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Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
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Matters related to the implementation of the Convention: scientific and technical matters: technical guidelines

Technical guidelines

Technical guidelines on transboundary movements of electronic and electrical waste (e-waste), in particular regarding the distinction between waste and non-waste

Note by the Secretariat

As referred to in document UNEP/CHW.11/7 on technical guidelines, the annex to the present note contains the draft technical guidelines on transboundary movements of electronic and electrical waste (e-waste), in particular regarding the distinction between waste and non-waste under the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal. The annex to the present note has not been formally edited.

* UNEP/CHW.11/1.

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Annex

Draft technical guidelines on transboundary movements of e-waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention

(Version 22 December 2012)

Contents

Acronyms and abbreviations

AQSIQ	Administration of Quality Supervision, Inspection and Quarantine of China
BAN	Basel Action Network
BC	Basel Convention
BCRC-SEA	Basel Convention Regional Centre for South-East Asia
BFR	Brominated flame retardant
CCIC	China Certification & Inspection Group
CFCs	Chlorofluorocarbons
CMR	Convention relative au contrat de transport international de marchandises par route (Convention on the Contract for the International Carriage of Goods by Road)
CRT	Cathode ray tubes
EC	European Community
ESM	Environmentally sound management
EU	European Union
HS	Harmonized Commodity Description and Coding System (or short form Harmonized System)
HSA	Health and Safety Authority
ICT	Information and communications technologies
ILO	International Labour Organization
kg	Kilogram
LCD	Liquid crystal display
mg	Milligram
MPPI	Mobile Phone Partnership Initiative
OECD	Organization for Economic Cooperation and Development
OHS	Occupational health and safety
OHSAS	Occupational health and safety assessment series
PACE	Partnership for Action on Computing Equipment
PBBs	Polybrominated biphenyls
PCBs	Polychlorinated biphenyls
PCNs	Polychlorinated naphthalenes
PCTs	Polychlorinated terphenyls
PVC	Polyvinylchloride
StEP	Solving the e-waste problem
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNU	United Nations University
TBM	Transboundary movement
WCO	World Customs Organization

I. Introduction

A. Scope

1. The present technical guidelines provide guidance for managing transboundary movements of waste electrical and electronic equipment (e-waste) and used electrical and electronic equipment (in the following referred to as used equipment), [that may be e-waste,] in particular on the distinction between waste and non-waste pursuant to decisions IX/6, BC-10/5 and BC-11/… of the Conference of the Parties to the Basel Convention on the control of Transboundary Movement of Hazardous Wastes and Their Disposal (the Convention).

2. These guidelines focus on the aspects related to transboundary movements of e-waste and used equipment that [may be e-waste][is not waste]. In particular the distinction between used equipment destined for repair, refurbishment or direct reuse that is not waste and e-waste destined for disposal has proven to be problematic for authorities to define and to evaluate. Further these guidelines consider which e-waste is hazardous waste or "other waste" and therefore would fall under the provisions of the Convention. Without such distinctions it is difficult for enforcement agencies to assess if the provisions of the Basel Convention for transboundary movements apply, as the Convention only applies to hazardous wastes and other wastes.

2bis. Only whole equipment and components (e.g. monitors, hard-drive, motherboards, batteries) that can be removed from equipment, be tested for functionality and either be subsequently directly reused or reused after repair or refurbishment are considered in these guidelines. For the purpose of these guidelines, the term equipment also covers such components.[1]

3. The present technical guidelines provide:

(a) Information on the relevant provisions of the Convention applicable to transboundary movements of e-waste;

(b) Guidance on the distinction between waste and non-waste when equipment is moved across borders;

(c) Guidance on the distinction between hazardous waste and non-hazardous waste;

(d) General guidance on transboundary movements of used equipment and e-waste and enforcement of the control provisions of the Convention.

4. These guidelines are intended for government agencies including enforcement agencies that wish to implement, control and enforce legislation and provide training regarding transboundary movements. They are also intended to inform all actors involved in the management of e-waste and used equipment so they can be aware of this guidance when preparing or arranging for transboundary movements of such items.

5. Their application should help reduce transboundary movements to the minimum consistent with the environmentally sound and efficient management of such wastes and reduce the environmental burden of e-waste that currently may be exported to countries and facilities that cannot handle it in an environmentally sound manner.

5bis. Materials removed or derived from e-waste and used equipment e.g. metals, plastics, PVC-coated cables or activated glass , that are waste are not addressed in these guidelines, but may fall under the provisions of the Convention.

6. These guidelines do not cover other aspects of environmentally sound management of e-wastes such as collection, treatment and disposal. These aspects may be covered where appropriate in other guidance documents. In particular a series of guidelines were developed or are being developed in the context of the following public-private partnership initiatives under the Basel Convention (on the action of the Conference of the Parties regarding these guidelines, see decisions BC-10/20 and BC-10/21):

[1] Definitions and explanations regarding the terms used in these guidelines are included in a glossary of terms in appendix I to the present document.

Mobile Phone Partnership Initiative (MPPI):

(a) Revised guidance document on the environmentally sound management of used and end-of-life mobile phones (UNEP/CHW.10/INF/27/Rev.1);

(b) Awareness-raising and design considerations (MPPI, 2009a);

(c) Collection (MPPI, 2009b);

(d) Transboundary movement (MPPI, 2009 c);

(e) Refurbishment (MPPI, 2009 d);

(f) Material recovery and recycling (MPPI, 2009 e).

Partnership for Action on Computing Equipment (PACE):

(a) Sections 1, 2, 4 and 5 of the guidance document on the environmentally sound management of used and end-of-life computing equipment (UNEP/CHW.10/20, annex);

(b) Environmentally sound management criteria recommendations;

(c) Guidelines on environmentally sound testing, refurbishment, and repair of used computing equipment;

(d) Guidelines on environmentally sound material recovery and recycling of end-of-life computing equipment;

(e) Guidelines on transboundary movement (TBM) of used and end-of-life computing equipment.

B. About e-waste

7. The volume of e-waste being generated is growing rapidly, due to the wide use of electronic and electrical, both in developed countries and in developing countries. The total amount of global e-waste generated in 2005 was estimated to be 40 million tonnes (StEP, 2009). The latest estimates indicate that in 2012 an amount of 45.6 million tonnes of e-waste was generated globally (StEP, 2012). The amount of e-waste in the European Union was estimated at between 8.3 and 9.1 million tonnes in 2005 and expected to reach some 12.3 million tonnes in 2020 (United Nations University, 2007). In developing countries and countries with economies in transition the sales of electrical and electronic equipment are increasing rapidly. Therefore the domestic generation of e-waste is likely to increase significantly in those countries. Currently e-waste is exported to countries that are not likely to possess the infrastructure and societal safety nets to prevent harm to human health and the environment, due to factors such as exports being less expensive than managing the waste domestically, the availability of markets for raw materials or recycling facilities and the location of manufacturers of electrical and electronic equipment. However, there are also examples of formal recycling facilities in developing countries and economies in transition that are repairing, refurbishing and recycling used equipment and e-waste in an environmentally sound manner.

8. E-waste may contain hazardous substances such as lead, mercury, PCBs, asbestos and CFCs that pose risks to human health and the environment when improperly disposed of or recycled and that require specific attention as to their environmentally sound waste management. In most developing countries and countries with economies in transition, the capacity to manage the hazardous substances in e-waste is lacking. As an example, the informal recovery industry in Asia supplies manufacturers with some recycled raw materials. There is clear evidence however that the practice exploits women and child labourers who cook circuit boards, burn cables and submerge equipment in toxic acids to extract precious metals such as gold (Schmidt, 2006) and subjects them and their communities to damaged health and a degraded environment. Moreover, the techniques used by the informal sector are not only damaging human health and the environment, often they also perform poorly in recovering valuable resources, squandering precious resources such as critical metals for future use. Even management of non-hazardous wastes can cause significant harm to human health and the environment if not undertaken in an environmentally sound manner.

9. E-waste contains valuable materials that can be recovered for recycling including iron, aluminium, copper, gold, silver, platinum, palladium, indium, gallium and rare earth metals, thus contributing to sustainable resource management. The extraction of all of these metals from the Earth has a significant environmental impact. The use of such materials as raw materials after they have become waste can increase the efficiency of their use and lead to conservation of energy and reduction in greenhouse gas emissions when adequate technologies and methods are applied.

10. In addition, direct reuse or reuse after repair or refurbishment can contribute to sustainable development. Reuse extends the life of equipment, which reduces the environmental footprint of the resource-intensive production processes of the equipment. It may also provide access to such equipment for groups in society that otherwise would not have access to it due to reduced costs of second-hand equipment. Failure to handle equipment properly, however, can have negative impacts and often entail disposal when parts are replaced and discarded. The lack of clarity in defining when equipment is waste and when it is not has led to a number of situations where such equipment is exported to, in particular, developing countries ostensibly for reuse but where a large percentage of these goods are in fact not suitable for further use or are not marketable and must be disposed of in the developing country as waste.

II. Relevant provisions of the Basel Convention

A. General provisions of the Basel Convention

11. The Basel Convention aims to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous and other wastes.

12. Paragraph 1 of Article 2 (“Definitions”) of the Basel Convention defines wastes as “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”. In paragraph 4 of that Article, it defines disposal as “any operation specified in Annex IV” to the Convention. In paragraph 8, it defines the environmentally sound management of hazardous wastes or other wastes as “taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes”.

13. Article 4 (“General obligations”), paragraph 1, establishes the procedure by which parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other parties of their decision. Paragraph 1 (a) states: “Parties exercising their right to prohibit the import of hazardous or other wastes for disposal shall inform the other parties of their decision pursuant to Article 13”. Paragraph 1 (b) states: “Parties shall prohibit or shall not permit the export of hazardous or other wastes to the parties which have prohibited the import of such waste when notified pursuant to subparagraph (a) above”.

14. Article 4, paragraphs 2 (a) to (e) and 2 (g), contain key provisions of the Basel Convention pertaining to environmentally sound management, transboundary movement, waste minimization and waste disposal practices that mitigate adverse effects on human health and the environment:

> “Each party shall take the appropriate measures to:
>
> (a) Ensure that the generation of hazardous wastes and other wastes within it is reduced to a minimum, taking into account social, technological and economic aspects;
>
> (b) Ensure the availability of adequate disposal facilities, for the environmentally sound management of hazardous wastes and other wastes, that shall be located, to the extent possible, within it, whatever the place of their disposal;
>
> (c) Ensure that persons involved in the management of hazardous wastes or other wastes within it take such steps as are necessary to prevent pollution due to hazardous wastes and other wastes arising from such management and, if such pollution occurs, to minimize the consequences thereof for human health and the environment;
>
> (d) Ensure that the transboundary movement of hazardous wastes and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement”.
>
> (e) Not allow the export of hazardous wastes or other wastes to a State or group of States belonging to an economic and/or political integration organization that are parties, particularly developing countries, which have prohibited by their legislation all imports, or if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner, according to criteria to be decided on by the parties at their first meeting;
>
> (f) Prevent the import of hazardous wastes and other wastes if it has reason to believe that the wastes in question will not be managed in an environmentally sound manner.”

15. Hazardous wastes and other wastes should, as far as is compatible with environmentally sound and efficient management, be disposed of in the country where they were generated (preambular paragraph 8). Transboundary movements of such wastes from the State of their generation to any other State should be permitted only when conducted under conditions which do not endanger human health and the environment (preambular paragraph 9). In addition, transboundary movements of such wastes are permitted only if:

(a) Such wastes, if exported, are managed in an environmentally sound manner in the country of import or elsewhere (Article 4, paragraph 8);

(b) One of the following conditions is met (Article 4, paragraph 9):

(i) If the country of export does not have the technical capacity and the necessary facilities to dispose of the wastes in question in an environmentally sound and efficient manner; or

(ii) If the wastes in question are required as a raw material for recycling or recovery industries in the country of import; or,

(iii) If the transboundary movement in question is in accordance with other criteria decided by the parties.

B. Control procedure for transboundary movements

16. Any transboundary movements of hazardous and other wastes are subject to prior written notification from the exporting country and prior written consent from the importing and, if appropriate, transit countries (Article 6, paragraphs 1 to 4). Parties shall prohibit the export of hazardous wastes and other wastes if the country of import prohibits the import of such wastes (Article 4, paragraph 1 (b)). [Decision III/1 including an amendment to the Convention banning the export of hazardous wastes from OECD/EU countries and Liechtenstein (proposed Annex VII) to non-Annex VII countries has not entered into force. However, its subsequent implementation by some countries has led to national prohibitions.] The Basel Convention also requires that information regarding any proposed transboundary movement is provided using the accepted notification form (Article 4, paragraph 2 (f)) and that the approved consignment is accompanied by a movement document from the point where the transboundary movement commences to the point of disposal (Article 4, paragraph 7 (c)).

17. Furthermore, hazardous wastes and other wastes subject to transboundary movements should be packaged, labelled and transported in conformity with international rules and standards (Article 4, paragraph 7 (b)).[2]

18. When transboundary movement of hazardous and other wastes to which consent of the countries concerned has been given cannot be completed, the country of export shall ensure that the wastes in question are taken back into the country of export if alternative arrangements cannot be made for their disposal in an environmentally sound manner (Article 8, first sentence). In the case of illegal traffic (as defined in Article 9, paragraph 1) as the result of the conduct on part of the exporter or generator, the country of export shall ensure that the wastes in question are

(a) Taken back by the exporter or the generator or, if necessary, by itself into the State of export; or if impracticable

(b) Otherwise disposed of in accordance with the provisions of the Convention (Article 9, paragraph 2).

19. No transboundary movements of hazardous wastes and other wastes are permitted between a party and a non-party to the Convention (Article 4, paragraph 5) unless a bilateral, multilateral or regional arrangement exists, as required under Article 11 of the Convention.

C. Definitions of waste and hazardous waste

20. The Convention defines waste as “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” (Article 2, paragraph 1). It defines disposal in article 2, paragraph 4, as “any operation specified in Annex IV to this Convention”. It is important to note that national provisions concerning the definition of waste may differ and, therefore, the same material may be regarded as waste in one country but as non-waste in another country.

[2] In this connection, the United Nations Recommendations on the Transport of Dangerous Goods (Model Regulations) (ECE, 2003a – see annex V, Bibliography)) or later versions should be used.

21. Hazardous waste is defined in the Convention as "wastes that belong to any category contained in Annex I, unless they do not possess any of the characteristics contained in Annex III; (definition in article 1, paragraph 1(a)) and wastes that are not covered under paragraph 1(a) but are defined as, or considered to be, hazardous wastes by the domestic legislation of the party of export, import or transit" (definition in article 1, paragraph 1(b)). The definition of hazardous waste therefore incorporates domestic law such that material regarded as a hazardous waste in one country but not in another country is defined as hazardous waste under the Convention. The Convention also requires that parties inform the other parties, through the Secretariat of the Convention, of their national definitions (article 3). Providing detailed and specific information on the national definitions of hazardous waste can avoid ambiguity concerning the applicability of national definitions.

22. To aid in distinguishing hazardous wastes from non-hazardous wastes for the purpose of Article 1, paragraph 1 (a), two annexes have been inserted into the Convention. Annex VIII includes wastes considered to be hazardous according to Article 1, paragraph 1 (a), of the Convention unless they do not possess any of the characteristics of Annex III. Annex IX includes wastes that are not covered by Article 1, paragraph 1 (a), unless they contain Annex I material to an extent causing them to exhibit an Annex III characteristic. Both Annex VIII and Annex IX include listings for various types of e-waste. More information on the distinction between hazardous and non hazardous e-waste is included in section IV. B of these guidelines.

III. Guidance on the distinction between waste and non-waste

A. General considerations

23. To determine if equipment is waste it may be necessary to examine the history of an item and its proposed use on a case-by-case basis. However, there are characteristics of the equipment that are likely to indicate whether it is waste or not.

24. Without prejudice to paragraph 26 below, where the holders of used equipment claim that this is intended to be or is a movement of used equipment intended for direct reuse and not e-waste, the following should be provided or be in place to back up this claim to an authority on its request (prior to the transport, either generally or on a case-by-case basis):

(a) A copy of the invoice and contract relating to the sale and/or transfer of ownership of the equipment with a signed statement that indicates that the equipment had been tested and is destined for direct reuse and fully functional and includes information on the further user or, where this is not possible, the retailer;

(b) Evidence of evaluation or testing in the form of a copy of the records (certificate of testing – proof of functionality) on every item within the consignment and a protocol containing all record information (see section III C below);

(c) A declaration made by the holder who arranges the transport of the equipment that none of the equipment within the consignment is waste as defined by national law of the countries involved in the movement [3] (countries of export and import, and, if applicable countries of transit);

(d) Appropriate protection against damage during transportation, loading and unloading, in particular through sufficient packaging [4] and stacking of the load.

Testing of used equipment should be performed before shipment in the country of export. Except for the situations described in paragraph 26 below, all the criteria listed above would need to be met for the used equipment not to be considered waste.

B. Situations where equipment and used equipment should normally be considered waste, or not be considered waste

25. Equipment and used equipment should normally be considered waste if:

(a) The equipment is not complete - essential parts are missing and the equipment cannot perform its essential key functions;

(b) It shows a defect that materially affects its functionality and fails relevant functionality tests;

[3] In case of disagreement on the status of the equipment being waste or not, the procedure for the strictest interpretation (i.e. the procedure for shipments of waste) should be followed.

[4] With regard to computing equipment, see the packaging guidelines developed under PACE.

(c) It shows physical damage that impairs its functionality or safety, as defined in relevant standards;

(d) The protection against damage during transport, loading and unloading operations is inappropriate, e.g. the packaging or stacking of the load is insufficient;

(e) The appearance is particularly worn or damaged, thus reducing the marketability of the item(s);

(f) The item has among its constituent part(s) hazardous components that are required to be discarded or are prohibited to be exported or used in such equipment under national legislation;[5]

(g) The equipment is destined for disposal or recycling instead of reuse or its fate is uncertain;

(h) There is no regular market for the equipment;

(i) It is destined for cannibalization (to gain spare parts); or

(j) The price paid for the items is significantly lower than would be expected from fully functional equipment intended for reuse.

26. Equipment and used equipment should normally not be considered waste:

(a) Where the criteria in paragraph 24 (a) to (d) above are met and it is not destined for any of the operations listed in Annex IV of the Convention (recovery or disposal operations) and is directly reused for the purpose for which it was originally intended or presented for sale, or exported for the purpose of being put back to direct reuse or sold to end consumers for such reuse; or

(b) Where the criteria in paragraph 24 (c) and (d) are met and is documented by conclusive proof that [the transboundary movement is taking place within the framework of a business-to-business transfer agreement and that]:

Proposal by the European Union[6]

i. the equipment is sent back as defective for repair to the producer or a third party acting on its behalf (under warranty) with the intention of reuse; or

Proposal by the Latin American and Caribbean Group (GRULAC)

i. shipments by individual customers of their own defective equipment under warranty or subject to a law allowing for a right of return of the equipment, for repair and refurbishment for reuse;

batches of defective equipment under warranty that have been collected from individual customers or consolidated by manufacturers, original component suppliers, or their contractual agents, sent back to the manufacturer, original component suppliers, or their contractual agents, for reuse; or

Proposal by the Basel Action Network and the United States of America

i. shipments by individual customers of their own defective equipment under warranty or subject to a law allowing for a right of return of the equipment, for repair and refurbishment [and where the same type or similar product is intended to be returned to the customer]. This does not include equipment from take-back programmes;

[5] E. g. asbestos, PCBs, CFCs. The use of these substances is phased out or prohibited in the context of multilateral environmental agreements or in national legislation of certain countries for certain applications.

[6] The proposals from EU on the one side and from GRULAC and BAN/United States on the other side do not represent real alternatives, but are (partly) complementary. In the proposal from EU it is not clear that it would also apply if individual customers send back items under warranty, in particular if the requirement that it only applies to a business-to-business transfer agreement is maintained in the text of paragraph 26 (b).

batches of defective equipment under warranty that have been collected from individual customers or consolidated by manufacturers, original component suppliers, or their contractual agents, sent back to the manufacturer, original component suppliers, or their contractual agents, and for which the same type or similar product has been or will be returned to the customer. This does not include equipment from take-back programmes.

Proposal by the European Union

ii. used equipment for professional use[7] is sent to the producer, a third party acting on its behalf or a third party facility as long as such export does not involve exports from Annex VII to non-Annex VII countries for refurbishment or repair under a valid contract with the intention of reuse; or

Proposal by GRULAC

ii. used equipment for professional use is sent to the producer or third party acting on its behalf for repair under a valid contract with the intention of reuse; or

Proposal by Japan

ii. used equipment is sent to the producer or a third party acting on its behalf for refurbishment or repair under a valid service contract for reuse; or

Proposal by the Basel Action Network

ii. used equipment for professional use is sent to the producer or a third party acting on its behalf for refurbishment or repair under a valid contract for reuse, as long as it is not exported from Annex VII to non-Annex VII countries; or

Proposal by the Information Technology Industry Council and the European Coordination Committee of the Radiological, Electromedical and Healthcare Information Technology Industry

ii. used equipment is sent for refurbishment or repair under a valid contract with the intention of reuse to:

a. the producer or a third party facility acting on his behalf; or
b. a third party facility as long as such export does not involve exports from Annex VII to non-Annex VII countries; or

Proposal by the African Group

ii. used equipment for professional use is sent to the producer or a third party acting on his behalf for refurbishment or repair under a valid contract, accompanied by a movement document and declaration (similar to PACE Appendix 7), as long as it is not exported from Annex VII to non-Annex VII countries; or

Proposal by Canada

ii. Used equipment for professional use sent to the producer or a third party acting on its behalf for refurbishment or repair under a valid service contract for reuse, where the same type or similar product is intended to be returned to the customer;

iii. defective used equipment for professional use, such as medical devices or their parts, [enterprise information and communications technology (ICT) equipment (e.g. networking and infrastructure equipment)] is sent to the producer or a third party acting on its behalf for root cause

[7] Equipment for professional use is equipment that is designed to be solely used by professional users. Equipment that is likely to be used only by private householders or by private householders and professional users is not equipment for professional use e.g. personal computers or small copying machines would not be equipment for professional use, whereas mainframe computers and large copying machines would be professional equipment.

analysis under a valid contract, in cases where such an analysis [as required under national law can only] [is needed for corrective and preventative action as required by industry standards to] be conducted by the producer or third parties acting on its behalf [and where the same type or similar product is intended to be returned to the customer]; or

iv. [the used equipment is administered by or on behalf of a person engaged in the business of leasing equipment and such equipment is removed from service and shipped by the lessor or third parties acting on their behalf with the intention of reuse.][used equipment under a valid leasing agreement shipped between the lessee and the lessor or third parties acting on their behalf with the intention of reuse].

[Transboundary movement of used equipment covered by paragraph 26 (b) would not fall under the procedure described in section IV below].[8]

26bis. The documentation accompanying the movement of used equipment meeting the requirements set out in paragraph 26(b) should contain the following information:

(a) Name of the exporter, importer, receiving facility and carrier(s);

(b) Quantity of equipment;

(c) Date of the movement;

(d) Countries concerned;

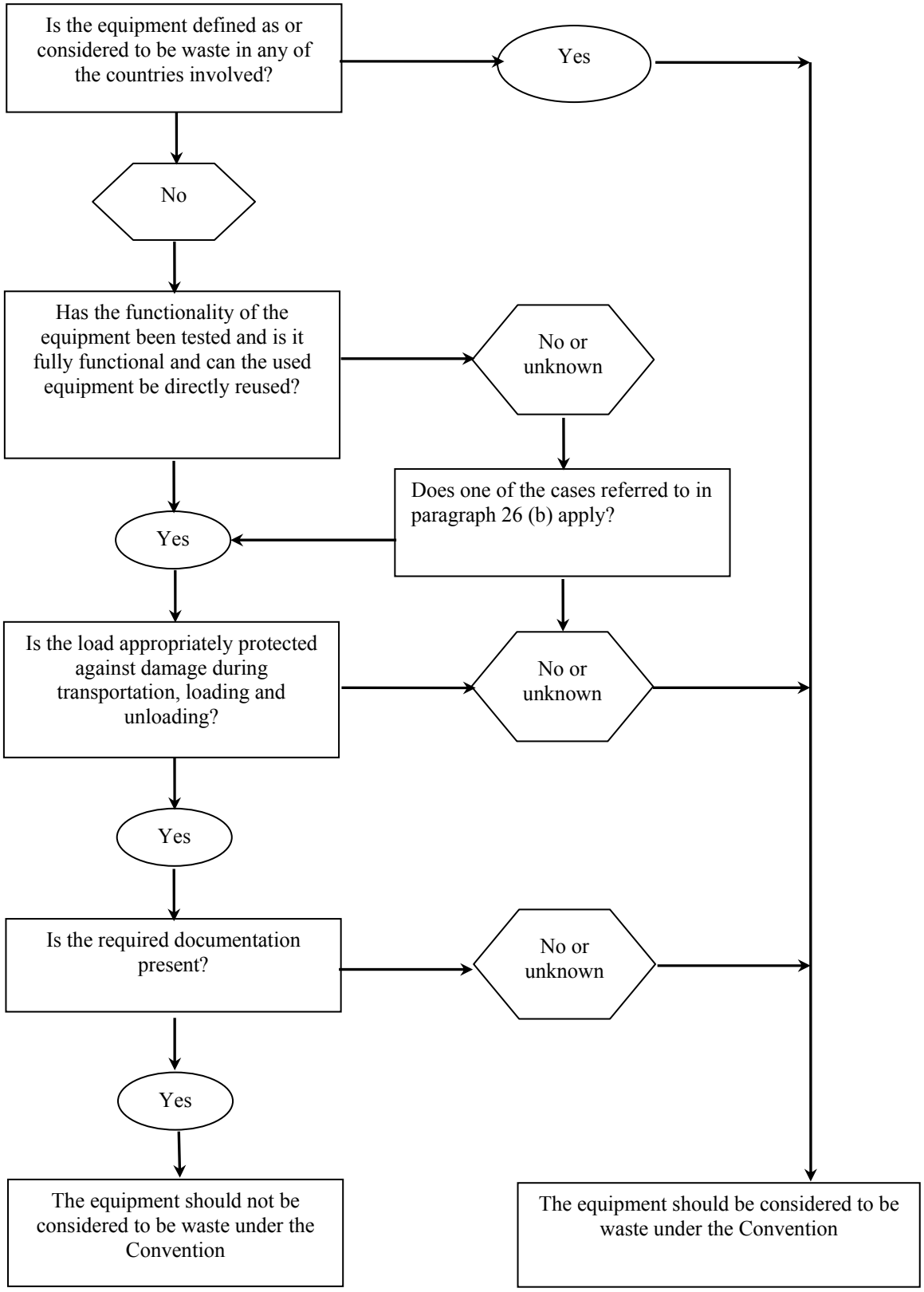
(e) Signed declaration by the owner and the exporter.

Upon receipt of the movement, the receiving facility should provide a signed declaration of receipt. A recommended form for the documentation is contained in appendix II

26ter. The figure below summarizes the decision steps as described in this section.

[8] EU suggests that this text may not be necessary and could be removed.

Decision steps according to paragraphs 24 and 26



C. Evaluation and testing of used equipment destined for direct reuse

27. Holders who prepare an export of used equipment destined for direct reuse -- which is covered by paragraph 26 (a) rather than e-waste should take the following steps:

Step 1: evaluation and testing

28. The tests to be conducted depend on the kind of equipment. Functionality should be tested and the presence of hazardous substances or components should be evaluated. The completion of a visual inspection without testing functionality is unlikely to be sufficient. For most of the equipment, a functionality test of the essential key functions is sufficient. Section IV. B of these guidelines provides guidance on the evaluation for the presence of hazardous substances and components. A list of references to examples of functionality tests for certain categories of used equipment is provided in appendix IV to the present note.

Step 2: recording

29. Results of evaluation and testing should be recorded. The record should contain the following information:

(a) Name of the item;

(b) Name of the producer

(c) Identification number of the item (type no.), where applicable;

(d) Year of production (if available);

(e) Name and address of the company responsible for evidence of functionality;

(f) Result of tests as described in step 1 (e. g. Naming defective parts and defect or indication of full functionality) including date of the functionality test;

(g) Kind of tests performed;

(h) Signed declaration.

30. The record should accompany the transport and should be fixed securely but not permanently on either the used equipment itself (if not packed) or on the packaging so it can be read without unpacking the equipment. A recommended form for a declaration of testing and determination of full functionality and the reuse destination of the exported used equipment, recording the results of evaluation and testing is contained in appendix III.

IV. Guidance on transboundary movements of e-waste

A. General considerations

31. When e-waste is considered to be hazardous waste according to Article 1, paragraph1 (a) of the Convention or by national legislation (Article 1, paragraph1 (b)) national import or export prohibitions must be respected. Where no such national prohibitions apply, the control procedure as mentioned in section II. B of these guidelines applies. For e-waste that is not considered to be hazardous, the Basel Convention does not foresee a specific procedure. However, certain parties have implemented procedures in those cases, such as those applicable for transboundary movements of "green-listed" waste under European Union legislation,[9] or the procedure for pre-movement inspection of recycling materials as applicable for China.[10]

32. In a case where a competent authority involved in transboundary movements of e-waste considers a specific item to be hazardous waste according to its national law, while other authorities would not, the control procedure for hazardous waste would apply. The same mechanism is suggested for differences of opinion between competent authorities on the assessment as to whether the equipment constitutes a waste or not. In those cases, the applicable procedures for transboundary

[9] Regulation (EC) No. 1013/2006 on shipments of waste and Regulation (EC) No. 1418/2007 concerning the export for recovery of certain waste listed in annex III or IIIA to Regulation (EC) No. 1013/2006 to certain countries to which the OECD decision on the control of transboundary movements of wastes does not apply (see: http://ec.europa.eu/environment/waste/shipments/legis.htm).

[10] Pre-movement inspections for recycling materials are established by the General Administration of Quality Supervision, Inspection and Quarantine of China (AQSIQ). Information on the procedure can be found on the web-site of the China Certification & Inspection Group (CCIC), which is authorized to handle this procedure in various countries worldwide, e.g in Europe at http://www.ccic-europe.com.

movements of waste would be applied. If this approach is taken and the applicable procedures are not followed, the movement would be regarded as illegal.

33. [Certain parties may consider used equipment destined for repair, refurbishment or upgrading to be waste, while others may not. In accordance with the principles of the Convention, if one of the countries concerned considers this used equipment to be waste the procedures on transboundary movement of e-waste as indicated in section IV A of this guidance should be followed. Note that in some cases, the decision to classify used equipment destined for repair or refurbishment as a hazardous waste could result in the imposition of a ban on the export or import of such equipment under national legislation or pursuant to the Convention's prohibition on trade with non-parties.

34. If, however, following Article 2, paragraph 1, of the Basel Convention and national legislation, none of the parties involved in a transboundary movement has determined that used equipment destined for repair or refurbishment in the importing country is classified as hazardous waste or other waste, the Basel Convention control procedure will not apply.[11]]

B. Distinction of hazardous waste and non-hazardous waste

35. E-waste is included in Annex VIII to the Convention with the following entry for hazardous wastes:

> "A1180 Waste electrical and electronic assemblies or scrap [12] containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB capacitors, or contaminated with Annex I constituents (e.g. cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in Annex III (note the related entry on list B, B1110)."[13]

36. E-waste is also included in Annex IX to the Convention with the following entry for non-hazardous wastes:

> "B1110Electrical and electronic assemblies:
>
> - Electronic assemblies consisting only of metals or alloys;
> - Waste electrical and electronic assemblies or scrap[14] (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB-capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex III (note the related entry on list A A1180);
> - Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse,[15] and not for recycling or final disposal."[16]

[11] Paragraphs 33 and 34 were the beginning of section IV B of the previous draft containing a procedure for transboundary movement of used equipment destined for repair or refurbishment. In most of the reactions on the previous draft it was suggested that section IV B be deleted. It was considered by most readers as confusing and redundant. Only Argentina indicated it wanted to maintain this section, without specifying its reasons for keeping it. Moreover, despite the request of the Open-ended Working Group for information about whether or not this procedure is used in practice, no such information was received. It may suggest that such a procedure is not used to date. Therefore, in the current version of the guidelines, the bulk of what was section IV B in the previous version has been removed. Only the first part of that section (paragraph 34 and the first lines of paragraph 35 in the previous version of the guidelines) has been maintained as bracketed text as some indicated that this text was useful. The text is placed after the section indicating the general considerations for transboundary movement. It must be noted that there is some repetition with the text in paragraphs 31 and 32 of the current draft. BAN had indicated that it would like to use the procedure mentioned in section IV B of the previous draft for movements of equipment that meet the conditions indicated in paragraph 26 (b). –The procedure could be re-introduced if Parties wish to follow this suggestion.

[12] This entry does not include scrap assemblies from electric power generation.

[13] PCBs are at a concentration level of 50 mg/kg or more.

[14] This entry does not include scrap from electrical power generation.

[15] Reuse can include repair, refurbishment or upgrading, but not major reassembly.

[16] In some countries these materials destined for direct reuse are not considered wastes.

37. Equipment will often contain hazardous components, examples of which are indicated in entry A1180 of Annex VIII. E-waste should therefore be presumed to be hazardous waste unless it can be shown that it does not contain such components and in particular:[17]

(a) Lead-containing glass from cathode ray tubes (crts) and imaging lenses, which are assigned to Annex VIII entries A1180 or A2010 “glass from cathode ray tubes and other activated glass”. This waste also belongs to category Y31 in Annex I, “Lead; lead compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13 included in Annex III;

(b) Nickel-cadmium batteries and batteries containing mercury, which are assigned to Annex VIII entry A1170 “unsorted waste batteries…”. This waste also belongs to category Y26 in Annex I, “Cadmium; cadmium compounds” or Y29 “Mercury, mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

(c) Selenium drums, which are assigned to Annex VIII entry A1020 “selenium; selenium compounds”. This waste also belongs to category Y25 in Annex I, “Selenium; selenium compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

(d) Printed circuit boards, which are assigned to Annex VIII entry A1180 “waste electronic and electrical assemblies……”, and entry A1020 “antimony; antimony compounds” and “beryllium; beryllium compounds”. These assemblies contain brominated compounds and antimony oxides as flame retardants, lead in solder and beryllium in copper alloy connectors. They also belong in Annex I, to categories Y31, “Lead; lead compounds”, Y20, “Beryllium, beryllium compounds” and Y27 “Antimony, antimony compounds” and Y45, organohalogen compounds other than substances referred to elsewhere in Annex I. They are likely to possess hazard characteristics H6.1, H11, H12 and H13;

(e) Fluorescent tubes and backlight lamps from liquid crystal displays (LCD), which contain mercury and are assigned to Annex VIII entry A1030 “Mercury; mercury compounds”. This waste also belongs to category Y29 in Annex 1, “Mercury; mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

(f) Plastic components containing brominated flame retardants (BFRs), in particular BFRs that are persistent organic pollutants according to the Stockholm Convention, which can be assigned to Annex VIII entry A3180 “Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration of 50 mg/kg or more.” This waste also belongs to category Y45 in Annex I, organohalogen compounds other than substances referred to elsewhere in Annex I and to category Y27 “Antimony, antimony compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

(g) Other components containing or contaminated with mercury, such as mercury switches, contacts and thermometers, which are assigned to Annex VIII entry A 1010, A1030 or A1180. This waste also belongs to category Y29 in Annex I,” Mercury; mercury compounds” and is likely to possess hazard characteristics H6.1, H11, H12 and H13;

(h) Waste oils/liquids, which are assigned to annex VIII entry A 4060 “Waste oil/water, hydrocarbons/water mixtures, emulsions”. The waste belongs to category Y8 in Annex I, “Waste mineral oils unfit for their originally intended use” or Y9 in Annex I, “Waste oil/water, hydrocarbons/water mixtures, emulsions”, and is likely to possess hazardous characteristics H3, H11, H12and H13;

(i) Components containing asbestos, such as in wires, cooking stoves and heaters, which are assigned to annex VIII entry A 2050. The waste belongs to category Y 36 in Annex I, “Asbestos (dust and fibres)” and is likely to possess hazardous characteristic H 11.

37 bis. Further guidance and examples of hazardous and non-hazardous equipment and on hazardous components that can be found in electronic and electrical equipment is contained in appendix IV to the present note.

[17] The following list of components or constituents are non-exhaustive examples.

V. Guidance on control of transboundary movements of used equipment and e-waste

38. Inspections should be undertaken by competent bodies of State authorities (e.g. police, customs and (environmental) inspectors) at facilities and during the movement. Holders of used equipment who arrange the movement should ensure that it is accompanied by appropriate documentation according to paragraphs 24, 26, 29, 30 and 39 of those guidelines and that it is appropriately protected against damage during transportation, loading and unloading, in particular through sufficient packaging or appropriate stacking of the load in order to demonstrate that the items concerned are not e-waste as indicated in section III of the present note.

39. For practical reasons of control, every load of used equipment should also be accompanied by a declaration of the liable person on its responsibility and by a relevant transport document, e.g. by a waybill or a CMR document where applicable.[18] This document contains a description of the goods transported using the Harmonized Commodity Description and Coding System (normally referred to as the "Harmonized System") developed by the World Customs Organization (WCO).

40. In the absence of proof that an item is used equipment and not e-waste through appropriate documentation according to paragraphs 24, 26, 29, 30 and 39 and appropriate protection against damage during transportation, loading and unloading, in particular through sufficient packaging and appropriate stacking of the load which should be the obligations of the holder who arranges the export, the relevant State authorities (e. g. customs, police or environmental agencies) should consider an item to be (potentially hazardous) e-waste and, in the absence of consents in accordance with the requirements of the Basel Convention, should presume that the export comprises a case of illegal traffic as specified in Article 9 of the Convention. In these circumstances the relevant competent authorities are obliged to abide with the provisions of take-back as foreseen in Article 9. Illegal traffic is to be considered a criminal offence in accordance with Article 4.3 of the Convention.

40bis. When e-waste is exported as hazardous waste, the documentation required under the control procedure of the Convention should accompany the consignment.

40ter. The Secretariat of the Basel Convention has cooperated with the WCO to establish a table providing an overview of which codes of the Harmonized System contain materials that can be found in Annexes VII and IX to the Basel Convention.[19] This table can facilitate comparison of the CMR documents with the documents that should accompany the transport of used equipment or e-waste according to the procedures in these guidelines.

41. Health and safety issues and potential risks for enforcement agents (such as customs officers) are important for any inspection of transports of e-waste or used equipment. Enforcement officers should have specific training before doing such inspections. Particular care should be applied when opening containers. In particular, if the transport consists of waste, the items may not have been stacked in a stable way and items may fall out of the container when it is opened it for inspection. The load may also contain hazardous substances that could be released when inspecting the load. Further information regarding health and safety aspects is contained in appendix IV to the present note.

[18] Document containing the information as required under the Convention on the Contract for the International Carriage of Goods by Road (CMR Convention). Although the form in which the information should be presented is not mandatory, it is recommended that the standard CMR forms be used to facilitate communication in case of a control.

[19] The latest version of the table can be found on the web-site of the WCO under http://www.wcoomd.org/en/topics/nomenclature/instrument-and-tools/interconnection-table.aspx. The table contains a correlation with goods covered by a number of international conventions, including the Basel Convention.

Appendix I

Glossary of terms

Note: Some of these terms were developed for the purpose of the present guidelines and should not be considered as having been agreed to internationally. Their purpose is to assist readers to better understand these guidelines. Insofar as appropriate, the use of these terms has been aligned with terms used in other guidelines developed under the Basel Convention.

Basel Convention	Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, adopted on March 22, 1989 and entered into force in 1992.
Component	Element with electrical or electronic functionality connected together with other components, including by soldering to a printed circuit board, to create an electric or electronic circuit with a particular function (for example a monitor, hard-drive, motherboard, battery).
Direct reuse	[Process of using again equipment that is not waste, for the same purpose for which it was conceived by another person, without the necessity of repair or refurbishment] [Continued use of electrical and electronic equipment by another person without the necessity of repair, refurbishment, or (hardware) upgrading, provided that such continued use is for the intended purpose of the equipment].
Disposal	Any operations specified in Annex IV of the Basel Convention (Article 2, paragraph 4, of the Convention).
Environmentally sound management	Taking all practicable steps to ensure that hazardous wastes or other wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes (Article 2, paragraph 8, of the Convention).
Equipment	Electrical and electronic equipment that is dependent on electric currents or electromagnetic fields in order to work properly, including components that can be removed from equipment and can be tested for functionality and either be subsequently directly reused or reused after repair or refurbishment. [This term does not include large-scale stationary industrial tools or large-scale fixed installations].
Equipment for professional use	[Equipment that is designed to be used solely by professional users. Equipment that is likely to be used by private households, or by private households as well as by professional users is not equipment for professional use][Specialized equipment that is designed for commercial and business use but not equipment that is considered to be common for use in households.][E.g, mainframe computers and large copying machines would be professional equipment whereas personal computers, mobile phones and small copying machines would not be equipment for professional use.]
Essential key function	The originally intended function(s) of a unit of equipment that will satisfactorily enable the equipment to be reused.
Fully functional	Equipment is fully functional when it has been tested and demonstrated to be capable of performing at least the essential key functions it was designed to perform.
Other waste	Wastes included in Annex II of the Convention.
producer	The international and local manufacturer or importer of record of new and used electrical and electronic equipment to be placed on the market at first invoice by sale
Recovery	Relevant operations specified in Annex IV B of the Basel Convention; recycling operations are part of this annex.
Refurbishment	[Process for creating refurbished or reconditioned equipment, including such activities as cleaning, data sanitization and (software) upgrading.][Process by which fully functional equipment is modified to increase its performance and/or functionality or to meet applicable technical standards or regulatory requirements, including through such activities as cleaning, data sanitization and upgrading.]
Repair	Process of fixing specified faults in equipment [and/or replacing defective components of equipment in order to bring the equipment into a fully functional condition].
Reuse	Process of using again equipment that is not waste, for the same purpose for which it was conceived by another person, possibly after repair or refurbishment.
Root cause analysis	A step-by-step method that leads to the identification of the initial or root cause of an equipment failure.
Upgrading	Process by which fully functional equipment is modified by the addition of new software or hardware.
Waste	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 (Article 2, paragraph 1, of the Basel Convention).
Waste electrical and electronic equipment	Electrical or electronic equipment that is waste, including all components, sub-assemblies and consumables which are part of the equipment at the time the equipment becomes waste.

Appendix II

Information accompanying movements of used electrical and electronic equipment meeting the conditions mentioned in paragraph 26 (b)

1. Holder who arranges the movement/ exporter Name: Address: Contact person: Tel.: Fax: E-mail:	**2. [Importer** Name: Address: Contact person: Tel.: Fax: E-mail:][20]	**3. Receiving facility [(if different from importer)]**[21] Name: Address: Contact person: Tel.: Fax: E-mail:	**4. [Carrier**[22] Name: Address: Contact person: Tel.: Fax: E-mail: Means of transport:][23]

5. Description of the movement/reasons for movement:[24]

☐ Text reflecting the decisions taken on paragraph 26 (b) will be introduced in this box

☐

☐

☐

6. Actual quantity:	**7. [Actual date of shipment:]**[25]

8. Countries/States concerned:

Export/dispatch	Transit	Import/destination

9. Declaration of the holder of the equipment: I declare that the equipment in this movement is equipment that is not defined as or considered to be waste in any of the countries/States concerned and is being returned to:

☐ the manufacturer, original component supplier or its contractual agents;

☐ [a third party];

☐ [the lessor or a third party acting on his behalf];

for the purpose(s) as indicated in block 5 above.

Name: Date: Signature:

[10. Declaration of the person who arranges the movement/exporter: I declare that the above information is complete and correct to the best of my knowledge.

Name: Date: Signature:][26]

TO BE COMPLETED BY THE RECEIVING FACILITY

[11. Movement received at the receiving facility: ☐ **Quantity/volume received:**

Name: Date: Signature:][27]

[20] EU suggests this may not be needed.

[21] EU suggests this may not be needed.

[22] If more than one carrier, also attach information as required in block 4 for all other carriers.

[23] EU suggests this may not be needed.

[24] If multiple options apply to the equipment, please indicate them all.

[25] EU suggests this may not be needed. Could be replaced with a box asking for a description of the type of equipment moved.

[26] EU suggests this may not be needed.

[27] COCIR suggests that this may be less relevant for border controls and might be removed.

Appendix III

Declaration of testing and determination of full functionality and reuse destination of exported used equipment

Recording the results of evaluation and testing of used equipment destined for direct reuse (paragraph 26 (a))

Holder who arranges the movement (responsible for testing): Name: Address: Contact person: Tel: E-mail**:**	**Company responsible for evidence of functionality (if different than holder):** Name: Address: Contact person: Tel: E-mail:	**Carrier**[28] Name: Address: Phone No: E-mail:
Importer[29] Name: Address: Phone No: E-mail:	**User or retailer, [(if different from importer):]** Name: Address: Contact person: Tel: E-mail:	**[Country of export:** **Country of import:]**[30]

Declaration:

[I, the person that conducted the evaluation and testing declare that the results of evaluation and testing are complete and correct to the best of my knowledge.

Name: Date: Signature:][31]

I, the legal holder of the equipment listed below, hereby declare that prior to export the used equipment listed below was tested and is in good working condition and fully functional.[32] I confirm that this equipment is not waste as defined or considered as such in any of the countries involved in the movement and is destined for direct reuse[33] and not for recovery or disposal operations.

Name: Date: Signature:

[28] EU suggests this may not be necessary.

[29] EU suggests this may not be necessary.

[30] EU suggests this may not be necessary.

[31] EU suggests this addition. However, industry questions if this is practicable, in particular if the movement consists of equipment tested by different testing firms.

[32] Equipment or components are "fully functional" when they have been tested and demonstrated to be capable of performing at least the essential key functions they were designed to perform.

Essential key functions are the originally intended function(s) of a unit of equipment or component that will satisfactorily enable the equipment or component to be reused.

[33] Direct reuse **is the** continued use of equipment and components by another person without the necessity of repair, refurbishment, or hardware upgrading, provided that such continued use is for the intended purpose of the equipment and components.

Name of the item of equipment[34]	Name of the producer	Identification number (type no.) (if applicable)	Year of production (if available)	Date of functionality testing	Kind of tests performed and results of test (e.g. indication of full functionality or indication of defective parts and defect)[35]

[34] List the equipment that is intended to be moved together and identify the names of the equipment such as: PC, refrigerator, printer, TV, etc. Component parts, such as circuit boards, power supplies or batteries, can be sent in the batch without the details required in columns 2 and 3, but still will need to be tested.

[35] Attach details if necessary.

Appendix IV

Reference material

This appendix contains references to information on functionality testing or evaluation (paragraph 29), hazardous and non-hazardous equipment and hazardous components that can be found in such equipment (paragraph 37 bis) and information regarding health and safety aspects for inspections (paragraph 41).

1. Functionality testing or evaluation

This section contains references to tests and procedures for functionality tests of electrical and electronic equipment. The examples are not meant to be exhaustive but illustrate procedures as they are applied by some parties or recommended in other guidance documents under the Basel Convention. Testing procedures and protocols for other categories of used equipment are not yet available.

References from parties

Australia

Criteria for the export and import of used electronic equipment (DEH, 2005). Available on http://pandora.nla.gov.au/pan/51666/20050902-0000/www.deh.gov.au/settlements/publications/chemicals/hazardous-waste/electronic-paper.html

Annex B of the document contains parameters that may be used when testing functionality of certain types of equipment.

European Union

Revised Correspondents' Guidelines No. 1 on shipments of waste electrical and electronic equipment (WEEE) (2007). Available on http://ec.europa.eu/environment/waste/shipments/guidance.htm

Appendix 1 to these guidelines contains parameters that may be used when testing functionality of certain types of equipment.

Malaysia

Guidelines for the classification of used electrical and electronic equipment in Malaysia. (DOE, 2008). Available on http://www.doe.gov.my/portal/wp-content/uploads/2010/07/ECTRICAL_AND_ELECTRONIC_EQUIPMENTIN_MALAYSIA.pdf

Paragraph 7 of these guidelines contains parameters that may be used when testing functionality of certain types of equipment.

References from the guidance documents under the Basel Convention

MPPI - Mobile phones

The guidance document on the environmentally sound management of used and end-of-life mobile phones that was adopted at the tenth session of the Conference of the Parties (UNEP/CHW.10/INF/27/Rev.1 contains a number of proposed tests on functionality for mobile phones in its section 5.2.1.4

PACE - Computing equipment

The guidance document on environmentally sound management of used and end-of-life computing equipment that was adopted at the tenth session of the Conference of the Parties (UNEP CHW10/20) contains in appendix 5 to the annex a set of functionality tests for used computing equipment.

PACE - Laptop batteries

The guidance document on environmentally sound management of used and end-of-life computing equipment that was adopted at the tenth session of the Conference of the Parties (UNEP CHW10/20) contains in appendix 6 to the annex a set of functionality tests for laptop batteries.

Basel Convention regional centre for South-East Asia (BCRC-SEA)

Technical Guidelines for 3 R (Reduce, Reuse, Recycle) of End-of-Life Electrical and Electronic Products contains a number of functionality tests for different types of equipment in its annexes. These provide for specific tests for refrigeration systems, twin-tub washing machines, automatic washing machines, TVs and audio systems and PCs. The guidelines can be found at http://www.bcrc-sea.org/?content=publication&cat=2

2. Hazardous and non-hazardous equipment and hazardous components that can be found in such equipment

Section IV B of the guidelines contains information about the distinction between hazardous and non-hazardous e-waste. Additional guidance and examples of non-hazardous equipment and on hazardous components that can be found in equipment can be found in the following reference material.

Switzerland

The e-waste guide developed as part of the "Global Knowledge Partnerships in e-Waste Recycling" programme, initiated by the Swiss State Secretariat for Economic Affairs (SECO) and implemented by the Swiss Federal Laboratories for Materials Science and Technology (EMPA) contains a section on hazardous substances in e-waste: http://ewasteguide.info/node/219

Sweden

"Recycling and disposal of electronic waste – health hazards and environmental impacts", report no. 6417, March 2011, Swedish Environmental Protection Agency: http://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6417-4.pdf

3. Health and safety aspects for inspections

Section V of the guidelines provides information for control of transboundary movements of used equipment and e-waste. One of the aspects to be taken into account when carrying out controls is the health and safety of the enforcement agents. Additional information on how to take into account these aspects can be found in the following reference material.

Standardization bodies

OHSAS 18001 Standards for Occupational Health and Safety Management Systems is usually available from national standards institutions, e.g. the British Standards Institution: www.bsigroup.com

International Labour Organization (ILO)

The ILO guidelines on occupational safety and health management systems (ILO-OSH 2001) is available on: http://www.ilo.org/safework/info/standards-and-instruments/WCMS_107727/lang--en/index.htm

ILO has also developed an electronic tool kit on occupational health and safety which includes standards and advice but has to be purchased at a cost of $395 via:

http://www.ohsas-18001-occupational-health-and-safety.com/ohsas-18001-kit.htm

Basel Convention regional centre for South-East Asia (BCRC-SEA)

A guidance on occupational safety and health aspects specifically developed as guidance for hazardous materials/waste inspection "Panduan Singkat Pengelolaan Limbah B3 Dalam Rangka Pelaksanaan Konvensi Basel - Segi Keselamatan Dalam Inspeksi Bahan Berbahaya" ("Brief guidance for hazardous waste management under the Basel Convention implementation – safety aspects in hazardous materials inspection") written by D. Wardhana Hasanuddin Suraadiningrat, former Senior Technical Advisor to the BCRC-SEA, in 2008. Since it was initially prepared for the Customs & Excise Authority in Indonesia, it was written in Indonesian (Malay language)[36] and may need translation. Contact: baseljakarta@bcrc-sea.org.

[36] EU questions if a document that is not available in an official UN language is useful as reference.

Ireland

Ireland's Health and Safety Authority has on-line advice on developing an occupational health and safety (OHS) management system for a number of different occupations/industries. While waste management is not yet included in its directory, the site contains some useful general videos covering the elements of an OHS system (as per Irish legislation) and risk assessment – see these links:

http://vimeo.com/19383449 - about the online system

http://vimeo.com/19971075 - risk assessment

http://vimeo.com/19970831 - aafety statement

The guidance on risk assessment and the development of safety policy and a safety statement could be adapted for use by enforcement agents

United Kingdom of Great Britain and Northern Ireland

The United Kingdom Health and Safety Executive has online guidance on occupational health and safety relating to the waste industry and specifically to waste electronic and electrical equipment. See these links:

http://www.hse.gov.uk/waste/index.htm

http://www.hse.gov.uk/waste/waste-electrical.htm.

Appendix V

References

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Basel Convention Mobile Phone Partnership Initiative (MPPI), 2009c. Guidelines for the transboundary movement of collected mobile phones. Revised and approved text 25 March 2009

Basel Convention Mobile Phone Partnership Initiative (MPPI), 2009d. Guidelines on the refurbishment of used mobile phones. Revised and approved text 25 March 2009

Basel Convention Mobile Phone Partnership Initiative (MPPI), 2009e. Guidelines on material recovery and recycling of end-of-life mobile phones. Revised and approved text 25 March 2009

Basel Convention Partnership on Action for Computing Equipment (PACE) environmentally sound management criteria recommendations

Basel Convention Partnership on Action for Computing Equipment (PACE) guidelines on environmentally sound testing, refurbishment, and repair of used computing equipment

Basel Convention Partnership on Action for Computing Equipment (PACE) Guidelines on Environmentally Sound Material Recovery and Recycling of End-of-Life Computing Equipment

Basel Convention Partnership on Action for Computing Equipment (PACE). Guidelines on transboundary movement of used and end-of-life computing equipment.

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