



Brussels, 22.11.2018  
COM(2018) 762 final

**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND  
THE COUNCIL**

**on the implementation of Regulation (EC) No 1013/2006 on shipments of waste**

**Generation, treatment and transboundary shipment of hazardous waste and other waste  
in the Member States of the European Union, 2013-2015;  
exercise of the power to adopt delegated acts**

{SWD(2018) 468 final}

**GENERATION, TREATMENT AND SHIPMENT OF HAZARDOUS WASTE AND  
OTHER WASTE IN THE EU MEMBER STATES, 2013-2015;  
EXERCISE OF THE POWER TO ADOPT DELEGATED ACTS**

**1. INTRODUCTION**

The European Union (“EU”) is a party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal of 22 March 1989 (“the Convention”). The Convention serves to protect human health and the environment against the adverse effects of hazardous wastes.

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on Shipments of Waste<sup>1</sup> (“the Regulation”) transposes the Convention into EU law and is directly applicable to Member States. It was amended in 2014 by Regulation (EU) No 660/2014.<sup>2</sup>

Each calendar year, each Member State submits a report on the implementation of the Convention over the previous calendar year to the Convention Secretariat. A copy of this report (“the Basel report”) is also sent to the Commission, along with additional information in the form of a reply to an implementation questionnaire (“the EU questionnaire”).<sup>3</sup>

Every three years, the Commission draws up an implementation report based on the Basel reports and the EU questionnaires. This is the fifth implementation report covering the years 2013-2015. Details of the Member State reports can be found in the accompanying staff working document.

The Convention uses the terms ‘import’ and ‘export’ for every shipment into or out of a country that is a party to the Convention. Under EU law, these terms apply only to shipments into or out of the EU as a whole. In this document the terms appear in inverted commas and are defined in accordance with the Convention.

All figures are approximate and have been rounded up.

**Exercise of the power to adopt delegated acts**

Article 58 of the Regulation empowers the Commission to adopt delegated acts in accordance with Article 58a to amend annexes to the Regulation. The aim is to reflect agreed changes to the list of waste adopted in accordance with Article 7 of Directive 2008/98/EC, to reflect decisions taken under relevant international conventions and agreements and to take account of changes agreed under the Basel Convention and the OECD Decision<sup>4</sup>. Article 58a(2) states that this power is to be delegated to the Commission for five years from 17 July 2014. The Commission is required to draw up a report on the delegation of power by nine months before the end of the five-year period.

The power of delegation under Article 58 was conferred on the Commission through an amendment introduced by Regulation (EU) No 660/2014, which applied from

---

<sup>1</sup> OJ L 190, 12.7.2006, p.1.

<sup>2</sup> OJ L 189, 27.06.2014, p. 135.

<sup>3</sup> Article 51 (1) and (2) of Regulation (EC) No 1013/2006.

<sup>4</sup> Decision C(2001)107/Final of the OECD Council.

1 January 2016. Since this date, the Commission has not exercised the powers delegated to it under the Regulation because there have not been any changes to the list of waste adopted in accordance with Article 7 of Directive 2008/98/EC, nor have there been any important and relevant decisions or changes agreed under relevant international conventions and agreements, such as the Basel Convention and the OECD Decision, that would justify exercising these powers in a proportionate way. However, the Commission anticipates that such changes could be agreed under the Basel Convention in the course of the next few years.

## **2. REPORTING BY MEMBER STATES**

At the time this report was drawn up, all 28 EU Member States had submitted replies on both the Basel report and the EU questionnaire for 2013-2015.

As regards data on the total quantities of waste shipped between Member States, discrepancies were observed between the amounts reported by the ‘export’ and ‘import’ countries (Tables 2-48 to 2-50). For the category ‘all notified waste’, these discrepancies varied between 2% (2013) and 12% (2014). Similar patterns were observed for hazardous waste and all other notified wastes. One possible explanation for this inconsistency is that waste shipped out at the end of a calendar year may be counted as having been ‘exported’ within that year by the Member State shipping out the waste, while the receiving Member State may count it as ‘imported’ only once it has been processed in the course of the following year. In such cases, amounts ‘exported’ are likely to be higher than amounts ‘imported’ in any given year, while the reverse phenomenon may be observed in the following year. Moreover, some Member States do not consistently include in their Basel reports shipments of notified waste that do not fall within the scope of the Convention as they are not legally obliged to do so. Other discrepancies may have arisen from the manual processing of data from paper documents as fully electronic systems are not yet operational.

## **3. GENERATION OF HAZARDOUS WASTE**

In the Basel report, Member States provide information on the total amount of hazardous wastes and ‘other wastes’ generated. Hazardous wastes are defined according to a list of waste streams and/or constituents (entries Y1 - Y45 under the Convention categories) and certain hazardous characteristics. In addition, if national law classifies waste as hazardous it is also deemed hazardous if notified to the Secretariat of the Convention. Under the Convention, ‘other wastes’ means wastes collected from households (entry Y46) and residues arising from the incineration of household wastes (entry Y47). Such categories of wastes are subject to controls similar to those applicable to hazardous wastes under the Convention. Section D of the staff working document gives the full list of Y-codes under the Convention.

At the time this report was being drawn up, data on the total amount of hazardous waste generated in 2015 were incomplete, as 11 Member States had not provided any information (Table 2-1). Additionally, five Member States omitted data for 2014, and five failed to provide data for 2013. These data gaps were filled by estimating the missing figures on the basis of data from previous years.

In 2015, 70 million tonnes of hazardous waste were generated in the EU28, while 71 million were generated in 2014 and 75 million in 2013.<sup>5</sup>

In 2013, the amount of hazardous waste generated per capita in the EU28 was 148 kg. The figure for 2014 was 141 kg, further declining to 138 kg in 2015 (Table 2-2). The annual average for 2013-2015 was 143 kg.

Germany generated the most hazardous waste in any one year, with 17 million tonnes produced in 2013. At the time of writing, Germany had not provided any data on hazardous waste generation for 2014 or 2015.

Of the Member States reporting on waste generation using Y codes, Poland reported the highest generation of waste in categories Y46 and Y47, with 11 million tonnes in 2015.

#### **4. WASTE SHIPMENTS OUT OF MEMBER STATES**

All 28 Member States submitted information on hazardous waste ‘exports’ in their Basel reports for 2013-2015.

In 2013-2015, 1.2 million tonnes of hazardous waste were shipped from Member States out of the EU<sup>6</sup>, while over the same period 6.2 million tonnes were shipped into the EU from third countries.

From 2001 to 2015, trans-boundary trade of hazardous waste within and out of the EU rose by 53% (Table 2-6). Most of this increase was from 2001 to 2007, with a drop of 24% between 2008 and 2015.

In 2013-2015, the United Kingdom (UK) was the largest ‘exporter’ of all notified waste (with 12 million tonnes). It overtook the Netherlands (with 8 million tonnes), which was the largest ‘exporter’ in 2010-2012 (Table 2-9). In 2010, the UK began ‘exporting’ waste for energy recovery<sup>7</sup>, and this seems to have contributed to the rise of its total ‘exports’ in these years. As in 2010-2012, France and Italy were the two largest ‘exporters’ of hazardous waste in 2013-2015, shipping out a total of 4 million tonnes each.

Hazardous waste accounted for 35% of the total amount of waste reported as ‘exported’ from Member States in 2013-2015 (i.e. hazardous waste and other notified waste) (Table 2-11, Table 2-12 and Table 2-13). Cyprus, the Czech Republic, Estonia, Latvia, Malta and Romania stand out as ‘exporting’ the highest percentage of hazardous waste as a share of their total reported waste ‘exports’, with hazardous waste comprising 90% or more of the total amount of waste ‘exported’ for each.

The 2010-2012 Implementation Report noted that the amount of waste classified using EU or national codes instead of Convention Y codes had been increasing. This trend has continued; in 2013-2015 ‘EU or National Non-Hazardous Waste’ (i.e. non-hazardous waste classified using national or EWC codes) became the largest waste category (Tables 2-14 to 2-16) for the first time (in 2013 and 2014).

Less than 1% of waste was shipped out without classification in both 2013 and 2014 (Tables 2-15 and 2-16). In 2015, 2% was shipped without classification, all of which

---

<sup>5</sup> Historical data have not been discussed or included in the working document, as Eurostat identified inconsistencies in the data on waste generation reported via the Basel reports prior to 2013.

<sup>6</sup> only to OECD countries.

<sup>7</sup> Recovery operation R1

came from Ireland (Table 2-14). With the exception of 2015, the trend seen since 2009 continued, with less than 1% of waste being shipped unclassified (Table 2-17).

Based on the most up-to-date data available, roughly 92% of the EU's hazardous waste is treated in the country of origin (Table 2-8). In 2015, four Member States 'exported' over 40% of their hazardous waste<sup>8</sup>:

- Ireland – 78%
- Luxembourg - 84%
- Malta – 42%
- Slovenia - 44%

In the period 2013-2015, about 75% of the hazardous waste shipped out of Member States was treated in a recovery operation. This figure has remained fairly constant in recent years (Table 2-18). During the reporting period, about 22% of the hazardous waste shipped out of Member States was treated in a disposal operation while 1.5% of hazardous waste was subjected to 'mixed' treatment (i.e. a combination of disposal and recovery). In some cases, the method of treatment for a small fraction of hazardous waste shipped out of Member States was unspecified (under 0.1%).

In 2013, 94% of all notified waste was 'exported' from one Member State to another Member State within the EU, while the figure stood at 92% in both 2014 and 2015 (Table 2-22). In 2013, less than 1% of notified waste was shipped to non-OECD countries<sup>9</sup>, while in both 2014 and 2015 the figure was 2.5%. As regards hazardous waste, 97% was 'exported' from one Member States to another Member State within the EU in 2013, falling slightly to 92% in 2014 and 2015 (Table 2-23).

Seven Member States (Austria, France, Germany, Ireland, the Netherlands, Slovenia and Sweden) provided information on the amounts of wastes collected from households (entry Y46) that were 'exported' for disposal in 2013-2015 (Table 2-39). Sweden was the only one of these to report having 'exported' wastes collected from households for deposit to land (e.g.. landfilling)<sup>10</sup>, with a total of 3,000 tonnes shipped within the EU in 2013-2015.

Eight Member States (Austria, the Czech Republic, Finland, Germany, Ireland, Italy, the Netherlands and the UK) reported 'exporting' wastes collected from households for energy recovery<sup>11</sup> in 2013-2015 (Table 2-40). With the exception of Austria, France and Germany which shipped both within the EU and to non-EU OECD countries, all other Member States 'exporting' for the purpose of energy recovery did so solely within the EU. The UK was by far the largest 'exporter' of wastes collected from households for energy recovery, shipping 7 million tonnes over the three-year period.

16 Member States (Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Finland, France, Germany, Ireland, Luxembourg, Malta, the Netherlands, Portugal, Slovakia and the UK) reported 'exporting' wastes collected from households for 'other' recovery

---

<sup>8</sup> Smaller countries may lack sufficient facilities for treating hazardous waste domestically.

<sup>9</sup> In this report, reference to OECD countries is a reference to countries to which the OECD Decision (i.e. Decision C(2001)107/Final) applies. Likewise, reference to non-OECD countries is a reference to countries to which that Decision does not apply.

<sup>10</sup> Disposal operation D1: Deposit into or onto land (e.g. landfill, etc.)

<sup>11</sup> Recovery operation R1: Use principally as a fuel to generate energy

operations (i.e. not R1 recovery), all solely within the EU (Table 2-40). Again, the UK was the largest ‘exporter’, with 352,000 tonnes in 2013-2015.

## **5. WASTE SHIPMENTS INTO MEMBER STATES**

All Member States submitted information on waste ‘imports’ in their annual Basel reports for the 2013-2015 reporting period.<sup>12</sup>

In 2013, 19 million tonnes of notified waste were shipped into Member States from other Member States and third countries, of which 9 million tonnes were hazardous (Table 2-30). This figure rose to 25 million tonnes in 2014, of which 7 million tonnes were hazardous, and 24 million tonnes in 2015, of which 10 million tonnes were hazardous (Table 2-29 and Table 2-28).

This rise in ‘imports’ continues a trend: since 2001, the amount of all notified waste shipped into Member States has increased by 222%, with a 41% increase between 2010-2012 and 2013-2015 (Table 2-35). The amount of hazardous waste shipped into Member States (Table 2-36) rose by almost the same percentage between 2001 and 2015, at 225%, which is in line with the increase in ‘imports’ of all notified waste.

Over 2013-2015, Germany was once again the biggest ‘importer’ of all notified waste, shipping in 19 million tonnes (Tables 2-28 to 2-30). The Netherlands was the second biggest ‘importer’ over the three-year period with 13 million tonnes, overtaking France (the second biggest ‘importer’ in 2010-2012), which came third with 11 million tonnes. These countries all have significant demand for incinerator feedstock, which contributes to their overall ‘import’ figures. Germany also ‘imported’ the most hazardous waste over 2013-2015 (8 million tonnes), while France (with 7 million tonnes) ‘imported’ more than the Netherlands in this case (3 million tonnes).

In 2015, 81% of the hazardous waste shipped into Member States was treated in a recovery operation, and 19% in a disposal operation (Table 2-31). For the reporting period, the average values for the amount of ‘imported’ hazardous waste treated in a recovery and a disposal operation are 78% and 22%, respectively. Less than 0.1% was submitted to ‘mixed’ treatment (i.e. a combination of disposal and recovery) or reported as being ‘imported’ for an unspecified treatment. The proportion of hazardous waste ‘imported’ for disposal is higher than in 2001 - when it was 11%. However, the proportion of waste ‘imported’ for disposal has been falling slightly over recent reporting periods, from 25% in 2007-2009 to 24% in 2010-2012 and 22% in 2013-2015.

Germany accounted for the greatest proportion of hazardous waste ‘imported’ for disposal in 2013-2015, with 46%. This is probably because the country has more treatment facilities for disposing safely of hazardous waste than other EU Member States. France accounted for the greatest proportion of hazardous waste ‘imported’ for recovery in 2013-2015, with 32%. Germany was a close second with 29%. Again, this is probably because these countries have suitable treatment facilities.

As in 2010-2012, almost all the hazardous and other notified waste shipped into Member States in 2013-2015 came from other EU or EFTA countries (Table 2-35). Together, these two sources accounted for 98% in 2013, 99% in 2014, and 98% in 2015. This percentage

---

<sup>12</sup> Malta did not report having ‘imported’ any hazardous or other waste in 2015.

has remained very stable since 2001, only ever varying by a percentage point. Meanwhile, EU and EFTA countries together accounted for almost all the hazardous waste shipped into Member States in 2013-2015. In both 2013 and 2014, they accounted for 97% and in 2015 for 96% of the total.

The amount of hazardous waste shipped in from non-OECD countries has increased by almost a factor of nine since 2001<sup>13</sup>; however, as a percentage of the total amount of hazardous waste shipped into the EU, it remains low and has only risen from 1% to 2% since 2001 (Table 2-36).

## **6. ILLEGAL SHIPMENTS, INSPECTIONS AND ENFORCEMENT MEASURES**

Information on illegal shipments is reported by Member States in the EU questionnaire. 25 Member States reported illegal shipments as occurring, except for Latvia, Luxembourg and Malta.

While all 28 Member States provided information on the number of spot checks carried out on shipments of waste or related recovery and disposal, only 11 Member States framed their responses in each year in accordance with the format of the EU questionnaire, which asks for the number of checks made and the number of illegal shipments identified. Furthermore, not all EU Member States detailed the enforcement measures in place to prevent illegal shipments of waste. This inconsistent reporting results in poor-quality data, meaning that it is impossible to draw more than cautious conclusions.

Member States provided different levels of detail in response to this question because they interpreted the term ‘spot check’ differently. For example, some provided details of isolated cases of physical checking, while others also provided information on administrative checks. Importantly, it is not always possible to know which definition has been used – even in the case of Member States that reported in the requested format – as this is not made explicit.

The Commission has already taken steps to improve the consistency of Member State reporting on this matter. According to the amendment introduced by Regulation (EU) No 660/2014, the undefined term ‘spot check’ was replaced by the term ‘inspection’, which is now defined in the Regulation. As this change took effect from 1 January 2016, Member State reporting on inspections is expected to be more consistent in the next reporting period.

In total, there were 2,800 illegal shipments of waste reported in 2013-2015, an increase on the 2,500 cases reported in 2010-2012.<sup>14</sup> The total number of reported checks has also increased, from ~450,000 in 2010-2012 to ~600,000 in 2013-2015, which may account for the larger number of illegal shipments detected.

In 2013-2015, Belgium reported most illegal shipments with a total of 644 cases, accounting for 23% of all cases reported in the EU28 from 2013 to 2015. The Netherlands reported the second largest number, with 493 cases (18%), followed by the UK, with 385

---

<sup>13</sup> Shipment data for Member States that joined the European Union after 2004 were collected from the reports submitted to the Basel Convention.

<sup>14</sup> Some of these cases may possibly have been reported twice, i.e. by both the country of destination and the country of dispatch.

(14%). These were also the three Member States that reported most spot checks on shipments of waste, which would account for why more illegal shipments were discovered. The reason for the large number of cases reported by the Netherlands and the UK may also, as suggested by the IMPEL report on enforcement actions for 2014-2015, be the fact that these countries are not land-locked and can screen shipments against shipping line and customs data.<sup>15</sup>

The IMPEL report found that, among 31 participating countries (the EU28 plus Norway, Serbia and Switzerland), 4,787 administrative and 12,396 physical transport checks were conducted. Of these, 28.7% (approximately 4,930) were waste shipment inspections, with 815 shipments found to be illegal. In contrast, Member State reporting to the Commission gives a figure of around 2,000 illegal shipments for 2014 and 2015. It is thought that the IMPEL figures provide a ‘snapshot’ of targeted activity within the participating countries, rather than giving an accurate picture of enforcement activity within the EU.

It should also be noted that the lack of reporting by Latvia, Luxembourg and Malta does not necessarily mean that no illegal shipments took place in these Member States. Rather, it may be indicative of low-frequency or non-targeted inspections.

13 Member States (Austria, Belgium, Croatia, the Czech Republic, Estonia, France, Germany, Italy, Latvia, Malta, Poland, Slovakia and Slovenia) provided details of penalties that can be imposed under national law on persons undertaking illegal shipments of waste. 12 of them reported details of financial penalties (the exception being Germany). The highest possible financial penalty was reported by the Czech Republic, where both natural persons and legal entities can be fined up to EUR 2 million. Estonia, Latvia and Slovenia all have higher levels of fines for legal entities compared with natural persons, and Malta has a higher minimum fine for repeat offenders – although the maximum fine remains the same.

Seven Member States (Belgium, Finland, France, Germany, Italy, Malta, and Poland) provided information on prison sentences that can be imposed as penalties under national law. The longest sentence mentioned – 10 years, for serious damage to the environment – was in Germany. A two-year sentence appears to be a common penalty, with Finland, France, Italy and Malta all mentioning terms of this length.

The data are not robust enough to draw conclusions on whether higher fines and longer prison sentences deter the illegal shipment of waste. Interestingly, Belgium reported the highest total number of illegal shipments, even though it has the second and third highest fines (up to €500,000 in Flanders and up to €1,000,000 in Wallonia), and prison sentences can be handed down.

## **7. GENERAL CONCLUSIONS**

### **Reporting and data quality**

For the reporting period, 2013-2015, all 28 Member States submitted responses to both the Basel report and the EU questionnaire.

---

<sup>15</sup> IMPEL – TFD Enforcement Actions (2016), Project Report (2014-2015), Enforcement of the European Waste Shipment Regulation, <https://www.impel.eu/wp-content/uploads/2016/10/IMPEL-Enforcement-Actions-2014-15-FINAL-report.pdf>



Most discrepancies in the data on the total quantities of waste shipped between Member States were observed in the amounts reported as ‘exported’ and ‘imported’. For all notified waste, the least accurate reporting year was 2014, where the amount ‘imported’ was 12% higher than the amount ‘exported’, while for hazardous waste the least accurate year was 2015, where the amount ‘imported’ was 19% higher than the amount ‘exported’.

### **Waste shipments**

Most hazardous waste is treated within the country of origin, with 23 Member States ‘exporting’ less than 25% of their hazardous waste. In 2015, Ireland, Luxembourg, Malta and Slovenia were the biggest ‘exporters’ of hazardous waste, exporting over 40% of their hazardous waste.

In 2013-2015, 1.2 million tonnes of hazardous waste were shipped from Member States out of the EU, while over the same period 6.2 million tonnes were shipped into the EU from third countries (Table 2-41).<sup>16</sup> The EU therefore, remains a net ‘importer’ of hazardous waste, having shipped in 5 million more tonnes than it shipped out. As the EU generated 216 million tonnes of hazardous waste during the three-year reporting period, this also means that less than 1% of hazardous waste generated was ‘exported’ out of the EU.

Sweden was the only Member State to report ‘exporting’ Y46 waste within the EU for disposal operation D1 (e.g. landfilling), shipping a total of 3,000 tonnes in 2013-2015. Austria, the Czech Republic, Finland, Germany, Ireland, Italy, the Netherlands and the UK all reported ‘exporting’ wastes collected from households for energy recovery (use as a fuel), with the UK being by far the biggest exporter for this purpose, having shipped 7 million tonnes within the EU in 2013-2015.

The proportion of hazardous waste shipped out of Member States for recovery has remained fairly constant since 2001 and stood around 75% in the period 2013-2015. Meanwhile, the proportion of hazardous waste shipped for disposal has increased from 16% in 2001 to 24% in 2015. This however, corresponds to only 2% of all hazardous waste generated (as stated above, most hazardous waste is treated within the country of origin).

The EU as a whole does not appear to be closer to self-sufficiency in treating either all notified waste or specifically hazardous waste than it was in 2001. While the percentages of both waste types shipped *within* the EU have varied over the past 15 years, in 2015 both remained slightly lower than they were in 2001 (92% compared with 93% for all notified waste and 91% compared with 95% for hazardous waste).

### **Illegal shipments of waste**

2,800 illegal shipments of waste were reported in 2013-2015, a 12% increase on the 2,500 cases reported in 2010-2012. However, the year-on-year increase seen over 2010-2012 did not continue, with illegal shipments falling to 800 in 2013 before stabilising at 1,000 in 2014 and 2015. By comparison, the IMPEL report found that there were 815 illegal waste shipments between 2014 and 2015.

---

<sup>16</sup> Hazardous wastes were not exported to non-OECD countries.

The data provided by Member States on the number of spot checks was very variable. Responses contained varying levels of detail and different interpretations of the term spot check. Overall, it is interesting to note that the total number of reported checks has increased, from ~450,000 in 2010-2012 to ~600,000 in 2013-2015, which may account for the greater number of illegal shipments detected.

12 Member States provided details of financial penalties that can be imposed on persons shipping waste illegally. Seven provided details of prison sentences. Other Member State responses suggest that they also use these deterrents, but they did not provide any details in their response. The data are therefore not robust enough to conclude whether higher fines and longer prison sentences act as a deterrent to the illegal shipments of waste.

## **8. NEXT STEPS**

Article 60(2a) of the Regulation stipulates that a review of the Regulation must be carried out by 31 December 2020. At the time of drafting this report, the Commission had already started to prepare for an evaluation of the Regulation, which is the first step in the process towards its review. The purpose of the evaluation will be to assess whether the Regulation has met its objectives on the basis of five criteria, namely effectiveness, efficiency, coherence, relevance and EU added value as well as to identify lessons learnt during implementation.