

EU Regulation on preventing plastic pellet losses needs mandatory requirements for all operators to reduce microplastic pollution

Plastic pellets, whether derived from virgin material, recycled sources or biomass, constitute the primary building blocks for the majority of plastic products. The European Commission's Proposal for a Regulation on preventing pellet losses to reduce microplastic pollution represents a necessary step towards addressing plastic pollution and the associated harms to human health and the environment. Plastic **pellets, flakes, dust and powders** are tiny and hazardous microplastics spilled and lost across the plastic supply chain, contributing to widespread, chronic and avoidable pollution impacting every EU country surveyed¹. Effectively preventing pellet loss requires a comprehensive supply chain approach, applying measures to all operators at every stage of the supply chain.

While the current Proposal contains measures to reduce pellet loss, a more robust and comprehensive text is imperative to significantly reduce pollution. We recommend the following to establish stringent governance on pellet loss:

1. Apply measures to all operators. Currently, Article 1(2) exempts operators handling quantities lower than 5 tonnes per year and creates reduced requirements for operators handling quantities under 1,000 tonnes per year. However, all operators - irrespective of quantity - can contribute chronic losses to the environment. For perspective, a mere one kilogram of plastic pellets comprises 50,000 granules, while a tonne consists of 50 million granules, and a standard container weighing 26 tonnes contains a staggering 1.3 billion granules. Even spills and losses from small operators can result in significant environmental damage, and those handling up to 250 million granules are currently exempt from any practical measures. Therefore, it is paramount to eliminate exemptions for Small and Medium-sized Enterprises (SMEs) and eliminate exemptions from independent compliance checks and audits.

2. Include all pre-production plastic pellets forms. Article 2(a) defines plastic pellets without explicit reference to flakes and powders and with reference to uniform dimensions. However, all forms of pre-production plastic feedstock (pellets, flakes or powders) present the same risk to human health and the environment. Thus, the Regulation should align with the recent amendment to Annex XVII of REACH² and the French decree on pellet loss³ to include all pre-production plastic pellets in its definition.

3. Accelerate certification and verification to prevent and mitigate losses. Mandatory handling obligations to prevent and cleanup losses take effect immediately. However, operators have 2 to 4 years to implement the certification and verification of adequate and harmonised prevention requirements, despite industry claiming to have been implementing a zero-loss plan since 2015. Accelerating the implementation would mitigate the up to 184 thousand tonnes of pellets that enter the environment each year. Expediting implementation would not only prevent the harm of loss and spills but be in line with the Zero Pollution Action Plan which states that, by 2030, the European Union should reduce microplastic releases into the environment by 30%.

1. See www.nurdlehunt.org.uk and Surfrider (2020), Plastic Giants Polluting Through The Backdoor: The Case For A Regulatory Supply-Chain Approach To Pellet Pollution. Available [here](#).

2. COMMISSION REGULATION (EU) 2023/2055 of 25 September 2023 amending Annex XVII to Regulation (EC) No 1907/2006, see Annex XVII 11: "synthetic polymer microparticles in the form of pellets, flakes, and powders used as feedstock in plastic manufacturing at industrial sites". Available [here](#).

3. French Decree No. 2021-461 of April 16, 2021 relating to the prevention of losses of industrial plastic granules in the environment. Available [here](#).

4. Mandate effective requirements to prevent losses. The number of pellets entering the environment demonstrates that, to date, pellet handlers have not effectively used adequate equipment, packaging, external barriers, or cleanup procedures to mitigate pellet loss. Thus, the Proposal should strengthen prevention measures⁴ to ensure legally binding minimum requirements, aligning with the recommendations by France and OSPAR in 2021⁵:

- Robust Prevention Equipment. Use of tear- and impact-resistant packaging including in aquatic environments, use of spill trays during transfer and storage, and use of best practices for handling containers.
- Sound Containment Measures. Containment of all handling facilities through external barriers, retention grounds and proper catchment devices that are regularly inspected, cleaned and maintained.
- Immediate Cleanup of Losses. The loss of pellets in the environment poses a significant threat, necessitating immediate action to prevent irreversible microplastic pollution. Thus, the Regulation should mandate immediate and systematic cleanup of spills using approved adequate equipment before they are lost into the environment.
- Risk Assessment Plans. Risk assessment plans for all operators at manufacturing, conversion, storage, transportation, distribution and recycling facilities, with no exceptions.

5. Regularly inform and train all pellet handlers. It is imperative that all workers handling pellets receive regular and adequate training to prevent and address potential risks. The Proposal should require all handlers to organise regular training sessions, irrespective of the operator's size. Operators should be audited periodically, and their training plans adjusted accordingly.

6. Require reporting for all losses. Reporting on all losses and spills of plastic pellets is a fundamental component of a holistic approach to regulating and mitigating plastic pellet pollution. It enables adaptive decision-making and enforcement of measures and increases transparency. Thus, we recommend:

- All operators, including SMEs, should be mandated to report losses, acknowledging their potential for pollution.
- All pellet handling sites must promptly report identified losses to facilitate immediate intervention.
- Independent audits are essential to ensure effective preventive measures and training are in place. Audits must be carried out by independent third parties applied to all pellet handlers, from plastic producers to converters, storage facilities, transporters, distributors and recyclers.

Summary

To establish a robust framework, the Proposal must eliminate exemptions for SMEs, encompass all forms of pre-production plastic feedstock and expedite the implementation of prevention measures. Additionally, mandating effective prevention requirements, regular training for all pellet handlers, and comprehensive reporting obligations with independent audits are crucial elements to ensure accountability across the plastic supply chain. By adopting these recommendations, the EU can enhance the effectiveness of the Regulation and work towards achieving the 30% reduction in microplastic pollution outlined in the Zero Pollution Action Plan by 2030.

4. Annex I (8): "Economic operators shall consider at least the following, taking into account the nature and size of the installation as well as the scale of its operations".

5. OSPAR Recommendation 2021/06, section 3.2. Available [here](#).