

The Microfibre Consortium

Leading the textile industry in reducing microfibre release to protect our environment



TMC's position on the control of microfibres in wastewater

The textile manufacturing supply chain consists of thousands of manufacturing facilities in dozens of countries. Although the products and processes may vary greatly from one facility to the next, they all have one thing in common: the ability to shed fibres from textiles into the wastewater discharged from each facility.

Almost all facilities are required to meet regulatory discharge standards for total suspended solids (TSS) and failure to meet these will almost certainly result in discharges of large quantities of textile fibres. There is a likelihood that more stringent standards for discharge of microfibres will be developed in the near future and facilities will need to ensure existing processes for removal of solids are optimised and possibly invest in more advanced, zero-discharge filtration technologies.

As the industry looks for best practice to support its drive to mitigate fibre fragmentation, an in-depth, aligned and globally relevant textile manufacturing perspective is paramount. This approach is crucial in ensuring cross industry uptake, effective and measurable impact, whilst upholding a no regrets attitude within the larger sustainability agenda.

The TMC manufacturing task team with consultancy to the larger industry sector, over the course of two years, have developed the Preliminary Guidelines: '*Control of Microfibres in Wastewater*'. This document identifies an approach that can be taken across the supply chain to best support change within manufacturing. The scope of work includes industrial wastewater discharge produced within operations of textile, apparel and footwear suppliers with wet processing facilities.

TMC recognizes that the textile and clothing industry is responsible for fibre fragmentation from textiles at both the consumer level and within the manufacturing process. TMC considers a step-wise, scalable approach where the capture of fibre loss through the use of wastewater management at a facility level is a complimentary action to the root cause mitigation that can be done at the textile design and development level to prevent loss from occurring.

In support of the capture of unintentional fibre loss during manufacture, TMC is proposing a wide, cross industry adoption of the Preliminary Guidelines, '*Control of Microfibres in Wastewater*' within the global supply base, so that an aligned and industry wide adoption of these best practices can achieve the greatest impact in a timely manner. TMC's current position is outlined below:

1. All businesses along the footwear and apparel value chain (i.e. brands, retailers and their supply chain partners) are **encouraged to adopt and adhere to aligned cross industry guidelines** to minimize impact from fibre fragmentation.
2. Both synthetic and natural fibres shed during textile manufacturing and both pose a risk to the environment ([see TMC Positioning Statement: *Biodegradability in the*](#)

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- [context of Fibre Fragmentation](#)). Therefore, **all fibre types are equally important**.
3. TMC recognise that there are some low / no-cost steps that can be taken to reduce discharges of microfibres. Facilities should **optimise existing on-site processes to remove microfibres and larger fibres that can subsequently fragment to form microfibres**. If removal is still not satisfactory there will be a need to augment existing equipment with more advanced filtration technology.
 4. Although out of scope of the current TMC agenda, it is **recommended that centralised effluent treatment plants (CETP) and municipal effluent treatment plants (METP) consider the methods and approaches outlined within the Preliminary Guidelines** to mitigate release of fibres generated primarily from domestic sources.
 5. It is understood that each manufacturing facility is unique so **differing mitigation technologies may be applied** depending on specific circumstances. A number of different options are provided within this document.
 6. The different mitigation technologies outlined in this guideline may have **benefits beyond the reduction of microfibre releases** and this should be taken into consideration, especially where investments are being made and ROI calculated. For example, the use of more advanced filtration technologies may significantly reduce the risk of regulatory non-conformance for many conventional parameters and may even permit water recycling.
 7. In the absence of test methodologies and standards it is **not yet possible to operate a conformance / non-conformance approach to microfibre releases** and these guidelines are aimed to reduce discharges from facilities. However, we are developing a test methodology and baseline that will be the focus of Phase 3 of this work.

This positioning statement forms a time relevant response to ongoing work in this area. The *Manufacturing Task Team*, as part of the *Microfibre [2030 Commitment and Roadmap](#)* continues to support moving the agenda forwards. Further information and can be found [here](#).