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## **MANDATE TO CEN FOR THE DEVELOPMENT OF STANDARDISED METHODS RELATING TO THE CHARACTERISATION OF WASTES FROM THE EXTRACTIVE INDUSTRIES**

### **I. MOTIVATION**

Directive 2006/21/EC<sup>1</sup> lays down requirements for the safe management of waste from extractive industries ('extractive waste'). The Directive was formally adopted by the EP and Council on 15/3/2006 and entered into force on 1/5/2006.

Article 22 of the Directive sets out the implementing measures that will have to be adopted by the Commission within 2 years from the date of entry into force, i.e. by 1/5/2008, in accordance with the procedure referred to in Article 23(2), i.e. with the assistance of the Committee established by Article 18 of directive 75/442/EEC. These measures include (see details in Annex 2):

- *completion of the technical requirements for waste characterisation contained in Annex II;*
- *determination of any harmonised standards for sampling and analysis methods needed for the technical implementation of this Directive*
- *the implementation of Article 13(5), including technical requirements relating to the definition of weak acid dissociable cyanide and its measurement method;*

A mandate to CEN is needed to specify the standardisation needs related to the implementing measures set out above. This will allow CEN to concentrate their work along these requirements and thus speed up the completion of the required standardised methods.

### **II. DESCRIPTION OF THE MANDATED WORK**

This mandate covers waste from mineral extraction and processing, in accordance with Article 2 of Directive 2006/21/EC.

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<sup>1</sup> Directive 2006/21/EC on the management of waste from extractive industries and amending directive 2004/35/EC, OJ L102, 11.4.2006

The methods and standards to be developed should fit the needs across the entire range of extractive industries, as defined in Directive 2006/21/EC.

The guidelines and standards to be developed should incorporate, as far as possible and appropriate, existing and practicable standards and methods, applying within the EU and internationally.

Methodological approaches contained in the 'mining BREF' (Best Available Techniques Reference Document for the management of tailings and waste rock) shall be taken into account.

Furthermore, other relevant related work carried out in the context of the European Waste Catalogue<sup>2</sup>, the Hazardous Waste directive<sup>3</sup>, as well as the Landfill directive<sup>4</sup> shall also be taken into account.

The mandated tasks require in particular evaluating standardisation work relevant to the characterisation of extractive waste and developing deliverables as set out in Annex 1. The work shall focus on sampling, testing and analysis, with emphasis on acid generation behaviour; it shall also include methods and standards applicable to measurement of WAD cyanide.

As a general rule, the work will comprise an evaluation of any existing standards in the respective areas, assessment of their applicability for extractive waste, and identification of needs for modifications so that they can serve the requirements of the Directive. Modifications can be extensive (leading to the development of a new standard) or limited (leading to the amendment of an existing standard at its revision). The work will involve, as appropriate, desk surveys, preparation of draft texts, validation and publication.

The following CEN standards are in particular relevant:

- EN 12920 "Characterisation of waste – Methodology for the determination of leaching behaviour of waste under specified conditions.
- EN 14899 "Characterisation of waste – Sampling of waste materials – Framework for preparation of a sampling plan"

The Commission entrusts CEN to develop standards as described in Annex 1.

### **III. BODIES TO BE ASSOCIATED**

The elaboration of the standards should be undertaken in co-operation with the broadest possible range of interested groups. Co-operation with organisations such as ANEC<sup>5</sup>, ECOS<sup>6</sup>, NORMAPME<sup>7</sup> and ETUI-REHS<sup>8</sup> should be ensured where relevant.

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<sup>2</sup> Commission Decision 2000/535/EC as amended.

<sup>3</sup> Directive 91/689/EEC.

<sup>4</sup> Directive 1999/31/EC and Council Decision 2003/33/EC

<sup>5</sup> European Association for the Co-ordination of Consumer Representation in Standardisation

<sup>6</sup> European Environmental Citizens Organisations for Standardisation

<sup>7</sup> European Office of Crafts, Trades and Small and Medium- Sized Enterprises for Standardisation

The standardisation work should take into account initiatives at international level where appropriate.

#### **IV. EXECUTION OF THE MANDATE**

The standards shall be developed in accordance with the requirements and timetable as stated in Annex 1. In carrying out those tasks CEN shall ensure effective liaison, exchange of information and collaboration with activities undertaken under Article 23(2) of Directive 2006/21/EC related to implementing measures on characterisation of waste and on inert waste.

CEN will submit progress reports to the Commission every nine months following acceptance of the mandate.

After publication, CEN shall make available to the Commission the standards in three linguistic versions (English, French and German) and other deliverables in the published language.

Standards to be developed under this mandate shall be published in the Official Journal of the European Communities.

The standstill period referred to in Article 7 of Directive 98/34/EC (OJ L 217, 5.8.1998, p. 18) shall commence when CEN accepts this standardisation mandate.

In the light of activities undertaken according to Art. 23 of Directive 2006/21/EC the Commission may issue a further mandate to CEN for standardisation work.

Tasks covered by the mandate

Topic	Output	Delivery date	Description/Remarks
1. Guidance for on characterisation of extractive waste	Technical report	Task a) Desk study and Draft rep 1/07 Final rep 12/07  Task b) Desk study 6/07 Draft rep 10/07 Final rep 6/08	a) Evaluation of suitability of existing CEN standards (including EN12920). - Include physical/ geotechnical parameters (e.g. permeability, shear strength, ...). - Cover content (total and sulphidic sulphur, cyanides, major, minor and trace elements ), basic characterization and compliance testing, analysis of eluates and leachates. b) Recommendation on general methodology, covering both physical/geotechnical and chemical/geochemical aspects. Information contained in the output (technical report) will be used for further relevant work on waste characterisation to be undertaken according to the provisions of Art. 23 of Directive 2006/21/EC.
2. Sampling	a) Revised EN 14899	Draft 1/07 prEN 6/07 EN 6/08	Identification of sampling needs for extractive waste (including pre-treatment of samples). Evaluation of applicability of EN14899 and development needs (e.g. sampling plan(s) specific to extractive wastes). Standards being developed under project <i>Horizontal</i> to be taken into account.
	b) Technical reports specific to sampling of extractive waste	Draft 6/07 prTR 12/07 Final 6/08	

3. Acid generation behaviour - Static and kinetic testing	a) EN on <i>static test</i>	prEN 9/07 Formal vote 12/08	One test or a set of tests for determination of net acid production potential in sulphidic waste
	b) Technical specification on <i>kinetic test</i>	prTS 6/07 Formal vote 6/08	Planning, execution and interpretation of tests in sulphidic waste. Kinetic testing for determination of reaction rates. References to existing international and European guidelines and standards.  To be linked with the overall guidance report under 1b.
4. Methods for measuring WAD (easily liberatable) cyanide	Technical report – revised EN or new EN	Technical report 1/07 prEN 6/07 Formal vote 6/08	Evaluation of suitability of existing standards and methods developed in the EU and internationally for determination of cyanide in water, eluates and soil.

**Provisions of the Directive on the management of waste from extractive industries related to waste characterisation**

Art. 22 – Implementing measures

1. *By [2 years after entry into force], the Commission shall adopt, in accordance with the procedure referred to in Article 23(2), the provisions necessary for the following, prioritising (e), (f) and (g):*
  - (a) *the harmonisation and regular transmission of the information referred to in Articles 7(5) and 12(6);*
  - (b) *the implementation of Article 13(5), including technical requirements relating to the definition of weak acid dissociable cyanide and its measurement method;***
  - (c) *technical guidelines for the establishment of the financial guarantee in accordance with the requirements of Article 14(2);*
  - (d) *technical guidelines for inspections in accordance with Article 17;*
  - (e) *completion of the technical requirements for waste characterisation contained in Annex II;***
  - (f) *interpretation of the definition contained in point 3 of Article 3;*
  - (g) *definition of the criteria for the classification of waste facilities in accordance with Annex III;*
  - (h) *determination of any harmonised standards for sampling and analysis methods needed for the technical implementation of this Directive***

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Annex II - Waste characterisation

*The waste to be deposited in a facility shall be characterised in such a way as to guarantee the long-term physical and chemical stability of the structure of the facility and to prevent major accidents. The waste characterisation shall include, where appropriate and in accordance with the category of the waste facility, the following aspects:*

- (1) *description of expected physical and chemical characteristics of the waste to be deposited in the short and the long term, with particular reference to its stability under surface atmospheric/meteorological conditions, taking account of the type of mineral or minerals to be extracted and the nature of any overburden*

*and/or gangue minerals that will be displaced in the course of the extractive operations;*

- (2) *classification of the waste according to the relevant entry in Decision 2000/532/EC<sup>9</sup>, with particular regard to its hazardous characteristics;*
- (3) *description of the chemical substances to be used during treatment of the mineral resource and their stability;*
- (4) *description of the method of deposition;*
- (5) *waste transport system to be employed.*

Art. 13 – Prevention of water status deterioration, air and soil pollution

6. In the case of a pond involving the presence of cyanide, the operator shall ensure that the concentration of weak acid dissociable cyanide in the pond is reduced to the lowest possible level using best available techniques and, in any case, at waste facilities which have previously been granted a permit or have already been in operation on .....<sup>\*</sup> that the concentration of weak acid dissociable cyanide at the point of discharge of the tailings from the processing plant into the pond does not exceed 50 ppm as from .....<sup>\*</sup>, 25 ppm as from .....<sup>\*\*</sup>, 10 ppm as from .....<sup>\*\*\*</sup> and 10 ppm at waste facilities which are granted a permit after .....<sup>\*</sup>.

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<sup>9</sup> Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (OJ L 226, 6.9.2000, p. 3). Decision as last amended by Council Decision 2001/573/EC (OJ L 203, 28.7.2001, p. 18).

<sup>\*</sup> Two years after the date of entry into force of this Directive.

<sup>\*\*</sup> Seven years after the date of entry into force of this Directive.

<sup>\*\*\*</sup> Twelve years after the date of entry into force of this Directive.