

Briefing note on the work under the Basel Convention as it relates to minerals and metals management

1. With the present briefing note, the Secretariat of the Basel, Rotterdam and Stockholm Conventions wishes to contribute to the negotiations of a draft resolution on *Environmental aspects of minerals and metals* for possible adoption by the sixth session of the United Nations Environment Assembly, by providing an overview on its work as it relates to those issues.

I. Basel Convention

2. The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous wastes and “other wastes”. Its scope of application covers a wide range of wastes defined as “hazardous wastes” based on their origin and/or composition and their characteristics, as well as four types of wastes defined as other wastes requiring special consideration, namely household waste, incinerator ash, plastic wastes and non-hazardous e-wastes. The Convention’s objective is achieved by requiring Parties to ensure:

- (a) That the *generation* of hazardous wastes and other wastes is reduced to minimum;
- (b) The *environmentally sound management* of hazardous wastes and other wastes;

(c) That the *transboundary movements* of hazardous wastes and other wastes are reduced to a minimum and controlled through the Convention’s prior informed consent (PIC) procedure.

3. The Convention, in its Article 2, defines key terms, including “waste”, “management”, “environmentally sound management of hazardous wastes or other wastes” and “disposal”. By “waste” is understood “substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law”.

A. Coverage of wastes derived from mining operations

4. Wastes deriving from mining activities are covered by the Convention if they belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III. Also additional wastes from mining activities can be covered by the Convention if Parties consider those additional wastes to be hazardous (Article 1.1(b)) or if they fall within the scope of the “other wastes” listed in Annex II.

5. Examples of Annex I waste streams and constituents that may be relevant for wastes from mining operations are listed below:

- Y8 Waste mineral oils unfit for their originally intended use
- Y9 Waste oils/water, hydrocarbons/water mixtures, emulsions
- Y11 Waste tarry residues arising from refining, distillation and any pyrolytic treatment
- Y19 Metal carbonyls
- Y20 Beryllium; beryllium compounds
- Y21 Hexavalent chromium compounds
- Y22 Copper compounds
- Y23 Zinc compounds
- Y24 Arsenic; arsenic compounds
- Y25 Selenium; selenium compounds
- Y26 Cadmium; cadmium compounds
- Y27 Antimony; antimony compounds
- Y28 Tellurium; tellurium compounds
- Y29 Mercury; mercury compounds
- Y30 Thallium; thallium compounds
- Y31 Lead; lead compounds
- Y32 Inorganic fluorine compounds excluding calcium fluoride

Y33 Inorganic cyanides
Y34 Acidic solutions or acids in solid form
Y35 Basic solutions or bases in solid form

6. Annex VIII (hazardous wastes) and Annex IX (non-hazardous wastes) to the Convention, which were added in 1998, provide further elaboration as to the wastes regulated by the Convention as listed in Annex I. Those annexes also contain wastes streams that are particularly relevant to mining activities as described in paragraphs 7 and 8 below.

7. In its Annex VIII, the Convention covers numerous metal and metal-bearing wastes that may derive from mining activities, namely:

A1 Metal and metal-bearing wastes

- A1010: Metal wastes and waste consisting of alloys of any of the following:

- Antimony
- Arsenic
- Beryllium
- Cadmium
- Lead
- Mercury
- Selenium
- Tellurium
- Thallium

but excluding such wastes specifically listed on list B.

- A1020: Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following:

- Antimony; antimony compounds
- Beryllium; beryllium compounds
- Cadmium; cadmium compounds
- Lead; lead compounds
- Selenium; selenium compounds
- Tellurium; tellurium compounds

- A1030: Wastes having as constituents or contaminants any of the following:

- Arsenic; arsenic compounds
- Mercury; mercury compounds
- Thallium; thallium compounds

- A1040: Wastes having as constituents any of the following:

- Metal carbonyls
- Hexavalent chromium compounds

8. In its Annex IX, the Convention excludes the following wastes from its scope (i.e. not being wastes covered by Article 1, paragraph 1(a) of the Convention), unless they contain Annex I constituents to an extent causing them to become hazardous (i.e. exhibiting an Annex III characteristic).

- B2010 Wastes from mining operations in non-dispersible form:

- Natural graphite waste
- Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise
- Mica waste
- Leucite, nepheline and nepheline syenite waste
- Feldspar waste
- Fluorspar waste
- Silica wastes in solid form excluding those used in foundry operation

B. Coverage of waste streams of equipment containing metals and minerals

9. While the abovementioned wastes are mainly addressing wastes from the mining activities and subsequent processing of ores, the raw materials that are produced by the mining industry are subsequently used in the economy to manufacture equipment and products. In the context of a full life cycle of minerals and metals, the waste hierarchy endorsed under the Basel Convention also plays a critical role in promoting the reuse, repair, recycling and recovery of end-of-life equipment containing metals and minerals. Such circular economy approaches provide secondary materials and avoid new resource extraction. In this other context, the Basel Convention applies to many waste streams containing metals and minerals, including waste electronic and electronic equipment, waste batteries, e.g. waste batteries containing lead, lithium, nickel and zinc.

C. Provisions and mechanisms under the Convention

10. To support Parties with the implementation of the main provisions of the Basel Convention listed in paragraph 2 above, the Basel Convention has developed a range of guidance documents and factsheets including on waste prevention and minimization, and on efficient strategies for achieving recycling and recovery of hazardous and other wastes.¹

11. The Conference of the Parties also has adopted several technical guidelines on the environmentally sound management of wastes.² The technical guidelines provide practical guidance to Parties on how to address the management of those wastes, which may then establish effective and sustainable management systems.

12. The Conference of the Parties adopted the following technical guidelines that are relevant to wastes from mining and waste streams containing metals and minerals:

(a) Technical guidelines on the environmentally sound management of wastes consisting of, containing or contaminated with mercury or mercury compounds (Basel Convention, 2022);

(b) Technical guidelines on the environmentally sound disposal of hazardous wastes and other wastes in specially engineered landfill (D5) (Basel Convention, 2022);

(c) Technical guidelines on the environmentally sound incineration of hazardous wastes and other wastes as covered by disposal operations D10 and R1 (Basel Convention, 2022);

(d) Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention (Basel Convention, 2023);

(e) Technical guidelines on the environmentally sound recycling/reclamation of metals and metal compounds (R4) (Basel Convention, October 2004).

13. More specifically in relation to waste streams of equipment containing metals and minerals, as mandated by decision BC-16/6, there is ongoing intersessional work on the updating of the technical guidelines on the environmentally sound management of used-lead acid batteries and on developing new technical guidelines on other batteries (e.g. lithium batteries).

14. In addition, several partnerships are or were established under the Convention to address those wastes streams and their sound management. For instance, there is the current Partnership for Action on Challenges relating to E-waste which developed guidance documents on the ESM of used and waste e-equipment.

15. In this context, the Basel Convention provides avenues to tackle the issue of hazardous wastes deriving from mining operations and the life cycle of metals and minerals.

¹ See the "ESM Toolkit" available at:

<https://www.basel.int/Implementation/CountryLedInitiative/EnvironmentallySoundManagement/ESMToolkit/Overview/tabid/5839/Default.aspx>

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<https://www.basel.int/Implementation/TechnicalMatters/DevelopmentofTechnicalGuidelines/TechnicalGuidelines/tabid/8025/Default.aspx>

