**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 92nd Meeting of the Technical Review Committee (TRC) held on 28th February, 2025.**

**Agenda.1. Crumb rubber modifier to be blended in bitumen for use in road construction in view of the recommendation given in circular Economy Report on 'Tyre and Rubber Recycling Industry' and subsequent Circular Economy Action Plan Finalized by NITI Aayog.**

The committee deliberated on the use of crumb rubber modifier to be blended in bitumen for use in road construction , its production, constraints, facility upgrades, techno-economic viability issues, safety, extent of limit for blending etc. The views and recent updates on R&D were taken from delegates of various organizations like Ministry of Road, Transport and Highways (MoRTH), BPCL, IRC, NHAI etc.

According to NHAI, in India, around 3 Lac MT/ annum of CRMB (mostly grade 55 & 60) are used as per relevant specifications and guidelines.

The matter was discussed in 91st TRC, and after deliberation upon the issue the committee noted the concerns expressed by the representative of MoRTH, but also felt that a definite plan for mitigating those concerns and increasing the use of CRMB needs to be made. After detailed deliberation, the committee felt that more discussion is required on the matter and stakeholders especially from the refineries and recyclers associations, like IOCL, CRRI, Ministry of Petroleum and Natural Gas etc. may be called in the next meeting. Further, more details viz. ground reality, logistics issues and any other constraints may also be obtained from Ministry of Road, Transport and Highways. The matter may be taken up in the next meeting of TRC.

**Deliberation:** The committee requested the representative of MoRTH to share his views on the issue of crumb rubber modifier to be blended in bitumen for use in road construction, its production constraints, facility upgrades, techno-economic viability issues, safety, extent of limit for blending etc. Representative of MoRTH informed that the the Ministry had already issued a circular on 23 August 2023 and para 2.1 of this circular dealt with the selection of appropriate grade of bituminous binder.

Para 2.2 of the circular deals with the specifications for the bituminous binder; more specifically, para 2.2.3 specifies that Rubber Modified bitumen shall comply with the requirements mentioned in IRC:SP:53.

Para 2.3 of the above circular deals with the source of procurement of bituminous binder.

Para 2.3.2 specifies that modified bitumen shall be procured from domestic sources only. It also states that 'as all refineries do not produce modified bitumen themselves, modified bitumen may be procured from domestic refineries or private producers.'

Para 2.4 of the circular deals with quality control of bituminous binder. Annexure 4 deals specifically with Rubber Modified Bitumen and clearly lays down that 'No project site blending/production of modified bitumen shall be allowed'.

Representative of MoRTH further informed that as recommended by TRC in its 78th meeting held on 17th May, 2023 regarding use of CRMB in road construction to help in achieving the goal of Circular Economy, MoEFCC had issued an advisory to use CRMB in all types of

roads wherever it is feasible, practicable and quality is assured. Further, MoRTH was also requested to further examine the practical issues in consultation with all stakeholders and identify and initiate steps for a wider use of CRMB.

Representative from MoRTH informed that after receipt of advisory from MoEFCC, MoRTH had constituted a bitumen Task Force comprised of subject domain experts, researchers, academicians, manufacturers and representative/s of IRC. The Task Force noted that IRC:37, which deals with the selection of bituminous binder, considers only the traffic volume, bit not the temperature, rainfall etc. Based on the observations and recommendations of Task Force, MoRTH has issued a circular on 19th April, 2024 regarding recommended bitumen type & grade for different climate and traffic loading for National Highway and Expressway works in India.

The circular dated 19th April 2024 superseded the provisions contained in Para 2.1 of the Circular dated 23 August 2023. The type and grade of bitumen to be used for different traffic loading and climatic conditions is given in Annexure 1 of this circular and is to be effective in all bids received 60 days after the issue of the circular.

He further informed that as per IRC:37 CRMB is to be used in bituminous concrete, where design traffic is more than 50 million standard axles (msa); however, based on the recommendation of Task Force, CRMB can be used in bituminous concrete where design traffic is 20-50 msa.

TRC noted that the circular gives an option between CRMB 60 and PMB of different grades, as far as bituminous concrete is concerned. The TRC noted that use of crumb rubber modifier in bitumen results in reduction of the quantity of bitumen needed whereas PMB requires the use of imported polymer. PMB is also costlier. However, representative of MoRTH felt that this choice should be left to the market forces.

TRC felt that more ground level data is needed on the extent of modified bitumen being used and the relative proportion of CRMB and PMB actually being used on the ground. TRC also felt that the experience of NHAI in terms of use of CRMB from non-refinery manufacturers should be shared with the committee through MoRTH.

Representative from NHAI also highlighted that mostly CRMB is used in road construction and PMB has some cost constraints.

**Recommendation:** **The committee felt that more discussion is required on the matter and asked representative of NHAI to share the actual data of consumption of CRMB and PMB during construction of roads with some documentary support as also the experience with respect to non-refinery sources of CRMB and PMB. The matter may be taken up in the next meeting.**

**Agenda.2. Misuse of 10 mesh license by tyre recyclers – Representation from All India Rubber & Tyre Recyclers Association (AIRTRA)**

All India Rubber & Tyre Recycler Association has raised an issue regarding the misuse of 10 mesh license by Tyre recycler by taking support of MoEFCC Letter no. 23-3/2019-HSMD dated 13th May, 2020, which states that rubber crumb/granules having mesh size finer then 10-mesh and devoid of iron/steel & most of the fibers, are product and does not require permission form this ministry. It is mentioned that some of the members of their association apply for import of 10 mesh license from DGFT and after obtaining the license these recyclers are actually importing baled and multicut material by giving mis-declaration as rubber crumb/granules having mesh size finer than 10 mesh. DGFT issues the license

without checking actual consumption, electricity bills etc. which is done by MoEF while issuing regular import license of shreds and bales.

They also informed that the current rate of rubber crumb size finer than 10 mesh is ranging in between $265 per M.T. to $280 per M.T., whereas the current rate of baled tyres and multicut is USD 100 and USD 130 respectively. Further, the importers are declaring an invoice value of bale scrap which is 50% of the 10 mesh value. Therefore, they are also involved in mis-declaration of invoice value. In view of this, the following is suggested to stop this malpractice:

i. DGFT should not issue 10 mesh licenses as there is no actual importer of this product and people are only using this loophole.
ii. Custom should not clear the material under 10 mesh license and put the Red alert, insist upon 100 % inspection of the material and upload the pictures with containers numbers on custom portal.
iii. MoEF to take note of this and get data from customs to check data.

**Deliberation:** The TRC opined that after obtaining import of 10-mesh license from DGFT, recyclers are actually importing baled and multicut waste tyre/rubber material by giving mis-declaration as rubber crumb/granules having mesh size finer than 10 mesh is matter of serious concern as such material can be used for pyrolysis also. Representative from AIRTRA informed that while applying to DGFT for the license of rubber crumb/granules having mesh size finer than 10 mesh there is no past record check that how much quantity already being imported by the applicant or where it has been used etc. The TRC enquired from the Associations that at what quantity such import is being made. Association also suggested that DGFT should allow import of 10 mesh or a crumb as a product in different HSN code. So it should be classified under 4002 or 4008 as it is product. Further, minimum import value to be assigned to the product during the issue of license (e.g minimum price should be 200- 250 USD). He further informed that, since, there is no check of various parameters like electricity, GST paid etc so importers are easily able to import after getting license from DGFT.

**Recommendation:** **The TRC also recommended that Ministry may ask DGFT to provide the data for last 5 years w.r.t. license issued for import of rubber crumb/granules having mesh size finer than 10 mesh along with import value.**

**As an apprehension has been expressed that in the guise of of importing 10 mesh or finer rubber crumb, waste tyre are being imported by mis-declaration, the committee recommended that Custom Authority may be requested to carry out the sample check of such consignments and send report to the Ministry. TRC also requested AIRTRA to provide the details of the importers involved in it. Till then the matter is deferred.**

**Agenda.3. Request to allow import of PET Bottle Waste (Post consumed water & cold drink bottles) – Representation from All India Recycled Fiber and Yarn Manufacturer Association**

All India Recycle Fiber & Yarn Manufacturers Association *vide* letter dated 27th

December, 2024 has requested the Ministry to allow import of PET Bottle Waste (Post consumed water & cold drink bottles) to actual Pet bottle recyclers who are manufacturing recycle polyester staple fiber (RPS) and Polyester Filament Yarn (ROY & RPFY) for the development of textile industry and to increase the export of RPOY & RPFY from India.

2. It is mentioned that All India Recycled Fiber and Yarn Manufacturers Association" is an industry association of manufacturers of recycled polyester staple fiber (PSF) and recycled polyester filament yarn (POY & PTY) which is produced from thrown away drinking water & beverages PET Bottles collected by rag pickers. These post consumed PET bottles are transformed in to a new product i.e. recycled polyester staple fiber (PSF) and recycled polyester filament yarn (POY & PTY), which is raw material for textile industry. At present, the import of waste PET bottles is not allowed into India and it is prohibited as per the Hazardous and Other Waste (Management Handling and Trans-boundary Movement) Rules under item B3010 in schedule VI.

3. In view of export possibility of recycled polyester staple fiber (PSF) and recycled polyester filament yarn (POY & PTY) and garments made from it, it is requested to allow import of waste PET bottles (Post consumed PET Waste) to actual PET Bottle recyclers to the extent of 20% only of their annual production or to the extent of waste consumed in export of recycled polyester staple fiber (PSF) and recycled polyester filament yarn (POY & PTY) under restricted category.

**Deliberation:** The Association requested the committee to allow some percentage of plastic bottles to the actual users i.e. waste recyclers as the demand for staple fiber and recycled polyester filament yarn had increased from last few years in international market also as for meeting the SDG goals the demand for sustainable product had increased significantly. Availability of these raw materials for textile industry is very limited and seasonal too.

**Recommendation: The TRC asked the applicant to provide the data regarding the quantity of PET waste available in the country vis-a-vis actual demand or requirement and processing/recycling capacity available. Till then the matter is deferred.**

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