

**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 83<sup>rd</sup> Meeting of the Technical Review Committee (TRC) held on 28<sup>th</sup> December, 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 Limited for manufacturing of recovered carbon black (RCB).**

In 76<sup>th</sup> 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 01.4.2022 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 from 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 06.04.2023 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 01.4.2022 onwards.

- (ii) Minimum land area of 5 acres of the unit.
- (iii) Whole process of production of RCB from waste/scrap tyre should be completed 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 then discussed in 78<sup>th</sup> & 82<sup>nd</sup> meeting of TRC. *In 82<sup>nd</sup> TRC meeting held on 08.11.2023, after detailed deliberation on 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.*

TRRAI has submitted the reply vide email dated 24.11.2023. Accordingly, the matter is placed before the TRC for deliberation/decision.

**Deliberation:** The committee deliberated upon the issue and the document submitted by the TRRAI on the minimum investment required for production subject to processing capacity along with capital investment & minimum land area required for production of RCB.

**Recommendation:** After detailed deliberation upon the issue the committee revised the following conditions as decided in 76<sup>th</sup> Meeting of TRC:

- i) **Fresh Investment of minimum Rs. 10 crore in place of Rs. 25 crore.**
- ii) **Minimum land area of the processing unit is 2 acres in place of 5 acres.**

**All other conditions will remain same as per the decision of 76<sup>th</sup> meeting of TRC. Further, TRC recommended that individual cases may be placed before EC for recommendations and permission may be granted on the basis of actual capacity as assessed by CPCB through a visit, and use of minimum 25% of indigenous raw material.**

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

CPCB informed that a meeting with operators of Common Hazardous Waste Treatment, Storage and Disposal Facilities (TSDF) was held on 23.08.2022 to discuss issues related to effective operation and maintenance of TSDFs. Thereafter, a meeting with SPCBs/PCCs was held on 01.11.2022 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 Centers 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.

*The matter was last discussed in 82<sup>nd</sup> TRC meeting held on 08.11.2023. The committee deliberated upon the above issues vis-à-vis comments/suggestion given by CPCB and has given recommendation w.r.t. point b), d) & e) and felt that on the below points more discussion is required for considered view/decision:*

**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 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.

**Deliberation:** The committee deliberated upon the issue and heard the view of CPCB regarding one time registration to the units exempted from authorization may be useful in complete tracking in the hazardous waste of small quantity too. Committee observed that HOWM Rules, 2016 were amended in March, 2019 to relieve the applicant from Authorization who are exempted from Consent & tracking such applicants being an issue, also TSDF is facing difficulties in covering such units as in Rules. CPCB informed that the GIS based national hazardous waste tracking

system is under process now and such applicant may register in that that National Hazardous Waste Tracking portal so that one-time authorization/registration after verification from SPCB may be generated for such entities.

TRC felt that registration of such units are significant for proper tracking of the hazardous waste subject to legal aspect being clear, it may be registered on portal, all relevant requisites of the hazardous waste rules in terms of storage, movement under manifest, GPS tracking of movement and disposal through the authorized hazardous waste facility should be followed.

**Recommendation: After detailed deliberation upon the issue the Committee viewed that such policy relates to registration on portal i.e. administrative issue instead of amendment in HoWM Rules, 2016 and may be made mandatory by CPCB on the basis of TRC recommendation so that the generators of Hazardous Waste, who are exempted from authorization as per Rule 6(1A) may get registered on NHWTS portal and the movement of hazardous waste generated and handled by them will easily traceable after vetting from SPCB. CPCB may issue direction to SPCB/PCC under Rule 5 of EPA act to facilitate registration of such small generators on national HW Tracking Portal**

**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”*.

**Deliberation:** The committee deliberated upon the issue and heard the view of CPCB regarding the generation and reporting of incidental hazardous waste. Committee apprehends that it should not be loophole for not reporting the hazardous waste normally generated, however in case of incidental waste, there should be clarity in reporting such incidents, covering its movement & disposal pathways (whether landfill w.r.t its stabilization or incineration). Hazardous waste which is regularly generated due to the production process in the premises the same shall invariably be covered under the authorization and there shall be no scope for reporting at later stage, in such cases the authorization should be amended immediately upon noticing any waste streams not mentioned in authorization.

It was opined that any hazardous waste which is generated sporadically due to unforeseen conditions such as fire, natural calamity, chemical spill, etc including the hazardous waste that inadvertently missed out while granting authorization by

SPCBs/PCCs may be sent to common TSDf or actual users provided that the hazardous waste which is routinely generated in the consented process shall be included in authorization invariably within the earliest opportunity by reporting to the state board so that the amended authorization for a period be issued.

**Recommendation: After detailed deliberation upon the issue the committee recommended to amend the Form 2 inserting the provision as mentioned below so that the amended authorization may be issued for a period:**

**“Any hazardous waste that is not granted authorization but is generated sporadically due to unforeseen conditions such as fire, natural calamity, chemical spill, etc. including the hazardous waste that inadvertently missed out while granting authorization by SPCBs may be sent to the operator of the facility or actual user provided that the hazardous waste which is routinely generated in the consented manufacturing process in the authorized premises shall be at the very first opportunity be included in the authorization after identifying such waste and within one month of identification of any such waste”. However, above procedure will not apply in the case when production is beyond the consented capacity and such matter shall be dealt as the prevailing rule and regulations.**

- 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, S. No. 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, S. No. 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.

**Deliberation:** The committee deliberated upon the issue and heard the view of CPCB regarding the unspent Escrow account and 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, S.No. 4) of the said Rules and also to consider the cost of transportation, handling, treatment & disposal while calculating the Escrow Charges to be levied based on Annual Turnover of Landfillable waste. Committee also recommend to consider the proposal of treating the post closure period with effect from the date of closing last cell of the SLF in TSDF to count Escrow period. However, Committee opined that amount in the Escrow account cannot be retained principally but may be held until the observations while monitoring the contamination of such SLF validates proper stabilization or no risk. In this context, committee also suggested that the Escrow shall be for a period of 30 years, however at the end of such 30 years, the state pollution control board in consultation with CPCB may carry out an assessment to check whether there is any active contamination from Such SLF, and if any possibility of risk or damage is identified then the unspent fund of the Escrow amount may be retained and the post closure period may be extended for another 10 years.

**Recommendation:** After detailed deliberation upon the issue the committee recommended to consider the following:

1. **The 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, S. No. 4).**
2. **Escrow charges to be levied based on Annual Turnover of landfillable waste including cost of transportation, handling, treatment and disposal.**
3. **The post closure period to be counted with effect from the date of closing last cell of the SLF in TSDF and the escrow funds shall not be utilized till such time.**
4. **The Escrow shall be there for a period of 30 years & may be used for combating or taking remedial measures for any damage that may have been caused and only the balance amount may be retained by operator of**

the facility, however before the end of the 30 years another assessment may be made and in case there is any possibility of residual damage than the Escrow account shall be continued for another 10 and may also be extended for another 10 years if required as per its re-assessment subject to its proper stabilization or no perceived risk.

**Agenda 3. 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:

- i. 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”
- 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.

*The issue was last discussed in 82 TRC meeting held on 08.11.2023 and it was decided that the matter will be further taken up in the next TRC meeting.* Accordingly, the matter is placed before the TRC for deliberation/decision.

**Deliberation:** The committee deliberated upon the issue and heard the views of representative of M/s Abellon Cleanenergy Limited.

**Recommendation:** After detailed deliberation upon the issue the committee recommended that:

- (i) **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.**
- (ii) **Also, the applicant may be asked to provide the document/letter given by SPCB regarding no-use of indigenously produced wastes in waste to energy plant.**

**Agenda 4. Request for Import of Polysiloxane Wastage Solid, Semi-Solid or Liquid (Basel No. B3010) for manufacture of Silicone Monomers - representation by M/s Silicone International Products, Raigad, Maharashtra.**

M/s Silicone International Products has stated that they are in operation since May 2003 and specialize in reprocessing off-spec Silicone streams into industrial grade medium viscosity Silicone Fluid, widely used in textile, rubber & tyre, foundry and chemical processing industries. The correct chemical name for Silicone Fluid is Dimethyl Polysiloxane (DMPS), and is organo-inorganic in nature. It is colourless liquid at ambient conditions, non-toxic, non-corrosive, non-flammable, bio-compatible, and immiscible with water. While there are very few Silicone reprocessing units in the world, they have mentioned that they are the only integrated one in India with mission is to recover over 90% Silicone present in input streams into industrial grade medium viscosity Silicone Fluid in an environmentally friendly and commercially viable way. The consumption of Silicones in India has been rising at the rate of 2X of the growth in GDP over last decade, but India's current annual requirement of 30,000 MT falls way short of standard greenfield Chlorosilane plant capacity of 150,000 MT/year that requires handling of hazardous chemicals such as methanol, chlorine, hydrochloric acid, etc. besides huge capital investment of over USD 1 billion. This has actually hampered growth in consumption in India.

They have mentioned that they have been granted import permission till 2015. However, the item has now been moved to prohibited category under Schedule-VI of HOWM Rules, 2016. The applicant has requested to shift Polysiloxane Waste for Reprocessing from "prohibited" to "restricted" category as before.

*The matter was last discussed on 81<sup>st</sup> TRC held on 16.10.2023, the committee deliberated upon the issue. The committee noted that Polysiloxanes waste (Solid Plastic Waste) having Basel No. B3011 falls under Schedule VI of HOWM Rules, 2016 and prohibited to import. The committee recommended that the details of the process through which this waste is generated, the sources of import and the process of recovery may be indicated. The Committee also desires to know from the applicant basis of claim that the above compound should be treated differently from other solid plastic waste prescribed under Schedule VI. Till then, the matter is deferred.*

Silicon International Products has submitted the reply vide email dated 06.12.2023. Accordingly, the matter is placed before the TRC for deliberation/decision.

**Deliberation:** The committee deliberated upon the issue and heard the views of representative of M/s Silicone International Products. The applicant informed that it is originated from Silica and is inorganic in form of liquid i.e. polymerized. The committee also enquired about the domestic availability and the source from which is generated. The applicant then informed that they get the 70-80% of material from post-industrial and rest from post-consumers in domestic market but the availability is very less. The applicant also informed that the product is in liquid form.

**Recommendation:** The committee after detailed deliberation recommended that import of only post-industrial or pre-consumer Polysiloxane Wastage Solid, Semi-Solid or Liquid (Basel No. B3011) for manufacture of Silicone Monomers may be allowed to actual users. Further, the Committee recommended to amend the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and move the Polysiloxanes waste



**(Solid Plastic Waste) having Basel No. B3011 from Schedule VI to Part-B, Schedule III. Also, the quantity of import will be limited to 50% of the total capacity and utilization of equivalent amount of indigenous waste.**

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

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