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BASEL CONVENTION

Open-ended Working Group of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal
Tenth meeting
Nairobi, 30 May–2 June 2016
Item 3 (b) (i) b. of the provisional agenda**

Matters related to the work programme of the Open-ended Working Group for 2016–2017: scientific and technical matters: technical guidelines: 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

Summary of comments received from parties and others on issues mentioned in paragraph 5 of decision BC-12/5 and on appendix V of the interim 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

Note by the Secretariat

1. As referred to in document UNEP/CHW/OEWG.10/5, parties and others were invited to provide comments on the issues mentioned in paragraph 5 of decision BC-12/5 and on appendix V of the interim 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.

2. As of 27 April 2016, comments were received from Australia, Brazil, Canada, China, Colombia, European Union and its member States, Malaysia, New Zealand, State of Palestine, Basel Action Network (BAN) and Global Diagnostic Imaging, Healthcare IT Radiation Therapy Trade Association (DITTA).

3. A summary of comments received from parties and others is set out in the annex to the present note. The present note, including its annex, has not been formally edited.

* Reissued for technical reasons on 26 May 2016.

** UNEP/CHW/OEWG.10/1.

Annex

Summary of comments received from parties and others on issues mentioned in paragraph 5 of decision BC-12/5 and on appendix V of the interim 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

Submitter	General Comments	Specific suggestions
Australia	Thank you for the opportunity to provide comments on the issues referred to in paragraph 5 of decision BC-12/5 and Annex V of the 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 (technical guidelines). Australia considers that the adoption of the technical guidelines is an important step in the more effective control of used electronic equipment and e-waste. Australia is in the process of applying these guidelines to its domestic control regime for transboundary movements of used electronic equipment. Testing the practical application of the guidelines and sharing experiences is important to help inform consideration as to the need for further work. Notwithstanding the need to focus on testing the application of the guidelines, Australia recognises that there are unresolved issues from COP12 , specifically those listed in Annex V of the technical guidelines, which may require further discussion. In this context, Australia wishes to submit its views on some of these issues for consideration at OEWG 10, and looks forward to discussions that will help lead to improvements in the environmentally sound management of used electrical and electronic equipment and e-waste.	**1. Residual life time and age of used equipment** We appreciate the intent of this proposed condition in seeking to avoid imports of used equipment that have a short life, which then pose a waste disposal problem for countries that do not possess the capability to manage the waste stream in an environmentally sound manner. However, we consider the criteria on residual life/age identified in Annex V do not offer apractical solution, and pose a significant risk (if adopted) of stopping the legitimate export of used equipment for the purpose of repair/refurbishment and the premature scrapping of many products: • Residual life time is very difficult to determine and hence is not a good criterion to use for waste / non-waste. The life expectancy of an individual item depends very much on the way it was used / the conditions (e.g. temperature, humidity) and if it was maintained /repaired properly (e.g. worn parts have been replaced). • Repairs and refurbishment are extending the lifespan of equipment significantly and allow equipment to be resold and given a "second life". These practices are good for the environment by eliminating waste and are economical for the consumer whether in the first or second life scenario. • We understand that the production date of an item is not documented for many products, and not at all for parts / components. Some companies incorporate the year of production in the unit barcode/serial number, however, it would be very difficult for an untrained technician to decipher and decode the year of production in the asset tag. • The commencement of a warranty period may be known for some products, but this data is erased as soon as the warranty expires. For many products in the consumer market, this data is not captured but instead there is a reliance on the invoice a customer needs to produce when they claim a warranty case. • Universal age limits would be particularly problematic for the medical sector which retains equipment for very long periods of time. • We would be interested in considering other proposals that could help address the potential for equipment imported for reuse (after repair and/or refurbishment)

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		reaching end-of-life within a short period. **2. Obsolete technologies, including cathode ray tubes** Discussions on the issue of obsolete technologies have to date focused on a particular technology, namely equipment containing cathode ray tubes. Further discussion on this issue would benefit from clarity on the practical criteria that would apply in determining whether a technology ought to be excluded from transboundary movements of used equipment destined for failure analysis, repair and refurbishment as a non-waste. We do not support a uniform ban of the movement of used equipment containing cathode ray tubes (CRTs). CRTs are still used in some medical and broadcasting equipment for public purposes, and many of them are expensive and have a long product life. There is a need for repair for those CRTs. Furthermore, non-consumer out-of-production electronic equipment that is still in use may depend on older technology replacement parts to function where there is no "drop-in" newer technology replacement. A uniform ban on transboundary movement of equipment containing CRT technologies could result in used equipment being supported with these listed spare parts being prematurely scrapped for final disposal before the end of their useful working life. This is particularly true for products with longer useful working lives, such medical devices. **3. Specific exemption for medical devices and used parts** Australia has a general preference for having one set of criteria to govern used equipment destined for failure analysis, repair and refurbishment as a non-waste, rather than have sector-specific groupings of conditions. We appreciate that transboundary movement of used equipment for failure analysis, repair and refurbishment is an important aspect of the business model for the medical sector. The considerable benefits from this trade (eg., for patients, the environment) makes it important that any criteria proposed for the technical guidelines allow legitimate trade in this equipment to continue in an economic and efficient manner. **4. Waste resulting from failure analysis, repair and refurbishment activities** We consider it important that hazardous waste arising from failure analysis, repair and refurbishment activities be disposed of in an environmentally sound manner. Rather than establishing criteria that specifies the destination for residual waste, we consider it would be more appropriate to place emphasis on transparency provisions and the obligations of exporters to demonstrate that any residual wastes generated will be managed in an environmentally sound manner in suitably licensed facilities. This could be in the State of import or elsewhere, as per the provisions for environmentally sound management of hazardous wastes exported under the Basel Convention. Australian IT companies currently engaged in such trade have terms and conditions in their contracts to comply with all applicable environmental regulations, including proper

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		disposal of any residual waste generated from repair operations. Some members also have programs to review supplier' environmental impacts. For original equipment manufacturers, handling and processing residual wastes is a strict and measurable requirement they place on their preferred repairers. It is notable that the majority of countries that are conducting repair operations on electronic products sourced from Australia also manufacture new products that generate similar wastes as would be generated from repair. These countries, which are predominantly non-DECO countries, have advanced processing facilities (adhering to international environmentally sound management / best practices) that exceed capabilities within Australia. We are not aware of any incidents in, or concerns from, importing countries regarding current practices for the management of residual wastes arising from the existing trade in used equipment for failure analysis, repair and refurbishment from Australia.
Brazil	First, Brazil would like to highlight its opinion that the classification of a waste as hazardous must be determined by the text of the Basel Convention. Manuals should ONLY be applied to guide the environmentally sound management of waste. In previous discussions, some parties to the convention wished to consider the possible exception of classifying a waste as non-hazardous only because it could be recycled. In this case, the waste will no longer be considered as such, but as a used product instead, removing the control established by the Convention. That is exactly the point with which the Brazilian government does not agree.	(a) Residual lifetime and age of used equipment; It is our understanding that it is difficult to determine the residual average age for all electronics because it depends on multiple factors as the type, handling, social habits, technology used, among others. (b) Management of hazardous wastes from failure analysis, repair and refurbishment operations in developing countries; We believe that some of the information required can be found at the national reports. Requiring identification of all installations individually might make the establishment and the maintenance of the database burdensome and difficult. (c) Obsolete technologies, including cathode ray tubes; Brazil has previously expressed favorably to the inclusion of cathode ray tubes as criteria to determine when a used equipment is considered a hazardous waste. Thus, any shipments containing equipment with this type of technology should be considered as a transboundary movement of waste subject to control by the Basel Convention. (d) Presence of hazardous components in used equipment; Brazil considers that the reference to RoHS is not feasible and enforceable at this moment, mainly because it is a norm that does not apply to all parties of the Basel Convention.
Canada	(a) Residual lifetime and age of used electronic and electrical equipment (EEE): We recognize that the import of near end-of-life EEE in some countries is an issue of concern and we are motivated to develop effective and implementable measures to help control the movement of used equipment where necessary. In order to be accurate, the determination of residual lifetime must consider many factors (e.g. type and make of the equipment, age of manufacturing or start of use, age of certain	(a) Residual lifetime and age of used electronic and electrical equipment (EEE): At this time and based on our current knowledge, we do not consider it possible to use this criterion in the determination of waste or non-waste status under the Basel Convention. Management of hazardous wastes from failure analysis, repair and refurbishment operations in developing countries: At this time, it would be useful to incorporate case examples of different approaches and

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	parts, conditions of use, etc.). An arbitrary residual lifetime value (e.g. one third, since date of manufacture) would lead to the discard of products that may have years of functional life left and work against the waste hierarchy agreed upon under the Basel Convention. We note serious implementation challenges with the residual lifetime criterion that may create barriers to the trade of these goods if not adequately defined. For example, • The age of the EEE is the starting point for establishing residual lifetime. The age of EEE and batteries can be difficult to determine given that many devices or spare parts are not date stamped. Also, the date of manufacture is not routinely specified in contracts between companies except in some cases for EEE under warranty; - The lifetime of EEE varies from one product type to another and even with the same product type, from one manufacturer to another. It would not be feasible to develop and maintain a list of EEE with their associated lifetime. Among other things this would require extensive work to document all EEE currently on the market and constant updating to reflect new EEE; • Residual life is also influenced by the initial product quality and conditions of usage. It also needs to take into account not only the manufacturing date but the purchase date as this would have a direct impact on the residual lifetime; • Labelling and documentation is needed to implement a residual lifetime criterion; however, some of the necessary information would need to come from the last user. This can raise issues of credibility and validity. There are too many factors that must be taken into account to establish a valid residual lifetime criterion which can lead to inconsistent application of the criterion, misrepresentation and other implementation issues. We favour reliance on objective criteria supported by credible documentation. For example, the functional value of EEE can be assessed via testing, labeled by those who conducted the tests, and accompanied with written declarations. Training for the implementation of import/export regulations of EEE wastes suggest using simple criteria that can be met through the submission of reliable documentation. We acknowledge the Bamako Convention, and its decision l/15, which calls for its Parties to adopt legislation to control the import of near-end-of-life EEE. We would be very interested to hear from Parties currently implementing or considering implementing such a criterion to inform our thinking on whether or how the residual lifetime concept can be incorporated in control measures. At this time and based on our current knowledge, we do not consider it possible to use this criterion in the determination of waste or non-waste status under the Basel Convention. (b) Management of hazardous wastes from failure analysis, repair and refurbishment operations in developing countries:	successful best practices in the guidelines as a means of stimulating constructive discussions and establishing a certain baseline for this criterion. (b) Obsolete technologies, including cathode ray tubes To implement guidelines related to obsolete technologies in a consistent manner, Parties will need to set out criteria and develop a common and agreed upon list of what is considered obsolete.

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	The environmentally sound management (ESM) of hazardous wastes and other wastes, including residual wastes, is important and should respect the environmental legislation of the country where the operations are taking place. The provisions pertaining to the ESM of hazardous waste and other wastes, including residual wastes, are for the most part reflected in Article 4 of the Basel Convention. These provisions recognize the sovereign right of Parties to decide on the extent of their domestic regime for the ESM of waste and to place additional legal controls (e.g. import bans or restrictions on EEE and/or batteries). The usual practice has been that residual wastes or hazardous wastes generated from a disposal or recycling operation are not returned to the country of export. There are a range of policies and requirements implemented by either the exporting or the importing countries in relation to ESM requirements for facilities conducting failure analysis, repair and refurbishment of used EEE.) For example: • Obligations to export residual waste to facilities that meet ESM standards; • Terms and conditions in contracts to comply with applicable environmental regulation that includes proper disposal of residual waste generated during repair operations; • Programs to review vendor's environmental impact; and • Certified e-waste treatment facilities either within a country or a neighbouring country. Without a strong analysis of the effectiveness and weaknesses of current practices by experienced Parties that host such facilities and from Parties that have incorporated some of these requirements in their legislation, it is difficult to establish definitive guidance. (c) Obsolete technologies, including cathode ray tubes: We support the idea that when used equipment is transported across borders, it generally should not contain cathode ray tubes. However, we would like to deepen our understanding of this topic through Open-Ended Working Group (OEWG) discussions before advancing a solution. Our understanding is that most companies have stopped shipping used equipment destined for failure analysis, repair or refurbishment if they contain cathode ray tubes with the exception of medical devices where small cathode ray tube monitors may still be used. To implement guidelines related to obsolete technologies in a consistent manner, Parties will need to set out criteria and develop a common and agreed upon list of what is considered obsolete.	
China	1. Residual lifetime of used equipments is the key condition to determine if they are used equipments or not. A lot of countries have regulated the residual life related conditions when importing used equipment for reuse. If residual life of products is not requested, it will lead to the fact that products functional but close to the end of	1. On residual lifetime of used equipment It is suggested that residual lifetime of used equipment required is no more than a certain number of years (for example 3 years or two thirds of the average service life) in principle. The average service life or safety service life of common electrical and

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	life become e-waste soon after imported, increasing the burden of waste disposal of importing country. In addition, household and similar electrical appliances after a certain service life will pose a threat to the safety of the human body because of their decreasing safety performance. 2. The management system of e-waste in many developing countries are in the initial stage, thus the development of waste recycling and treatment facility is not yet enough, and repair and refurbishment activities of used electronic products are mainly small workshop mode and largely unregulated in many developing countries. In this case, residual waste including hazardous waste generated in the process of repair and refurbishment of importing used equipment, may not be sound managed and will bring harm to the environment and human health of importing countries normally developing countries. 3. The market of products using obsolete technique e.g. cathode ray tube is shrinking year by year, especially in the year of new technology changing faster and faster. At present, the countries having market demand for these products are poor developing or least developed countries. Most of these countries have not yet established advanced management system of e-waste, and the products in those countries may probably not be sound managed after become e-waste. In addition, due to elimination technique, the products will not be able to get quality assurance e.g. after-sales maintenance, increasing the possibility that the products become waste. 4. In order to protect the environment and human health, most countries established regulations standards similar to the EU ROHS directive to limit dangerous substances in electrical and electronic products. In the perspective of protecting the environment and human health, restriction of hazardous substances content of used equipment should be the same with new products. If manufacturing date of used equipment is many years ago, it will probably cannot meet the requirements of the standard and its use will not be able to protect the environment and human health.	electronic equipment is suggested to list in annex to the guideline. In addition, it is recommended that used equipment importers or enterprises of maintenance and renovation provide at least 1 year's product quality assurance, in order to ensure that the products are effectively reused. 2. On management of hazardous wastes from failure analysis, repair and refurbishment It is suggested that hazardous waste generated from failure analysis, repair and refurbishment should be required to be returned to the original country of export for environmentally sound management pursuant to the take back requirement of Basle Convention (paragraph of article 9). 3. On obsolete technologies including cathode ray tubes It is suggested that the products using obsolete technique e.g. cathode ray tube (CRT) should be banned, unless special countries have clear demand of these products, and inform the Secretariat of the Convention. It is suggested that disposal plan of these products after becoming waste are required to provide, in order to meet the principle of environmentally sound management. 4. On presence of hazardous components in used equipment It is suggested that standard requirements of hazardous components of used equipment should be the same with new products, and comply with related national and international standards.
Colombia (original in Spanish)		**Appendix V - Issues for further work** **1. Party notifications as per paragraphs 27 and 29** Colombia considera que es importante mantener este requerimiento o aclaración en los parágrafos 27 y 29. Es decir que aunque la autoridad no haya notificado previamente a la Secretaria su intención o no de recibir AEE usados, la exportación solo proceda cuando la persona encargada de dicho transporte ha obtenido confirmación de la autoridad del país de destino que dicho equipo no es considerado un desecho. **2. Appendix III, box 8** [the receiving facility is covered by a notification by the authorities of the country of import indicating it may receive equipment as non-waste as published by the Secretariat of the Basel Convention]; Colombia considera que no es necesario incluir este requisito adicional en el cuadro No. 8

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		del Apéndice No. 3, ya que sería un trámite engorroso y poco útil para las autoridades y no se trata de un residuo. En el caso de Colombia, las empresas que realizan análisis de fallos, mantenimiento de equipos usados y reacondicionamiento no están sujetas a un permiso o control ambiental; por lo tanto no tendría como verificar o reportar dicha información. **3. Residual life time and age of used equipment** Colombia considera que el requisito de la vida útil residual, del literal a y b, es un parámetro difícil por no decir imposible de determinar con certeza técnica. El tiempo de vida útil de un AEE (life-span) es una variable incierta que depende de muchos factores tales como: el tipo de AEE, el fabricante, la calidad de los procesos y materiales, el mantenimiento predictivo, preventivo y correctivo que el usuario le aplique al AEE, por mencionar los factores determinísticos. Ahora, la "vida residual" es un variable que técnicamente también depende de muchos factores no determinísticos y que medirla en laboratorio sería un procedimiento muy sofisticado si es posible hacerlo, y tal vez, lo suficientemente costoso, que haga inviable el proceso de reutilización. De otra parte, respecto al año de fabricación del AEE incluido en el literal c, aunque pueda ser también difícil de determinar, es un parámetro que puede ser útil para determinar su viabilidad de reutilización, o para determinar si está construida con tecnologías no limpias, demasiado obsoletas o inadecuadas, por lo que se considera recomendable mantenerlo. **4. Obsolete technologies, including cathode ray tubes** Colombia considera que se debe respetar y cumplir con las legislaciones, estándares, y normas que tengan los países sobre la restricción en el uso de sustancias peligrosas en los AEE. En cuanto al segundo corchete sobre CRTs, teniendo en cuenta que en los países en Desarrollo no se tiene tecnología apropiada para manejar los tubos de rayos catódicos al final de su vida útil de manera ambientalmente segura, se recomienda que en el texto debe quedar alguna alusión sobre este tema que permita a los países conocer desde la entrada del aparto al país, si contiene CRTs o no y así poder tomar las medidas a que haya lugar en el marco de normativa nacional. **5. Identification of relevant actors in the documentation** Colombia considera importante que sí se incluya el nombre del fabricante original en los requisitos de información del parágrafo 32 del apéndice III, con la finalidad de determinar la viabilidad de que haya una gestión final adecuada del AEE usado que se introduce al país cuando éste se convierta en residuo, para poder aplicar el Principio de la Responsabilidad Extendida del Productor (EPR). **6. Specific exemption for medical devices** Colombia considera que los dos textos encorchetados pueden ser complementarios. Es decir, el manejo de los residuos peligrosos resultantes de las actividades mencionadas en este parágrafo para equipos médicos usados, puede ser realizado en países Anexo VII o no Anexo VII siempre y cuando existan las facilidades o instalaciones que puedan garantizar un manejo ambientalmente racional de dichos residuos de acuerdo con lo estipulado en el

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		Convenio de Basilea. En el momento en que entre en vigor la enmienda de prohibición, estos desechos no podrán ser exportados a países no anexo VII, de igual forma es importante que se indique en el texto que se debe respetar las prohibiciones establecidas en la legislación de cada país de prohibir el ingreso de desechos peligrosos. **7. Specific exemption for used parts** Colombia puede estar de acuerdo con esta excepción. La importación de partes usadas es vital para la industria de la reparación, el reacondicionamiento y la remanufactura, puesto que abarata los costos de dichas operaciones y las posibilidades de extensión de la vida útil de AEE cuyos repuestos nuevos han sido descontinuados por el fabricante, o este ha desaparecido o es inviable su importación desde el país de origen. Tal como lo reconoce el texto propuesto, la economía circular es una de las principales estrategias para atacar la problemática del agotamiento de las materias primas. **8. Waste resulting from failure analysis, repair and refurbishment activities** Colombia considera que la opción 2 de redacción es la más adecuada y clara. De manera general se considera que si el AEE usado fue exportado para análisis de fallos, reparación o reacondicionamiento y está actividad no fue posible o no se pudo llevar a cabo en el país de importación, debe mantenerse la responsabilidad del exportador frente a esos AEE usados; y de otra parte, se debe mantener el derecho del país de importación para que pueda devolver al país exportador ese AEE usado que no fue posible analizar, reparar o reparar. **9. Section VI: Guidance to facilities for conducting failure analysis, repair and refurbishment** Colombia considera razonable y coherente la propuesta de inclusión de estas cláusulas contractuales en el contrato entre el exportador e importador, a fin de que se establezca claramente las condiciones de manejo de los AEE en caso de que no se realice tales procesos o respecto a los residuos generados durante tales procesos. Esto además, sería complementario y concordante con lo propuesto en el punto anterior frente a las responsabilidades del país exportador
European Union and its member States	The EU and its Member States consider that the adoption of the technical guidelines is a significant step forward in protecting particularly vulnerable countries from risks to human health and the environment associated with unwanted imports of e-waste. This is because the guidelines provide useful guidance on the distinction between waste and non-waste electrical and electronic equipment and on the possible control techniques and procedures to be applied in the different cases. We consider that the next step following the adoption of the guidelines should be to ensure that these fulfill their intended purpose in practical application and use. Therefore, it is important that Parties will focus on implementing the guidelines on the ground, in particular in areas where problems with e-waste management exist as well as on gaining	We consider that our immediate work should focus around the practical application of the adopted guidelines as well as the gaining and exchange of experience from their use. In doing so, Parties would be able to better assess the need for further work on the guidelines in due course

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	experience from their use. The EU has already taken action to prevent unwanted shipments of non-functional electrical and electronic equipment to developing countries through specific provisions that are laid down in Directive 2012/19/EU on waste electrical and electronic equipment.[1]. As regards inspections of shipments carrying used electrical and electronic equipment that is suspected to be waste, Article 23(2) of this Directive requires Member States to carry out appropriate inspections and monitoring and to ensure that shipments are carried out in accordance with minimum requirements in Annex VI of the Directive. EU Member States had to transpose this Directive until February 2014 and are in the process of gaining experience with its application.	
Malaysia	n/a	**Party notifications as per paragraphs 27 and 29** Comment: i) Importing countries shall notify the Secretariat of the Basel Convention in accordance with Articles 3 (National Definitions of Hazardous Wastes) and 13 (Transmission of information) paragraph 2, if there is any significant changes to the information as soon as possible. ii) Importing countries shall notify to the Secretariat of the Basel Convention the definition or guideline or guidance used by the importing country to define used electrical and electronic equipment and the requirements for the importation of the used electrical and electronic equipment. iii) The Secretariat of the Basel Convention shall ensure the provided information by the importing country as in (i) & (ii) will be updated and available on the Basel Convention website in order for all Parties involved in the transboundary movements to be alert and comply with the requirement. **Appendix III, box 8** Comment: i) Malaysia support for the need of approval from the importing country. The information in Appendix III, box 8 shall include the following: a) Approval from the authority country of import prior to every movement. b) Operational information such as operational licenses from the relevant authorities/agencies in the country of import is required. **Residual life time and age of used equipment** Comment: i) Disagree with the residual life of the equipment is no longer than 1/3 of the normal life-

[1] OJ L 197/38, 24.7.2012, p.38; see http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32012L0019.

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		span of this kind of new equipment. ii) The used equipment shall be considered as waste by the National Legislation or national guidelines for used electrical and electronic equipment including the age of the used equipment from the date of manufactured. **Requirements for transport of used equipment destined for root cause analysis, repair and refurbishment** Comment: i) Used equipment destined for failure analysis, repair and refurbishment is only for new electrical and electronic equipment or components which are **under warranty** that are returned as defective units for repair to the manufacturer with the intention of re-export (to be returned to the original country of export). ii) All residual waste generated from the failure analysis, repair and refurbishment shall be taken back to the country of export unless the residual hazardous waste can be treated in the importing country in an environmentally sound manner (ESM) in accordance with the Basel Convention. iii) In the case of the whole used equipment that after failure analysis, repair and refurbishment is still unrepairable, it shall be taken back to the country of export and disposed of in an environmentally sound manner (ESM). **Documentation to be provided by the person who arranges the transport** Comment: i) The date/year of production for every used electrical and electronic equipment destined for direct reuse shall be provided by the person who arranges the transport. In addition, the certificate of inspection/ certificate of functionality test from a competent authority or certification body or any other relevant agency for the status of the items to imported/exported must be part of the mandatory documentation to be provided. ii) Every used equipment destined for failure analysis, repair and refurbishment shall possess the certificate of warranty. **Obsolete technologies, including cathode ray tubes** Comment: i) The products using obsolete technologies such as cathode ray tube (CRT) shall be banned for the transboundary movement. **Identification of relevant actors in the documentation** Comment: i) Agreed with the additional actors to be provided in Appendix III. The information of

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		intended carrier(s) shall be provided in details (first carrier – last carrier). ii) Additional information should also include in the Appendix III is as following: a) Customs code(s)(HS). b) Designation for each relevant actor. **Specific exemption for medical devices** Comment: i) Any transboundary movement of used medical devices and their components shall require the clearance/permission from the Health Authority in the importing country. **Specific exemption for used parts** Comment: i) All used parts for service and maintenance of equipment which may contain electrical or electronic components, handled in a closed circular economy for remanufacturing shall be certified fully functioning by Original Equipment Manufacturer (OEM) and approval by the importing country. **Waste from failure analysis, repair and refurbishment activities** Comment: i) All equipment under warranty that after failure analysis, repair and refurbishment is still unusable will be returned to the county of export together with the repaired equipment that is useable for validation and tracking and to be exempted from Basel Convention. ii) The text in 31 (b) (ii) a. Provisions on adherence to the principles of ESM for the treatment of any residual hazardous waste generated through the failure analysis, repair or refurbishment activities; *a) Additional clause for the text in 31*(b) (ii) a. *"All residual waste generated from the failure analysis, repair and refurbishment shall be taken back to the country of export unless the residual hazardous waste can be treated in the importing country in environmentally sound manner (ESM) in accordance with the Basel Convention"*. iii) The text in 31 (b) (ii) d. A provision allocating responsibility to specific persons throughout the whole process, from export until the equipment is either analysed or repaired or refurbished to be fully functional, including cases where the equipment is not accepted by a facility and has to be taken back; *b) Additional text for the text in 31*(b) (ii) d. has to be taken back *"to the country of export"*. **Appendix IV – Reference materials – an entry on Malaysia to be updated with** Comment:

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		Guidelines for the Classification of Used Electrical and Electronic Equipment in Malaysia. (DOE, Second Edition, 2010). Available at: http://www.doe.gov.my/portalv1/wp-content/uploads/2010/07/ECTRICAL_AND_ELECTRONIC_EQUIPMENTIN_MALAYSIA.pdf
New Zealand	NZ supports the agreed text in the body of the guideline. We have found this to be useful and clear. The issues for further work may not all be necessary and some could be left out of the guideline altogether.	**Appendix V: Issues for further work** **1.Party notifications as per paragraphs 27 and 28** Comment – would need a standard format for this so authorities in the export country can recognise the document and, if necessary, check its authenticity Further work is needed to address the issue how to reflect the information contained in the notification from countries in the declaration made by the person who arranges the transport. Comment – this is similar to the pre-consenting done under the OECD Decision for specific facilities. Experience with the OECD decision is this mechanism is not often used and notification can be out of date. We have no objection to it. **2.Residual life time and age of used equipment** a) When equipment normally should be considered waste: Comment – this is unworkable. It requires a regulator to have a view of the 'normal lifespan' of each type and make of equipment. We don't have this information and we cannot see how this would work in practice, especially since some people are happy to use items that are older (and outdated) whilst other aren't. (Note too that this criterion is much more difficult to implement than 'is it functional'? b) Requirements for transport of used equipment for root cause analysis, repair and refurbishment Comment – this is unworkable. It requires a regulator to have a view of the 'normal lifespan' of each type and make of equipment. We don't have this and we cannot see how this would work in practice. c) Documentation to be provided by the person who arranges the transport Comment – This is meant to be in the documentation accompanying the shipment. It would be a long list for items such as cell phones where there may be many 100's of phones in a shipment. We question the need as the separate packaging and test requirements already cover the issue of whether this is waste. **3. Obsolete technologies, including cathode ray tubes** Comment – this would eliminate from used products older equipment that is not RoHS compliant. Such material would have to be treated as waste regardless of whether or not it

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		is functional. In all likelihood this older gear is going for resource recovery/dumping so should be treated as waste. Note that the wording will also create some difficulties 'applicable national legislation' could mean we have to know offshore consumer law. The reference to 'standards and guidelines' is also open-ended. There are many standards and guidelines that have no regulatory force. **4.Identification of relevant actors in the documentation** No comment. **5. Specific exemption for medical devices** Comment – NZ has supported this exemption in the past. The issue is that some medical equipment often has a longer life than much e-waste and it is often refurbished and repaired. The equipment is relatively expensive and the repair refurbishment is done by specialists. Enabling longer use of older items significantly reduces the volume of hazardous wastes and can reduce the costs of providing health care. The suggested text beyond 'environmentally sound management' should be deleted. Annex VII countries are not the only countries that can carry out ESM management of wastes. In addition some of the equipment may well have been designed and manufactured in non-Annex VII countries (see 7 below for comment on these restrictions). ESM is a requirement for any transboundary movement of hazardous wastes, and this applies to material going to both Annex VII and non-Annex VII countries. **6. Specific exemption for used parts:Specific conditional exemption for used parts in the context of transports for failure analysis, repair and refurbishment.** Comment – this seems to seek an out for the text suggested by some in 30(a) that would require export of all waste arising from repair. This is unnecessary if the text suggested below in comment on 7 is accepted. **7. Waste from failure analysis, repair and refurbishment activities** Comment – all of these place various restrictions on the management of equipment needing repair to ensure the waste generated by the repair (defective components etc) is managed in a way that that ESM. The area of disagreement relates to whether there are further restrictions on the waste element. The more problematic items (in square brackets) relate to suggestions that any residual can only be returned to the country exporting the non-functional equipment for repair. We are opposed to this approach because: • The country exporting the item for repair may have no facilities to properly manage the residual from repairs • The country designing and making the item may well be the country doing the repairs (especially if this is under warrantee). Following the logic underpinning extended

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		producer responsibility (EPR) the producer is usually best equipped to manage the product. This restriction would prevent this. • An example of the problem with the wording would be (say) a Chinese designed and made product under warrantee could be repaired but the defective parts would be returned to the country that imported the equipment in the first place. The parts would be exported for ESM again if the country using the computer had no resource recovery facilities. • The suggestion gives no recognition to the position of small countries dependent of offshore suppliers for electronic equipment and nor does it recognise that there are costs and adverse impacts from shipping wastes backwards and forwards (ie waste miles). The text in section IV seems to avoid some this. However, the return of the waste to the 'person who arranges the transport' in b) is too rigid and not always appropriate. The requirement for the ESM to be in 'another country' in b) is also unnecessary for the reasons given above. Suggested wording could be (taken from the first version of 30(a)): [[~~All equipment that after [failure analysis] [root cause analysis]~~[2]~~, repair and refurbishment is still unusable will be taken back to the country of export].~~ All residual waste generated from the ~~[failure analysis]~~ [root cause analysis], repair and refurbishment operation which is hazardous according to the Basel Convention definitions (Article 1, 1(a) and 1(b)) or its hazardous characteristics are unknown, shall be disposed of [in an environmentally sound manner (ESM) in accordance with the Basel Convention]~~[in an Annex VII country][in [the export country or] an Annex VII country unless accompanied by a conclusive proof that the residual hazardous waste can be treated at a facility in the importing country is ESM].~~ Any transboundary movements necessary shall be accomplished in accordance with the Basel Convention;]
State of Palestine	The proposed provision should take into consideration the case of State of Palestine which is under occupation. Being under occupation means not to be able of controlling its borders and associated problems will be faced during the trans-boundary movements of electrical and electronic waste and used electrical and electronic equipment. More over, there is a need to compel parties not to export those electrical and electronic waste and used electrical and electronic equipment to developing countries and countries that do not have full control on borders or that do not have the principle infrastructure to deal with these materials correctly.	(a) Residual lifetime and age of used E-equipment. We agree with you that residual lifetime of used E-equipments should be counted from the first day of manufacturing. (b) Management of hazardous wastes from failure analysis, repair and refurbishment. It is recommended to obligate the suppliers of the used E-equipments that contain hazardous wastes to return these E-equipments back to the country of origin and provide a grantee to deal with them in principle of ESM, or to be treated and disposed in certified E-waste treatment facility.

[2] For the guidelines it was agreed to use the term 'failure analysis' and to delete the term 'root cause analysis' which is a specific form of failure analysis as explained in the glossary.

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		(c) On obsolete technologies as cathode ray tubes. It is well known that the cathode ray tubes technology is completely disappeared from the developed countries. in the meanwhile, large quantities of E-equipments containing cathode ray tubes are currently being used in the poor and developing countries. So we highly recommend adopting a plan or program for helping these countries to quit using of such equipments and to dispose them in a way that meets the principle of environmentally sound management.
Basel Action Network (BAN)	The comments provided by the Basel Action Network are applicable to the whole of the technical guidelines under this content, in general, and therefore are available on the Basel Convention website, under the following link: http://www.basel.int/Implementation/Ewaste/TechnicalGuidelines/DevelopmentofTGs/tabid/2377/Default.aspx	
Global Diagnostic Imaging, Healthcare IT Radiation Therapy Trade Association (DITTA)	DITTA strongly recommends the exclusion of medical devices from the TG. This exemption, under the condition that the shipment is managed by the original manufacturer, is the best solution involving the higher benefits. DITTA proposes the following text to be added to the TG: "26(new) Where used medical devices and parts are sent by and to the manufacturer or a third party acting on behalf of the manufacturer, for root cause analysis, failure analysis, diagnostic testing, refurbishment, or repair under a valid agreement"	1. RESIDUAL LIFETIME AND AGE OF USED EQUIPMENT When a medical device is refurbished, it is given a new extended life with the safety and effectiveness comparable to a new product. Refurbishment significantly extends the lifetime of medical devices. The Good Refurbishment Practices adopted by DITTA members requires that used medical devices are refurbished only if it is possible to ensure that safety and performances can be restored to a level at least equal to when the product was new. Imposing an arbitrary residual lifetime for all medical devices as a condition of "non-waste shipment" is not reasonable. A "one size fits all" threshold level will preclude many modalities from refurbishment or repair. 1. Refurbished devices and repaired parts are brought back to original specifications. As such, manufacturers do not estimate residual life. 2. The age of the equipment requires the knowledge of the manufacturing year, which is not always available on the equipment's plate. Control authorities will not be able determine or verify claims about residual lifetime. 2. MANAGEMENT OF RESULTING HAZARDOUS WASTE IN DEVELOPING COUNTRIES Refurbishment of medical devices is an environmentally friendly activity and one of the most important elements in a circular economy. Refurbishment saves resources and energy by reusing equipment and parts. 1500 tons of used medical devices are shipped yearly to non-OECD countries (China, India and Malaysia only) for RRR activities. DITTA estimates that 84 tons of waste is generated in those countries per year, most of which is non-hazardous. 100% of the waste is treated locally by facilities with environmental certifications. DITTA also estimates that 672 tons of used equipment are shipped per year worldwide for root cause analysis, and only 61 tons to the same three non-OECD countries. Root cause analysis is a mandatory requirement for manufacturers to ensure the highest level of safety for medical devices. In 2014 China, India and Malaysia generated 7.9 2 million tons of e-waste. The waste generated by refurbishment and root cause analysis activities (145 tons in total) accounts for less than 0.0018% of the total. 1 UNEP/CHW.12/5/Add.1/Rev.1 2 United Nation University - The Global E-Waste Monitor

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		2014 22 December 2015 3 | 3 Any additional requirement or constraints on the shipment of used medical devices and parts destined for RRR activities will reduce the availability of quality, affordable health care, and increase adverse impacts on the environment through increased resource extraction and waste generation. 3. OBSOLETE TECHNOLOGIES, INCLUDING CATHODE RAY TUBES In some instances, small CRT monitors can still be used in medical devices and such devices are perfectly fit for refurbishment. Therefore, any ban on transboundary movements of CRT based technologies should not be extended to medical devices including CRT. 4. SPECIFIC EXEMPTION FOR MEDICAL DEVICES Shipments of used medical devices and parts cannot meet the new requirements listed in Appendix V of the TG on TBM of E-waste. The fact is, there are only benefits in allowing free trans-boundary movement of used medical devices and parts for RRR. Therefore, used medical devices and parts should be excluded from the scope of the TG for all the reasons already mentioned and for the following added reasons: • Exclusion will enable manufacturers to easily ship used medical devices from non-OECD Countries to OECD countries, where the devices will be refurbished and placed on the market, instead of becoming waste that must be disposed of locally. • Exclusion will allow efficient and economic refurbishment of used medical devices, which otherwise will have to be discarded, as equipment that is deemed to be "waste" cannot be refurbished in the EU or the US (e.g., EU Waste Framework Directive 2008/98/EC, US 40 CFR Parts 260-262) • ● In addition, efficient and economic refurbishment of used medical devices will contribute to EU action plan for the transition to a circular economy with global benefits due to worldwide nature of the medical device market.