



Greenpeace's Submission to The Bills Committee on Waste Disposal
(Amendment) Bill 2005 Legislative Council HKSAR:

**Harmonizing Hong Kong's Waste Disposal
Ordinance (WDO) and China's Basel Convention
Obligation**

Commissioned by Greenpeace
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HARMONIZING HONG KONG'S WASTE DISPOSAL ORDINANCE (WDO) and CHINA'S BASEL CONVENTION OBLIGATIONS

Basel Action Network

1. Introduction

The global generation of hazardous waste is known to be increasing. Likewise, disposal/recycling costs in developed countries continue to increase and remain far higher than disposal/recycling costs in developing countries. These two factors, in the absence of strict controls, can be expected to lead to significant and increasing transboundary movements of hazardous wastes, from high-wage to lower wage regions of the world.

Such movements of hazardous waste, that move for economic reasons (towards the cheapest disposal/recycling option globally) rather than for environmental reasons (e.g. toward the best possible waste management) have been condemned by the international community as both being unsustainable and a violation of human rights. These concerns culminated in actions taken at the Human Rights Commission¹ and most notably the creation of the Basel Convention on the Control of the Transboundary Movement of Hazardous Wastes and Their Disposal in 1989 and its Basel Ban Amendment in 1995².

While hard trade data on wastes is lacking globally, it has recently become clear that post-consumer electronic waste is being internationally traded at unprecedented rates primarily from rich countries such as the United States and Japan, to less developed countries such as China and other Asian destinations in order to exploit lower-wage disposal/recycling operations. Wastes are accumulating at alarming rates due in no small part to the information and communications technology (ICT) industry being characterized by rapid rates of consumption and disturbing rates of obsolescence.

Finally, the fact that these products continue to contain hazardous chemicals has created an electronic waste crisis with an unforeseen byproduct of the information age being the proliferation of toxic chemicals to all countries of the world. Such exports disproportionately burden certain global low-wage communities and their environments that can ill afford the cost in human and environmental health and which lack, in any case, adequate infrastructure to manage such wastes.

For these reasons, in the last five years, electronic waste or e-waste has become a global priority waste stream of concern.

1.1. Exporting Harm: The High-Tech Trashing of Asia

In 2002, the Basel Action Network (BAN) issued a report revealing for the first time the extent and harm caused by the exports of e-waste from North America to China where it

was processed with methods found to be very destructive to human health and the environment.³ It was revealed that about 80% of the electronic wastes collected in North America destined for recycling was sent off-shore with the vast majority of those, an estimated 10.2 million computer units are annually exported from the United States to China. That level was estimated to equate to a tightly stacked pile of computer waste one acre square and 674 feet high – easily twice the height of the Statue of Liberty from ground to the tip of its torch.

The computer industry unfortunately has not progressed rapidly to eliminate hazardous inputs into their product components. These include:

- Cathode Ray Tubes – lead, barium
- Circuit Boards – lead-tin solders, beryllium connectors, brominated flame retardants.
- Connectors – Copper beryllium alloys
- CRT Phosphor – cadmium and rare earth metals
- Wires and Plastics – brominated flame retardants, PVC, lead
- Flat Screen Lamps -- mercury

Thus, the level of toxins this waste pile represents and its impact on the environment is alarming. At an average of 8 pounds of lead per monitor, with 10.2 million units going to China annually from 2002 onwards, processed in what are often highly polluting enterprises, the staggering environmental cost of but one pollutant – lead, becomes quite apparent.

Indeed, in March 2005, Greenpeace conducted a scientific study that examined the workplace and environmental contamination arising from the various e-waste recycling processes found in the e-waste processing centers in Asia.⁴ The results of Greenpeace’s study affirmed that the contamination and thus the exposure to toxic chemicals arising from the waste streams can be locally severe.

E-waste Process	Village/Country	Area of Contamination	Pollutant	Level mg/kg dw
Component Separation and solder recovery	Beilin, China	Floor Dust in Workshop	Lead	66350
	Guiyu, China	House of Worker	Lead	719
Mechanical Shredding	Guiyu-Nanyang Road, China	Sediment, Discharge Gully	Lead	12000
US (EPA)*		Soil (residential) Action Level	Lead	400

* EPA has established 400 mg/kg for lead in residential soils as a guidance value that would be protective of public health.

A total of more than 70 samples were collected for the study, including, industrial wastes, indoor dusts, soils, river sediments and groundwater from typical sites covering all the various e-waste recycling stages from selected localities in India and China. The Table above compares some of the lead levels found with the United States Environmental Protection Agency's safe cut-off level.

1.2. China's Leadership in Rejecting Toxic Trade

Early on, China took strides to address the concern over hazardous waste trade when it first ratified the Basel Convention in 1991. Then in 1994 it took a leadership role when they joined the G-77 group of developing countries in proposing a full ban on the export of hazardous wastes for disposal and recycling from moving from OECD (Organization for Economic Cooperation and Development) to non-OECD countries.⁵ In 1995 this decision was in the next year passed as a proposed amendment to the Convention (Basel Ban Amendment) which China ratified on May 1, 2001. Likewise China has banned, on a national basis, various wastes streams of concern – most notably e-wastes of all kinds. In 1995 and again in 2002, the list of prohibited electronics wastes were amended and made more comprehensive.⁶

1.3. Hong Kong Must Follow China in Correctly Implementing the Basel Convention and its Decisions

While the Basel Ban Amendment has no obligations placed on countries other than those to which the export prohibition applies (Annex VII) it is nevertheless clear that ratification of this amendment by China does signal the need for China *and all of its subsidiary territories* to prohibit the import of hazardous wastes from countries listed in Annex VII of the Basel Convention.

Likewise, while legally it appears possible for the Hong Kong Special Administrative Region (HKSAR) to avoid adopting the identical national waste importation bans now applicable as law in mainland China, that policy may not be advisable due to the abuses that can be suffered from toxic e-waste processing in the HKSAR and from transshipment to the mainland.

However, advisable or not, it is *not* possible for the HKSAR to ignore its legal obligations under the Basel Convention as it has agreed to accept it as applicable. This includes proper reflection of the definitions and lists of hazardous wastes found in the Basel Convention.

And yet we find that Hong Kong's Waste Disposal Ordinance and the proposed revisions to it, fail to appropriately implement the Basel Convention by failing to accept its definitions and hazardous waste lists. Likewise HKSAR has failed to properly implement the Basel Ban Amendment and have failed to harmonize its WDO with the national e-waste import prohibitions put into place by the central government.

Certainly the role played by the Hong Kong Special Administrative Region (HKSAR) as a major port of first entry for cargo moving into China presents a major challenge to China's efforts in controlling unwanted toxic wastes. Further, HKSAR's own territory is at risk from hazardous waste cargo that might arrive in Hong Kong illegally or with the consignees not being found. Even when the environment is not impacted, Hong Kong can face an immense administrative burden dealing with abandoned consignments of electronic waste if it maintains an "open-door" policy, while also serving as a transit point for the illicit trade in such hazardous waste in the region generally.

While claims that state of the art recycling technologies for hazardous waste can prove an economic boon, these arguments are highly questionable when all of the economic factors, including the hidden costs, of added enforcement, infrastructure, emergency response, residue management, sacrificed land for landfills, air pollution from incinerators and smelters, are added to the equation. Once long-term concerns for managing hazards are fully accounted for, hazardous waste imports in any form will not likely represent an economic positive but are likely to equate to a liability.

It is vital therefore both from a legal, practical, and economic standpoint, that HKSAR harmonize its domestic waste import/export law, the Waste Disposal Ordinance (WDO) and its proposed amendments, with Mainland China's Basel obligations and specific national waste bans in order to protect its borders from imports that in almost all cases will be detrimental to the environmental health of both the mainland and the HKSAR.

This paper examines the WDO and the proposed WDO amendments (WDO Amendment) and answers the critical questions, of how the WDO and the WDO Amendment might be adjusted to better harmonize with China's obligations under the Basel Convention for China, for the HKSAR and for the planet as a whole.

- Part 2 below explores how the WDO and the proposed amendments to it, are not consistent with the Basel Convention and its decisions and recommends harmonization to be legally correct. .
- Part 3 explores why adhering to the Basel Convention and the Basel Ban Amendment is essential from an environment and human rights perspective and provides some of the context for these legal instruments.
- Part 4 contains the appendices and references to this paper.

2. Harmonizing the WDO with the Basel Convention

It is a legal certainty that the HKSAR, having agreed to accede to the Basel Convention must fully implement and become harmonious with China's obligations under the Basel Convention and its decisions. It is true that the Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China (Basic Law) authorizes the HKSAR to conduct relevant "external affairs" in accordance with the Basic Law.⁷ The

Basic Law gives HKSAR, among others, the power to maintain and develop relations and conclude and implement agreements on its own.⁸ Under that law, in order to be bound by a treaty to which China is a party (in this instance the Basel Convention), the views of HKSAR government must be sought before the treaty can be extended to Hong Kong.⁹

That process of seeking the views of the HKSAR indeed took place, and on 6 and 10 June 1997, the Secretary-General of the United Nations received communications concerning the status of Hong Kong from the Governments of the United Kingdom and China. China notified the Secretary-General that upon exercise of sovereignty over Hong Kong, the Basel Convention will also apply to the Hong Kong Special Administrative Region.¹⁰ This notification makes it clear that the Basel Convention applies to the HKSAR and that all the obligations assumed by mainland China under Basel must extend to HKSAR and be properly implemented by the latter.

As a rule of international law under Art. 27 of the Vienna Convention on the Laws of Treaties, which entered into force in January 27, 1980, “*a party may not invoke the provisions of its internal law as justification for its failure to perform a treaty.*”¹¹ Article 46 of the Treaty states that in cases where there is a violation of internal law that was manifest and concerned a rule of fundamental importance, Art. 27 will not apply. However, based on China’s notification of the application of the Basel Convention to the HKSAR, Art. 46 does not apply in this case as the Basic Law has been complied with. Thus, Art. 27 is fully operative in ensuring that HKSAR comply with the full requirements of the Basel Convention and its decisions.

However, as we shall see below, the Hong Kong Waste Disposal Ordinance (WDO), the legislation meant to *inter alia* implement the Basel Convention, does not correctly do so. It is incumbent therefore, while there is an effort afoot to revise the WDO that the opportunity is not lost to rectify the improper situation.

An improper implementation, especially in the HKSAR, which serves as a crucial clinch point for regional shipping, involved in trade not only with mainland China but in regional waste traffic, both legal and illicit, can create very serious confusion and legal ambiguity in trade relations and rules, leading to costly administrative, diplomatic and environmental dysfunction and degradation. To leave standing an improper, illegal and/or ambiguous set of trade rules that is out of harmony with mainland China and the rest of the world will leave a situation easily exploited by unscrupulous traders. For this reason, half measures as proposed in the current dossier of WDO amendments are not fully acceptable. Below we explore those areas that we believe are in need of immediate correction.

2.1. Definitions

It is not readily understood why the definitions of wastes, disposal, and hazardous wastes, which are essential foundations for implementation of the Basel Convention are not to date, correctly applied in the HKSAR. However, it is clear that they are in need of immediate correction. The table below provides a useful summary as to the key

definitional discrepancies in the WDO and in the WDO Amendment with the Basel Convention that are in need of remedy:

Definitional Discrepancies	WDO and WDO Amendment	Basel Convention
"Waste" definition	The definition of "waste" hinges on the term "abandonment" (absence of ownership) of materials.	Definition of waste in Basel is based on the ultimate fate of wastes – that is whether the material is destined for an Annex IV destination. As most all waste has an "owner" as it is trafficked for profit, the notion of "abandonment" is not appropriate.
"Hazardous Waste" definition (Basel Art 1,1,a) Hazardous Waste by National Definition (Basel Art 1,1,b)	<p>The WDO does not properly describe or define "hazardous waste" which is the single most important definition of the Basel Convention.</p> <p>Rather the WDO appears to utilize Schedule 7 as being waste subject to some special transboundary movement controls, or describes the concept of contamination of Schedule 6 wastes or of their inability to be recycled, reprocessed, recovered, or reused.</p> <p>However, Schedules 6 and 7 which define which wastes will be controlled with respect to import and export, inappropriately use the OECD wastes lists designed only for use within OECD member states and only for trade in recyclables. These lists are not in harmony with the Basel Convention lists.</p> <p>Fails to recognize the listings of waste (e.g. electronic wastes) designated by China as being hazardous and banned from importation).</p>	<p>Defines hazardousness based on the intrinsic nature of the waste, specifically by the existence of known hazardous constituents being present in the waste listed in Annex 1, unless these constituents do not exhibit Annex III characteristics. The waste streams expected to be hazardous are found in Annex VIII of the Convention. Annexes I, III and VIII are thus definitive and must be transcribed into the WDO.</p> <p>While Basel allows countries to make more rigorous lists of hazardous waste (see below), it does not allow countries or subsidiary territories of countries to not apply the Basel lists as a minimum.</p> <p>Recognizes the right of countries to install national definitions that must be respected by all Parties and must apply to the entire territory of a Party.</p>
Electronic Waste as Hazardous Waste	<p>WDO Amendment, Schedule 7, entry AB040 "including such waste from any monitor, television and equipment (whether or not the cathode-ray tubes contained in the monitor, television, or equipment is intact or broken).</p> <p>This entry still does not include for example wastes containing lead-tin soldered circuit boards whereas the Basel Convention does.</p>	<p>Annex VIII, entry A1180 Waste electrical and electronic assemblies or scrap 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 B B1110).</p> <p>A2010 Glass waste from cathode-ray tubes and other activated glasses.</p>

To eliminate the above discrepancies and inappropriate translation of the Basel Convention, the HKSAR needs to make the following changes in the WDO:

2.1.1. Harmonize WDO's "Waste" Definition with that of the Basel Convention

The WDO is the primary law that controls the import and export of wastes (including hazardous wastes) into the Hong Kong Special Administrative Region (HKSAR). It therefore, performs the crucial function of translating the Basel obligations agreed to by China and acceded to also by the HKSAR into the domestic laws of the HKSAR. Unfortunately, the WDO diverges from Basel at the most fundamental level, in how it defines “wastes”.

The WDO defines waste as “any substance or article which is *abandoned* and includes animal waste, chemical waste, household waste, livestock waste, street waste and trade waste.”¹² The present WDO definition of “waste” revolves around whether a substance is “abandoned”. However this term is undefined and thus reliance on normal usage becomes unclear at best, and at worst, limits application of waste rules to only the most exceptional cases where wastes may be found lacking an identifiable owner. Under normal usage, the term “abandoned” implies absence of ownership or lack of control by the owner over an object. The implication of “abandoned wastes” with respect to transboundary movements of hazardous waste is misleading and ineffectual, as the ownership and physical control of a majority of the materials and wastes being traded can be readily ascertained at any point during a waste transfer transaction.

The Basel Convention more appropriately 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.”¹³ The term “disposal” is further defined by Basel under a separate listing of destinations --Annex IV, wherein various operations are considered “disposal” under two main headings -- disposal (List A) and recycling and re-use operations (List B).¹⁴

Definitions of waste have long been disputed, but the Basel Convention is the globally accepted definition applicable in more than 165 countries. Under Basel, materials are determined to be wastes based on their process destination, and not by their lack of ownership, their stated value, their utility or other consideration having little to do with their propensity to cause environmental harm which is the issue of most importance.

Thus, for example, objects (e.g. electronic printed circuit boards) which are intended to be processed to recover metals (List B entry R4), are wastes under Basel. Although the term “disposal” is defined in the WDO,¹⁵ that definition fails to make the crucial link, unlike Basel, with the “disposal” destination/process (Annex IV) as the determinant on whether an object is a waste. This will leave open the door for endless debates as to how to determine when a waste is a waste and when it is a commodity.

Clearly the WDO definition of “waste” and “disposal” is incompatible with that of the Basel Convention, and thus from the most fundamental point of departure, the WDO cannot be expected to appropriately deal with wastes the way Basel Convention requires and in the manner in which trading partners will expect.

Recommendation: We therefore strongly suggest the following change in the WDO amendments:

Section 2(1), suggested new definition of "waste":

“means any substance or article which is disposed of or is intended to be disposed and includes animal waste, chemical waste, household waste, livestock waste, street waste, trade waste.

Section 2(2); replace the term “discarded” with “disposed”:

“For the purposes of this Ordinance any substance or article which is disposed of [or otherwise dealt with as waste] shall be presumed to be waste. [until the contrary is proved.]”

“Disposed” or “Disposal”, must be defined in all sections of the WDO as:

“Disposed” or “Disposal” means any operation specified in Annex “XX” of this Convention.

Annex IV of Basel needs to be replicated and placed into the WDO as Annex “XX”.

2.1.2. Harmonize with Basel by Consistently Applying Basel “Hazardous Waste” Definitions

Transboundary movement controls utilize the Schedules 6 and 7. Indeed, the Basel Ban Amendment has been reflected in the proposed bill to amend the WDO and this would have been a very worthy effort were it not for the fact that Schedules 6 and 7 do not reflect the Basel Convention waste lists. Unfortunately Hong Kong’s WDO has made a serious error by currently using the OECD’s previous “red, amber and green” wastes lists as a basis for Schedules 6 and 7 rather than the Basel lists.

The OECD lists are *not* compatible with the Basel lists leaving, as we shall see, a serious loophole for electronic and some other wastes. The OECD lists in any case, are only meant to legally apply to the 30 member states of the OECD and are not in harmony with the Basel Convention lists which must legally apply to all Basel Parties including China and its subsidiary territories. As Hong Kong has not acceded to the OECD but has acceded to the Basel Convention the WDO’s choice of lists is legally incorrect and very difficult to understand how this confusion took place.

With respect to electronic waste in particular, this creates serious problems as this is one of the areas where the OECD has made what might clearly be a seen today as a mistake in de-regulating e-wastes despite their hazardousness and growing problems caused by their global trade.

The Sixth Schedule of presumably “non-hazardous green listed wastes” in the WDO contains the following OECD list based entries.

GC010 Electrical assemblies consisting only of metals or alloys

GC020 Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery

The above are *not* valid entries of the Basel Convention Annex IX (non-hazardous wastes). Rather these are materials which *are* very likely to be subject to control under the Basel Convention unless they do not contain lead, cadmium, and other Annex I substances. The appropriate Basel Annex VIII listing is as follows:

A1180 Waste electrical and electronic assemblies or scrap 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 B B1110).

This entry if properly applied as has been done by Australia (see Appendix of this paper) will include almost any electronic product containing a lead-tin soldered circuit board. This level of control for electronic wastes containing circuit boards is appropriate as the environmental threat from a circuit board is almost always more acute than the environmental harm from a cathode-ray-tube. Thus, while the WDO amendments see fit to augment the old OECD list by changing the relevant entry as follows...

AB040 “...including such waste from any monitor, television and equipment (whether or not the cathode-ray tubes contained in the monitor, television, or equipment is intact or broken).

...in order to make it more rigorous to cover CRTs and CRT glass, the WDO amendments do not likewise seek to cover circuit boards which are far more likely to leach lead into the environment from a landfill situation than are CRTs.¹⁶ Further, circuit boards are also more likely to cause occupational exposure from brominated flame retardants and beryllium than would leaded CRT glass.

Yet Basel entry A1180 is missing in the WDO’s Schedule 7 and thus lead-tinned soldered circuit boards and equipment containing them will not be controlled under the WDO as is required under the Basel Convention. Thus, the Basel Convention has not been correctly transcribed into the law of Hong Kong and the amendments do not address this fact, despite the known existence of serious problems with transboundary movement of electronic wastes within the East Asian region. This is especially disturbing given that mainland China has in fact forbidden these types of imports very explicitly. Thus we

have a situation where a Chinese port, Hong Kong, is failing to control to any degree a majority of the electronic waste that China has prohibited from import.

The relevant proposal to partially instate the Basel Ban Amendment is in p. C1209, subsection 8(d), which states that:

“(e) in the case of waste of a kind specified in the Seventh Schedule, that the waste is not exported from a state that is listed in Schedule 9;

Item (e) above is thus misleading to the casual observer. Although it properly identifies the exporting countries (proposed Schedule 9 which corresponds to Annex VII of Basel) to which the Basel Ban Amendment applies, it inappropriately limits the “wastes” covered by the prohibition to the Seventh Schedule.

It is very clear that the Basel Convention and Basel Ban Amendment does not allow for such opt-in or opt-out options for Parties to it. Parties are allowed under the Convention to *add to* the list of hazardous wastes applicable to the Basel Ban or the Convention but are not allowed to *subtract from* it.

For those that might wonder how the OECD accomplished this de-listing, it was done prior to entry into force of the Basel Convention and was done invoking Basel Article 11, Paragraph 2 which allows a weaker standard for adherence to the Basel Convention for agreements entered into prior to entry into force of the Convention. Today, neither Hong Kong, nor China is in a position to do this as they would have to resort to Basel Article 11's paragraph 1 which more stringent in its wording with agreements being (“no less environmentally sound”). Further, China's ratification of the Basel Ban Amendment would preclude this Article 11 option. The prevailing legal conclusion is that Article 11 agreements cannot be used to circumvent the Basel Ban Amendment.

The present definition of “contaminated” under the WDO is likewise confusing and inappropriate in relation to Basel because it does not address the intrinsic hazardous properties of the material itself regardless of whether it is contaminated or is hazardous without “contamination.” The plain English definition of “contamination” indicates a material that is tainted by a substance in small quantity that renders the material problematic or harmful. Clearly this word is not appropriate to describe a pure toxic substance such as dioxin for example. It is far better to rely on a waste being contaminated to the extent that it is defined as hazardous under the Basel Convention.

The WDO does not properly define hazardous waste as those wastes subject to the Basel Convention, making true implementation of the Basel Convention impossible under the WDO.

Recommendation: We suggest that Basel's hazardous waste definition (Article 1(1)(a) be properly transposed into the WDO and the former definition of contaminated be replaced as follows:

For the purposes of this Part, waste is considered to be hazardous waste if it:

- (a) Appears on Schedule 7
- (b) Appears on Schedule 6 but is contaminated by a Basel Annex I substance unless it can be demonstrated that it does not exhibit a Basel Annex III hazardous characteristic.
- (c) Contains a hazardous substance found on Basel Annex I unless it can be demonstrated that it does not exhibit a Basel Annex III hazardous characteristic.

For the purposes of this part waste is contaminated if it is mixed with a Basel Annex I substance unless it can be demonstrated that it does not exhibit a Basel Annex III hazardous characteristic. [by a substance to an extent which-
(a) significantly increases the risk to human health, property or the environment associated with the waste;] or

(b) prevents the reprocessing, recycling, recovery or reuse of the waste in an environmentally sound manner, and "uncontaminated" in relation to waste shall be construed accordingly.

Replace Annexes: Schedule 7 must be replaced to include, as a minimum, Annex VIII of the Basel Convention. Schedule 6 must be replaced with Basel Convention Annex IX. Annexes I and III of Basel must be included and properly referenced with their new numbers.

2.2. Basel Ban Decisions

In 1994 at COP2 the Basel Parties decided in Decision II/12 to “phase out by 31 December 1997, and prohibit as of that date, all transboundary movements of hazardous wastes which are destined for recycling or recovery operations from OECD to non-OECD States.” This decision was passed by a consensus of the Parties with China present as a Party at the time and does call on all Parties to take action to implement it. Indeed it was China, together with the G-77 group of developing countries that made the original proposal for this decision. Thus China is seen as having taken a laudable leadership role to stem the rising tide of toxic waste dumping globally.

In 1995 at COP3 the Basel Parties decided to install the ban as an amendment to the treaty itself. This decision III/1 was also passed by consensus with China and is known as the Ban Amendment decision. China ratified the Ban Amendment in 2001. Unlike, decision II/12 the Basel Ban Amendment places no obligations on countries except those found in Annex VII of the amendment (EU, OECD members and Liechtenstein, today this is 37 countries). Nevertheless it is certainly expected that non-Annex VII countries like China (which has ratified this proposed amendment) and all of its subsidiary territories would do nothing inconsistent with the decision and are most likely to ban the importation of Basel hazardous wastes from Annex VII destinations. As we have seen,

there has been an effort to accomplish this in the WDO amendments, however it does not properly apply to the Basel lists but rather to OECD lists.

Further, it must be noted that in all subsequent meetings of the Conference of the Parties, COP4-COP7, the Parties have passed consensus decisions urging all Parties to ratify the Basel Ban Amendment at the earliest possible date. While decisions of the Convention such as these are not strictly legally binding on Parties, they nevertheless should be followed by Parties or risk rendering the Convention ineffectual. It is vital therefore that Hong Kong agrees to accept the Basel Ban Amendment ratified by China as applicable to the SAR. To avoid doing so, sends a very dangerous message to the world that:

- Hong Kong does not agree with China and the developing countries that the Basel Ban Amendment is appropriate.
- That Basel Decisions are not to be respected
- Hong Kong intends to ignore the decisions of the Basel Convention urging ratification.
- That Hong Kong, unlike China, is a free port for hazardous waste which can be used as a backdoor to move hazardous wastes into mainland China.

By not delineating a clear prohibition on the importation of hazardous waste for any reason into the territory of Hong Kong, the WDO is violating Decision II/12 and is acting in a manner inconsistent with Decision III/1.

Recommendation: The WDO must implement the full import ban on hazardous waste as called for by Decisions II/12 and III/1.

We have already strongly recommended properly applying Basel Annex VIII as the New Schedule 7. It is also important to shore-up the proposed language with respect to import prohibitions as follows:

(1) The import into Hong Kong of-

(a) any waste of a kind specified in the Sixth Schedule, unless the waste is uncontaminated and is imported for the purpose of a reprocessing, recycling or recovery operation or the reuse of the waste; or

(b) any hazardous waste

(c) any waste not found in either Schedule 6 or 7, [waste of a kind specified in the Seventh Schedule, or not specified in the Sixth Schedule,]

Is prohibited. [requires a permit issued by the waste disposal authority under this section].

(1bis) If the waste is not contaminated, and is specified in the Sixth Schedule and is imported for the purpose of a reprocessing, recycling, or recovery operation, or for the reuse of the waste, then a permit issued by the waste disposal authority under this section

will be required.

(2) *An application for a permit under this section-....*

(4) *The waste disposal authority shall not issue a permit under this section for the import of any waste unless he is satisfied-*

(a) that the waste will be managed in Hong Kong in accordance with the laws of Hong Kong and in an environmentally sound manner;

[(b) that there is in force, or there will be in force at the time of the import of the waste-

(i) liability insurance to cover claims arising out of damage to human health, property and the environment which may result from the import operation; and

(ii) a bond, or other financial guarantee acceptable to the waste disposal authority, providing for payment to the waste disposal authority of the cost of any seizure or disposal of the waste under section 20F that may occur; and

(c) in the case of waste to be imported other than for the purpose of reuse or a reprocessing, recycling or recovery operation, that-

(i) the state of export does not have the facilities, capacity or disposal sites that would allow disposal of the waste in an environmentally sound manner; or

(ii) the import of the waste is for a purpose which the waste disposal authority considers necessary or desirable in the interests of the environmentally sound and efficient management of the waste disposal system in Hong Kong; or]

(d) in the case of waste to be imported for reuse or for a reprocessing, recycling or recovery operation, that the waste is required as a raw material for such reuse or operation in Hong Kong.

2.3. Not Recognizing China's Import Prohibitions

As noted previously, China's rights and obligations under the Basel Convention apply to Hong Kong, because Hong Kong is an administrative region of China.

As a sovereign nation, mainland China has the inalienable right to define or consider a substance as hazardous waste. Parties also have the right to prohibit hazardous wastes so defined or defined under the treaty's annexes from entering its territory. These are fundamental rights found in the Basel Convention in Articles 1,1(b)¹⁷ and 2(1)¹⁸ and Article 4(1)(a)¹⁹ of the Convention.

The national import ban, then of China for certain hazardous wastes is part of China's rights and obligations as a Basel Party. As HKSAR has agreed to accede to the Basel Convention as part of the territory of China and not as a separate Party, it must uphold

definitions and the import bans in a consistent manner as a *single Party*. That is, while HKSAR might not have ratified the Basel Ban Amendment, which is a separate instrument under international law, they *have* agreed to accede to the Basel Convention and therefore must reflect one common viewpoint on nationally defined hazardous waste and hazardous waste import prohibitions. There is nothing in the Basel Convention that allows for subsidiary territories of a Party to reserve or alter the national definitions of hazardous waste or national import prohibitions.

In March 28, 2005 Greenpeace presented new evidence that sites in Hong Kong's New Territories were being used as “staging points” for the illegal cross-border trade in hazardous electronic waste (e-waste).²⁰ The significant volume of cross-border trade between Hong Kong and China attracts traders in e-waste from developed countries to use Hong Kong as a stopover, according to the report. This type of exploitation is made manifest by maintaining the inconsistency in waste importation prohibitions. Even if this type of inconsistency were legal, which it is not under Basel, it would be a fundamentally bad idea for environmental and administrative reasons. No doubt, the HKSAR will be forced to expend considerable resources dealing with hazardous waste traffic which on the one hand is legal for entry into HKSAR but not legal for entry into mainland China, where most of the markets and demand is located. Such an arrangement is asking for far more costs from serious administrative troubles than it can hope to gain by importing hazardous wastes into the HKSAR.

By ignoring China’s nationally agreed definitions of hazardous wastes subject to import prohibitions, HKSAR is acting in contradiction to the Basel Convention which does not allow reservations or exemptions for subsidiary territories of Parties. This negligence by HKSAR undermines China’s ability to uphold its national prohibition while ill serving HKSAR’s interests as well.

Recommendation: The WDO must, in accordance with China’s Basel Convention obligations be harmonized with mainland China’s hazardous waste definitions and prohibitions.

This can be best done by ensuring that the WDO adds any additional wastes not already found in new Schedule 7 (Annex VIII of the Basel Convention) and that are considered as hazardous wastes and prohibited from import into China, to Schedule 7.

3. Context for the Proper Implementation of the Basel Convention and Basel Ban Amendment

3.1. Basel Convention – Responding to an Ongoing Global Problem

In the late 1980’s developing nations were plagued with toxic wastes dumped upon them by richer developed states. From the beaches of Africa to ports in Asia, waste trader vessels roamed the high-seas undeterred, transferring toxic cargos to poor and

unsuspecting communities in developing nations. International reaction to the crisis was swift and the Basel Convention was created in 1989 to prevent the economically motivated dumping of hazardous wastes from rich to poorer countries. The Convention entered into force in 1992.

The Basel Convention remains one of a few international agreements that was created almost solely due to the concerns and actions of developing nations. As of this writing, 166 countries²¹ have submitted their Basel Convention instruments of ratification to the United Nations Secretary General. 166 ratifications is an irrefutable testament to the global acceptance of the fundamental principles enshrined in the Basel Convention.

Unfortunately, while great strides have been made in eliminating much industrial process waste from being trafficked, the problem has taken on a new phase, with vast quantities of *post-consumer* hazardous wastes, such as electronic wastes now being found increasingly shipped across borders creating in key hot-spots, a very serious threat to public health and the environment.

3.2. The Basel Convention is Designed to Promote Environmental Justice

The notion that the Basel Convention is designed to simply promote environmentally sound recycling as claimed by some is essentially incorrect. Rather the Basel Convention is fundamentally a treaty designed to erect intentional trade barriers to protect human rights and the environments of developing countries. At its heart it is designed to promote national self-sufficiency in hazardous waste management and prevent the economically motivated hazardous waste trade that seeks to exploit low-wage economies for hazardous waste management. The Convention always had a very strong human rights motivation in its creation and was called for initially by China and the G-77 in a jointly sponsored decision in 1994 for that reason.

The Basel Declaration on Environmentally Sound Management affirms the fundamental aims of the Convention:

- Reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention;
- The prevention and minimization of the generation of hazardous wastes;
- The environmentally sound management of such wastes; and
- Active promotion of the transfer and use of cleaner technology.²²

These aims are not new ideas but drawn from the Convention and are now points of action which the Convention has used in guiding its work for the future. The principles promoted by these goals are reflected in Article 4 of the Basel Convention, including the following obligations

:

- To ensure that the transboundary movement of hazardous wastes be

- reduced to the minimum.²³
- To ensure that the generation of hazardous wastes within it is reduced to a minimum.²⁴
- To ensure the availability of adequate disposal facilities within its boundaries.²⁵
- Not to allow hazardous wastes to be exported to a State, if the exporting Party has reason to believe that the waste will not be managed in an environmentally sound manner.²⁶
- To consider as criminal the illegal traffic in hazardous and other wastes.²⁷
- To take appropriate legal, administrative and other measures to implement and enforce the provisions of the Convention.²⁸

These goals are now known to be fully consistent with principles of “Environmental Justice”²⁹ which require that no peoples or environments are disproportionately burdened by environmental impacts simply because of their economic or other status.

Environmental injustice cannot be remedied by mere technological solutions. In other words simply exporting technological advancement with toxic waste does not alleviate the disproportionate burdening of the poor. It is a fact that hazardous waste management always entails significant risks and costs, even with the highest levels of technology or “environmentally sound management.” The remedy is not to give the poor better processes and workplaces and then continue to export hazards and harm to them, but rather to seek to eliminate these hazards as close to their origin as possible. This is what the Basel Convention tells us.

3.3. Low wages are associated with a lack of protections

Hazardous waste moves across international boundaries primarily due to the dictates of the free market that seek out the cheapest disposal costs. In the absence of barriers or impediments such as the Basel Convention, the Basel Ban Amendment, or national prohibitions, waste moves away from regions of the world where disposal/recycling costs are high to where they are relatively low. While there are many factors which might make such costs high, with respect to electronic waste recycling, the greatest factor has to do with the large disparity in labor costs between different countries.

While there is nothing inherently wrong with one country having cheaper labor than another, what is too often overlooked are the many protections for workers, communities and the environment that are likely associated with cheap labor. These often include:

- Little infrastructure to enforce environmental or health standards
- Little infrastructure to enforce maintenance of “state of art technology”
- Lack of knowledge by workers of environmental health and toxicity issues
- Lack of right-to-know laws
- Minimal liability or tort law
- Lack of occupational clinics and assistance

- Few appropriate downstream hazardous waste management facilities
- Few trade unions or worker advocacy organizations

3.4. Waste Trade is a form of Externalizing Costs Leading to Economic Distortion and Polluters *not* Paying

Some of the lack of protections listed above which might be experienced in a developing country or in a region where wages are relatively low, are in fact often the very factors that have helped create high costs of disposal in places where such protections are a matter of course or law. The economic costs of dealing with toxic substances is very significant and have created circumstances where recycling wastes such as electronic waste in rich developed countries is more often seen as a service rather than a traditional extractive or product-making business. That is, recyclers must charge customers to take electronic waste away, because the value gained through material recovery is less than the costs of mitigating and managing the environmental threats. Very often the high cost of disposal is in fact reflective of the internalization of the very real costs of managing or mitigating the effects of such waste.

Such costs are real and will either be paid for through cost internalization or will be paid for by sacrificing the health and safety of workers and communities or sacrificing the quality of land, air and water. Usually, as has been demonstrated clearly with hazardous waste clean-up programs such as the United States Superfund program, the costs of managing waste *after* it has been deposited into the environment entails far greater economic costs to mitigate or clean-up, than would have been the costs of prevention at source.

The further downstream the pollution moves from its source, the pollution distribution becomes more complex and dispersed and the costs of clean-up are usually greater than managing the problem at source would have been. This is no less true for recycling than for other waste disposal operations. It is important to note that a review of past priority Superfund sites, in the United States designated for clean-up found that 11 % of these sites were recycling facilities.³⁰ It is also important to note that recycling, being often far more labor intensive than waste disposal, can also entail far more human health impacts than simply disposing of wastes in a landfill.

These are very important matters to contemplate and if possible to calculate by those that might be persuaded that importing hazardous waste such as electronic waste might be an economic boon for developing countries. In this calculation, apart from the short-term benefits of immediate employment and economic activity, has the full accounting for the hidden costs, the longer term costs, the externalized costs, the legacy costs, that will appear as red ink in the true ledger of economic and environmental health taken place? Or is the polluter, which in this case might include both the manufacturer that placed toxic materials into products, the consumer who turned the product into a waste, and the exporter – are these polluters simply being allowed to *not pay* for the pollution they have helped create, and instead passing on these liabilities to the poor and desperate.

For a nation these imported liabilities must be paid for at some point. And paying later can be extremely costly indeed. Once these delayed costs are accounted for, or internalized and paid for either with real funds or with the national health or degraded environment, it is very easy to see that the very significant long term costs will far outweigh the short-term benefits -- the very definition of unsustainable development. Some of these hidden costs include:

- Occupational disease, asthma to cancer
- Genetic damage, endocrine disruption
- Infant mortality, child developmental and neurological dysfunction, birth defects
- Loss of arable or other lands to residual dumpsites
- Food contamination from fish and farms
- Loss of groundwater resources
- Loss of wildlife / biological diversity
- Loss of clean air
- Remediation costs of cleaning up long-term contamination

3.5. China led the development of the Basel Ban Amendment

In spite of the seeming auspicious beginnings of the Convention, the fact remained that developing countries were extremely disappointed with the original text of the treaty as it did not ban the export of hazardous waste to any region of the world except Antarctica. In the minds of many, the Convention's prior informed consent mechanism was easily corrupted and the Convention could become more of a tool to legitimize what most believed should be a criminal activity. When developing countries could not get a total ban on hazardous wastes written down in the Convention in 1989, the African delegation walked out of the meeting.

Nevertheless, the Convention laid the groundwork for the total ban with the following:

*"The Conference of the Parties shall undertake three years after entry into force of this Convention, and at least every 6 years thereafter, an evaluation of the effectiveness and, if deemed necessary, to consider the adoption of a complete or partial ban of transboundary movements of hazardous wastes and other wastes in light of the latest scientific, environmental, technical and economic information."*³¹

And consistent with this aim, and to reinstall the primacy of their original demands, the developing countries led by the G-77 and China, and with the support of progressive developed nations, pressed forward with a full no-exceptions ban from developed to developing countries. The original proposal to create the Ban (Decision II/12) passed in 1994 was based on a proposal put forward at COP2 of the Convention by the Group of 77 countries and China. The Hong Kong Special Administrative Region must recognize the contribution that China has made to strengthen the Convention and ensure that it does not undermine China's promotion and implementation of the Basel Ban Amendment.

The Basel Ban Amendment is seen as vital by its proponents for two primary reasons:

- To prevent damage to the environment and human health caused by the disproportionate export and disposal of hazardous wastes to countries that did not create them and where there was less infrastructure and resources to mitigate the great risks associated with such wastes.
- To prevent waste generators from avoiding taking responsibility to minimize the generation of hazardous wastes through clean production technologies and methods, by externalizing their costs to countries where disposal is less costly than at home.

The Basel Ban Amendment is a beacon for international environmental justice in the body of international law and China was instrumental in its realization. It would be very unfortunate if Hong Kong would blemish China's achievement by failing to create legislation consistent with its global obligations.

3.6. The Basel Ban Amendment is a trade ban on hazardous waste only

Containing major international ports, the HKSAR plays a major economic role not only for China, but for the rest of the world as well. It is crucial to emphasize, in this regard, that the Basel Ban Amendment only covers hazardous wastes and not non-hazardous wastes or commodities that pass through HKSAR's ports.

Based on current data made available by the Hong Kong Environmental Protection Department, less than 0.1% of both imported waste in 2004 (3.6 million tons) and exported waste in 2004 (4.9 million tons) constitute hazardous waste through and from the HKSAR.³² The hazardous waste trade is thus miniscule in quantity compared to other non-hazardous wastes that pass regularly through the HKSAR: plastics 81%, non-ferrous metals 4%, paper 3%, and others 6%.³³ Note that the amounts mentioned only refer to wastes, and do not cover regular commodities.

The Basel Ban Amendment does not preclude hazardous waste exports from Hong Kong to other locations other than non-Parties. Much of the waste imports into Hong Kong either come from Western Europe, Japan, Canada, Australia and other Annex VII Basel Parties which are forbidden from exporting hazardous wastes to Hong Kong or China, under the terms of the ban, or it comes from the United States, a country from which any Basel Party, including China is not allowed under the Convention to import waste.³⁴

Under Art. 4(5), Parties to the Convention shall not permit the import or export of hazardous wastes to non-Parties, unless a bilateral agreement is entered into between these two parties, and such agreement must be compliant with Art. 11 of the Convention. The US therefore, even if it signs a bilateral agreement with Hong Kong to trade in hazardous wastes, cannot stipulate provisions which are less environmentally sound than those provided by the Convention, and should take into account the interests of

developing countries.³⁵ China's interest is clear when it ratified the Basel Ban Amendment, that it does not want hazardous wastes imported into its territory.

Western Europe already has ratified the Basel Ban Amendment, thus, under force of international law no hazardous waste should be coming from Western Europe to begin with. In short, to accept what would be tantamount to illegal exports from Europe would be contrary to the Basel Convention. As would imports from the United States due to the Party to non-Party prohibition.

From the foregoing, there appears to be no appreciable impact to Hong Kong if it completely aligns its hazardous waste definition with Basel and China, and by implementing the Basel Ban Amendment properly and for the proper lists of wastes as stipulated in the Basel Convention.

3.7. The Basel Ban Entry into Force of International Law

The Basel Ban Amendment requires 62 ratifications for it to enter into force of international law. As of this writing, 61 countries have ratified (see Appendix for list of countries). While it remains unclear as yet, whether the countries from which the 62 must be drawn are all of the Parties or just those present at the time of amendment adoption in 1995, the entry into force will nevertheless soon become a reality. The Basel Ban Amendment will no longer be classified as an exception to the rules of trade, but become an integral part of global trade.

Already 30 of the 37 Annex VII countries obligated to implement the Ban have either ratified or implemented it.³⁶ Likewise non-Annex VII countries (particularly those that have ratified the amendment) must not create law inconsistent with these requirements. In Asia, China is in excellent company, with Brunei Darussalam, Indonesia, and Malaysia forming a sizeable block of countries that have ratified the Basel Ban Amendment in the region. The HKSAR is in a good position to take advantage of this global shift to the realities of the Basel Ban, as the HKSAR is in the process of amending its WDO.

3.8. Australian E-Waste Export Criteria – A Positive Example of Implementing the Basel Convention for Electronic Waste

The Australian Department of the Environment and Heritage (DEH), in order to address the growing concerns over e-waste, and at the same time remain consistent with its Basel Convention obligations, recently engaged all of its stakeholders, including representatives from the IT industry, original equipment manufacturers, IT lease companies, recyclers, and exporters, to establish a set of e-waste export criteria that would aid it in determining which e-wastes are subject to Basel controls and which are not.

In July 2005 the DEH released the criteria which consists of a set of six simple questions touching on, the constituents found in the waste, the general condition of the equipment, whether it has been tested and found to be in good working order and whether it is being exported for re-use or for disposal/recycling.³⁷ If a particular shipment is determined a

hazardous waste under the criteria, that shipment will be deemed a Basel waste and subject to its control procedure.

The Australian work carefully assesses electronic wastes and came to the conclusion that most all such wastes are Basel Convention hazardous wastes due to their containing Annex I constituents known to possess Annex III characteristics. The first question then asks if the waste includes these constituents including:

- Leaded glass from cathode ray tubes
- Nickel-cadmium batteries
- Selenium drums
- Printed Circuit Boards with lead-tin solders, antimony and beryllium compounds
- Mercury lamps in LCD displays
- Plastics containing brominated flame retardants

The subsequent questions then are used to determine whether the material in question is a waste. The determination requires the administering of tests and requiring documentation of the results.

Testing helps both the DEH and the exporter arrive at an objective standard in determining whether the shipment is waste or not. For instance, non-working equipment generally is a quick first indicator under the DEH criteria that what is being shipped is a waste. Annex B lays out very simple checks which customs and port personnel can easily comprehend and apply on the ground. The subsequent documentation of the results of the test prevents shipments from being fraudulently declared at the port or in the transport documents, e.g. as functioning equipment or other legally exportable materials.

The Australian model provides nations a practical model on how to meaningfully and diligently apply the Basel Convention for electronic wastes. Hong Kong would be well served to look at this excellent model (See Appendix).

3.9. European Union's IMPEL – A positive example of diligent enforcement of the Basel Convention and Ban Amendment

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL)³⁸, has generated in the past two years needed momentum to highlight the need for enforcing environmental laws, such as the European Waste Shipment Regulation which implements the Basel Convention and prohibits the export of hazardous wastes to developing countries from the 25 member states of the European Union (EU).

IMPEL's first Seaport Project³⁹ started in March 2003 and lasted until June of 2004. During this period IMPEL conducted enforcement projects in 6 large European seaports,⁴⁰ focusing their inspections on EU waste shipments with non-OECD countries, mainly to Africa and Asia, paying special attention to non-declared wastes or wastes claimed as green-listed wastes.⁴¹ 47 inspections were conducted during the project which resulted in 1,230 shipments being checked. IMPEL's investigation revealed that 20% of

the shipments were illegal, and part of the uncovered illegal shipments were of electronic wastes, i.e. Belgian e-waste going to West Africa, and a shipment of computers and monitors from the UK to Pakistan.⁴²

Buoyed by the success of the first Seaport Project, IMPEL launched a second Seaport Project in September 2004. In April 2005, IMPEL released an interim report,⁴³ revealing that of the 393 shipments inspected, 113 were illegal shipments some of which involved e-waste, i.e. Dutch e-waste destined for China via Antwerp, and German e-waste bound for Africa.⁴⁴

Just recently in October 2005, IMPEL carried out inspections, covering 258 ship cargo holds in 17 ports in nine EU countries. 140 waste shipments were identified during the inspection, 48% breached EU rules. Some of the illegal waste shipments included Swedish cable waste bound for China and discarded refrigerator compressors containing chlorofluorocarbons bound for Pakistan.

The high rate of infractions has led IMPEL to conclude and recommend to the participating EU nations that better enforcement of the Basel Convention and the EU Waste Shipment regulation are absolutely needed.⁴⁵ These laws, according to IMPEL, could simply become a paper tiger without adequate enforcement, and that “international cooperation between enforcement authorities is a basic principle for such ‘transfrontier enforcement’”.⁴⁶

Indeed the revised waste shipment regulation now nearing completion has incorporated mandatory spot-checking procedures as have been practiced by the IMPEL program.⁴⁷

These conclusions, and the report which contained them, have raised awareness of the existing inadequacies in the export controls of various industrialized European nations. More importantly, the IMPEL investigations have helped generate pressure among the participating governments to improve the implementation of their export control regulations. It is vital that Hong Kong as a major port not only implement the Basel Convention in the laws of the HKSAR in accordance with China’s obligations but also cooperate globally and locally in diligent enforcement making use of the invaluable experience of the IMPEL program.

4. Appendix

4.1. List of Countries that have ratified the Basel Ban Amendment as of 1 December 2005

Albania	Luxembourg
Andorra	Macedonia
Austria	Malaysia
Bahrain	Mauritius
Belgium	Morocco
Bolivia	Netherlands
Botswana	Nigeria
Brunei Darussalam	Norway
Bulgaria	Oman
China	Panama
Cook Islands	Paraguay
Cyprus	Poland
Czech Republic	Portugal
Denmark	Qatar
Ecuador	Romania
Egypt	Saint Lucia
Estonia	Serbia and Montenegro
Ethiopia	Slovakia
The European Community	Slovenia
Finland	Spain
France	Sri Lanka
Gambia	Sweden
Germany	Switzerland
Ghana	Syrian Arab Republic
Indonesia	Trinidad and Tobago
Hungary	Tunisia
Jordan	Turkey
Latvia	United Kingdom
Liberia	United Republic of Tanzania
Liechtenstein	Uruguay
Lithuania	

4.2. Australian Criteria for the export and import of used electronic equipment (PDF file)

4.3. IMPEL Inspection Press Release on illegal waste shipments in Europe, 8 November 2005 (PDF file)

4.4. News Stories / Hong Kong as Waste importer (note underlined sections)

AUSTRALIAN WASTE TRADER CONVICTED IN HONG KONG

Greenpeace International Press release

Greenpeace Australia, March 25, 1998. A cargo of Australian waste bound for China via Hong Kong, was yesterday found to have been illegally transported and the export company fined by the Hong Kong courts.

Australian authorities confirmed to Greenpeace that the waste had been illegally exported from Australia, without proper permits as required under Australia's Hazardous Waste (Exports and Imports) Amendment Act. Australian authorities failed to prosecute the trader or the exporting company due to loopholes in the Australian legislation which make it impossible to prosecute foreign companies.

"Australia continues to deny its responsibility for dumping toxic waste on developing countries," Greenpeace campaigner Matt Ruchel. "The Hong Kong Government finds this practice illegal, why doesn't the Australian Government?"

The Hong Kong company Bright Metal Co Ltd was yesterday convicted, and fined HK\$40,000, for illegally importing "controlled waste" without a permit into Hong Kong from Australia last September.

On September 22, 1997, Greenpeace alerted the Hong Kong authorities to three containers of hazardous computer scrap on board the freighter Zim Sydney at Hong Kong's No.6 Kwai Chung International Terminal, presumed to be on its way to mainland China.

Hong Kong Customs seized the shipment and the Environment Protection Department confirmed the cargo contained hazardous substances. The Government charged Bright Metal Co. (HK) Ltd. with "importing controlled waste without a permit".

Hong Kong has become a favoured trans-shipment port for traders in hazardous waste. The waste, mainly from industrialised countries such as Australia, the USA, Germany, the Netherlands and USA is shipped through Hong Kong to China and other developing countries to avoid higher disposal costs in the west.

Many Asian countries lack the environmental regulations, facilities and awareness of the dangers of these materials, and their citizens are often unwillingly and unknowingly exposed to extremely dangerous toxins.

Earlier this month at the conclusion of an international meeting, the Fourth Conference of Parties (COPIV) to the Basel Convention, more than 100 countries agreed to move rapidly to ratify the already internationally agreed Basel Ban, prohibiting the export of hazardous waste from developed to developing countries.

"Australia has still not ratified the Basel Ban and has resisted all calls to do so," said Ruchel

"The successful prosecution of Bright Metal Co. in Hong Kong highlights the inadequacies of the Australian legislation. The Australian Government has run out of excuses for not fully implementing the Basel Ban and stop the dumping of Australian hazardous waste on our Asian neighbours," said Ruchel.

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CHINA SERVES AS DUMP SITE FOR COMPUTERS

By Peter S. Goodman, Washington Post Foreign Service

GUIYU, China, 24 February 2003 -- Unsafe Recycling Practice Grows Despite Import Ban

This is the end of the road for the toxic detritus of the computer age.

In towns such as this one on China's southeastern coast, vast quantities of obsolete electronics shipped in from the United States, Europe and Japan are piled in mountains of waste. Even as entire communities, including children, earn their livelihoods by scavenging metals, glass and plastic from the dumps, the technological garbage is poisoning the water and soil and raising serious health concerns.

China's role as dumping ground for the world's unwanted gadgets is an outgrowth of efforts by wealthy countries to protect their own environments. Many governments are encouraging the recycling of computers to keep them out of landfills and prevent heavy metals from seeping into drinking water. But breaking computers down into reusable raw materials is labor intensive and expensive.

In the United States, where more than 40 million computers became obsolete in 2001 alone, according to a National Safety Council report, as much as 80 percent of the machines collected by recyclers are being disposed of for about one-tenth of the price

through a far simpler means: They are being sold to Asian middlemen, put on ships and sent here.

Officially, China has its own ban on such imports, but the law is easily circumvented through payments to corrupt customs officials, according to industry sources.

The real costs are being borne by the people on the receiving end of the "e-waste." In towns along China's coast as well as in India and Pakistan, adults and children work for about \$1.20 a day in unregulated and unsafe conditions. As rivers and soils absorb a mounting influx of carcinogens and other toxins, people are suffering high incidences of birth defects, infant mortality, tuberculosis and blood diseases, as well as particularly severe respiratory problems, according to recent reports by the state-controlled Guangdong Radio and the Beijing Youth newspaper.

"At the same time that we're preventing pollution in the United States, we're shifting the problem to somebody else," said Ted Smith of the Silicon Valley Toxics Coalition, an environmental advocacy group. "It's being exported and doing harm."

High Toll on Humans, Environment

On a recent morning in Guiyu, in Guangdong province, hundreds of men squatted in concrete-block sheds, sifting through computers and printers and breaking them into scrap with their bare hands. Some inhaled black clouds of toner. A tractor carted a mass of wires to an alley, where women melted them in barrels to scavenge their copper before spilling the leftovers into the dead-black Lianjiang River.

In a low building tucked at the bottom of a hill, a middle-aged woman leaned over a sheet of steel placed atop a charcoal fire, melting down capacitors pried from computers to harvest tiny amounts of gold. Ten feet away, a girl no older than 11 bent over a table, sorting through more circuitry.

"Today there's no school," said the boss, Zheng Conggong, 27, when asked why the girl was there. "Vacation." It was 10 o'clock on a Monday morning, a regular school day everywhere else in China. When the boss stepped away, the girl timidly confirmed that she works here every day, all day. Her fingers were quick and nimble, clearly well-practiced.

Nearly every crevice of the town showed evidence of the trade, from the strips of plastic and shards of glass choking the river to the piles of motherboards, hard drives and keyboards in front of nearly every home. The landscape was poisonous. Glass from monitors contains lead, which afflicts the nervous system and harms children's brains. Batteries and switches contain mercury, which damages organs and fetuses. Motherboards contain beryllium, the inhalation of which can cause cancer.

Trucks bring in drinking water from more than 10 miles away because the local supply is not potable. Near a riverbank that has been used to break down and burn

circuit boards, a water sample revealed levels of lead 190 times as high as the drinking water standard set by the World Health Organization, according to a report released last year by the Silicon Valley Toxics Coalition and another U.S.-based environmental group, the Basel Action Network.

The environmental groups had their samples analyzed by the Hong Kong Standards and Testing Centre Ltd., according to their report. A sediment sample found levels of lead and other heavy metals such as chromium and barium hundreds of times as high as U.S. and European environmental standards for risk. The water test confirmed an earlier sample taken by a reporter for a Chinese-language publication in Hong Kong, Eastweek Magazine, which found even higher lead levels.

The report by the two environmental groups, "Exporting Harm: The High-Tech Trashing of Asia," accused computer manufacturers of failing to assume responsibility for the pollution they cause by instituting their own recycling programs. It also criticized the United States for declining to ratify the Basel Convention, an international agreement signed by every other developed country that aims to limit the export of hazardous waste. As a result, recyclers in the United States are not in violation of domestic laws when they ship computer waste to poor countries in Asia.

New Entry Ports to Bypass Ban

China's ban on imports of many types of discarded computers and electronics, which began last year, led the government to seize 22 shipping containers in the port of Wenzhou in September. But recent visits to areas that have been at the center of the e-waste trade revealed that it continues despite the ban, though more covertly. In Guiyu, one truck after another wound down the muddy track through town on a recent morning, bearing fresh loads of junked electronics. One bore stickers showing it had come from Italy, another from Korea and a third from Japan. In a concrete-block building loaded with circuit boards, one load contained a sticker from New Jersey.

Many old computers were formerly shipped to Nanhai, a port outside the city of Guangzhou. But shipping agents there said customs officials have gotten strict since the ban. Much e-waste is now routed through Hong Kong, Taiwan and the Philippines on container ships, according to those involved in the trade, then trans-shipped to smaller ports in mainland China such as Shantou and Jiangkou, where customs officials are willing to look the other way in exchange for a share of the spoils.

Mark Dallura, head of Chase Electronics Inc. of Philadelphia, which buys discarded computers in the United States and then ships them to China via Taiwanese middlemen based in Los Angeles, said he has been in the trade for 15 years and has not been slowed by the ban.

"I sell it to [the Taiwanese] in Los Angeles and how they get it there is not my concern," Dallura said. "They pay the customs officials off. Everybody knows it."

They show up with Mercedeses, rolls of hundred-dollar bills. This is not small time. This is big-time stuff. There's a lot of money going on in this."

Dallura said his company gets many of its old computers from recyclers scattered across the United States. They pick them up from well-intentioned citizens and businesses that hand them off at events organized by cities and counties aimed at keeping e-waste out of landfills. He acts as a broker, consolidating container shipments that he then hands off to the middlemen. Most weeks, he ships at least one container bearing 45,000 pounds of such waste.

A container full of computer monitors brings him a fee of \$2,600, he said. During a recent week, he planned to ship four containers. Two were bound for Hong Kong, the other two for Nanhai, bearing mainframe computers not covered by China's ban.

"I could care less where they go," Dallura said. "My job is to make money."

Taicang City, a collection of industrial warehouses an hour's drive north of Shanghai in Jiangsu province, has long served as a distribution center for e-waste, according to those engaged in the trade. During a recent visit, stacks of keyboards and monitors could be seen along the walls of warehouses that have historically received them. Local motorcycle drivers said they continue to take buyers from all over eastern China to 15 such warehouses, and trucks arrive regularly with shipments from the port of Shanghai.

"The local government tolerates this stuff," said Ren Maohui, one such driver. "The government would rather tax the trade than put it out of business."

Ren said he recently took a buyer from Zhejiang province interested in procuring circuit boards to a warehouse controlled by a Taiwan-based firm, Suzhou Yuefa Nonferrous Metal Product Co. In a brief interview, the company's general manager said he could not remember when his last shipment of old computers was delivered. But Ren recalled a different account supplied to the buyer: "They didn't have enough, but they told him, 'Don't worry. We get foreign shipments every month. We'll get more.'"

E-Waste Recyclers' Role to Grow

As the cycle of electronics obsolescence accelerates, the flow of e-waste to China seems likely to increase. More computers, for example, are being retired -- most of them in good working order, but unable to handle the latest software advance, from digital video-editing to graphics-intensive games.

The Silicon Valley Toxics Coalition estimates that from 1997 to 2007, as many as 500 million computers will have been discarded in the United States. In addition, a shift to high-definition televisions will probably lead to the disposal of more of the old cathode-ray-tube variety, which contain lots of lead. And as newer flat-panel

monitors begin to be retired, the mercury they contain will find its way into the waste stream as well.

The Environmental Protection Agency estimates that discarded electronics account for 70 percent of heavy metals in U.S. garbage dumps. Massachusetts and California have banned the disposal of old computer monitors in landfills, and other states are considering similar laws. Large businesses are already barred from sending their old computers to landfills. The result is a growing role for electronics recyclers.

But as the EPA discovered in a survey in California, the cost of actually dismantling and reusing the materials in a computer monitor in the United States is about 10 times as high as the cost of shipping it to China. That neatly explains why the streets of Guiyu remain buried under mounds of old computers.

At the same time, China's transition to a market economy has sharply increased a gap in living standards between thriving coastal regions and impoverished interior areas. That explains why so many have come here from other places to try to harvest fortune out of the electronics refuse from abroad.

"It's a little bit dirty, but okay," said Wang Guangle, 27, a farmer from Sichuan, as he sat on the floor of a shed, taking apart printer drums.

"We need this work," said his friend, a farmer from Guizhou province. "If the government shuts it down here, it will just move somewhere else and we'll move with it."

The workers acknowledge the cuts on their fingers -- infections that do not heal. Stubborn, hacking coughs testify to the poorly ventilated places in which they breathe noxious fumes.

Mostly, they focus on the cash they are earning.

"It's dangerous, yes, but no money is more dangerous," said an 18-year-old woman named Lin, who came Guiyu from a neighboring province for work, as two children pulled discarded computer mice through the muddy street like toy ships. "No money means you'll die of hunger."

Special correspondent Wang Ting contributed to this report from Shanghai.

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THE UK'S NEW RUBBISH DUMP: CHINA

The Guardian

20 September 2004 -- When people give their bottles and paper for recycling, writes John Vidal, few realise much of it will end up 8,000 miles away

More than a third of the waste paper and plastic collected by British local authorities, supermarkets and businesses for recycling is being sent 8,000 miles to China without any knowledge of the environmental or social costs - and to the complete surprise of most consumers.

New government figures suggest that exports to China are running at 200,000 tonnes of plastic rubbish and 500,000 tonnes of paper and cardboard a year - a huge increase on just three years ago.

Much of the plastic sent to China is packaging but a Guardian investigation has found that agents for Chinese companies are now buying up and exporting thousands of tonnes of unwashed bottles, containers, and other household waste.

"China is buying up everything it can. It is sucking in material from all over the world and it doesn't give two noodles what it takes," said one plastics recycler who asked not to be identified. "I know of 300 firms, mostly in China, offering to buy my plastics. I have three or four companies cold-calling me every day from China requesting material. They have very cheap labour to sort the material but the shame is that it is being done there and not here. They don't care about the quality, or the contamination. No one checks what is sent or what arrives."

The British plastics industry admits that the global trade is starving some local recycling initiatives of materials and putting established firms out of business or at risk. According to UK plastic recyclers, agents for Chinese companies are offering £120 a tonne for mixed plastic bottles, far more than British companies can pay. "The industry here can only support £50 a tonne. We believe that 10-15,000 tonnes of old bottles are going to China. Yet only about 25,000 tonnes were collected last year", said Stephen Chase of Chase Plastics.

"The Chinese put me out of business," said Edward Clack, a plastics recycler who invested in two recycling plants in Britain. "Everyone has lost supplies to China. The local market is being starved of materials. Hundreds of brokers are buying up the plastic and shipping it out. It's cheaper to send a container to China than to Scotland."

China drives the global waste trade, importing more than 3m tonnes of waste plastic and 15m tonnes of paper and board a year. But the trade is being driven equally by tough EU legislation forcing local authorities and businesses to recycle more. Landfill charges are rising steeply, making it relatively cheaper to send the waste abroad. Meanwhile, major companies have moved in, offering to collect and dispose of large quantities.

The trade is made possible by the vast numbers of shipping containers arriving in Britain with Chinese exports. One of Britain's largest freight forwarding companies confirmed that the return waste trade to China is accelerating rapidly.

"We are shipping a phenomenal amount of waste, maybe 15,000 tonnes a week to China," said a spokesman for Warrant freight forwarders of Liverpool. The current price for sending a standard 26-tonne container of waste plastic to China, he said, is about £500.

The Tanjin Songzi Import and Export Trade company based in the huge port of Tianjin Xingang is typical of the growing trade. "We are specialize [sic] in import the scrap plastic bottle, waste plastic, waste paper. Europe origin. Please show me your offer," says its advertisement on an international plastics exchange website brimming with traders wanting the raw material for the Chinese industrial revolution.

Most Chinese plastic waste importers want pictures of what they are buying, but some are not fussy. "We buy all types, such as the mineral water bottles, pure water bottles and plastic bottles of other drink. Any specifications will be fine. If you can supply, please email," says Mr Lee of a Shanghai company on the same site.

Western plastic companies are setting up in China, but some of the poorest people are employed to sort and recycle the plastic. "Plastic is now one of the biggest industries in Guangdong province, but much of the work is being done by migrant labour earning a pittance," said Martin Baker, of Greenpeace China.

"I would say that Britain is dumping its rubbish in the name of recycling. It is not responsible recycling that is being done. It is reprocessing, but the methods being used are still mostly rudimentary. There are some good factories, but on the whole it is small scale, done in backstreets with little environmental standards. People are burning plastic, sorting it by hand, the water gets polluted and it goes back into the rivers," he said.

UK supermarket chains, some of the largest generators of plastic packaging waste in Britain, are all getting their recycling done in China, said a spokesman for Sainsbury's. "We send 5,000 tonnes of plastic there a year. We used to send it to a firm in Nottinghamshire, but it has closed down," he said. "We looked for others in Britain but no one could match the Chinese option for quantity or price. We would love to see it being recycled here, but it's not possible at present."

But Ian Bowles, a spokesman for Asda, said he did not know where the company's plastic recycling was being done. "UK companies pick it up. As far as we know it's being reprocessed here. It could be that excess quantities are going abroad." Other retailers known to be generating large quantities of plastic waste, including Tesco, did not respond to questions about where their recycling was being done.

No detailed studies have been done of the environmental costs of shipping vast quantities of waste from Britain to China, but environment groups and MPs were yesterday shocked at the scale of the trade. "Exporting lightweight packaging waste to China makes little sense environmentally," said Liberal Democrat MP Sue Doughty. "It is a failure of the UK recycling market which allows the UK to export plastic for recycling. We have no control over environmental standards in China. Instead of solving the problem we are exporting it. Much more needs to be done to stimulate the markets in the UK so that waste is handled as close as possible to the point of generation."

Clare Wilton, wastes spokeswoman for Friends of the Earth, said: "People will be shocked that some of the newspapers and empty drinks bottles they put out for recycling can end up in China. It's an environmental disgrace. "The solution is to expand the UK's own recycling industry. This would be good for the environment, create local jobs and help Britain become a leader in green technology."

Sending plastic bottles to China is "barmy", said Mike Croxford, manager of Newport Wastesavers, which collects 50 tonnes a month of plastic from 50,000 homes in south Wales. "We should be dealing with the stuff here, but the reality now is that most plastic in Britain is going abroad. I don't think the public knows where some of it goes. If they knew it was going right round the world, they might not encourage it."

But other recyclers said it was better to send rubbish to China to be recycled than to put it in landfill in Britain. Andrew Simmons of the Peterborough-based waste charity Recoup buys millions of plastic bottles from UK councils, bales them up, and sells them to a reprocessor who then sells them on to Europe or, increasingly, to China. He rejected claims that Britain was dumping its rubbish on China and said that the environmental cost of sending bottles thousands of miles was negligible compared with making "virgin" plastic bottles from oil.

China is increasingly aware that countries are exporting their pollution to them and have imposed strict laws governing what can be exported. Large amounts of German household waste have been found and all waste exports from Japan have recently been halted after electronic and contaminated household waste was found. However, the Chinese authorities, plagued by corruption, are unable to check the contents of all the waste containers that arrive in Chinese ports every year.

British plastic bottles are mostly sent to Hong Kong where they are sorted and "flaked" before being sent to factories on the mainland. "One type of plastic bottle goes on to make soft furnishings and clothes, another is made into pellets which are sold back to European manufacturers to make things like plastic bags," said Mr Simmons.

This insatiable demand for the world's rubbish, he said, has actually boosted the British market for plastic recyclers, raising the price and making it far more

worthwhile for councils to collect and not dump it in landfill. Partly because of this, more than half of all British local authorities now offer plastic recycling

More and more British plastic is likely to go to China, said Tim Frier of Valpac, whose subsidiary, Valiant, collects waste from more than 5,000 businesses in Britain, including supermarkets, pubs and clubs, and sends up to 15,000 tonnes of plastic to China a year. Valpac has just opened an office in China.

"We will be sending more there. But they have strict rules. The problem was that a lot of waste going to China was contaminated, and not being sorted properly. There were concerns about British waste, too," he said.

The government insists that companies have export licences but few if any checks are made in British ports. The Environment Agency admits that it is unable to check what is being exported.

"There is a legitimate trade in waste exports for recovery involving materials such as paper, ferrous metals, plastics and card. These wastes are classed as 'green list' and are not subject to the same level of control as wastes classed as hazardous," said a spokesman. <http://www.guardian.co.uk/waste/story/0,12188,1308278,00.html>

CHINA BECOMING A HIGH-TECH DUMPING GROUND

By Christian M. Wade, UPI Correspondent From the Science and Technology Desk

TAIZHOU, China, 10 June 2002 – Dong Fei dangles a green computer circuit board over an open fire as plumes of black smoke and the smell of melting solder fill the small corner of the factory.

"You have to be careful not to inhale the fumes," she said, peeling computer chips off the twisted boards with a pair of pliers. "Sure, it's dangerous work, but we have to earn money somehow."

Nearby, several women pound away at computer monitors and keyboards with hammers and other tools, separating the plastic shells from brass screws, nuts and other valuable metal parts.

Workers search through piles of plastics and wires to extract gold, melting and burning soldered circuit boards to remove silicon computer chips, and break open lead-laden cathode ray tubes.

Residents of a nearby village say there are hundreds of computer salvage yards scattered around the outskirts of Taizhou, a coastal city in China's eastern Zhejiang province, employing thousands of migrant workers. At night, the odor of burning plastic can be smelt miles away from the plants.

Most of the foreign computer junk in the salvage yards comes from the United States and Japan according to one owner, who only gave his surname, Hong. Some refuse bears visible signs of other countries -- several junked hard drives were marked "Property of the City of Los Angeles".

The owner said he gets the junk computer parts from a Hong Kong-based scrap dealer for about \$500 a ton. Anything of value is saved and sold for scrap, the rest is burned in piles at the factory.

Foreign computer waste has developed into a staple industry in Taizhou and other impoverished regions of China, where state industry reforms have forced tens of millions into unemployment.

Environmental groups say the primitive methods of extraction release dangerous chemicals into the air and poison streams and drinking water wells. Health experts warn computer waste contains a host of deadly ingredients, including lead, beryllium, mercury and cadmium.

A report released in February by a team of environmental and health groups detailed the plight of villagers in Guiyu, a town in southern Guangdong province, where the investigative team saw tons of electronic waste dumped along rivers, in open fields and irrigation canals in the rice fields.

The impact of the industry on neighboring villages had been so devastating that well water in is no longer drinkable and water must be trucked in from 30 kilometers away, the report said.

The group blamed the U.S. government for sanctioning the illegal trade in used computer parts.

"We further discovered that rather than banning it, the U.S. government is actually encouraging this ugly trade in order to avoid finding real solutions to the massive tide of obsolete computer waste generated in the U.S. daily," the group's coordinator Jim Puckett wrote in the report.

Although U.S. manufacturers and waste managers have made some efforts to reclaim and recycle some of the most toxic of these ingredients, the report said, hazardous waste landfills in China, India and other developing countries in Asia are overflowing with American high-tech waste.

Chinese officials have pledged to crack down on illegal imports of computer parts and other high-tech trash, urging the United States to join the 1989 Basel Convention, a United Nations treaty banning exports of used computer parts containing toxic chemicals such as lead and mercury.

China signed the treaty in 1991, but the United States has not yet ratified the U.N. convention.

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GUANGZHOU STEPS UP EFFORTS TO KEEP OUT IMPORTED REFUSE

China Online

GUANGZHOU, China, 26 February 2002 --In recent years, Guangzhou city customs has intensified efforts to intercept and send back "foreign trash" that is unable to meet local requirements for inbound goods. In 2001, customs intercepted 2.84 million yuan (US\$342,995) worth of "used goods," including 2,326 tires, 8,414 electronic home appliances, 339 computers and 84 parts and bits of used cars, according to the Feb. 25. Zhongguo Huanjing Bao (China Environment News).

According to customs officials, this "foreign trash" entered China mainly through two ways: secretly carried by small ships sailing back and forth between Guangzhou, Hong Kong, and Macau; through regular shipments, or by mis-declaring the types of goods.

Experts noted that "foreign trash" is mainly discarded or cheap foreign goods that can easily be sold in China, such as used electronic home appliances. They are normally sold to economically backward regions of the country, the Zhongguo Huanjing Bao article said.

Refuse from the developed world

The Associated Press reported on Feb. 25 that a cluster of villages in southeastern China has been exposed to high levels of toxic waste as a result of local dumps of foreign computer parts. Quoting a recently released report issued by the Seattle-based Basel Action Network entitled "Exporting Harm: The High-Tech Trashing of Asia," the AP story said that investigators who visited waste sites in Guiyu, China, in December witnessed men, women and children pulling wires from computers and burning them at night, fouling the air with carcinogenic smoke.

In a desperate search for items of value (many computer components contain gold and silver), plastics and circuit boards are burned, printer cartridges are pried open, and lead-laden cathode ray tubes are smashed. Because of this, the ground water has become so polluted that drinking water has to be trucked in from a town 18 miles away, the report said. One river sample in the area had 190 times the pollution levels allowed under World Health Organization guidelines. Much of the waste has been sent from the United States.

A 1989 treaty known as the Basel Convention restricts such transfers of harmful waste from one country to another, but the United States has not ratified it, according to the AP story. The "Exporting Harm" report says some in the industry estimate as much as 50 to 80 percent of the United States' electronic waste collected in the name of recycling actually gets shipped out of the country.

A portion of it ends up in China, India and Pakistan. "Everybody knows this is going on, but is just embarrassed and don't really know what to do about it," Ted Smith, head of the Silicon Valley Toxics Coalition, told AP. "They would just prefer to ignore it."

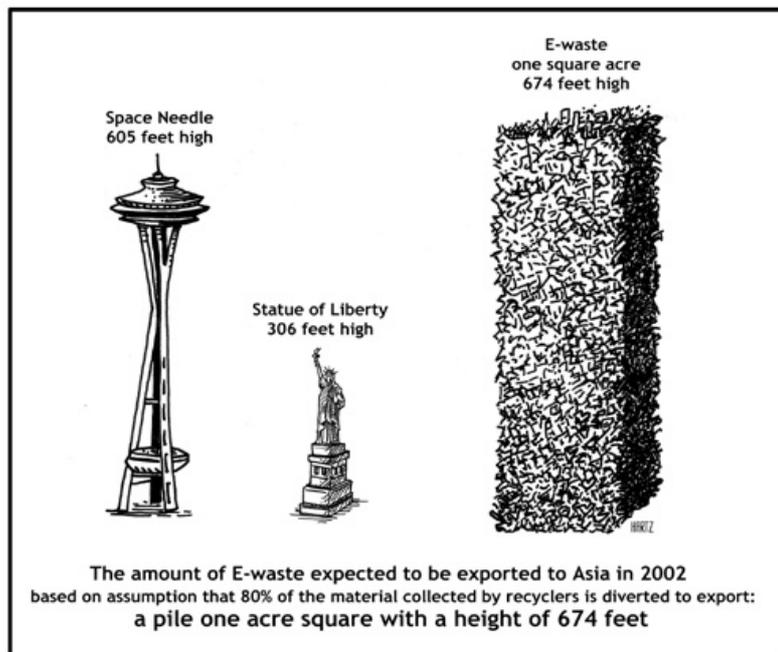
Mulling solutions

Several organizations have proposed a way to solve the transfer-of-waste problem: making electronics manufacturers accountable for their obsolete products. Electronics products makers are being singled out because these types of goods, especially computers, tend to become obsolete much faster than other products. One idea is to add a fee to the initial purchase price of a computer, much like a bottle deposit, to fund clean and efficient recycling programs. A few states are considering such plans, the AP story said, including California, where two state senators last week introduced bills that would slap fees on electronics to pay for reducing e-waste.

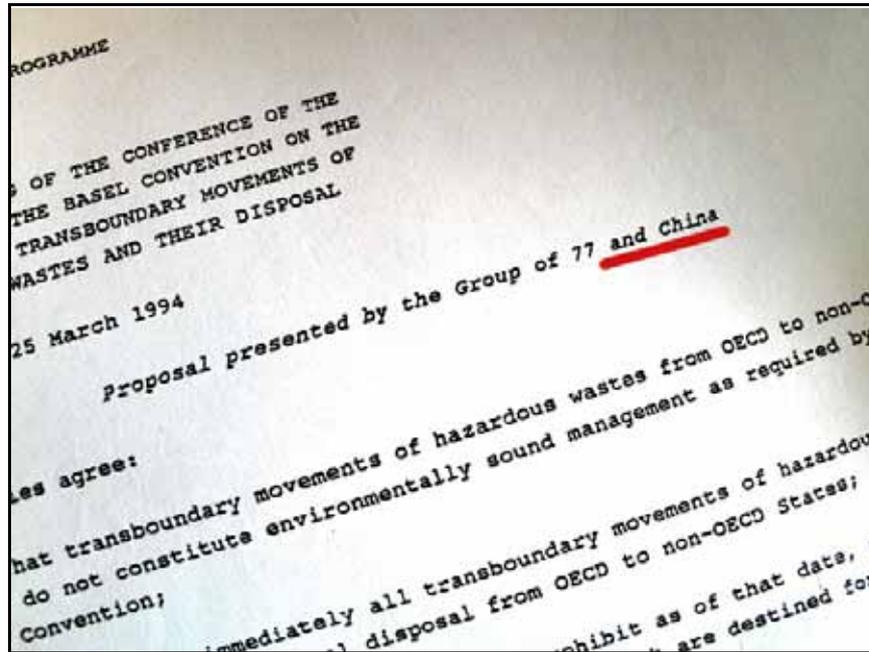
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Township area of Guiyu with imported electronic waste flooding the streets beneath the sign reminding the public that importing electronic waste is illegal. Copyright Greenpeace 2004.



Visual representation of the estimated amount of computer scrap exported in one year from the USA to Asia from Exporting Harm: The High-Tech Trashing of Asia. Copyright Basel Action Network. 2002.



25 March 2004 proposal at Basel Convention COP2 by the G-77 and China to enact a full ban on exports of hazardous wastes for any reason from OECD to non-OECD countries. This was the original ban proposal which the next year was adopted as an amendment to the Convention. China has ratified this Ban Amendment. Will Hong Kong correctly apply it? Copyright Basel Action Network. 2003.



Photo taken by European inspectors in the IMPEL program of illegal export of mixed metal and electronic scrap bound for Asia. Copyright IMPEL 2004.

¹ The mandate and reports of the Special Rapporteur of the Commission on Human Rights on the adverse effects of the illicit movement and dumping of toxic and dangerous products and wastes on the enjoyment of human rights can be found at <http://www.unhcr.ch/html/menu2/7/b/mtow.htm>

² Decision III/1 of the Basel Convention. Found at: <http://www.basel.int/pub/baselban.html>

³ Exporting Harm: The High-Tech Trashing of Asia, available at: www.ban.org.

⁴ Greenpeace, "Recycling of Electronic Wastes In China and India: Workplace & Environmental Contamination", available at <http://www.greenpeace.org/raw/content/international/press/reports/recycling-of-electronic-waste.pdf>

⁵ Decision II/12 of the Basel Convention: http://www.ban.org/about_basel_ban/copsII_12.html

⁶ For latest list visit: http://www.ban.org/china_list.html

⁷ Chapter VII "External Affairs", Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China

⁸ Chapter VII, Article 151, Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China.

⁹ Chapter VII, Article 153, Basic Law of the Hong Kong Special Administrative Region of the People's Republic of China.

¹⁰ "On 6 and 10 June 1997, the Secretary-General received communications concerning the status of Hong Kong from the Governments of the United Kingdom and China (see also note 2 under "China" and note 2 under "United Kingdom of Great Britain and Northern Ireland" regarding Hong Kong in the "Historical Information" section in the front matter of this volume). Upon resuming the exercise of sovereignty over Hong Kong, China notified the Secretary-General that the Convention will also apply to the Hong Kong Special Administrative Region." See at: <http://www.basel.int/ratiff/frisetmain.php?refer=convention.htm>

¹¹ Available at: <http://www.un.org/law/ilc/texts/treaties.htm>.

¹² Section 2(1), Waste Disposal Ordinance, available at: <http://www.legislation.gov.hk/eng/home.htm>.

¹³ Art. 2(1) Basel Convention.

¹⁴ Annex IV, Basel Convention.

¹⁵ Sec. 2(1), Waste Disposal Ordinance.

¹⁶ <http://www.nrc-recycle.org/resources/electronics/docs/tg352.pdf> and

<http://www.enveng.ufl.edu/homepp/townsend/Research/CRT/CRTDec99.pdf> Townsend's research in the US found that while CRTs typically failed the Toxic Leachate Characteristic Procedure for lead with levels around 18.5 mg/l, Australia found that circuit boards generated high concentrations of lead in leachate, from 142 to 1,325 mg/l.

¹⁷ Art. 1(b), Basel Convention, "...wastes that are not covered under paragraph (a) but are defined as, or are considered to be, hazardous wastes by the domestic legislation of the Party of export, import or transit."

¹⁸ Art. 2, (1), Basel Convention, "Wastes are 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;"

¹⁹ "Parties exercising their right to prohibit the import of hazardous wastes or other wastes for disposal shall inform the other Parties of their decision pursuant to Article 13"

²⁰ <http://www.greenpeace.org/china/en/press/releases/greenpeace-exposes-hong-kong-s>

²¹ See at www.basel.int.

²² Annex II, Decision V/35, December 10, 1999.

²³ Art. 4(2)(d), Basel Convention.

²⁴ Art. 4(2)(a), Basel Convention.

²⁵ Art. 4(2)(b), Basel Convention.

²⁶ Art. 4(2)(e), Basel Convention.

²⁷ Art. 4(3), Basel Convention.

²⁸ Art. 4(4), Basel Convention.

²⁹ The Policies and Principles of Environmental Justice were first articulated in the national context of the United States and have been fully embraced by the United States government. See

<http://www.epa.gov/compliance/environmentaljustice/index.html>

³⁰ BAN conducted this review, the data is available upon request.

³¹ Article 15, para 7, Basel Convention.

³² Mr. Stephen Shiu, Hong Kong Environment Protection Department PowerPoint Presentation, E-waste Inception Workshop, Tokyo, Japan, Nov. 21-25, 2005. The figures include illegal imports of hazardous waste intercepted by the EPD.

³³ *Id.* The figures include illegal imports of hazardous waste intercepted by the EPD.

³⁴ The Basel Convention forbids Parties to trade in covered wastes with non-Parties (Article 4 Paragraph 5) absent a special Article 11 agreement.

³⁵ Art. 11, Basel Convention.

³⁶ This list includes all 25 member States of the European Union, as well as Norway, Liechtenstein, Switzerland, Iceland, and Turkey.

³⁷ See at: <http://www.deh.gov.au/settlements/publications/chemicals/hazardous-waste/electronic-paper.html>

³⁸ For more information see: <http://europa.eu.int/comm/environment/impel/secretariat.htm>.

³⁹ The full name of the project is, IMPEL-TFS Seaport Project: European Enforcement Initiative to Detect Illegal Waste Shipments. A copy of the report is available at http://europa.eu.int/comm/environment/impel/pdf/impel_tfs_seaportprojectjune2004.pdf [hereinafter Seaport Project I]

⁴⁰ Hamburg, Antwerp, Riga, Gdansk, Felixstowe, and Rotterdam. Hamburg, Antwerp, Riga, Gdansk, Felixstowe, and Rotterdam

⁴¹ Green list of waste is contained in Regulation 259/93, also known as the EU Waste Shipment Regulation. The regulation has three waste lists: Green, Amber and Red. The shipment of Amber and Red listed wastes always require prior notification, while shipment of Green listed wastes can be made, generally without notification.

⁴² IMPEL-TFS Seaport Project: Illegal Waste Shipments to Developing Countries Common Practice, available at: http://europa.eu.int/comm/environment/impel/pdf/seaport_1_report.pdf.

⁴³ No final conclusions have yet been formed, and IMPEL will release its formal report on the results of Seaport Project II in the spring of 2006, when the project is slated to end.

⁴⁴ Waste Export Regulations are Often Contravened, Press Release, available at: <http://europa.eu.int/comm/environment/impel/news.htm>.

⁴⁵ *Id.* at p 35.

⁴⁶ *Id.* at p 39.

⁴⁷ An October 14 meeting of the permanent representatives of the Council, Commission and Parliament of Europe agreed to a compromise package for new Regulation of the European Parliament and of the Council on shipments of waste (2003/0139 (COD)) which calls for regular spot-checking of shipments by member states. It is expected this will be adopted in full at second reading.



Introduction

Used electronic equipment proposed to be exported or imported may be considered a hazardous waste under Australia's *Hazardous Waste (Regulation of Exports and Imports) Act 1989 (the Act)*.

If you intend to export or import used electronic equipment, or to sell it for export, you must read the whole of this document. In order to simplify the legal context this document provides six basic questions to determine whether used electronic equipment is or is not hazardous waste. The questions are illustrated in the table and flowchart overleaf.

Export or import of hazardous waste without a permit under the Act may result in severe penalties, including fines or imprisonment for importers, exporters or their Australian suppliers.

Information on how to apply for a permit is contained in the *Australian Guide to Exporting and Importing Hazardous Waste: Applying for a Permit*, available at www.deh.gov.au/industry/chemicals/hwa/papers/gdpermits01.html

Legal context: the Hazardous Waste (Regulation of Exports and Imports) Act 1989

The **object** of the Act is to regulate the export, import and transit of hazardous waste to ensure that exported, imported or transited waste is managed in an environmentally sound manner so that human beings and the environment, both within and outside Australia, are protected from the harmful effects of the waste.

Hazardous wastes are wastes listed in the Basel Convention and other international agreements.

Wastes are substances or objects that are to be disposed of by recycling or final disposal.

The Act regulates the export and import of hazardous wastes, including:

- Waste electrical and electronic assemblies or scrap containing components such as accumulators and other batteries, mercury switches, glass from cathode ray tubes and other activated glass and polychlorinated biphenyl capacitors, or contaminated with constituents such as cadmium, mercury, lead, or polychlorinated biphenyl to an extent that they possess any hazardous characteristics.

The Act does not regulate the export and import of non-hazardous wastes, including:

- Electronic assemblies consisting only of metals or alloys
- Waste electrical and electronic assemblies or scrap (including printed circuit boards) not containing components such as accumulators and other batteries, mercury-switches, glass from cathode ray tubes and other activated glass and polychlorinated biphenyl capacitors, or not contaminated with constituents such as cadmium, mercury, lead, or polychlorinated biphenyl or from which these have been removed, to an extent that they do not possess any hazardous characteristics.

The Act does not regulate the export and import of materials that do not contain any wastes, including:

- Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct re-use, and not for recycling or final disposal (Re-use can include repair, refurbishment or upgrading, but not major reassembly).

The Act also does not regulate the following waste when it is sent from one OECD country to another OECD country for recovery. Note that the Act normally regulates this waste when it is exported to or imported from a non-OECD country, or sent for final disposal. A list of OECD countries is available at www.oecd.org



- Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery.

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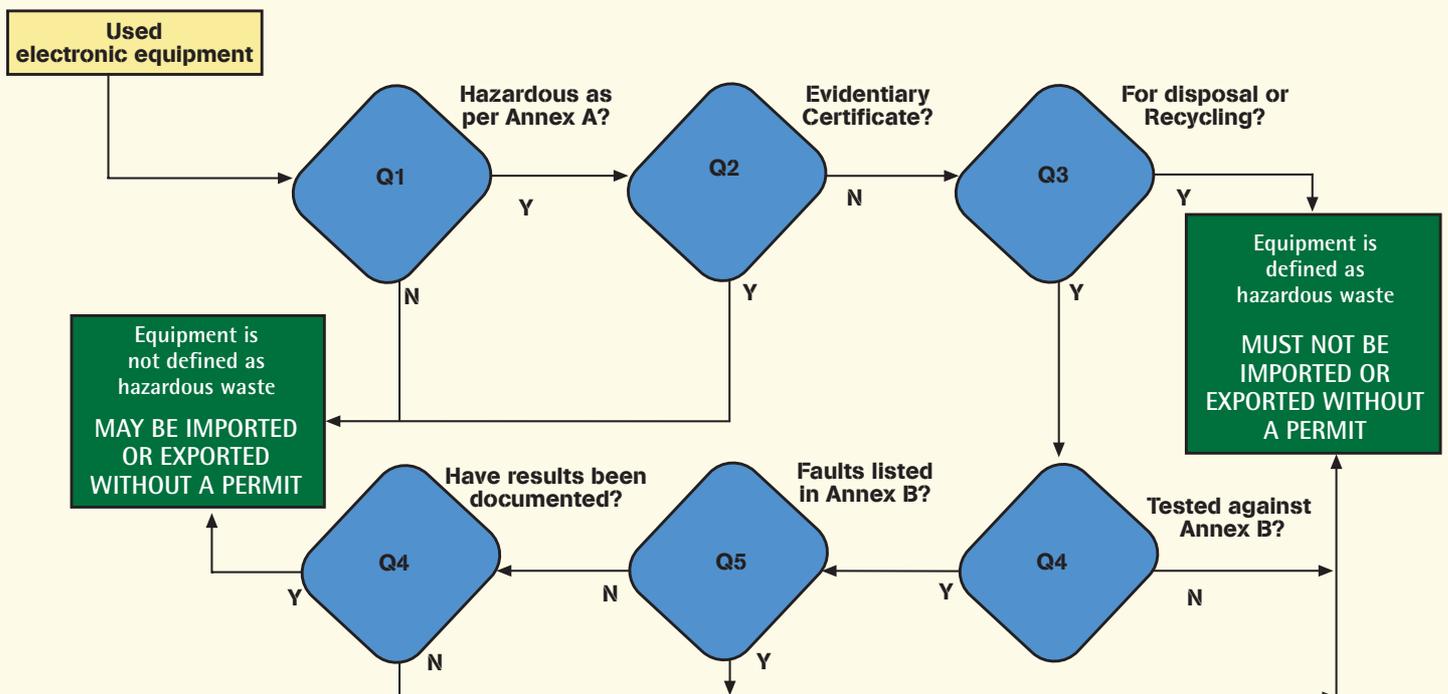
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How to determine whether used electronic equipment, proposed for export, is or is not hazardous waste.

Use the following table or flowchart with Annex A and B to help determine whether used electronic equipment, proposed for export, is or is not hazardous waste.

Questions		Answer	Action	
QUESTIONS RELATING TO STATUS AS HAZARDOUS WASTE	Q1	Is the equipment potentially hazardous, as defined in Annex A?	Yes	Go to Q2
		No	The equipment is not defined as hazardous waste and may be exported without a permit.	
	Q2	Has the Minister made an evidentiary certificate that the equipment in question is not a waste?	Yes	Equipment that is certified not to be a waste may be exported without a permit.
		No	Go to Q3	
	Q3	Is the equipment or any of its components destined for a disposal operation, including recycling, as defined by the Act?	Yes	Equipment is defined as hazardous waste and must not be exported without a permit.
		No	Go to Q4	
QUESTIONS RELATING TO TEST STATUS	Q4	Has the equipment been tested in accordance with Annex B?	Yes	Go to Q5
		No	Equipment that has not been tested is defined as hazardous waste and must not be exported without a permit.	
	Q5	Do the results of testing in accordance with Annex B define the equipment as waste, and hence as hazardous waste?	Yes	Equipment that is defined as hazardous waste must not be exported without a permit.
		No	Go to Q6	
	Q6	Have the results of the testing been documented and labelled in a way that conforms to Annex B?	Yes	After testing, equipment that has been documented as not being a hazardous waste may be exported without a permit.
		No	Equipment without documented test results is defined as hazardous waste and must not be exported without a permit.	

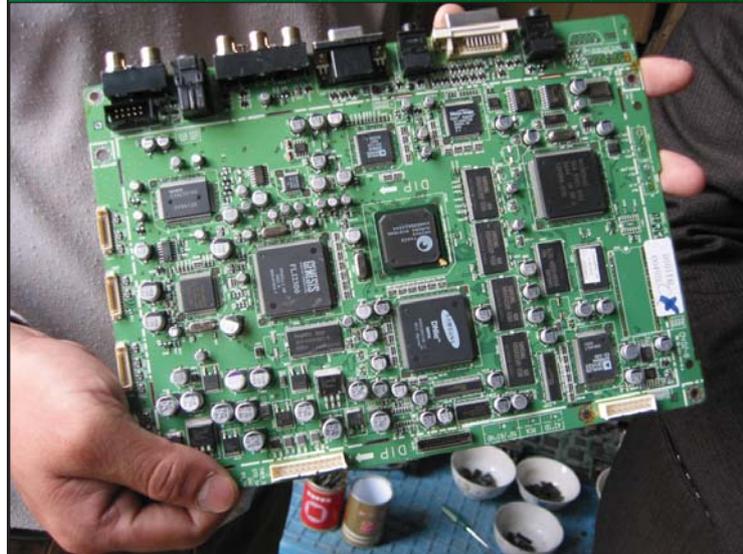


ANNEX A

Hazardous Constituents

Most used electronic equipment will contain hazardous components (see below). This waste is therefore assumed to be hazardous waste unless it can be shown that it does not contain any of the following:

- 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.
- nickel-cadmium batteries, which are assigned to Annex VIII entry A1170 "unsorted waste batteries...". This waste also belongs to category Y26 in Annex I, cadmium; cadmium compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- 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.
- 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 as well as 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.
- 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 I, Mercury; mercury compounds and is likely to possess hazard characteristics H6.1, H11, H12 and H13.
- plastic components containing Brominated Flame Retardants (BFRs) are 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.



ANNEX B

FAULTS INDICATING ELECTRONIC EQUIPMENT IS WASTE

Electronic equipment is defined as waste if it has any of the following:

1. **A defect that materially affects its functionality. For example it does not:**
 - a. power up; or
 - b. perform BIOS or internal set-up routines or self-checks fail; or
 - c. have a functioning motherboard; or
 - d. communicate with the host; or
 - e. print/scan/copy a test page or the page is not identifiable or readable or is blurred or lined; or
 - f. read, write or record/burn.
2. **Physical damage that impairs its functionality or safety, as defined in relevant standards. Physical damage includes, but is not limited to:**
 - a. a screen that has physical damage, such as burn marks, or is broken, cracked, heavily scratched or marked, or that materially distorts image quality; or
 - b. a signal (input) cable has been cut off or cannot be easily replaced without recourse to opening the case.
3. **A faulty Hard Disk Drive and a faulty RAM and a faulty Video Card.**
4. **Batteries made with lead, mercury or cadmium or batteries containing hazardous liquid cathodes that are unable to be charged or to hold power; or**
5. **Insufficient packaging to protect it from damage during transportation, loading and unloading operations.**



Photos: Dr Greg Rippon

For further information please contact the Department of the Environment and Heritage on Freecall 1800 803 772 or visit the web site at www.deh.gov.au/industry/chemicals/hwa



Australian Government

Department of the Environment and Heritage

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ILLEGAL WASTE SHIPMENTS IN EUROPE

The European regulations for exporting waste are frequently violated. This was revealed by a joint enforcement operation that was carried out in seventeen European seaports. During the inspections, 48% of the waste shipments were found to be illegal. Seaports in Germany, England, France, Ireland, Poland, Latvia, Slovenia, Sweden and the Netherlands were involved in the European enforcement week. The inspections were part of the international seaport project and were conducted in October in cooperation with the local authorities.

Violations

In the seventeen seaports, a total of 3,000 documents were checked while 258 cargo-holds were 'physically' inspected, 140 of which were waste shipments. 68 of these turned out to be illegal. The illegal shipments included Swedish cable waste bound for China and discarded refrigerator compressors containing chlorofluorocarbons (CFCs) bound for Pakistan. In Latvia, an illegal shipment of copper waste bound for Panama was discovered. In the United Kingdom, fourteen sea containers with domestic waste material on its way to India were detained. In the Netherlands, containers filled with electronic scrap metal, old batteries, heavily-polluted copper waste and CFC-containing refrigerators were intercepted. In France, a total of 30 waste shipments were blocked. The containers were found to be loaded with waste material such as cable waste containing PCB and bitumen, polluted engine blocks, rags, automobile tyres, electronic scrap metal and telephone cables with lead casing. The shipments were destined for countries in Asia and Africa. The violations were detected primarily in France, Sweden, the United Kingdom and the Netherlands. In accordance with international agreements, the illegal waste shipments will be sent back to the country of origin.

International Seaport Project

The aim of the international seaport project is to improve and harmonize the level of enforcement of EU regulations concerning the export of (hazardous) waste in member states. During the seaport project, vehicles, ships and containers carrying (waste) materials and storage locations in port areas are inspected. Special attention is paid to the export of waste materials from the European Union to countries not belonging to the Organisation for Economic Co-operation and Development (OECD), such as a number of Asian and African countries. The export of waste

Ministerie van VROM →

staat voor wonen, ruimte, milieu en rijksgebouwen. Beleid maken, uitvoeren en handhaven. Nederland is klein. Denk groot.



materials to such countries is often prohibited, or is allowed only with the permission of the relevant authorities. The inspections are carried out by the local authorities in cooperation with a large number of enforcement agencies such as customs, the police and the seaport authorities. An important goal of the project is for the environmental inspectors of the countries involved to exchange information and experiences, which has led a number of countries to improve their enforcement methods.

The first seaport project was conducted in 2003 and involved six countries. A portion of the inspected waste shipments turned out to be illegal, leading to the decision to conduct a subsequent project. In joint enforcement operations in 2004 and March of this year, a great number of shipments also proved to be illegal. At the moment, thirteen countries participate in the seaport project: Belgium, Germany, France, England, Ireland, Latvia, Malta, the Netherlands, Poland, Portugal, Slovenia, Spain and Sweden. The final report will appear in June of 2006.

European enforcement strategy

Based on the number of intercepted illegal shipments and the observed inadequacies, it appears that joint enforcement of the European regulations governing waste shipments is essential, as the European regulations for trans-frontier waste shipments applies to all member states. The regulations therefore do not differ between countries, but each country is nevertheless responsible for its own enforcement. At present, there are still large disparities in this regard. Through the European Union's network for the Implementation and Enforcement of Environmental Law (IMPEL), European countries are cooperating to establish a more uniform method of enforcement. The seaport project is an example of this cooperation. In addition, a European enforcement strategy is being developed.

For questions, call Martijn van Baarsen, Press Information for the Ministry of Housing, Spatial Planning and the Environment (VROM), (070) 339 2616.