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

**on the implementation of Council Regulation (EEC) No 259/93 of 1 February 1993 on  
the supervision and control of shipments of waste within, into and out of the European  
Community, and 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, 2007-2009**

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# DEVELOPMENTS CONCERNING THE GENERATION, TREATMENT AND SHIPMENT OF HAZARDOUS WASTE AND OTHER WASTE IN THE EU MEMBER STATES, 2007-2009

## 1. INTRODUCTION

Transboundary movements of hazardous wastes and their disposal are governed by the Basel Convention of 22 March 1989 to which the European Union (EU) is a Party.

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 to the Convention. Regulation (EC) No 1013/2006 on shipments of waste<sup>1</sup> transposes the Convention into Union law.

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. The report is also sent to the Commission along with additional information in the form of a questionnaire<sup>2</sup>. Every three years, the Commission draws up a report based on the reports provided by the Member States<sup>3</sup>. This addresses shipment restrictions, monitoring, measures against illegal shipments, and financial coverage.

The first Commission report covered the years 1997-2000 and was published in 2006<sup>4</sup>. The second report covered the years 2001-2006 and appeared in 2009<sup>5</sup>. This is the third implementation report and covers the years 2007-2009. Detailed information on the Member States' responses to both the Basel and the Commission questionnaires for the years 2007 to 2009 can be found in Sections B and E of the Commission staff working document accompanying this Report. Quantitative data on generation, treatment and shipment of waste are summarised in the tables and figures of Section A of the working document.

It should be noted that the Basel Convention uses the terms "import" and "export" for every shipment into and out of a country that is Party to the Convention. Under EU law these terms apply only to shipments into and out of the EU as a whole. However, for the sake of readability, in this report the terms appear in inverted commas, and are used occasionally for waste shipments in general. In the working document, both terms appear in the sense in which they are used in the Basel Convention.

Under Article 60(2) of Regulation (EC) No 1013/2006, within five years after 12 July 2007, the Commission shall review the implementation of Article 12(1)(c) (objections to planned waste shipments for recovery not in accordance with national legislation in the country of dispatch), including its effect on environmental protection and the functioning of the internal market. In preparation for this review, in 2010 the Commission requested information from the Member States as regards the application of Article 12(1)(c). Apart from three minor

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

<sup>2</sup> Decision 1999/412/EC (OJ L 156, 23.6.1999, p. 37) and Art. 51(2) of Regulation (EC) No 1013/2006.

<sup>3</sup> Art. 41 of Regulation (EEC) No 259/93 and Art. 51 of Regulation (EC) No 1013/2006.

<sup>4</sup> Commission report {SEC(2006) 1053}, 1.8.2006.

<sup>5</sup> Commission report {SEC(2009) 811}, 24.6.2009.

instances in which the application of the provision was not clearly relevant, Member States largely responded not to have made use of this provision.

Consequently, so far the provision of Article 12(1)(c) has had no effect on environmental protection and the functioning of the internal market. The Commission will continue to monitor the applicability of this provision and may take appropriate measures as part of a future review of the Regulation.

## **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 2007-2009. Although all of the 2009 reports should have been submitted to the Commission by 31 December 2010, additional time was permitted. The cut-off date for the analysis of the quantitative data contained in the Basel reports was 15 July 2011. Due to administrative reasons, the Basel reports from Greece (2009), Cyprus (2008 and 2009) and Malta (2007) were submitted after the cut-off date and could not be taken into account. The cut-off date for inclusion of the Member States' replies in Sections B and E of the staff working document was 30 November 2011. By that date, the Czech Republic had not delivered the Commission questionnaire for the year 2008 and the Netherlands had not done so for the year 2009. For France, all the reports for the years 2007-2009 were missing. A summary of the missing data is presented in Table 1 of the staff working document. While no infringement cases have been opened so far, the Commission has launched EU-Pilot requests in order to investigate the cases of the missing reports.

Essential administrative data and information on relevant national provisions were generally complete and accurate. Most Member States reported extensively on measures to prevent waste generation. Measures taken to reduce waste shipments were reported less frequently. Information on the effects of the generation, transportation and disposal of hazardous wastes and other wastes on human health and the environment was less extensive and in several cases not available.

As regards data on illegal shipments, some Member States reported a large number of cases, while others reported only a few or none. There were few reports of disposals which did not proceed as intended and none of the Member States reported accidents occurring during the transboundary movement and disposal of hazardous wastes and other wastes.

A comparison of the total quantities of waste shipped between Member States revealed inconsistencies in the quantities reported by different Member States for the same shipments which should be identical. For hazardous waste, the total "exports" between Member States are higher than the total "imports" (e.g. in 2009 the difference was 27%). For all other notified wastes total "imports" are higher than "exports" (e.g. in 2009 the difference was 36%). The Commission intends to work with the Member States to improve the quality of the reported data.

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

The Basel Convention questionnaire asks all countries to provide information on the total amount of hazardous wastes and "other wastes" generated. "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). Hazardous wastes are defined according to a list of waste streams and/or constituents (entries Y1-18 and Y19-45) 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.

At the time this report was prepared, the data on the total generation of hazardous waste for the year 2009 were still incomplete. Altogether 11 countries had not reported data on the total generation of hazardous waste for 2009. There were four missing values for 2008 (Cyprus, France, Italy, Spain) and three for 2007 (France, Italy, Sweden). In order to fill existing data gaps, estimations were carried out based on data from previous years.

In 2009, about 77 million tonnes of hazardous waste were generated in the EU-27<sup>6</sup> of which about 58 million tonnes being in the EU-15<sup>7</sup>. From 2000 to 2008, the total quantity of hazardous waste generated by EU-27 increased by 46%. In the same period, the increase in the quantity of hazardous waste generated by EU-15 was 57%. The quantities of hazardous waste generated in 2009 are slightly lower than those in 2008 (8%, both for EU-27 and for EU-15). In 2009, the total generation of hazardous waste per capita was 154 kg per year for the whole European Union (EU-27) with a slightly higher average of 186 kg per year in EU-12<sup>8</sup>. The observed fluctuations in the quantities of hazardous waste generation in the EU could be linked with fluctuations in the economic activity during the same period.

With about 19 million tonnes annually, Germany had the highest quantities of hazardous waste generated in the period 2007-2009, followed by Italy<sup>9</sup>, Estonia<sup>10</sup>, France, United Kingdom and Poland. In the United Kingdom, the quantity of hazardous waste generated decreased significantly in 2009. Quantities rose significantly in Poland between 2007 and 2008.

In terms of hazardous waste generated per capita, Estonia, Finland, the Netherlands, Sweden, Portugal and Germany had the highest figures for the period 2007-2009. The lowest quantities per capita were recorded in Latvia, Romania, Lithuania and Greece.

The Y-codes for waste under the Basel Convention were used very differently by Member States. Several Member States did not report any details on the generation of hazardous waste at the level of Y-codes. Some Member States exclusively reported waste from households (Y46) and residues arising from the incineration of household waste (Y47).

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

All Member States except Cyprus, France, Greece and Malta have submitted information on outbound shipments ("exports" within the meaning of the Basel Convention) of notified waste covering all three years within the period 2007-2009.

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<sup>6</sup> All current Member States of the European Union.

<sup>7</sup> Countries that had joined the European Union prior to 2004.

<sup>8</sup> Countries which joined the European Union in 2004 or in 2007.

<sup>9</sup> Values for Italy and France are based on estimations.

<sup>10</sup> Data from Estonia include oil shale waste, which represents more than 95% of the total amount.

In 2009, the total amount of all notified waste shipped out of the EU Member States (EU-27) was about 11,4 million tonnes, of which about 7,2 million tonnes was hazardous waste. The EU-12's share of all notified waste shipped out was only about 2% and the corresponding share for hazardous waste alone was about 3%.

Shipments of notified waste out of Member States have steadily increased. From 2001 to 2009, the increase in the amount of all notified waste shipped out of Member States was 80%. For shipments of hazardous waste alone, an increasing trend is observed until 2007. From 2001 to 2007, the increase in the amount of hazardous waste shipped out of Member States was 150%. Since 2007, the quantities of hazardous waste shipped out of Member States have slightly decreased (9% drop from 2007 to 2009).

In the period 2007-2009, the biggest "exporter" of hazardous waste was the Netherlands (with 2,8 million tonnes in 2009) followed by Italy, Belgium, France and Ireland. While shipments of hazardous waste out of the Netherlands decreased by 14% from 2006 to 2009 Italy reported an increase of 64% during that period. As regards outbound shipments of hazardous waste in kg per capita, the leading Member States in the period 2007-2009 were the Netherlands and Luxembourg followed by Ireland and Belgium.

In the period 2007-2009, the Member State with the highest total quantities of notified waste shipped out was also the Netherlands (with about 3 million tonnes in 2009) followed by Italy, Germany, Austria and Belgium. As regards outbound shipments of all notified waste in kg per capita, the leading Member States were Luxembourg, the Netherlands, Austria, Ireland and Belgium.

In 2009, over 90% of the EU's hazardous waste was treated in the country of origin. Countries with an "export" rate of more than 40% were Luxembourg, Slovenia, Ireland, the Netherlands, Belgium and Denmark.

The group "Y1-Y18" represents the most important waste category, with about 38% of the total quantity of all notified waste shipped out of EU-27 in 2009. The share of the category "Y19-Y45" was about 13 % and the share of the category of other waste (Y46-Y47) (i.e. mixed household waste and incineration residues) was about 10%. Minor quantities (about 1%) were classified in a mixture of categories Y1-Y45. About 35% of the shipments were classified by either national or EU classification. These statistics are similar for the years 2007 and 2008.

In 2009, only 3% of waste was shipped without classification. In previous years (2005-2008) this share ranged between 7% and 14%. In the period 2007-2009, the Member States which shipped out the largest quantities of waste without classification were Germany, France, Sweden, Denmark, United Kingdom and Ireland. A mixture of Y-codes was used only in rare cases and in small quantities. In 2008 and 2009 large quantities (0,6 million tonnes in 2008 and 1,8 million tonnes in 2009) of non-hazardous waste were shipped out of Austria with a notification. Denmark, France, Slovenia and Italy reported outbound shipments of waste which were classified as "hazardous, specified by country".

The bulk of hazardous waste shipped out of Member States<sup>11</sup> was treated in a recovery operation. In the period 2007-2009, the share of recovery ranged from 72% to 77% for the

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<sup>11</sup> The expression "waste shipped out of" Member States includes shipments within the EU. The vast majority of waste shipped across borders remains within the EU.

waste shipped out of EU-15 and EU-27, respectively. The recovery rate of the waste shipped out of EU-12 was even higher, ranging from 85% to 89% in the period 2007-2009.

In 2009, over 40% of hazardous waste shipped out of EU-27 for recovery came from the Netherlands. Other Member States with high percentages and total amounts of hazardous waste shipped out for recovery were France, Belgium and United Kingdom and Italy.

In 2009, Greece, Bulgaria, Cyprus, Italy and Romania shipped hazardous waste predominantly for disposal. The biggest quantities of hazardous waste shipped for disposal came from Italy and the Netherlands.

The vast majority of all notified outbound waste shipments in the period 2007-2009 went to other EU Member States. 99% of all notified waste shipped out of EU-27 was destined for EU-27 and EFTA countries, and over 87% remained within the EU-15. Although the majority of waste shipped out of EU-12 went to other EU Member States, a non-insignificant share also went to non-OECD countries (7% in 2009, 11% in 2008 but 0% in 2007). 99% of hazardous waste shipped out of Member States (EU-27) was destined for EU-27 and EFTA-countries and over 95% remained within EU-15.

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

This section is based on reports provided by 20 Member States where Cyprus, France, Greece, Ireland, Malta, Portugal and Romania failed to provide information for the period 2007-2009.

In 2009, the total amount of all notified waste shipped into EU Member States was about 12,4 million tonnes, of which about 6,7 Mt were hazardous waste. As regards the evolution of the amount of hazardous waste shipped into Member States, a strong growing trend can be observed until 2007. From 2001 to 2007, the amount of hazardous waste shipped into Member States increased by 147%. Most of these shipments involve shipments within the EU and the observed increase is likely to be attributed to the fact that in some Member States there exist sophisticated installations for the treatment of hazardous wastes while other Member States lack such installations.

In 2008, the amount of hazardous waste shipped into Member States decreased, but it increased again in 2009. The quantity for 2009 is lower than the quantity for 2007, but higher than the quantity for 2006. This overall development is similar for all notified waste. Between 2001 and 2007, the quantities of all notified waste shipped into Member States increased by 72%.

In the period 2007-2009, the biggest "importer" of hazardous waste was Germany (with 2,7 Mt in 2009) followed by the Netherlands, Belgium, Italy, France and Sweden. Germany is also clearly in first position as regards the total quantity of hazardous and other notified waste shipped into EU Member States (with 7,6 Mt in 2009). Other Member States with high total quantities of hazardous and other notified waste "imported" in the period 2007-2009 were Italy, the Netherlands, Belgium, Sweden and France. As in the case of outbound shipments, the EU-12 countries play a lesser role. The share of hazardous and other notified waste shipped into EU-12 was only about 2%. As regards inbound shipments of waste in kg per capita, the leading Member States in the period 2007-2009 were Belgium, the Netherlands, Sweden and Germany, both for hazardous and for all notified waste.

Like for outbound shipments of waste, the group "Y1-Y18" represents the most important waste category, with about 29% of the total quantity of notified waste shipped into the EU-27 Member States in 2009. The share of the category "Y19-Y45" was about 12 % and the share of the category of other waste (Y46-Y47) about 5% for EU-27 in 2009. This distribution is very similar for all reference years 2007-2009.

In 2006, the category "not classified" waste still dominated in the classification of waste types, making up 36% of all shipments to the European Union. In 2007, the share of "not classified" waste was 22% and in 2009 only 13%. In 2009, waste without specification was shipped to Germany, Sweden, France and United Kingdom. Large quantities of waste (3,2 Mt in 2009) were shipped to Germany with the classification "EU-WSR or national non-hazardous waste". For 2009 and for 2008, Austria reported "imports" of non-hazardous waste with a notification (about 142.000 tonnes in 2009 and 96.000 tonnes in 2008). For 2007 and for 2009, Italy reported large quantities of "imports" of waste classified as "hazardous, specified by country" (about 295.000 tonnes in 2007 and 705.000 tonnes in 2009).

Most of the waste shipped into EU Member States was treated in a recovery operation. In recent years, however, the share of recovery has decreased. While in 2004, 84% of waste shipped into the EU-27 Member States underwent a recovery operation, in 2009, the share of recovery was 70%. This trend is similar also for EU-15 alone.

As regards the percentage of recovery versus disposal, there are significant differences between Member States. In 2008 and 2009, more than 40% of the waste shipped into the following Member States was treated in a disposal operation: Austria, Denmark, Germany, and Spain. In 2009, the highest quantities of waste "imported" for disposal were reported by Germany (1,5 Mt), the Netherlands (135.000 tonnes) and France (102.000 tonnes).

The bulk of the hazardous and other notified waste shipped into Member States in the period 2007-2009 came from other Member States. Over 97% of all notified waste shipped into Member States came from other Member States or from EFTA-countries and over 84% originated from EU-15. For hazardous waste alone, over 96% came from other Member States or from EFTA countries and over 80% from EU-15. The share of waste originating from non-OECD countries was minimal both for hazardous waste and for all notified waste.

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

Most Member States stated that there had been cases of illegal shipments of waste in the period 2007-2009. While some Member States reported a large number of cases, others reported only a few or none. The countries reporting the highest numbers of cases were Germany, the Netherlands, Belgium, United Kingdom and Austria (representing more than 70% of the reported cases for the period 2007-2009).

For 2009, Member States reported around 400 cases of illegal shipments of waste, with some of the cases probably having been reported in duplicate, once by the country of destination and once by the country of dispatch. For 2009, about half of the illegal shipments reported by Member States were shipments between Member States while the other half involved shipments into or out of the EU. It should be borne in mind, however, that the total number of illegal shipments is considerably higher than the ones officially reported. For instance, after the reporting period (2007-2009), joint enforcement actions of IMPEL-tfs showed that over

20% of shipments containing waste in the EU did not comply with Regulation (EC) No 1013/2006<sup>12</sup>.

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 Regulation (EC) No 1013/2006. Typical response measures included the return of the waste to the country of origin and the setting of a fine.

Measures applied by Member States to detect illegal shipments included regular border controls and regular monitoring of facilities generating and/or treating waste, spot checks of cross-border shipments and of facilities generating and/or treating waste and spot checks on national roads. Most Member States also provided detailed data about the number of checks on shipments of waste or on the related recovery or disposal and about the number of illegal shipments actually detected during these checks. The number of controls and spot checks performed in the EU varies greatly among Member States. For 2009, best practices on spot-checks were demonstrated by Poland with approximately 40 spot-checks for every 1000 tonnes of hazardous waste shipped into or out of the country. For the majority of the Member States this benchmark is at least 10 times lower.

## **7. GENERAL CONCLUSIONS ON THE STATE OF IMPLEMENTATION**

### **Reporting**

For the period 2007-2009, the response rates for both the Basel and the Commission questionnaires were nearly 100%. However, most Member States did not supply their reports on time. Some Basel reports were received after the cut-off date of 15 July 2011 and therefore could not be taken into account in the analysis of quantitative data. Generally, Member States submitted sufficient information on waste shipments and on relevant administrative issues, national provisions and policies.

### **Data quality**

In a large number of cases, data reported by the country of dispatch differ from the data reported by the country of destination. In 2009, the difference between reported "export" and "import" of hazardous waste between EU Member States was about 27%, "exports" being higher than "imports". In the same year, the difference between reported "export" and "import" of other notified wastes between EU Member States was about 36%, but "imports" were higher than "exports".

### **Waste classification**

The lack of appropriate Basel codes for certain hazardous wastes often hinders transparent reporting. However, the situation has improved since countries are now able to use the codes of the European List of Waste (ELW)<sup>13</sup>. In order to harmonise the reporting, Member States are strongly encouraged to also include the codes of the ELW in their reports. Moreover, consistent use of the ELW codes would help achieve better reporting on non-hazardous wastes that are not covered by the categories Y46 and Y47 or any specific Basel codes, and

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<sup>12</sup> A detailed report is available on: <http://impel.eu/projects/enforcement-actions-ii>.

<sup>13</sup> Wastes listed in the Annex to Commission Decision 2000/532/EC (OJ L 226, 6.9.2000, p. 3).

the export of which is subject to the procedure of prior written notification and consent in accordance with Regulation (EC) No 1013/2006.

### **Waste generation**

In 2009, about 77 million tonnes of hazardous waste were generated in EU-27. From 2000 to 2008, the total quantity of hazardous waste generated by EU-27 countries increased by 46%. The quantities of hazardous waste generated in 2009 are slightly lower than those in 2008.

### **Waste shipments**

In the period 2007-2009, the total amount of all notified waste shipped out of EU Member States was about 33,1 million tonnes, of which about 22,9 million tonnes were hazardous waste. 99% of hazardous waste shipped out of Member States was destined for EU-27 and EFTA-countries and over 95% remained within EU-15.

In the period 2007-2009, the total amount of all notified waste shipped into EU Member States was about 37 million tonnes, of which about 20,5 million tonnes were hazardous waste. Over 96% of hazardous waste came from other Member States or from EFTA countries and over 80% from EU-15.

### **Illegal shipments**

For 2009, Member States reported about 400 cases of illegal shipments of waste while the total number of such shipments is believed to be considerably higher.. For 2009, about half of the illegal shipments reported were shipments between Member States while the other half involved shipments into or out of the EU. The number of controls and spot-checks performed in the EU varies greatly among Member States.

## **8. NEXT STEPS**

Between 25 January and 12 April 2011, the Commission carried out a public stakeholder consultation on ways to strengthen the inspections and enforcement of the Regulation<sup>14</sup>. A vast majority (89%) of stakeholders favoured new EU legislation strengthening inspection requirements. Some of the options proposed concerned inspection planning, up-stream inspections, training of officials and the duty for operators to produce evidence in certain cases where there are reasonable grounds to suspect circumvention of the Regulation. The Commission is currently conducting an assessment of the economic, social and environmental impacts of possible future legislative and non-legislative measures.

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<sup>14</sup> "Your Voice in Europe" website: [http://ec.europa.eu/yourvoice/consultations/index\\_en.htm](http://ec.europa.eu/yourvoice/consultations/index_en.htm), <http://ec.europa.eu/environment/waste/shipments/news.htm>.