



EUROPEAN COMMISSION

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Proposal for a

COUNCIL DIRECTIVE

**amending Council Directive 1999/31/EC as regards specific criteria for the storage of
metallic mercury considered as waste**

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

Article 2 of Regulation (EC) No 1102/2008¹ stipulates that metallic mercury from four major sources shall be considered as waste and be disposed of in a way that is safe for human health and the environment. According to Article 3, metallic (liquid) mercury may be stored, by way of derogation from Article 5(3)a of Directive 1999/31/EC², temporarily or permanently in adapted salt mines or deep hard-rock formations, or temporarily in dedicated above-ground facilities. Article 4 (3) stipulates that requirements for such storage facilities and acceptance criteria shall be adopted in accordance with the comitology procedure referred to in Article 16 of Directive 1999/31/EC and take the form of amendments of Annexes I, II and III of that Directive.

The storage obligation (as well as the export ban according to Article 1 of the Regulation) entered into effect on 15 March 2011.

In order to prepare an appropriate proposal for storage criteria, the Commission (DG Environment) asked for a study on "Requirements for facilities and acceptance criteria for the disposal of metallic mercury" performed by BiPRO GmbH. The final report was made available in April 2010³.

2. RESULTS OF CONSULTATIONS WITH THE INTERESTED PARTIES

Based on the findings of this study but also on other sources, the Commission developed a first preliminary draft of criteria, in form of a working document, and submitted it in June 2010 to Member States experts for comments until 3 September 2010.

During this consultation it became evident that, insofar as permanent storage was concerned, additional assessments of the long-term behaviour of metallic mercury in underground storage are needed for the determination of sound and knowledge-based requirements for permanent storage.

The Commission did however continue to prepare, in close co-operation with Member States experts, criteria for temporary storage of metallic mercury. The issue of criteria for permanent storage will be revisited as soon as the knowledge base has improved, taking into account information from Member States that may develop capacities and are currently running national assessments of environmental safety.

On the basis of the comments received from the first round of consultation, a revised working document was discussed in an informal meeting with waste and mercury experts on 6 October 2010.

¹ Regulation (EC) No 1102/2008 of the European Parliament and of the Council of 22 October 2008 on the banning of exports of metallic mercury and certain mercury compounds and mixtures and the safe storage of metallic mercury (Text with EEA relevance) *OJ L 304, 14.11.2008, p. 75*

² Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, *OJ L 182, 16.7.1999, p.1*

³ The study can be consulted on the webpage <http://ec.europa.eu/environment/chemicals/mercury/>

With additional remarks and amendments taken on board, the paper was submitted for a debate (without voting) to the Committee for the adaptation to scientific and technical progress established under Directive 1999/31/EC on the landfill of waste on 10 December 2010. Taking into account the scrutiny reservation of one Member State and the remarks from two others to be accommodated in an amended version, the document was acceptable to all those present.

The Commission transferred the content of this working paper with the above mentioned amendments into a legislative document, a draft Commission Directive amending Council Directive 1999/31/EC as regards specific criteria for the storage of metallic mercury considered as waste. This draft Directive was submitted to the (re-named) Committee for the "Adaptation to scientific and technical progress and implementation of the Directives on waste established under Article 39 of Directive 2008/98/EC" on 11 February 2011 for voting under written procedure. The draft contained a reference to correlation tables to be drawn up by Member States. Given that the basic act (the Landfill Directive) does not contain such a reference, it was not deemed as appropriate to include it in the amending act. Therefore a revised version of the draft was subject of a re-launch of the written procedure on 7 March 2011.

By the end of the 30-day period for voting (5 April 2011), no qualified majority was obtained (241 votes in favour, 75 votes against, 29 abstentions).

In accordance with Article 5a paragraph 4 of Council Decision 1999/468/EC laying down the procedures for the exercise of implementing powers conferred on the Commission, a proposal relating to the measures to be taken shall therefore be submitted to the Council.

3. LEGAL ELEMENTS OF THE PROPOSAL

According to the proposal, a section concerning specific requirements for the storage of metallic mercury will be added to each of the Annexes I, II and III to the Landfill Directive. The structure of the Directive and its annexes remain unchanged.

Proposal for a

COUNCIL DIRECTIVE

amending Council Directive 1999/31/EC as regards specific criteria for the storage of metallic mercury considered as waste

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 191 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national Parliaments,

Acting in accordance with a special legislative procedure,

Whereas:

- (1) Regulation (EC) No 1102/2008 stipulates that, by way of derogation from Article 5(3)(a) of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste⁴, metallic mercury that is considered as waste may, in appropriate containment, be temporarily stored for more than one year or permanently stored in certain types of landfills.
- (2) Storage of metallic mercury that is considered as waste is already regulated by Union legislation on waste management.
- (3) The storage of metallic mercury that is considered as waste for up to one year is subject to the permit requirements according to Article 23 of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives⁵.
- (4) The provisions of Directive 1999/31/EC as well as the provisions of Council Decision 2003/33/EC of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC⁶ apply to facilities for the storage of metallic mercury for more than one year according to Article 3(1) of Regulation (EC) No 1102/2008.
- (5) This implies, in particular, that all facilities for the storage of metallic mercury for more than one year need a permit according to Articles 7, 8 and 9 of Directive

⁴ OJ L 182, 16.7.1999, p. 1.

⁵ OJ L 312, 22.11.2008, p. 3.

⁶ OJ L 11, 16.1.2003, p. 27.

1999/31/EC and that such facilities are subject to the control and monitoring requirements laid down in Article 12 of that Directive, as well as, in the case of underground storage, to the safety assessment requirements according to Appendix A of Decision 2003/33/EC.

- (6) In addition, such facilities are subject to the general provisions on record keeping as laid down in Directive 2008/98/EC.
- (7) In addition, the provisions of Council Directive 96/82/EC of 9 December 1996 on the control of major-accident hazards involving dangerous substances⁷ apply to facilities for the temporary above-ground storage according to Article 3(2) of Regulation (EC) No 1102/2008.
- (8) However, those provisions do not fully address the specific characteristics of metallic mercury, and additional requirements are therefore needed.
- (9) Those additional requirements should take into account research activities on safe disposal options, including solidification of metallic mercury. There is progress in the development of environmentally sound solidification options but it is premature to decide on the large scale viability of such options.
- (10) Additional assessments of the long-term behaviour of metallic mercury in underground storage are needed for the determination of sound and knowledge-based requirements for permanent storage. The requirements laid down in this Directive should therefore be limited to temporary storage and are considered as appropriate and representing the best available techniques for the safe storage of metallic mercury for a time span of up to five years.
- (11) Directive 1999/31/EC should therefore be amended accordingly.

HAS ADOPTED THIS DIRECTIVE:

Article 1

Annexes I, II and III to Directive 1999/31/EC are amended as set out in the Annex to this Directive

Article 2

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 15 March 2012 at the latest. They shall forthwith communicate to the Commission the text of those provisions.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

⁷ OJ L 10, 14.1.1997, p. 13.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

Article 3

This Directive shall enter into force on the third day following that of its publication in the *Official Journal of the European Union*.

Article 4

This Directive is addressed to the Member States.

Done at Brussels,

*For the Council
The President*

ANNEX

Annexes I, II and III to Directive 1999/31/EC are amended as follows:

(1) The following section is added to Annex I:

'8. Temporary storage of metallic mercury

For the purposes of temporary storage for more than one year of metallic mercury, the following requirements shall apply:

- Metallic mercury shall be stored separately from other waste;
- Containers shall be stored in collecting basins suitably coated so as to be free of cracks and gaps and impervious to metallic mercury with a containment volume adequate for the quantity of mercury stored;
- The storage site shall be provided with engineered or natural barriers that are adequate to protect the environment against mercury emissions and a containment volume adequate for the total quantity of mercury stored;
- The storage site floors shall be covered with mercury-resistant sealants. A slope with a collection sump shall be provided;
- The storage site shall be equipped with a fire protection system;
- Storage shall be arranged in a way to ensure that all containers are easily retrievable.'

(2) The following section is added to Annex II:

'6. Specific requirements for metallic mercury

For the purposes of temporary storage for more than one year of metallic mercury, the following requirements shall apply:

A. Composition of the mercury

Metallic mercury shall comply with the following specifications:

- mercury content greater than 99,9 % per weight;
- no impurities capable of corroding carbon or stainless steel (e.g. nitric acid solution, chloride salts solutions).

B. Containment

Containers used for the storage of metallic mercury shall be corrosion- and shock-resistant. Welds shall therefore be avoided. The containers shall comply in particular with the following specifications:

- container material: carbon steel (ASTM A36 minimum) or stainless steel (AISI 304, 316L);

- containers shall be gas and liquid tight;
- the outer side of the container shall be resistant against the storage conditions;
- the design type of the container shall successfully pass the drop test and the leakproofness tests as described in Chapters 6.1.5.3 and 6.1.5.4 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria.

The maximum filling ratio of the container shall be 80 % by volume to ensure that sufficient ullage is available and neither leakage nor permanent distortion of the container can occur as a result of an expansion of the liquid due to high temperature.

C. *Acceptance procedures*

Only containers with a certificate complying with the requirements set out in this section shall be accepted.

Acceptance procedures shall comply with the following:

- only metallic mercury which fulfils the minimum acceptance criteria set out above shall be accepted;
- containers shall be visually inspected before storage. Damaged, leaking or corroded containers shall not be accepted;
- containers shall bear a durable stamp (made by punching) mentioning the identification number of the container, the construction material, its empty weight, the reference of the manufacturer and the date of construction;
- containers shall bear a plate permanently fixed to the container mentioning the identification number of the certificate.

D. *Certificate*

The certificate indicated in subsection C shall include the following elements:

- name and address of the waste producer;
- name and address of the responsible for the filling;
- place and date of filling;
- quantity of the mercury;
- the purity of the mercury and, if relevant, description of the impurities, including the analytical report;
- confirmation that the containers have been exclusively used for the transport/storage of mercury;
- the identification numbers of the containers;

- any specific comments.

Certificates shall be issued by the producer of the waste or, in default, by the person responsible for its management.'

- (3) The following section is added to Annex III:

'6. Specific requirements for metallic mercury

For the purposes of temporary storage for more than one year of metallic mercury, the following requirements shall apply:

A. Monitoring, inspection and emergency requirements

A continuous mercury vapour monitoring system with a sensitivity of at least 0,02 mg mercury/m³ shall be installed in the storage site. Sensors shall be positioned at ground level and head level. This shall include a visual and acoustic alert system. The system shall be maintained annually.

The storage site and containers shall be visually inspected by an authorized person at least once a month. Where leaks are detected, the operator shall immediately take all necessary action to avoid any emission of mercury to the environment and restore the safety of the storage of the mercury. Any leaks shall be considered to have significant adverse environmental effects as referred to in Article 12(b).

Emergency plans and adequate protective equipment suitable for handling metallic mercury shall be available on site.

B. Record keeping

All documents containing the information referred to in Section 6 of Annex II and in point A of this Section, including the certificate accompanying the container, as well as records concerning the destocking and dispatch of the metallic mercury after its temporary storage and the destination and intended treatment shall be kept for at least 3 years after the termination of the storage.'