



PlasticsEurope Operation Clean Sweep®

Port of Antwerp Activity Report 2017

About PlasticsEurope

PlasticsEurope is the pan-European association of plastics manufacturers with centers in Brussels, Frankfurt, London, Madrid, Milan and Paris.

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1. Introduction

“Covering an area of 12,068 hectares – or 20,000 football fields – Antwerp is the biggest port area in the world”¹. Considered as the polymer hub of Europe, it is the perfect location to take leadership and proactively demonstrate the plastics industry’s commitment to ensuring a better and cleaner environment.

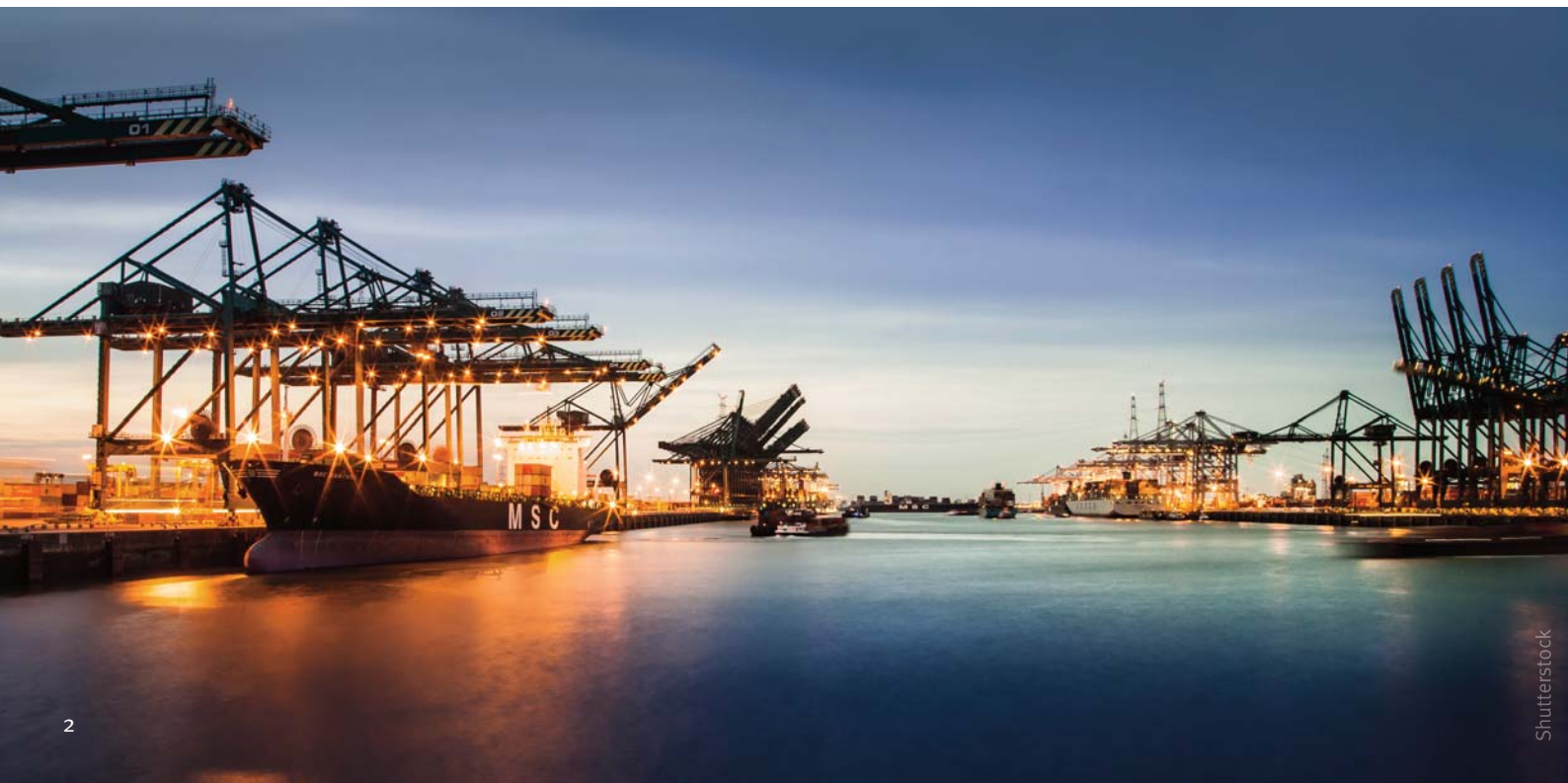
Since the beginning of 2017, the Port of Antwerp (PoA) authority, PlasticsEurope, Voka and essenscia formally joined forces to make the port a cleaner place by fighting against pellet loss. With the help of the Operation Clean Sweep® (OCS) programme, the aim of this new value chain collaboration is to implement a common methodology of pellets containment at each step of the production and handling process, including transport, logistic operations and shipping. While some companies had already implemented measures on their own, the collaboration of all partners handling plastic

pellets, not only plastics producers, is key to achieving this common goal.

While cleaning-up the port is important and needed, stopping pellet loss requires more than quick fixes and short term solutions. Pellet loss prevention is a key part of quality and environmental management programmes, such as ISO 14001.

It is a continuous journey that requires all potential leakage points to be addressed. Unfortunately, there is no uniform process for the implementation of OCS, due to the differences in size, layout, technical setup and production processes at each site. As it is an ongoing process, companies may also be at different stages regarding pellet containment as well as levels of staff awareness. A combination of short and long term solutions to pellet loss has paved the way for a cleaner industry in the Port of Antwerp, and could be used as an example for other ports in Europe.

¹ <http://www.portofantwerp.com/en/port-area>



2. The plastics value chain is fully committed to zero pellet loss



Under the impulse of the PoA authority, PlasticsEurope, essenscia and Voka the entire plastics value chain gathered to work together to further extend the involvement and implementation of OCS. A number of meetings and the development of key contacts resulted in the creation of a high level steering group, in addition to the two Task Forces (TF).

- The steering group consists of representatives from the Port authority and relevant associations (see table below) in order to foster a collaboration to achieve a port, free of pellet loss.
- Regarding the TFs, the aim of the first is to understand the situation by screening the whole port for possible hotspots of pellet accumulation. Based upon this, clean-up of the most critical areas are being planned while a

monitoring system has been implemented and is being carried out by the PoA authority. Finally, samples of pellets from the clean-up are analysed when useful.

- The second TF focuses on the implementation of the six points of the OCS pledge, as described in the 2017 European report², as well as encouraging other plastic pellets handling companies to join the programme. Both Task Forces are comprised of technical and environmental experts delegated from the companies involved in the PoA (see tables below).

With the help of the relevant associations, a significant network of plastic pellet handling companies responded to our call. In this regard, all major plastic producing companies based in the Port of Antwerp took part in the OCS programme.

Borealis	Covestro	ExxonMobil
INEOS	INEOS – Styrolution	Lanxess
Total		

List of plastics producing companies which have signed OCS

Also, the largest companies from the logistics sector have joined or shared their intention to join the OCS programme.

De Rijke
KatoenNatie
Schmidt Belgium
Van Moer

List of logistic companies which have signed OCS



² See EU OCS report 2017: <http://www.opcleansweep.eu>

Companies have been encouraged to take part in the OCS programme thanks to the work of several

federations that also joined forces to achieve this common goal.

essencia	Belgian Federation for Chemistry and Life Sciences industries
Febetra	Royal Federation of Transporters and Logistic Providers
KVBG	Royal Association of Traffic flow Controllers
PlasticsEurope	Association of the plastics manufacturers
Port of Antwerp authority	Authority of the Port of Antwerp
TLV	Flemish Transport and Logistic Association
Voka (did not sign OCS)	Flanders' Chamber of Commerce and Industry

List of associations which have signed OCS

3. Implementation of Pellet Spill Prevention Measures³



Signing the OCS pledge is an important first step in the journey towards the objective of zero pellet loss. The second step is the implementation phase, as explained in detail in the EU OCS report 2017⁴. Although a common audit scheme has yet to be approved, PlasticsEurope is working with its members to develop a tool to allow companies to report on their progress. Nevertheless, plastic pellet producers, active in the port, agreed to perform a basic common self-assessment to give a comprehensive picture of the industry's involvement in this specific case.

In terms of the overall implementation of OCS, the results of the assessment show that plastic producing companies have passed the basic level while more advanced solutions are being implemented. These

encouraging performances are occurring thanks to effective preventive measures and containment systems⁵. In addition, the availability of appropriate cleaning equipment to easily and immediately remove spillage improves the housekeeping of the assessed sites while reducing the chance of pellet loss into the environment.

In order to keep moving forward and further improving, plastic producers face several challenges. For instance, pellet loss prevention is also a matter of continuous awareness raising of employees. Frequent information campaigns and staff trainings are therefore key to achieve better results in prevention. In addition to this continuous process, it is important to have audit tools in place in order to measure performances.

³ For best practices examples, see EU OCS Report 2017

^{4, 5} See EU OCS report 2017



4. Encouraging first results



Since the beginning of this formal cooperation, the plastics industry has agreed to get involved and financially support the PoA authority in its efforts to screen and monitor the port for possible hotspots of pellet accumulation. In parallel, the plastics industry has committed to take its responsibility and perform regular clean-up actions where accumulation points have been identified. In total, five clean-ups have been organised in four different locations since the beginning of 2017, while four other clean-up actions are already planned before the end of 2017.

In terms of monitoring, while it will require more time to have a complete overview of the situation, the current trend already shows low and stable accumulation rates in most of the selected hotspots. This positive trend needs of course to be confirmed over time but it can certainly be linked to the common efforts done by all partners of the plastics industry to minimise pellet loss.

Finally, the results of the samples collected in the different hotspots showed that it was not possible to trace them back to one source nor the origin of the contamination, due to the wide variety of polymers identified.



5. Conclusion: entire value chain collaboration is key



The huge area of the Port of Antwerp, combined with the high volume of plastic pellet production and handling makes this OCS initiative even more challenging than elsewhere. But, what better example can the so called “European plastics” hub give than taking the lead towards a cleaner future?

Since this formal collaboration platform of key partners along the plastic value chain started less than a year ago, it is too early to already draw firm conclusions. Nevertheless, seeing the wide variety of different pellets found in the samples from the hot spots that were analysed, one valuable outcome that can already be mentioned

is the importance of the collaboration within the entire plastics value chain. Even if this requires a significant amount of time and energy, it remains crucial; one player alone cannot succeed in this common fight. This has also been confirmed by the primary monitoring results, which, at the moment, show low and stable accumulation rates in most of the identified hotspots. While these results will need to be confirmed in the long term, it certainly shows the importance of every partners efforts to tackle this issue. Only this way will we be able to secure an environment free of plastic pellets losses.



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