



Brussels, 17.12.2015  
COM(2015) 660 final

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

**on the implementation of Regulation (EC) No 1013/2006 of 14 June 2006 on shipments of  
waste**

**Generation, treatment and transboundary shipment of hazardous waste and other waste  
in the Member States of the European Union, 2010-2012**  
{SWD(2015) 291 final}

## TABLE OF CONTENTS

1.	Introduction.....	2
2.	Reporting by Member States .....	3
3.	Generation of Hazardous Waste .....	4
4.	Waste Shipments out of Member States .....	5
5.	Waste Shipments into Member States .....	6
6.	Illegal Shipments, Inspections and Enforcement Measures .....	7
7.	General Conclusions .....	8
8.	Next Steps .....	10

# **DEVELOPMENTS CONCERNING THE GENERATION, TREATMENT AND SHIPMENT OF HAZARDOUS WASTE AND OTHER WASTE IN THE EU MEMBER STATES, 2010-2012**

## **1. INTRODUCTION**

Transboundary movements of hazardous wastes and their disposal are governed by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal of 22 March 1989 to which the European Union (EU) is a Party. The overarching objective of the Convention is to protect human health and the environment against the adverse effects of hazardous wastes.

The EU has set up a system for the supervision and control of shipments of waste within its borders together with the countries of the European Free Trade Association (EFTA), the Organisation for Economic Cooperation and Development (OECD) and other third countries that are parties of the Basel Convention. Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on Shipments of Waste<sup>1</sup> (hereby referred to as the Regulation) transposes the Convention into Union law. The Regulation which is directly applicable in the Member States was amended in 2014 by Regulation (EU) No 660/2014<sup>2</sup>.

Each calendar year, Member States submit a report to the Convention Secretariat for the previous calendar year which addresses legal provisions, implementation and environmental protection measures<sup>3</sup>. The report is also sent to the Commission along with additional information in the form of a reply to an Implementation Questionnaire<sup>4</sup>. As per article 51.4 of the Regulation, every three years, the Commission draws up an Implementation Report based on the replies submitted by the Member States. In this case, the cut-off date for Member States to send the information pertaining to 2010-12 to Eurostat was 18 June 2014.

This is the fourth Implementation Report and covers the period 2010-2012. The third report, covering the 2007-2009 period, was published in August 2012. Detailed information based on the Member States' report to the Basel Convention for 2010-2012 can be found in Sections A and B of the working document accompanying this report. In addition, Member States' replies to the Implementation Questionnaire for 2010-2012 can be found in Section E of the working document. Quantitative data and figures on generation, treatment and shipment of waste are summarised in the tables and figures of Section A of the working document. Key definitions are provided in Appendix A.1.0 to the working document.

This Implementation Report also compares the replies submitted by 27 Member States<sup>5</sup> for 2010-2012 to those from 2007-2009. Some of the figures for the 2007-2009 period

---

<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) of Regulation (EC) No 1013/2006

<sup>4</sup> Article 51(2) of Regulation (EC) No 1013/2006

<sup>5</sup> Excluding Croatia which joined the European Union on 1 July 2013

quoted in this report differ from those referenced in the 2007-2009 report because the replies from Member States that were submitted in the meantime were taken into account.

The Basel Convention uses the terms "import" and "export" for every shipment into or out of a country that is Party to the Convention. Under EU law these terms apply only to shipments out of or into the EU as a whole. In this document however, both terms appearing in inverted commas are to be understood in the sense in which they are used under the Basel Convention, i.e. comprising external shipments as well as intra-EU shipments between Member States.

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

At the time this report was prepared, most Member States had replied to both the Basel and the Commission questionnaires for the years 2010-2012<sup>6</sup>. Although all of the 2012 reports should have been submitted to the Commission by 31 December 2013, additional time was permitted. The cut-off date for the analysis of the quantitative data contained in the Basel reports was 18 June 2014. The Basel reports of Ireland, Lithuania, Luxembourg and Spain for the year 2012 were submitted after this cut-off date and therefore could not be taken into account for the preparation of Section A of the working document.

The data on the total quantities of waste shipped between Member States indicated several discrepancies on the amounts reported by the "export" and "import" countries. The least accurate reporting year was 2011, where the amount of hazardous waste "imported" was 17% higher than the amount "exported". For the shipment of all waste subject to the procedure of prior written notification and consent, hereby referred to as notified waste, this difference was 5%. For hazardous waste in 2012 this difference was 10% (1% all notified waste) and for 2010 it was 12% (2% all notified waste). These considerable discrepancies highlight the need for an EU-wide electronic data interchange to be used by all Member State competent authorities.

Luxembourg was one Member State that appeared to be grossly underreporting the amount of waste shipped out. In 2011, Luxembourg reported to have "exported" 103,000 tonnes of all notified waste to Germany, but Germany reported to have "imported" 498,000 tonnes from Luxembourg in the same year. A similar pattern is evident between Luxembourg and Belgium.

By comparison, in 2009, the figure for the amount of hazardous waste "imported" was just 0.3% lower than the amount "exported". In 2008, it was 20% lower. For all notified waste in 2009 the figure was 9% higher.

One possible explanation for the inconsistencies observed is that Member States may not be reporting waste shipments in the same manner. "Importers" and "exporters" of waste are required to complete notification and movement documents, as set out in Annexes IA and IB to the Regulation. The notification document asks for the "total intended quantity" of waste to be shipped whilst the movement document asks for the "actual quantity" shipped. If Member States report different figures for these two values then this could contribute to the inconsistencies observed.

---

<sup>6</sup> The reports pursuant to Article 51(2) from Poland for the years 2010 and 2011 were identical.

### 3. GENERATION OF HAZARDOUS WASTE

Hazardous wastes are defined according to a list of waste streams and/or constituents (entries Y1-18 and Y19-45 under the Convention categories) and certain hazard characteristics. However, if waste is considered as hazardous by domestic legislation, it also falls under that definition for the purposes of the Convention. "Other wastes" in this context means wastes collected from households and residues arising from the incineration of household wastes; two categories of wastes requiring special consideration and being subject to similar controls as hazardous wastes under the Basel Convention (entries Y46 and Y47). The full list of Y-codes under the Convention is provided in Section D of the working document.<sup>7</sup>

At the time this report was prepared, the data on the total generation of hazardous waste were incomplete for several Member States not having reported any information<sup>8</sup>. In order to fill existing data gaps, estimated figures were used based on data from previous years.

In 2012, 76 million tonnes of hazardous waste were generated in the EU27. This is in comparison to 75 million in 2011 and 76 million in 2010. Between 2007-2009 and 2010-2012 the total amount of hazardous waste generated decreased by 4%. Reflecting this, the average amount generated per year in 2007-2009 was 79 million tonnes compared to 75 million in 2010-2012. However, looking at the longer trend between 2000 and 2012 the amount of hazardous waste generated per year increased by 26%.

In this reporting period, the total annual generation of hazardous waste per capita in the EU27 was 151 kg for 2012, 149 kg for 2011 and 151 kg for 2010. These figures show a decrease from an average of 158 kg for 2007-2009 but an increase by 22% since 2000. One possible explanation for this pattern is that less waste was generated as a result of the financial and economic crisis.

As in 2007-2009, Germany generated the highest amounts of hazardous waste in 2010-2012, with 17 million tonnes in 2012. This was followed by Italy and France with 11 million tonnes each. Malta generated the least in 2012 with 27,000 tonnes, followed by Slovenia and Latvia with 78,000 and 85,000 tonnes, respectively. The biggest increase was shown by Cyprus, which generated 84,000 tonnes in 2011 but 480,000 tonnes in 2012. Bulgaria showed the largest decrease, generating 647,000 tonnes in 2010 and only 160,000 tonnes in 2012. Member States do not offer any explanation for these changes.

In terms of hazardous waste generated per capita, Estonia had the highest figures for 2010-2012, as was the case in 2007-2009, with an average of 6,902 kilograms per capita. Romania produced the least amount in 2010-2012 with an average of ten kilograms per capita. This was followed by Greece with 22 kilograms per capita. Romania also had the lowest figure in 2007-2009 (six kilograms per capita).

---

<sup>7</sup> The Y-codes under the Basel Convention categorise the waste types to be controlled under the Convention. These were used to varying degrees by the Member States. Whilst some countries used them throughout the reporting period, others did not report them and some opted to use the codes of the European List of Waste.

<sup>8</sup> Data on the generation of hazardous waste are provided on the basis of the Waste Statistics Regulation.

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

According to the official data reported by Member States, in 2012, the amount of all notified waste shipped out of the EU27 was 14 million tonnes, of which five million tonnes was hazardous (i.e. about 7% of all hazardous waste generated in 2012). For 2011 and 2010, this figure was 15 and 12 million tonnes, respectively (six million tonnes were hazardous in both years). By comparison, for the period 2007-2009, the average amount of all notified waste shipped out per year was 11 million tonnes, of which eight million was hazardous (i.e. about 10% of all hazardous waste generated in 2012).

From 2001 to 2011, shipments of all notified waste out of Member States increased by 126%. In 2012, however, this pattern changed as the amount of waste "exported" decreased slightly by 2% in comparison to 2011. From 2001 to 2007, a large increase in the amount of hazardous waste shipped out of Member States was observed (154%). However, from 2007 to 2012 the quantities of hazardous waste shipped out of Member States decreased by 32%.

As in 2007-2009, the Netherlands was the largest "exporter" of all notified waste, with three million tonnes in 2012. Germany was the second biggest "exporter", shipping out two million tonnes in 2012. Over the same period, Estonia was the smallest "exporter" with 3,000 tonnes in 2012.

France and Italy were the two largest "exporters" of hazardous waste in 2010-2012 with 985 and 977 tonnes shipped out in 2012 respectively. The Netherlands was the largest in 2007-2009, however, in 2010 the amount of hazardous waste shipped out of this country decreased by 73%. Bulgaria, Cyprus, Estonia, Romania and Slovakia shipped out the smallest amounts of hazardous waste in 2010-2012.

In 2009, the waste group Y1-Y18, represented the largest quantity, constituting 37% of the total quantity of all notified waste shipped out of EU27. The share of the category Y19-Y45 was 13% and the share of the category Y46-Y47 was 12%. Although the contribution of waste groups Y19-Y45 (13-15%) and Y46-47 (9-14%) was roughly the same in 2010-2012, the contribution of waste group Y1-18 to the total quantity of all notified waste shipped out of EU27 kept decreasing from 37% in 2009 to 16% in 2012. The reason for this is due to the increase in the amount of waste classified using EU or national codes instead of Y-codes. 34% of waste shipments out of the EU were classified according to EU or national codes in 2009 compared to 55% in 2012.

In 2012, just 1% of waste was shipped without classification and 0% of waste was shipped without classification in 2011. This is a substantial decrease when compared to previous years when 3% and 4% of waste was shipped without classification in 2009 and 2010, respectively. This decrease is more salient when compared to even earlier years (2005-2008) where this share ranged between 7% and 14%. The only Member States to ship waste without classification in 2012 were France, Greece and Luxembourg.

In 2012, 94% of the EU's hazardous waste was treated in the country of origin<sup>9</sup>. Most of the hazardous waste shipped out of Member States was destined for a recovery operation. In 2012 and 2011 this figure was 70% and in 2010 it was 73%. By comparison, 2007-

---

<sup>9</sup> Due to lack of data for 2012, estimations were performed based on older data.

2009 had seen a greater proportion of "exported" hazardous waste destined for recovery, with 72%, 73% and 78% destined for recovery in 2009, 2008 and 2007 respectively<sup>10</sup>.

In 2012, 24% of hazardous waste shipped out of EU27 for recovery came from France. Other major exporters of hazardous waste for recovery were Belgium (16%) and the Netherlands (14%). By comparison, in 2009, 39% of the hazardous waste shipped out of EU27 for recovery came from the Netherlands.

In 2011, a reported peak in the amount of notified waste exported to non-OECD countries was due to a large quantity of iron-oxides that Finland exported to China that year. This waste was later classified as non-waste and was no longer notified by the Finnish authorities.

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

In 2012, the amount of all notified waste shipped into the EU27 was 17 million tonnes, of which seven million tonnes was hazardous. For 2011, this figure was 16 million tonnes (of which nine million tonnes was hazardous) and for 2010 it was 14 million (of which eight million tonnes was hazardous). The average amount of all notified waste shipped in per year has increased from 13 million tonnes in 2007-2009 to 16 million tonnes in 2010-2012 (eight million tonnes was hazardous in both periods).

Between 2001 and 2012, the quantity of all notified waste shipped into Member States increased by 129%. Over the same period the amount of hazardous waste shipped into Member States increased by 127%, although 2012 experienced a decrease of 23% from the previous year.

The amount of all notified waste shipped into the EU12<sup>11</sup> increased dramatically in this reporting period, from 172,000 tonnes in 2010 to 679,000 tonnes in 2011 and 692,000 tonnes in 2012. This was largely due to an increase in the reporting of waste "imported" and treated in recovery operations in Latvia and Slovakia. For Latvia, the "imported" waste was mainly Refuse Derived Fuel (RDF) for recovery. For Slovakia, the main "import" was 147,000 tonnes of "other wastes", 95% of which was shipped in from Austria for recovery.

As in 2007-2009, Germany was the biggest "importer" of all notified waste for this reporting period, shipping in six million tonnes in 2012. France was the second largest over the same period, "importing" two million tonnes in 2012. These two countries were also the biggest "importers" of hazardous waste for both reporting periods, shipping in three million and one million tonnes respectively in 2012. By comparison, Malta did not ship in any waste over the three-year period, as was the case in 2007-2009. Portugal shipped in the second lowest amount of waste with just 1,000 tonnes "imported" in 2012, all of which was hazardous.

As was the case for waste shipped out of the EU27, the group Y1-Y18 represented the largest quantity, with 20% of the total quantity of all notified waste shipped into the EU27

---

<sup>10</sup> Some hazardous waste was submitted to "mixed" treatment (i.e. combination of disposal and recovery)

<sup>11</sup> The countries that have joined the EU since 2004 except Croatia

in 2012. The share of category Y19-Y45 was 11% and the share of the category Y46-Y47 was 7% in the same year. In 2010, by comparison, these figures were 26%, 14% and 8% respectively. The reason for these decreases is the same as for "exports" in that the amount of waste classified using EU or national codes instead of Basel Convention Y-codes is increasing. 44% of waste shipments into the EU were classified according to EU or national codes in 2010 compared to 61% in 2012. It should be noted that data for 2009 was not available for analysis.

The amount of waste shipped into the EU27 without classification was 1% in 2012 and 0% in 2011. By comparison, this figure was 9% in 2010 and 13% in 2009. In 2012, the only countries that did not classify some of the waste were Belgium, Cyprus, the Czech Republic, France, Latvia and Slovakia. The largest amount of waste shipped without classification came into France with 55,000 tonnes.

Most of the hazardous waste shipped into EU Member States was treated in a recovery operation. In recent years, however, the share of recovery has decreased. While in 2003, 89% of hazardous waste shipped into the EU27 underwent a recovery operation, in 2012, the share of recovery was 69%, meaning that a greater proportion of hazardous waste was being sent to disposal facilities.

In 2012, Germany "imported" 41% of the total amount of hazardous waste shipped into the EU27 for recovery. Other Member States with high percentages of hazardous waste shipped in for recovery were France (13%) and the Netherlands (12%). These three countries were also the biggest "importers" of hazardous waste for recovery in 2009.

Like the previous reporting period, almost all of the hazardous and other notified waste shipped into Member States in 2010-2012 came from other Member States or EFTA countries (97% for hazardous waste and 98% for all notifiable waste). The share of waste originating from non- OECD countries in 2010-2012 was minimal (3% or less) for both hazardous waste and all notified waste streams.

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

In the reporting period 2010-2012, there were over 2,500 cases of reported illegal shipments across the EU27, with the number of cases increasing year on year (approximately 700, 800 and 1000 cases in 2010, 2011 and 2012, respectively)<sup>12</sup>. By comparison there were approximately 400 cases in 2009. It was not possible to report on data related to tonnages of illegal waste shipped due to inconsistencies in units reported by Member States. For example, several countries measured illegally shipped waste by "containers" or "loads" rather than tonnes.

Illegal shipments of waste were reported by most Member States; only Malta and Spain reported zero incidents over the reporting period and Romania only one case. Belgium reported the largest number of cases in 2010-2012 and together with Germany and the Netherlands they accounted for nearly 60% of the cases in this period. Appendix A.2.0 to the working document summarises this information.

---

<sup>12</sup> It is likely that some of the cases were reported in duplicate; once by the country of destination and once by the country of dispatch.



The reported cases of illegal shipments of waste could indicate a significant increase in the number of illegal shipments since the previous reporting period. Alternatively, it could reflect better reporting by Member States or more effective control measures, e.g. increasing the number of spot checks. In a 2012 report by IMPEL<sup>13</sup>, the average number of violations as a proportion of the physical inspections was 25%. This would suggest that the effectiveness of Member States' enforcement requires improvement and that, despite the increased number of incidents reported, a large proportion of illegal shipments of waste still go undetected<sup>14</sup>. The above may suggest that the actual number of illegal shipments in 2010-2012 was considerably higher than what was officially reported, although it is difficult to assess the extent to which this is the case.

Member State reporting on the number of spot checks was generally poor and varied greatly. In some cases the overall number of checks was reported whilst in others this figure was broken down, for example by the number of administrative checks, by the number of physical checks or by the authority that carried out the checks. These inconsistencies were due to Member States defining spot checks differently. For example Belgium treated "spot-check" as a single physical check, whereas others (e.g. Luxembourg) saw it as a wider operation, possibly including several physical checks. In addition, some countries were able to accurately quantify the number of checks, whilst others simply stated that checks occurred without any reference to how often. According to IMPEL, administrative and physical inspections should be counted separately and then added together to give the total number of inspections.

Poland is an example of a Member State which was able to submit good quality data on the number of spot checks carried out. In 2011, Poland reported 3,200 spot checks, of which 122 and 2,900 were checks of facilities and freight, respectively. Poland shipped in 77,000 tonnes of hazardous waste and shipped out 14,000 tonnes in 2011. This means that there were 35 spot checks per 1,000 tonnes of waste shipped. More robust data is, however, required to establish a best practice figure in terms of number of spot checks per 1,000 tonnes of waste shipped for the EU as a whole (if at all possible).

Similarly to 2007-2009, the most common reasons for illegality were that the shipment of waste was effected without notification to the relevant competent authorities or contrary to a prohibition on shipments under the Regulation. Typical response measures included the return of the waste to the country of origin and the setting of a fine.

## **7. GENERAL CONCLUSIONS**

### **Reporting and data quality**

The reporting period 2010-2012 saw an increase in the number of replies submitted by Member States as compared to the previous reporting period 2007-2009.

---

<sup>13</sup> The EU Network for the Implementation and Enforcement of Environmental Law

<sup>14</sup> IMPEL (2012) *TFS Enforcement Actions III Project Report (March–October 2012)*, 2012, <http://impel.eu/wp-content/uploads/2013/07/IMPEL-Enforcement-Actions-III-Year-1-FINAL-Report-amended-MN-080713.pdf>

Considerable discrepancies in the amount of transboundary waste shipped were observed as reported by the "import" and "export" countries. The least accurate reporting year was 2011, where the amount of hazardous waste "imported" was 17% higher than the amount "exported". For all notified waste this difference was 5%. The use of an EU-wide electronic data interchange used by all Member State competent authorities is expected to assist in the reduction of discrepancies in future reports.

In this reporting period there was a continued decrease in the amount of waste shipped without classification. In 2012, just 1% of waste was shipped without classification. By comparison, 3% of waste was shipped without classification in 2009. This decrease is more salient when compared to even earlier years (2005-2008) where this share ranged between 7% and 14%.

A report issued by IMPEL in 2012 suggests that the actual number of illegal shipments in 2010-2012 was considerably higher than what was officially reported by the Member States.

### **Generation of Hazardous Waste**

The generation of hazardous waste was stable during the reporting period. In 2012, 76 million tonnes of hazardous waste were generated in the EU27, in 2011 75 million and in 2010 76 million tonnes. Between 2007-2009 and 2010-2012 the total amount of hazardous waste generated decreased by 4%. The average amount generated per year in 2007-2009 was 79 million tonnes compared to 75 million in 2010-2012. However, looking at the longer trend, between 2000 and 2012 the amount of hazardous waste generated per year rose by 26%.

### **Waste Shipments**

This reporting period saw an increase in the amount of transboundary shipments of notified waste in the EU27. In 2012, the amount of all notified waste shipped out was 14 million tonnes, compared to 12 million tonnes in 2009 and 6 million tonnes in 2001. In 2012, the amount of all notified waste shipped into the EU27 was 17 million tonnes, compared to 14 million tonnes in 2009 and 7 million tonnes in 2001. This may suggest that the EU27 is a net importer of notified waste.<sup>15</sup>

Despite the increase in overall transboundary shipments of notified waste, this reporting period saw a decrease in transboundary shipments of hazardous waste. In 2012, five million tonnes of hazardous waste were shipped out and seven million tonnes were shipped in the EU27, suggesting that the EU27 might be a net importer of hazardous waste by two million tonnes. Furthermore, in 2012, 90% of the transboundary shipments of hazardous waste were made between Member States rather than third countries (this figure was 86% in 2011 and 2010). This indicates a high level of self-sufficiency with regard to the treatment of hazardous waste in the EU27.

---

<sup>15</sup> The difficulty in drawing a clear conclusion lies on the fact that an over-reporting of imports was observed.

The amount of hazardous waste treated in the country of origin has increased since the previous reporting period. In 2012, 94% of the EU27's hazardous waste was treated in the country of origin. Countries with an "export" rate of over 40% were Ireland, Luxembourg, Malta and Slovenia. By comparison, in 2009, 90% of the EU27's hazardous waste was treated in the country of origin.

Most of the transboundary shipments of hazardous waste in 2012 were treated in a recovery operation (69% of waste shipped in and 70% of waste shipped out of Member States). Both figures have decreased since 2009, meaning that a greater proportion of hazardous waste was being treated in disposal facilities.

### **Illegal Shipments of Waste**

There were over 2,500 reported cases of illegal shipments across the EU27 between 2010 and 2012, of which approximately 1,000 were reported in 2012. By comparison, there were around 400 cases in 2009. However, the poor quality of data on illegal shipments and the varying number of spot checks undertaken prevents an in-depth analysis of the EU27 and individual Member States' performance in reducing the number of these cases.

## **8. NEXT STEPS**

The 12th meeting of the Conference of the Parties to the Basel Convention adopted a revised format for national reporting by Parties to report for the year 2016 and onwards.<sup>16</sup> The new format is expected to improve the quality of the reporting and in particular as regards the classification of wastes, whereby the reporting of the specific hazardous waste codes of Annex VIII to the Convention (i.e. List A) is no longer optional.

As of 1 January 2016, the recent amendments introduced through Regulation (EU) No 660/2014 will apply. In these amendments, the word "spot check" was replaced with a new definition on the more general word "inspection" which is expected to improve consistency in the replies of the Member States. According to the new amendment, Member States are required to establish inspection plans by 1 January 2017 including a minimum set of elements and based on a risk assessment that would aim, inter alia, to identify the minimum number of inspections required. Moreover, the amendment aims to provide enhanced powers to the authorities involved in inspections, enabling them to decide on the basis of evidence whether a carried substance or object is waste and whether a shipment can be considered an illegal shipment of waste.

As announced in its Circular Economy Action Plan adopted on 2 December 2015, the Commission will take further measures to help ensure that the Regulation is properly implemented and that high-value waste streams such as end-of-life vehicles, will be targeted specifically to prevent raw materials leakage.

---

<sup>16</sup> This does not affect the next tri-annual Commission report covering the period 2013-2015.