

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 84th Meeting of the Technical Review Committee (TRC) held on 07th February, 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.

Deliberations: The committee was apprised of the currently applicable EPR rules and guidelines. The main concern of the applicants is that there are presently only 11 recyclers with limited capacity to recover gold from PCBs. Further, the producers have to fulfil targets for recovery of ferrous and non-ferrous metals as well, these targets are at 100% of estimated content, and these 11 recyclers do not have the capacity to cater to the entire requirement. Thus the producers will need to deal with two different recyclers. Instead, they would like the recovery of gold from exported PCBs to be considered towards their gold recovery target. CPCB representative pointed out that the limited

capacity of gold recyclers has been taken into consideration while fixing the EPR target (@20% of estimated content) for recovery of gold. Further the EPR guidelines provide for substituting gold recovery target with additional pro rata recovery of ferrous and/or non-ferrous metals. The request of the applicants to consider gold recovery from exported PCBs towards gold recovery target may put domestic recyclers at a disadvantage and hamper future growth of capacity.

The committee felt that the guidelines have been in force for some time. The actual achievement of the different producers in gold recovery, the quantities handled by the different recyclers, their plans for expansion of capacity may first be ascertained. Further, the views of recyclers and select producers may also be obtained.

Recommendation: After detailed deliberation on the issue the committee recommended that CPCB may provide the details as mentioned above. The matter may be taken up for deliberation after receipt of the information.

Agenda.2. Representation from Petroleum Re-refiners Association of India (PRAI) for use of bottom residue for road making (obtained in the process of re-refining of used oils) as a non-hazardous material - reg.

Petroleum Re-refiners Association of India (PRAI) stated that in the re-refining process, distillation is employed to recover useful lubricants from the used oils. In this process, bottom residue (un-distilled portion) of around 10% of feed is recovered as a by-product. The un-distilled part is the bottom residue, which is nothing but additives and bright stock. Due to the dark color it cannot be used as lubricant oil, but can be very well used as a masticating agent in rubber production, and balance quantity used as an asphalt extender in road construction.

2. They have submitted following in favor of use of bottom residue:

- (i) PRAI commissioned Central Road Research Institute (CRRI) to study its feasibility and the report received is very encouraging. Bottom residue has been got tested several times, by PRAI and observes that the by product does not contain any heavy metals or waste constituents in concentration above threshold limit nor does it have any hazardous characteristics to qualify it as a hazardous waste of HoWM Rules 2016.
- (ii) Final report of High Power committee submitted to Supreme Court acknowledges the fact that "Used Oil need not be hazardous". Also A.P. Lube Oil Processors Association later tested number of samples of Used Oil for lead content, all of which was found to be within acceptable limits. Also research conducted at international level in United States for leachate tests too indicate there is no significant leachate difference between the original asphalt and the bottom residue blend etc.
- (iii) Other Uses of Bottom Residue is as under:
 - a. Lots of rubber industries are using it in Kerala as a Masticating agent
 - b. It has use in the waterproofing and tar felt industry.
 - c. India is a net petroleum importer and if your goodselves could approve this product for blending with bitumen, the country could save huge amount of foreign exchange and in the process, help conserve finite resources.

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

Deliberation: The committee deliberated upon the issue and heard the views of CPCB. CPCB representative, while justifying the hazardous nature of Bottom Residue, mentioned that while re-refining of used oil, vacuum distillation column bottom residue gets deposited and is hazardous as the used oil or lube oil fed in vacuum distillation is coming out from engine transformer and may have PCBs, PAH and heavy metals like arsenic, lead too. So, a proper TCLP test must be conducted to check the characteristic of Bottom residue as per Schedule 1 of HoWM Rules, 2016. It was also informed by the CPCB that guidelines issued by CPCB w.r.t. used oil re-refining already mentioned that bottom residue will be subjected to co-incineration in cement plants only.

Recommendation: After detailed deliberation on the issue the committee recommended that CPCB may collect at least 5-6 samples of bottom residue from different used oil recyclers to check metal content, PCB & PAH etc. following TCLP test method and submit report to the Ministry. Till then the matter is deferred.

Agenda.3. Representation on Ministry's Office Memorandum (O.M.) vides F.No. 23/107/2022-HSMD dated 10.01.2023 regarding prescribed limits in waste paper imports

- (i) **From NCR Paper Mill Association with request to delete/ withdraw condition of submitting quarterly certificate to the Customs Authority at the time of clearance of Import Consignment after obtaining from SPCB regarding disposal of waste Plastic to Waste to Energy Plant or cement Kilns.**

NCR Paper Mill Association has mentioned that Paper Mills importing Waste paper are facing difficulties in clearance of their import consignments of Waste Paper as the Paper units are not getting certificates issued by SPCBs and Custom Authorities are holding the clearance which is resulting in heavy detention charges at ports & shortage of raw material in Paper mill.

They have further mentioned that SPCBs are already monitoring the proper disposal of waste plastics arising from the paper units falling in their Jurisdiction in scientifically proper manner and taking proper action against the defaulters and the condition of submitting quarterly certificates by SPCB should not be imposed as this condition is creating unnecessary compliance burden.

- (ii) **From Gujarat Paper Mill Association with request to delete/ withdraw condition of submitting SPCB certificate confirming scientific disposal of non-paper received in imports of waste paper for the preceding quarter.**

Gujarat Paper Mill Association (GPMA) has mentioned that following issues are being faced by paper mills during waste paper import:-

- i. It is not possible that all waste paper imported would be consumed within a quarter. Depending on various factors, there would be some material in stock.
- ii. GPCB has informed that they do not have enough manpower to manage this

- activity on quarterly basis.
- iii. If there are procedural delays, consignments get stuck at port creating issues for both the port & importer.
 - iv. State Pollution Control Boards are already monitoring the proper disposal of waste.

Presently, importers are uploading the acknowledged copy of annual return filed with concerned SPCB on ICE Gate website (Indian Customs EDI Gateway) on a yearly basis. GPMA has further requested to continue the present condition and delete the condition mentioned in the OM dated 10th January, 2023.

The matter was discussed in 80th TRC meeting and the committee recommended that NCR Paper Mill Association/ Gujarat Paper Mill Association may submit the details of industries/units where the quarterly certificate is not being issued/delayed by respective SPCBs in respect of compliance of para vi of Ministry's O.M. dated 10.01.2023 for further necessary action. The Committee also recommended that the concerned State Pollution Control Boards (SPCBs) may be invited in the next meeting to understand the issue in details.

The matter was last discussed in 82nd TRC meeting and the committee recommended that GPCB may submit the details of industries/units regarding quantity of waste paper imported, quantity of plastic sent to cement kiln as per yearly manifest system, also the quantity of balance plastic with units and its mode of disposal, for better understanding. Committee also asked the Paper Mills Association to provide the details of sorting out of plastic waste from waste paper before putting it into pulp.

GPCB had provided the following details through e-mail dated 1st February, 2024 as under:

- As per data received from Gujarat Paper Mill Association (GPMA), Quantity of waste paper imported during April 2023 to September 2023 is 16,38,551.857 MT.
- Total plastic waste received from pulp and paper industries by cement industries of Gujarat for co-processing during April 2023 to September 2023 is 40,868.4 MT.
- Thus, the percentage of paper waste imported to the quantity of plastic waste sent to cement kiln for co-processing works out to be 2.49%.

GPCB also highlighted that, it is understood that paper industries might not be using only imported paper all the time but might also be using paper waste domestically procured in different proportion.

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

Deliberation: The committee noted that the data submitted by GPMA had been merely forwarded by GPCB. Member Secretary GPCB clarified that GPCB has developed a portal and the movement of plastic is under a manifest system.

GPCB representative was asked whether the paper mills are registered as producers under the plastic EPR framework and whether the (Waste to Energy) WtE plants or cement kilns have generated EPR certificates for the plastic processed by them on behalf of the paper mills. GPCB representative informed that there was some ambiguity about the same and hence paper mills are not registered under EPR framework and EPR certificates have not been generated by them. CPCB representative immediately clarified that the paper mills have to register as producers and the WtE plant/cement kiln has to generate end of life

EPR certificate.

The present regulations allow contamination upto 5 per cent in the imported paper waste. However, the actual plastic content may vary and therefore it may be difficult to verify if all the plastic waste generated has been sent to WtE plant/cement kilns. However, it was pointed out that all import consignments have to accompanied by a third party bail break certificate of contamination content. The quality control cell of the paper mill will also normally have data on the plastic content. These could be used to verify if all the plastic has been properly disposed.

GPCB representative also pointed out that, with the help of NEERI, they have developed a SOP and validated the design of WtE plants for the incineration of plastic waste. The committee appreciated this and requested CPCB to study and circulate to all states.

GPCB representative pointed out that they have limited staff and giving quarterly certificates is administratively difficult. However, the required audit could be done by their empaneled auditors. The committee was in agreement with this suggestion.

The NCR representative was asked about data on generation and disposal of plastic. He replied that members have not yet furnished the data, the committee expressed deep disappointment and felt that the association was not serious about their responsibility. They were reminded that there is an ongoing litigation on the matter in NGT. The committee strongly recommended that a two ember team of Ministry/CPCB should visit few paper mills in NCR region to get a firsthand knowledge of the status of plastic disposal.

Recommendations: The committee after detailed deliberation recommended that the NCR paper mill must have to compulsorily provide the data asked by TRC in its 82nd meeting. TRC also recommended the site visit by two or three experts in any three paper mills in NCR to get the true scenario of their plastic waste management, TRC further recommended the following:

- The paper mill should register them under 'Producer' Category for EPR under Plastic Waste Rules.
- The Waste to Energy plants/cement industries must get register as plastic waste processor cum recycler on EPR portal and also should generate credit certificate in End-of- Life category for them.
- Quarterly audit through the empaneled auditors and the format or Performa must clearly gather the information like the total quantity of plastic waste in the paper imported as per the percentage reported in third party certificate or bale-break certificate, storage quantity of plastic waste with its duration & quantity given for co-processing in cement kiln with its invoice etc. also the mode of disposal of remaining quantity of plastic waste with proper material balancing. Where such empanelled auditors are not available, the system of quarterly certificates from SPCBs should continue.

- **If necessary, suitable amendments may be made in the rules to enable acceptance of empaneled auditor's certificates instead of SPCB certificates at the time of imports.**
- **The Bale-break certificate while importing the paper giving the data on quantity of plastic waste is to be kept in record too.**
- **The SOP developed by GPCB for use of non- hazardous waste generated from paper mill should be complied with. CPCB may also study the same and circulate it to states, with modifications as necessary.**

ANY OTHER ITEMS WITH PERMISSION OF THE CHAIR

Agenda.4. Request for inclusion of indigenously generated Non-Hazardous Industrial Waste in the definition of "Other waste" in the Hazardous and Other Wastes (Management and Transboundary Movement) Second Amendment Rules, 2021 and allowing its utilization thereof in Waste-to-Energy Projects – representation by M/s Abellon Cleanenergy Limited, Ahmedabad, Gujarat

M/s Abellon Cleanenergy Limited, Ahmedabad, Gujarat has stated that as per Hazardous and other waste (Management and Transboundary Movement) Second Amendment Rules, 2021 "other wastes" means wastes specified in Part B and Part D of SCHEDULE III for the purpose of import and export and include such indigenously produced wastes as may be notified from time to time, due to that they are facing problem in usage of indigenous non-hazardous "other- waste" in Waste to energy projects. They have requested the following:

- To notify indigenously produced wastes as listed in Schedule-III Part-B & Part-D of HOWM Rules, 2016 so that the same are covered by the definition of "other wastes"
- To direct CPCB to issue a clarification to SPCBs for granting consent to utilize indigenously generated non-hazardous industrial waste in Waste to energy projects having adequate emission control mechanism.
- CPCB may also clarify and prescribe the procedure to be followed under the HOWM Rules, 2016, by the SPCBs while granting such consent.

The issue was last discussed in 83 TRC meeting held on 08.11.2023 and committee recommended that CPCB may issue a clarification to SPCBs/PCCs for granting consent to utilize indigenously generated non-hazardous industrial waste in waste to energy plants having adequate emission control mechanism also committee asked the applicant to provide the document/letter given by SPCB regarding no-use of indigenously produced wastes in waste to energy plant.

The applicant has provided the above said details; accordingly, the matter was placed before 84th TRC for deliberation/decision.

Deliberation: The committee deliberated upon the issue and heard the views of representative of M/s Abellon Cleanenergy Limited stating that there are many indigenous non- hazardous waste in textile industries like silk waste (non-fiber waste), cotton rags which are not re-used & disposed in landfills. On enquiring about its calorific value, physical characteristics the applicant informed that calorific value is about 2,500 to 4,000 & is

available in either dry as well as wet waste or mix. As waste coming from petrol pump is wet while from textile industry is dry, the GPCB shows concern about the chance of hazardous contamination from such waste. The committee asked the GPCB to study the waste to energy recovery from silk waste or cotton rags.

Recommendation: The committee after detailed deliberation on the issue recommended that GPCB in line with the SOP developed for use of non- hazardous waste generated from paper mill, may also develop a SOP regarding the use of non-hazardous indigenous waste generating from textile industries like silk waste (non-fiber waste) cotton rags etc. and the same will be validated by CPCB.
