

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 82nd Meeting of the Technical Review Committee (TRC) held on 8th November, 2023

Agenda 1. Representation from Tyre and Rubber Recyclers Association of India (TRRAI) for amendment in grant of permission of import of 50,000 Mt/Annum of used tyre scrap for M/s Finster Black Private for manufacturing of recovered carbon black.

In 76th Meeting of TRC, the committee after detailed deliberation upon the issue recommended that the permission for import of 50000 MT of Used tyre scrap in baled/multicut form for production of Recovered Carbon Black (RCB) which will replace the virgin Carbon Black in manufacturing Industry, may be granted initially for a period of 3 years on pilot basis with following conditions to be levied while granting permission:

- i) The process should be result in a yield of RCB comparable to the yields being obtained in other well established plants for manufacture of RCB. 100% of the RCB produced by the units should be sold to manufacturer for replacing the virgin carbon black. The recovered other byproducts during the process should conform to relevant specifications and no part of the recovered carbon should go for energy recovery or any other use or to landfill.
- ii) The units should have commensurate electricity consumption.
- iii) The sale to the manufacturing units shall be verified through GST paid and other supporting evidence.
- iv) The permission will be issued only after verification from CPCB which will be carried out annually.
- v) Fresh Investment of minimum Rs. 25 crore from 1.4.2022 onwards.
- vi) Minimum land area of 5 acres of the unit.
- vii) The process should be completely automated and environment friendly with zero emission of carbon black particle in environment.
- viii) The RCB end product should be in the form of granule to check the dispersion in the environment.
- ix) Whole process of production of RCB form waste/scrap tyre should be completed in the same premises.

The above recommendation of TRC was approved by the competent authority in the Ministry. Subsequent to the above decision, TRRAI vide letter dated 6th April, 2023 has raised their concerns on the recommendations of TRC and requested Ministry to revisit the decision of TRC w.r.t. to the following points: -

- (i) Fresh Investment of minimum Rs. 25 crores from 1.4.2022 onwards.
- (ii) Minimum land area of 5 acres of the unit.
- (iii) Whole process of production of RCB form waste/scrap tyre should be competed in the same premises.

TRRAI has further requested that no permission for import of waste tyre for production of Recovered Carbon Black (RCB) should be granted till the decision on the above points.

The matter was discussed in 78th TRC meeting held on 17th May, 2023. The committee after detailed deliberation on the issue recommended that TRRAI may submit the basis for their representation to revisit the above policy, especially regarding requirement of fresh investment of minimum Rs. 25 crores, minimum land of 5 acres and the whole process of production of RCBs form waste/scrap tyre should be completed in the same premises for further deliberation on the matter. The Committee also recommended that regarding the presence of Silica content in the Indian tyres, Automotive Tyre Manufactures Association (ATMA) may be asked to provide the details. Till then, the matter is deferred. Certain other issues raised by the TRRAI do not pertain to policy and may be referred to the appropriate authorities.

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

Deliberation: The committee deliberated upon the issue and heard the view made by the TRRAI on the use of domestic waste tyres to be prioritized for manufacturing of recovered carbon black. Committee clarified to the applicant that the requirement of fresh Investment of minimum Rs. 25 crores from 1.4.2022 onwards, minimum land area of 5 acres of the unit and whole process of production of RCB form waste/scrap tyre should be completed in the same premises was recommended to ensure that there is adequate plant and machinery to convert the pyrolysis char to recovered carbon black, based on discussions with industry representatives. The committee is keen to avoid a situation where there is substantial possibility of plain pyrolysis happening without conversion of char to recovered carbon black in violation if import conditions. The committee also noted the representation from the TRRAI representative that char from domestic tyres is also reportedly being converted to recovered carbon black. The committee asked for details, and in case the same is substantiated, a requirement for domestic tyre waste being used in some proportion may also have to be considered.

Recommendation: After deliberation upon the issue the committee was of the opinion that TRRAI may provide the following details with proper justification if dilution is required in above policy:

- The minimum investment required for production of RCB subject to capacity processing along with capital investment
- Minimum land area required for such investment
- Quality of RCB being produced as per ASTM standard
- Demand of RCB with list of end users to assess the demand for import of waste tyre.
- The details of existing RCB manufacturers.

Agenda 2. Matter related to implementation of Hazardous and other waste (Management and Transboundary Movement) Rules, 2016 – referred by Central Pollution Control Board (CPCB) - reg.

CPCB informed that a meeting with operators of Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) was held on 23rd August, 2022 to discuss issues related to effective operation and maintenance of TSDFs. Thereafter, a meeting with SPCBs/PCCs was held on 1st November, 2022 to discuss the suggestions and comments received during the meetings with operators of TSDFs. The key issues are as follows:

- a) One time registration to the units exempted from authorization, so as to track hazardous waste even in small quantities [Rule 6.(1A)]
- b) Extension in time period for storage of hazardous waste by small generators (beyond 90 days). [Rule 8.(1)]
- c) Provision for the generation and reporting of incidental hazardous waste not specified in authorization. [Rule 6 and Form 2]
- d) Provision for the registration of Collection Centres which receives domestic hazardous waste in ULBs [New provision at Rule 6]
- e) Inclusion of residues generated from concentration or evaporation of industrial wastewater in Schedule I [at Sl. No. 35] of the Rules.
- f) Inclusion of Escrow account (as per the MoEF&CC O.M. dated 16/04/2009) for the post closure monitoring of the CHWTSDFs and occupiers of captive SLFs [Rule 16.(4) and Rule 21 – Schedule VII- (4)]

CPCB has requested that these issues may be referred to TRC for deliberation and recommendation.

Deliberation: The committee deliberated upon the issue and heard the views of CPCB on the above issues vis-à-vis comments/suggestion given by them for necessary amendment in HOWM Rules, 2016. Point wise issues vis-à-vis proposal of CPCB are as follows:

- a) **One time registration to the units exempted from authorization, so as to track hazardous waste even in small quantities [Rule 6.(1A)]**

Issues: Rules 6.(1A) exempts authorization of hazardous waste generating industries which does not require CTE/CTO under Water Act, 1974 & Air Act 1981, such industries can handover hazardous waste to authorized waste collector. However, there is no provision for accounting the waste being generated and handled by such exempted occupiers. As per rules 18 & 19, the sender of hazardous and other waste is required to have an authorization and to provide manifest for movement of the waste, which is not possible in case of exempted units.

Representative of CPCB during discussion request the committee that for
82nd Meeting of the Technical Review Committee

incidental generation of such wastes there would be one time authorization from concerned SPCBs/PCCs as per norms so that authorized TSDF accept it, yet the entities like medical colleges, hospitals etc. having expired chemicals or reactors etc. is just handling it over to authorized collection centers or set up by TSDF without any proper record and again the record keeping is not maintained during the handling.

Proposal of CPCB: In view, CPCB proposes that HOWM Rules, 2016 may incorporate provisions so that such exempted entities may be get registered on the Hazardous Waste Tracking Portal developed by CPCB for reporting the quantity of hazardous waste generated and handed over to the waste collector.

Recommendation: Committee felt that more discussion on the subject is required for considered view/decision.

b) Extension in time period for storage of hazardous waste by small generators (beyond 90 days). [Rule 8(1)]

Issue: The HOWM Rules, 2016 allow storage of hazardous and other wastes only for period of 90 days and 180 days for small generators (up to ten tonnes per annum) and other special cases. However, the small generators generating miniscule quantities as low as 1-2 Kg per year are facing issue in seeking authorization for extended storage and transporting the waste to authorized recycler/ utilizer/ disposal facility. Further, unless the quantity is around 5 to 10 tons it is not feasible to transport.

Proposal of CPCB: CPCB proposes that time limit for storage of hazardous waste may be extended, in case of small generators, as below:

S. No.	Quantity of HW (MT/A)	Time Period (days)
1.	Less than 5 tonnes	365 days (12 months)
2.	5 - 10	180 days (06 months)

Recommendation: Committee agreed to recommend amendment in HOWM Rules, 2016 [Rule 8.(1)] as per the details given below:

S. No.	Quantity of HW (MT/A)	Time Period (days)
1.	Less than 5 tons per annum	365 days (12 months)
2.	Between 5 – 10 tonnes	180 days (06 months)

c) Provision for the generation and reporting of incidental hazardous waste not specified in authorization. [Rule 6 and Form 2]

Issue: CPCB observed that the industries are facing difficulty in reporting and management of hazardous wastes generated in their premises, which are not listed in their authorization. Sometimes hazardous wastes other than those listed in authorization are generated due to unforeseen conditions such as fire, natural calamity, chemical spill, etc. including the hazardous waste inadvertently missed out while granting authorization by SPCBs.

Proposal of CPCB: CPCB proposes to Amend Form 2 of HOW Rules, 2016 by incorporating a general condition that *“any hazardous waste not listed in authorization granted by SPCB, But generated due to unforeseen conditions such as fire, natural calamity, chemical spill etc. including the hazardous waste not identified while granting authorization, may be sent to operator of the facility or actual user and the records of the same shall be maintained in Form 3 and reported while filing annual reports in Form 4”*.

Recommendation: **Committee enquired about the quantity of hazardous waste generated due to unforeseen conditions such as fire, natural calamity and chemical spill to be taken into consideration to avoid the miss use of the norms. CPCB may be requested to furnish some data in this regard. In view of the aforesaid, committee felt that more discussion on the subject is required for considered view/decision.**

d) Provision for the registration of Collection Centres which receives domestic hazardous waste in ULBs [New provision at Rule 6]

Issues: Operators of disposal facilities have informed that domestic Hazardous Wasted such as discarded paint drums, pesticide cans, fluorescent bulbs, tube lights, expired medicines, broken mercury thermometers, waste batteries, used needles and syringes and contaminated gauge, etc., generated at the household levels are not reaching operators of the disposal facility, which indicates that unscientific disposal/ recycling of such hazardous wastes. Further, said wastes in not being accounted in the National Inventory of hazardous waste.

CPCB found that a synergy between Solid Waste Management Rules, 2016 and Hazardous and other Waste (Management and Transboundary Movement) Rules, 2016 is highly required for proper management of house hold/ domestic hazardous waste generated, may also be helpful in proper record keeping of household hazardous waste. As per SWM Rules, 2016, Domestic hazardous wastes are required to be channelized to TSDF through deposition centres developed by Local Urban Bodies. However, the HOWM Rules, 2016 does not have linkage to house hold/ domestic hazardous wastes generated in ULBs.

Proposal of CPCB: CPCB proposes that provision of one time registration of domestic hazardous wastes deposition centers with SPCB under Rule 6 of HOWM Rules, 2016 may be considered so as to enable the channelization & accounting of domestic hazardous waste to the TSDF/ recyclers. Such centers may be set up by waste collectors registered by ULBs [as per Rule 11.(m) of SWM Rules, 2016] and linked with authorized operator of hazardous waste disposal facility.

Recommendation: Committee recommended for amendment in HOWM Rules, 2016 [Rule 6. & 16.(1)] in respect to build a proper linkage with SWM Rules, 2016 by incorporating one time registration of domestic hazardous wastes deposition centers with SPCB so as to enable the channelization & accounting of domestic hazardous waste to the TSDF/ recyclers.

e) **Inclusion of residues generated from concentration or evaporation of industrial wastewater in Schedule I [at Sl. No. 35] of the Rules.**

Issues: CPCB viewed that with adoption of zero Liquid Discharge system, industrial units are opting towards the use of Multi Effect Evaporator (MEE), sometimes followed by Agitated Thin Film Dryer (ATFD) as final unit for treatment of wastewater generated from the industrial processes listed in schedule I of the HOWM Rules, 2016. During the said treatment processes, waste salt / concentrate or evaporation residue are generated. The same is hygroscopic with high TDS and contains all the contaminants present in the wastewater, thereby requires proper handling and disposal as per HOWM Rules, 2016. However, no specific category for the same is mentioned in the HOWM Rules, 2016, sometimes identified by SPCB under the categories of 35.3 and 37.3 (schedule – I of HOWM Rules, 2016).

Proposal of CPCB: May consider amendment to the Rules by inserting category 35.6 at SI NO 35 of Schedule I as “35.6 Evaporation or MEE residue in treatment of wastewater”.

Recommendation: Committee opined that evaporation or MEE residue/salts generated in treatment of waste water should be treated as hazardous waste and for more clarity Ministry may issue Clarification that in Schedule I - List of process generating hazardous wastes of HOWM Rules, 2016 at S.No. 35. (Sub-section 35.3 – Chemical sludge from waste water treatment) includes any Evaporation or MEE residue/salts generated during treatment of industrial waste water.

f) Inclusion of Escrow account (as per the MoEF&CC O.M. dated 16/04/2009) for the post closure monitoring of the CHWTSDFs and occupiers of captive SLFs [Rule 16(4) and Rule 21 – Schedule VII- (4)]

CPCB referring to MOEF&CC O.M. issued vide dated 16/04/2009 directed for opening of Escrow Account wherein 5 % of Annual Turnover of Landfilable waste will be deposited to cater the expenditure involved in post closure period of SLFs such as monitoring and any contingency measures that may require due to failure of SLFs. Accordingly, CPCB has directed all SPCBs to ensure compliance of the same and accordingly the TSDFs have opened the Escrow Account and charging the generators for disposal of their wastes. The collected amount is being deposited annually in Recurring Fixed Deposits of Escrow Account. Further, as per said OM after successful completion of 30 years of post-closure phase, the balance amount in Escrow Accounts be transferred back to Operator of the facility.

Issues: common TSDF operators have raised that the interest accumulated in Escrow Account may be utilized for monitoring and maintenance of few closed cells of SLFs prior to closure of remaining cells of SLFs. The TSDF claims that SLFs are usually designed with Active life of 25 years, and SLF cells are operated & closed in phased manner, hence, requested usage of escrow account prior to closure of all cells. Further, SPCBs informed that there is non-uniformity in calculation of Annual Escrow Fund (for example: Annual Turnover in some States is calculated based on cost of landfilling alone excluding the cost of landfilling alone excluding the cost of transportation and handling).

Proposal of CPCB:

1. May consider inclusion of Escrow account (as per the MOEF & CC O.M dated 16/04/2009) for post closure monitoring of the CHWTSDFs and occupiers of captive SLFs under Rules 16 (4) and Rule 21 – Schedule vii- (4).
2. Escrow charges to be levied based on Annual Turnover of landfill able waste including cost of transportation, handling and disposal.
3. Since, the escrow amount is being collected from generators of wastes and there is a possibility of adverse impact by closed SLF even beyond 30 years of post – closure period, CPCB and SPCB are of the view that unspent escrow amount, after completion of 30 years of post – closure phase may be retained with the SPCB/ PCC to cater contingencies that may emerge thereafter, rather than leaving the unspent fund with operator of the TSDF without any liability.

Recommendation: Committee welcome the proposal of including the Escrow account (as per the MoEF&CC O.M. dated 16/04/2009) for the post closure monitoring of the CHWTSDFs and occupiers of captive SLFs under Rule 16.(4) and Rule 21 – Schedule VII- (4) of the said Rules and also to consider the cost of transportation, handling & disposal while

calculating the Escrow Charges to be levied based on Annual Turnover of Landfillable waste. However, Committee opined that amount in the Escrow account cannot be retained principally, instead the tenure may be extended from 30 years up to additional 5-10 years (as buffer periods) so that proper monitoring of SLF post closure is carried out to keep a check on adverse impact, depending upon assessment of the stabilization of the landfill. However, committee felt that more discussion on the subject is required for considered view/decision.

Agenda 3. Request for inclusion of indigenously generated Non-Hazardous Industrial Waste in the definition of “Other waste” in the Hazardous and other waste (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- reg.

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:

- i. To notify indigenously produced wastes as listed in Schedule-III Part-B & Part-D of HWM Rules, 2016 so that the same are covered by the definition of “other wastes”
- ii. 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.
- iii. CPCB may also clarify and prescribe the procedure to be followed under the HoWM Rules, 2016, by the SPCBs while granting such consent.

Recommendation: The issue was discussed and it was decided that the matter will be further taken up in the next TRC meeting.

Agenda 4. Representation on Ministry’s Office Memorandum issued vide 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 last 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.*

Deliberation: The committee deliberated upon the issue and heard the views of Gujarat Pollution control board, talking about ease of doing business gets interrupted with more monitoring and also explains that an online manifest monitoring system from cradle to grave & online transportation tracking system is develop by GPCB which are traceable for all industries, so especially inspect hundreds of paper mill on quarterly basis will be very difficult. Also mills are submitting Form 4, 5 online and annual reports, making the raw material, product & waste management disposal traceable & verifiable. Gujarat Paper Mill

Association and NCR Paper Mill Association regarding the issue faced w.r.t the issuance of quarterly certificates by SPCB. The committee enquired about the issuance of quarterly certificates for which GPCB and NCR Paper Mill Association/ Gujarat Paper Mill Association informed that it is still to be executed as custom has given them temporary relaxation regarding it. The GPCB also justify that they have incorporated technology enhancement in many big cement industries to support such plastic waste in their kiln. They also told about the SOP published last week for disposal of plastic waste generated from processing of paper mill while dealing with the Mehali paper mill case study. GPCB and Paper Mill Association have proposed to involve third party audit to keep check on proper disposal of plastic waste by paper mills. On enquiring from the committee, Paper Mill Association clarify that though demurrage detention is of around 14 days but since they had asked temporary relaxation from the Custom so no detention is done yet but is to be figured out soon.

Recommendation: 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 pulper.

Agenda 5. Any other item(s) with permission of the chair.
