI) Division want to recover the precious metal copper along with steel scrap (HMS) from spent steel bars. The process to extract is purely mechanical using operation of saw cutting and Gas cutting, and no Thermo - Chemical process is involved. The material extracted shall also remain in solid state in nature and would not change.

TATA has mentioned that an authorization has been issued to M/s Aditya Aluminum Limited by PCB, Odisha for similar processing as the used collectors bars are not considered in the list of hazardous items. Since, there was precedence, TATA requested Andhra Pradesh Pollution Control Board for seeking clarification and NOC w.r.t. importing the scrap bars along with report of Schedule II test result from NABL accredited laboratory.

TATA also requested CPCB for approval of issuance of CFE for recovery of copper from used cathode bars and acknowledging de-lined CICBS as Non Hazardous. APPCB cited the clarification of CPCB and specific approval of MoEF&CC for import of copper inserted bars along with chemical composition of surface of the spent bars. In this regards a test report by SV Enviro Lab (recognized by MoEF&CC, accredited by NABET and NABL) on all the possible

toxic elements & other heavy metals via TCLP was found to be within the PCB/ LPCBs standards.

APPCB has direct to M/s Hayagreevaya Enterprises (Tata's external processing agent) that in case of dispute the matter has been referred to TRC constituted by MoEF&CC. CPCB also asked M/s Hayagreevaya Enterprises to submit schedule I report for the Used CICB's. Though Tata International Limited submitted an application in July, 2022 to MoEF&CC clarifying that these Bars are metal scrap (Steel and Copper) does not require Schedule testing & in this regard Schedule II test report is being submitted.

The schedule II test report submitted by NABL Accredited Varsha Bullion & Elemental Analab, SV Enviro Lab, Vishakhapatnam & report from Andhra University confirms that the material is non-hazardous in nature.

In this regard, Tata International Limited has requested to kindly for de-lined Copper Inserted Cathode Bars (CICBs) as non-hazardous under category 3D of Basel Convention and direct State Pollution Control Board to issue necessary approval.

Deliberation: **The committee deliberated upon the issue and heard the views of representatives from TATA International Limited.**

Recommendation: **After deliberation on the issue, the committee recommended that a detailed presentation may be given by TATA International Limited. Committee also recommended that Tata International Limited may also submit the observation/clarification on the difference between the category given in the authorization issued to M/s Aditya Aluminum Limited by PCB, Odisha and applied by TATA International Limited to PCB Andhra Pradesh. Accordingly, matter deferred by TRC for re-consideration in next meeting.**

Agenda 1.6 Use of Crumb Rubber recovered from waste tyres for building Green Roads by Material Recycling Association of India (MRAI)

The usage of CRMB material in road construction would also ensure safer and superior roads with more cost-effectiveness.

It is also stated by major institutes like CRRI, and HRS-Chennai, IIT's have done extensive research which confirms that roads made with CRMB will last longer, reduce noise pollution, help in increasing axle load ability, and in the process create a very safe and efficient use of waste tyres, that would otherwise be used in illegal and polluting applications like pyrolysis.

IRC 37:2018 (relevant pages enclosed) recommends the use of modified bitumen only for highways handling traffic 50 MSA and above while considering the merits of Modified bitumen, it should be used for other types of roads as well. The directions may also be issued by MOEFCC to make a minimum of 30% of roads with CRMB.

Recommendation: Deferred for next meeting.
