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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE  
COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE  
COMMITTEE OF THE REGIONS**

**on the implementation of Directive 2006/21/EC on the management of waste from  
extractive industries and amending Directive 2004/35/EC**

## 1. INTRODUCTION

Waste originating from quarrying and mining industries makes up a very large proportion of the total volume of waste produced in the European Union (approximately 30 % in 2012, see table annexed to this report). The mismanagement of such waste can have detrimental effects on human health and the environment and can lead to serious accidents.

Directive 2006/21/EC on the management of waste from extractive industries<sup>1</sup> (hereinafter ‘the Directive’) aims to prevent or reduce as far as possible any adverse effects on the environment, in particular on water, air, soil, fauna and flora and the landscape, and any resultant risks to human health, brought about as a result of the management of waste from the extractive industries. The Directive covers the management of waste resulting directly from prospecting, extraction, treatment and storage of mineral resources and from quarrying.

During the two consecutive periods covered by this report (1 May 2008 to 30 April 2011 and 1 May 2011 to 30 April 2014), Member States were required to bring into force and implement the laws, regulations and administrative provisions necessary to comply with the Directive. The Directive was to be transposed by 1 May 2008. The Commission’s assessment of the transposition measures revealed many cases where the Directive had been either incorrectly or only partially transposed. The Commission opened twenty-two formal enquiries. There are currently four legal proceedings open relating to non-conformity.<sup>2</sup>

In accordance with Article 22 of the Directive, the Commission has adopted decisions providing guidance on or interpretation of some aspects of the Directive, or elaborating further technical aspects.<sup>3</sup> The development of technical guidelines for inspections is still to be completed.

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<sup>1</sup> OJ L 102, 11.4.2006, p. 15.

<sup>2</sup> Bulgaria, Denmark, France and the United Kingdom.

<sup>3</sup> Commission Decision 2009/358/EC of 29 April 2009 on the harmonisation, the regular transmission of the information and the questionnaire referred to in Articles 22(1)(a) and 18 of Directive 2006/21/EC of the European Parliament and of the Council on the management of waste from extractive industries (OJ L 110, 1.5.2009, p. 39).

Commission Decision 2009/335/EC of 20 April 2009 on the technical guidelines for the establishment of the financial guarantee in accordance with Directive 2006/21/EC of the European Parliament and of the Council concerning the management of waste from extractive industries (OJ L 101, 21.4.2009, p. 25).

Commission Decision 2009/337/EC of 20 April 2009 on the criteria for the classification of waste facilities in accordance with Annex III of Directive 2006/21/EC of the European Parliament and of the Council concerning the management of waste from extractive industries (OJ L 102, 22.4.2009, p. 7).

Commission Decision 2009/359/EC of 30 April 2009 on the definition of inert waste in implementation of Article 22(1)(f) of Directive 2006/21/EC of the European Parliament and the Council concerning the management of waste from extractive industries (OJ L 110, 1.5.2009, p. 46).

Commission Decision 2009/360/EC of 30 April 2009 completing the technical requirements for waste characterisation laid down by Directive 2006/21/EC of the European Parliament and of the Council on the management of waste from extractive industries (OJ L 110, 1.5.2009, p. 48).

Likewise, the Commission and the European Committee for Standardisation (CEN) have developed standardised sampling and analysing methods, in particular in reference to Article 22(2) of the Directive.<sup>4</sup>

The Commission adopted the summary of the *Reference Document on Best Available Techniques for the Management of Tailings and Waste-Rock in Mining Activities*<sup>5</sup> in 2008.<sup>6</sup>

## 2. REPORTING AND ASSESSMENT

Pursuant to Article 18(1), Member States are required to provide the Commission with a report on the implementation of the Directive every three years, drawn up on the basis of a questionnaire.<sup>7</sup> Article 18(1) also requires the Commission to publish a report on the implementation of the Directive on the basis of the reports submitted by Member States.

This report covers the two first reporting periods, from 1 May 2008 to 30 April 2011 and from 1 May 2011 to 30 April 2014.

Pursuant to Article 18(2), Member States are also required to submit, on an annual basis, information on any events reported by operators that are likely to affect the stability of waste facilities, and on any significant adverse environmental effects revealed by the control and monitoring procedures carried out at waste facilities. Pursuant to Article 7(5), the information contained in permits granted under the Directive is also to be made available to the competent national and EU statistical authorities where requested for statistical purposes.

The assessment of the information provided by the Member States for the first reporting period<sup>8</sup> highlighted the limitations of the current three-year reporting system, which focuses on the Member States' adoption of measures enabling the implementation of the provisions set out in the Directive. The information provided in the Member States' reports did not allow the Commission to assess the implementation in practice of these measures.

In addition to the national reports, and in order to get a fuller picture, additional sources of information were therefore consulted. These included in particular the information available to the Commission on measures to be taken following accidents or near-accidents, and information from other generic sources, such as research projects and national agencies' websites.

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<sup>4</sup> Characterisation of waste — Sampling and analysis of weak acid dissociable cyanide discharged into tailings ponds; European Technical Specification CEN/TS 16229:2011, 29.6.2011.

Characterisation of waste — Static test for determination of acid potential and neutralisation potential of sulfidic waste; European Standard EN 15875:2011, 26.10.2011.

Characterization of waste – Overall guidance document for the characterization of waste from extractive industries, CEN/TR 16376:2012, 24.6.2012.

<sup>5</sup> [http://eippcb.jrc.ec.europa.eu/reference/BREF/mmr\\_adopted\\_0109.pdf](http://eippcb.jrc.ec.europa.eu/reference/BREF/mmr_adopted_0109.pdf).

<sup>6</sup> Commission Decision adopting the executive summary of the Best Available Technique reference document for the purpose of Directive 2006/21/EC of the European Parliament and of the Council on the management of waste from the extractive industries and amending Directive 2004/35/EC.

<sup>7</sup> Commission Decision 2009/358/EC (OJ L 110, 1.5.2009, p. 39).

<sup>8</sup> See:

<http://ec.europa.eu/environment/waste/studies/mining/Study%20Implementation%20report%20Extractive%20Waste%20Directive.pdf>.

The Commission engaged the services of independent consultants to support it in reviewing the available information.<sup>9</sup>

The reports received from Member States for the two reporting periods have been assessed, first, for completeness and, second, to ascertain whether the measures described in the reports constitute a comprehensive set of measures, without prejudging the conformity of these measures with the Directive or their actual implementation.

### **3. REPORTING ON THE IMPLEMENTATION OF THE DIRECTIVE IN MEMBER STATES**

#### **3.1. Category A facilities: key provisions**

In view of the fact that only a fraction of the extractive waste generated in the EU poses a risk to the environment or to human health, the Directive provides for a system of differentiated obligations for the management of this waste and for the authorisation procedures for facilities.

The Directive applies more stringent obligations to facilities where there is a higher risk of there being an impact on the environment and human health in the event of an accident. These are known as Category A facilities. Eleven Member States reported having no Category A facilities within their national boundaries.<sup>10</sup>

The assessment focused in particular on provisions that apply to this category. The level of implementation of these provisions is considered a suitable indicator for assessing the implementation of the Directive as a whole. These included, notably: measures relating to waste management plans and major-accident prevention and information, practical arrangements taken to ensure the transmission of information, the procedure for identifying Category A facilities (including any with transboundary effects), preparation of external emergency management plans and inspections.

The overall conclusion is that general measures to implement the Directive have been adopted in most Member States. In particular, these consist in waste management plans, major-accident prevention and information, and practical measures to ensure the transmission of information. Moreover, comparing the two reporting periods, there has been an overall improvement with regard to the measures taken relating to these provisions.

In contrast, the assessment also highlights the need to improve the practical application of certain provisions. Thus, for example, some Member States need to finish identifying Category A facilities, applying the criteria set out in Decision 2009/337/EC. The significant level of variation seen in the number of Category A facilities designated by Member States, and the discrepancies between the number of facilities reported and the volumes of extractive hazardous waste generated<sup>11</sup> suggest that this process has not yet been completed (see table annexed to this report).

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<sup>9</sup> [http://ec.europa.eu/environment/waste/studies/mining/waste\\_extractive\\_industries.pdf](http://ec.europa.eu/environment/waste/studies/mining/waste_extractive_industries.pdf)

<sup>10</sup> Austria, Belgium, the Czech Republic, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Malta, the Netherlands and Poland.

<sup>11</sup> The hazardousness of the waste managed in a facility is one criterion for classifying it as Category A (see table at the end of this report).

A further area that appears in need to be addressed as a matter of priority in several Member States is the issuing of permits for all Category A facilities. The development of external emergency plans for all Category A facilities is also yet to be completed: according to information reported by Member States, around 25 % of these facilities appear not to have plans in place.

The information provided by Member States suggests that the provisions relating to inspections may not be understood and implemented in the same way by all Member States. Moreover, the number of inspections reported by Member States varies considerably. As the information provided by the Member States reflects different practices, comparing them is of limited value.

### **3.2. Other provisions**

Some of the figures provided by Member States for the number of facilities identified as being subject to the Directive do not seem plausible (see table annexed to this report). The figures provided vary significantly between Member States and are relatively low when compared with information on the generation of extractive waste at national level available from other sources. Article 2 lays down the scope of the Directive, limiting the possibilities for exclusion. The number of installations reported by Member States in their national reports suggests, however, that this provision is not being understood and applied by all Member States in the same way.

- Six Member States<sup>12</sup> report, for example, that there are no facilities in their territory to which the Directive applies.. Other sources of information, however, suggest that some of these countries do host extractive activities that generate waste, including in some cases hazardous waste.
- Likewise, the very low number of facilities dealing with inert waste reported by some Member States contrasts with the figures provided by others (France, for example, reported having 4100 and Hungary claims to have 604, but other countries provide a much lower figure).

The permits issued under this Directive can be combined with those required by other EU legislation (e.g. Directive 2012/18/EU of the European Parliament and of the Council<sup>13</sup> (the Seveso Directive)) to avoid the unnecessary duplication of information and the repetition of work. Only a small number of facilities covered by this Directive have apparently been reported as extractive waste facilities.

Article 17(1) lays down obligations regarding inspections. Member States are required to ensure that waste facilities covered by a permit granted under this Directive are inspected prior to commencement of deposit operations and at regular intervals thereafter, including in the after-closure phase, to ensure compliance with the relevant permit conditions. The Directive does not explicitly define the concept of inspection nor set out in detail how an inspection should be carried out. Article 22, however, requires the Commission to develop and adopt technical guidelines for inspections.

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<sup>12</sup> Denmark, Latvia, Lithuania, Luxembourg, Malta and the Netherlands.

<sup>13</sup> Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (OJ L 197, 24.7.2012, p. 1).

The large variation found in relation to the measures adopted on inspections – in particular, the arrangements for inspections, their nature, the authorities responsible, and their frequency – and the number of inspections carried out during the second reporting period, suggests that Member States might not always have interpreted the provisions on inspections set out in the Directive in the same way.

Only seven countries<sup>14</sup> report there having been cases of non-compliance at national level<sup>15</sup> during the second reporting period. Failure to comply with the conditions set in the permits and facilities operating without permits were among the main types of non-compliance reported.

The Directive allows the provisions to be adapted or waived for certain facilities, according to the nature of the waste. National lists of inert wastes, consistent with Commission Decision 2009/359/EC, would allow a differentiation to be made for these types of waste. Only eight Member States have taken advantage of this option.<sup>16</sup>

The conclusions to be drawn in respect of the implementation of the other provisions (those applicable to all facilities) set out in the Directive are therefore the same as those reached in relation to Category A facilities: while most Member States have put a general framework in place, there are still a number of issues to be addressed.

Differences between Member States show that further effort is needed to ensure that all Member States understand and apply the basic concepts of the Directive in a similar way, in order to guarantee the effectiveness of the provisions across the EU.

#### **4. REPORTING RELATED TO SAFETY**

According to the information obtained by the Commission, there were a total of five accidents, in two countries, during the two periods covered by this report.

No formal notification of these accidents, as required under Article 18(2) of the Directive, was submitted to the Commission, however. The information was obtained from other sources.

Member States were also asked to confirm the absence of accidents during the two reporting periods. Most Member States have confirmed that no accidents took place. More detailed information would be needed in order to assess whether the objectives set out in the Directive on the reduction of the risk of accidents have been fulfilled.

#### **5. OVERALL ISSUES ON REPORTING AND PROVISION OF INFORMATION**

The quality of the information submitted by Member States is variable. All Member States have submitted national reports, as required by Article 18. Many of them have provided very detailed, complete and updated information, and the level of completeness is at least acceptable for all Member States.

The disparity in the information provided by Member States, and the possibility of there having been misinterpretation of some provisions creates uncertainty as to the comparability

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<sup>14</sup> Bulgaria, Estonia, Finland, Greece, Poland, Romania and the United Kingdom.

<sup>15</sup> A total of 54 registered cases, but not all Member States concerned report the number of cases.

<sup>16</sup> Czech Republic, Finland, France, Lithuania, Portugal, Slovakia, Spain and United Kingdom.

of the information provided, and makes it very difficult to assess the performance of Member States in implementing the Directive.

Overall, the Commission's experience in preparing this report confirmed that the information provided by Member States under Article 18 is not alone enough to give a clear, sufficiently detailed and reliable picture of the implementation of the Directive in practice. The reporting requirements set out in this Article focus on the adoption of measures, whilst not making any explicit reference to information on the implementation in practice of these measures.

Even using other sources, the Commission could only obtain limited information to supplement or corroborate the information submitted by Member States, in particular in relation to legal and administrative aspects (including accidents). The information available focuses on technical and scientific issues but there is, for example, no public directory of extractive waste facilities.

## **6. CONCLUSIONS AND NEXT STEPS**

Based on the Commission's assessment, it can be concluded that the majority of Member States have adopted the measures needed to implement the provisions set out in the Directive. The assessment also revealed, however, that a number of issues still need to be addressed, in order to ensure that the implementation of the Directive delivers the desired level of protection.

The Member States' reports suggest that several important provisions, such as those on the identification of waste facilities or the granting of permits and inspections, are not being understood and implemented by Member States in the same way. In order to make implementation of the Directive more consistent, the Commission is planning to:

- issue general guidance on the implementation of the provisions set out in the Directive; and
- develop guidelines for inspections pursuant to Article 22(1)(c).

The Commission will also consider ways of improving Member States' reporting on implementation, including on accidents, disseminating the results of its assessment of the information provided by Member States more widely, and promoting the exchange of information on extractive activities, including best practices.

For instance, use can be made of a different procedure for collecting information, in accordance with Article 7(5). Collecting further information relating to implementation in practice of the Directive will support the Commission's work aiming to:

- support the implementation of and compliance with the Directive, in particular by more effectively identifying gaps in the actual implementation of the Directive and designing possible measures to address them;
- identify best practices on the implementation of the Directive; and
- explore new ways to manage reporting and simplify processes, and to envisage, if necessary, amending provisions in Commission Decision 2009/358/EC on

the transmission of information, in line with the objectives of the Fitness Check on Environmental Monitoring and Reporting.<sup>17</sup>

To implement its commitment taken in the EU action plan for the Circular Economy, the Commission is working on the preparation of guidance and promotion of best practices in the mining waste management plans.<sup>18</sup>

The Commission will also continue to gather information allowing future updates on relevant aspects of the directive to ensure protection of human health and the environment, with particular emphasis on aspects such as hazardous waste management, safety of dams and ponds and pollution prevention.

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<sup>17</sup> SWD(2016) 188 final, Commission Staff Working Document 'Towards a Fitness Check of EU environmental monitoring and reporting: to ensure effective monitoring, more transparency and focused reporting of EU environment policy.'

<sup>18</sup> COM(2015) 614 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Closing the loop - An EU action plan for the Circular Economy.'



Member State data

	Total waste 2012 <sup>i</sup>	Total waste from quarrying and mining activities 2012 <sup>ii</sup>	Mineral and solidified wastes from quarrying and mining activities <sup>iii</sup>	Hazardous mineral and solidified wastes from quarrying and mining activities <sup>iv</sup>	% of hazardous waste over total mineral and solidified wastes from quarrying and mining activities	Reported facilities in operation <sup>v</sup>	Category A facilities in operation <sup>vi</sup>	Completeness (reporting) <sup>vii</sup>	Number of inspections (total) <sup>viii</sup>	Number of inspections (Cat A) <sup>ix</sup>
European Union (28)	2.514.220.000	733.980.000	731.950.000	13.460.000	1.84					
Belgium	67.630.317	115.137	30.245	9	0.03	3	0	◇	np <sup>x</sup>	
Bulgaria	161.252.166	141.082.596	141.061.523	13.266.720	9.40	np	2	◇	np	np
Czech Republic	23.171.358	167.422	88.585	1.359	1.53	7	0	◇	0	
Denmark	16.332.249	18.005	5.704	45	0.79	0	0	✓	0	
Germany	368.022.172	8.625.187	8.488.645	7.705	0.09	27	2	✓	1073	46
Estonia	21.992.343	9.354.964	9.346.454	5	0.00	4	0	✓	53	
Ireland	13.421.334	2.024.984	1.984.284	508	0.03	22	2	◇	154	49
Greece	72.328.280	47.831.627	47.822.445	90	0.00	2343	1	◇	np	np
Spain	118.561.669	22.509.144	22.495.556	368	0.00	1558	25	◇	np	np
France	344.731.922	2.477.408	2.196.522	1.644	0.07	4152	1	✓	3401	1
Croatia	3.378.638	5.034	2.729	257	9.42	np	np	✓	np	np
Italy	162.764.632	719.666	345.842	1.990	0.58	213	126	◇	349	np
Cyprus	2.086.469	217.888	217.311	0	0.00	13	1	◇	13	1
Latvia	2.309.581	1.968	1.478	0	0.00	0	0	✓		
Lithuania	5.678.751	25.911	7.171	25	0.35	0	0	✓		
Luxembourg	8.397.228	131.314	121.034	0	0.00	0	0	✓		
Hungary	16.310.151	91.218	81.827	30.852	37.70	862	6	✓	932	115
Malta	1.452.496	45.103	45.103	0	0.00	0	0	✓		

	Total waste 2012 <sup>i</sup>	Total waste from quarrying and mining activities 2012 <sup>ii</sup>	Mineral and solidified wastes from quarrying and mining activities <sup>iii</sup>	Hazardous mineral and solidified wastes from quarrying and mining activities <sup>iv</sup>	% of hazardous waste over total mineral and solidified wastes from quarrying and mining activities	Reported facilities in operation <sup>v</sup>	Category A facilities in operation <sup>vi</sup>	Completeness (reporting) <sup>vii</sup>	Number of inspections (total) <sup>viii</sup>	Number of inspections (Cat A) <sup>ix</sup>
Netherlands	123.612.767	179.164	139.670	3.280	2.35	0	0	✓		
Austria	34.047.465	51.339	34.687	7.830	22.57	33	0	✓	60	
Poland	163.377.949	68.035.432	67.599.891	1.301	0.00	99	0	✓	116	
Portugal	14.184.456	242.598	227.253	5	0.00	8	3	◊	18	28
Romania	266.975.602	223.292.741	223.173.154	125.458	0.06	74	2	✓	743	
Slovenia	4.546.506	14.448	10.936	0	0.00	np	np	✓	0	0
Slovakia	8.425.384	310.580	299.913	203	0.07	119	3	✓	102	15
Finland	91.824.193	52.880.000	52.880.000	0	0.00	90	9	✓	166	41
Sweden	156.306.504	129.480.919	129.455.408	162	0.00	22	15	◊	75	
United Kingdom	241.100.639	24.043.977	23.787.471	8.233	0.03	601	4	✓	43	4

<sup>i</sup> Taken from env\_wasgen, EUROSTAT: waste generated by all NACE activities and households.

<sup>ii</sup> Taken from env\_wasgen, EUROSTAT: waste generated by quarrying and mining activities.

<sup>iii</sup> Taken from env\_wasgen, EUROSTAT: mineral and solidified wastes generated by quarrying and mining activities.

<sup>iv</sup> Taken from env\_wasgen, EUROSTAT: hazardous mineral and solidified wastes generated by quarrying and mining activities.

<sup>v</sup> Data for the second period, as reported by Member States.

<sup>vi</sup> Data for the second period, as reported by Member States.

<sup>vii</sup> ✓: complete information available; ◊: information provided, but seemingly incomplete or unclear.

<sup>viii</sup> Data for the second period, as reported by Member States.

<sup>ix</sup> Data for the second period, as reported by Member States.

<sup>x</sup> np: not provided.