

# Carefully to Carry

NOVEMBER 2008

## The perils of waste shipments in freight containers



**“The carrier shall properly and carefully load, handle, stow, carry, keep, care for and discharge the goods carried.”**

Hague Rules,  
Articles iii, Rule 2

### Carefully to Carry Advisory Committee

This report was produced by the Carefully to Carry Committee – the UK P&I Club’s advisory committee on cargo matters. The aim of the Carefully to Carry Committee is to reduce claims through contemporaneous advice to the Club’s Members through the most efficient means available.

The committee was established in 1961 and has produced many articles on cargoes that cause claims and other cargo related issues such as hold washing, cargo securing, and ventilation.

The quality of advice given has established Carefully to Carry as a key source of guidance for shipowners and ships’ officers. In addition, the articles have frequently been the source of expertise in negotiations over the settlement of claims and have also been relied on in court hearings.

In 2002 all articles were revised and published in book form as well as on disk. All articles are also available to Members on the Club website. Visit the Carefully to Carry section in the Loss Prevention area of the Club website [www.ukpandi.com](http://www.ukpandi.com) for more information, or contact the Loss Prevention Department.

### Introduction

The perils that a container operator may face with the carriage of waste shipments include:

- Structural damage to the freight container due to improper stowage practices at the loadout point;
- Tainting of the inside of the container due to the waste having odourous properties;
- Imbalanced load resulting in vehicle rolling over during road transportation;
- Rejection at the port of discharge due to incorrect and/or incomplete documentation;
- Rejection at the ports of loading and/or discharge due to ‘green waste’ being contaminated, and recovery unable to be undertaken in an environmentally sound manner;
- Risk of non payment of storage charges at the ports of loading and/or discharge because the shipper/receiver fails to take timely and appropriate measures to mitigate the problems that arise following one or other of the above incidents; and
- Shipper/receiver abandoning their waste and the container operator left to arrange disposal and/or return to point of origin with the associated costs.

With the significant amount of waste now shipped in freight containers on some trades this means that the potential for problems occurring can be high. For example, a vessel loading in the United Kingdom for China may have up to 65% of its containers carrying various types of recyclable waste.

A major difficulty facing a container operator is that their client, the booking party, may not be the originator of the waste. The booking party will more often than not be a consolidator or NVOCC and will themselves be dependent upon the quality and nature of the waste being supplied to them by a third party. Therefore, whilst a container operator may have a good relationship with their booking party, if that party then has a new supplier, problems may be experienced. Also, problems can be masked when, say, good bales of waste are stowed in the doorway of a container hiding from view poor quality/contaminated bales.

## **Background to requirement for international waste disposal legislation**

In the late 1980s, a tightening of environmental regulations in industrialised countries resulted in a significant increase in the cost for disposal of hazardous waste. This led to some unscrupulous parties seeking cheaper ways to get rid of their waste and 'toxic traders' began shipping hazardous waste to developing countries. Upon discovery of this trade, international outrage led to the drafting of the Basel Convention.

The Basel Convention was negotiated under the authority of the United Nations Environment Programme in the late 1980s. It was adopted in 1989 and entered into force in 1992. The Convention was originally designed to address the uncontrolled movement and dumping of hazardous wastes, including incidents of illegal dumping in developing nations by developed-world industries.

The transboundary movements of waste have increased significantly over the last decade primarily due to the international trade for recycling purposes.

## **'Basel Convention' on the control of transboundary movement of hazardous wastes and their disposal**

The Convention has 170 member countries, known as 'parties'. A list of the parties to the Convention is available on [www.basel.int/ratif/convention.htm](http://www.basel.int/ratif/convention.htm). Whilst Afghanistan, Haiti and United States of America are signatories to the Convention they have not

deposited instruments of ratification. The above web site also lists declarations and objections that any party has lodged.

The Convention regulates transboundary movement, which is across international frontiers, of hazardous and other wastes applying the 'prior informed consent' procedure (shipments made without consent are illegal). Written consent has to be obtained from the states of export, import and transit. The Convention also obliges its parties to ensure that hazardous and other wastes are managed and disposed of in an environmentally sound manner. Parties are expected to minimise the quantities that are moved across borders, to treat and dispose of waste as close as possible to their place of generation and to minimise the generation of waste at source.

The Convention defines waste as "substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law". Annex I of the Convention, as further clarified in Annexes VIII and IX, lists those wastes classified as hazardous and subject to the control procedures under the Convention. Annex II of the Convention identifies those wastes that require special consideration (known as "other wastes"), and which primarily refer to household wastes. Parties may also inform the Convention Secretariat of additional wastes, other than the wastes listed in Annex I and II of the Convention, considered or defined as hazardous wastes under their national legislation, and of any requirements concerning transboundary movement procedures applicable to such wastes.

"Disposal" (as defined in Annex IV of the Convention) includes operations resulting in final disposal and operations which may lead to resource recovery, recycling, reclamation, direct re-use or alternative uses. (Note: The European Commission Directives on Waste have separate definitions for "Disposal" and "Recovery" operations.)

When a transboundary movement of hazardous waste, or other waste to which the consent of the states concerned has been given, subject to the provisions of the Convention, cannot be completed in accordance with the terms of the contract, the state of export shall ensure that the wastes in question are taken back into the state of export, by the exporter, if alternative arrangements cannot be made for their disposal in an environmentally sound manner.

The Convention currently addresses 27 specific categories of waste and 18 waste streams that make hundreds of waste materials. Annex I identifies the categories of wastes to be controlled. Annex II identifies categories of waste requiring special

consideration. Annex III gives a list of hazardous characteristics. Annex VIII, otherwise known as List A, identifies wastes characterised as hazardous under Article 1, paragraph 1(a) of the Convention. Annex IX, otherwise known as List B, identifies wastes not covered by Article 1 paragraph 1(a) unless they contain Annex I material to an extent causing them to exhibit an Annex III characteristic.

Annex IX (List B) includes paper, paperboard and paper product wastes provided they are not mixed with hazardous wastes and covers:

- Unbleached paper or paperboard or of corrugated paper or paperboard;
- Other paper or paperboard, made mainly of bleached chemical pulp, not coloured in the mass;
- Paper or paperboard made mainly of mechanical pulp (for example: newspaper, journals and similar printed matter);
- Other, including but not limited to, laminated paperboard and unsorted scrap.

Annex IX (List B) also details plastic or mixed plastic materials, provided they are not mixed with other wastes and are prepared to a specification; and electrical and electronic assemblies that are metals or alloys.

This article does not look to detail how member countries interpret and implement the Convention and reference to the appropriate national legislation should be made for any specific waste.

## Illegal traffic under the Basel Convention

Statistics compiled by the Secretariat of the Basel Convention suggest that at least 8.5 million tonnes of hazardous waste is shipped internationally each year.

For the purpose of the Convention illegal traffic is deemed to be:

- Without notification pursuant to the provisions of the Convention to all states concerned; or
- Without the consent pursuant to the provisions of the Convention to all states concerned; or
- With consent obtained from states concerned through falsification, misrepresentation or fraud; or
- That which does not conform in a material way with the documents; or

- That which results in deliberate disposal (e.g. dumping) of hazardous wastes or other wastes in contravention of the Convention and of general principles of international law.

Whilst many countries receive hazardous waste as a welcome source of business, others are receiving shipments for which there is no agreement and have difficulty in dealing with the waste properly. In a project carried out by 12 European countries, over half of the waste shipments verified were found to be illegal.

Research has identified a number of 'illegal trafficking' incidents involving shipments in freight containers.

In one case, 60 freight containers containing 1,600 tonnes of waste were seized by the Dutch port authorities. The waste was declared as recovered paper, on its way to China from the United Kingdom, however it was found to contain bales of compacted household waste, food packaging and residues, plastic bags, waste wood and textiles. The waste was first transported to Dutch ports by lorry and ferry, where the bales were then transferred into the freight containers.

In another case, spanning three continents, investigators in Britain, Holland and Indonesia tracked 95, 40ft containers of household rubbish. 60 were seized by the Dutch authorities and 15 were impounded in Southampton, England, while 20 more got to Indonesia and Malaysia. The exporter involved was fined US\$110,000.00.

Another example from the United Kingdom related to a shipment of waste destined for India. The container had been declared to the customs authorities as containing paper, however when opened by enforcement agents it became clear, not only from the pervasive smell, that there was a mixture of wastes inside and as well as paper, there were also plastics, wood, metals and textiles contaminated by food wastes. An attempt by the exporters to save US\$ 2,500 in fees necessary under the correct procedure landed them with a fine of US\$ 20,000.

The photograph on the next page shows bales of compacted soft plastics. They include unwashed milk cartons. Even during a British winter the smell was overpowering, never mind what it would have smelt like when held at higher temperatures. The pervasive smell could leave a residual odour that may taint subsequent cargoes.

Recently Greenpeace activists boarded a vessel in Hong Kong to prevent the discharge of a container of waste electronic devices (e-waste) that had been shipped from the United States of America, destined for mainland China. Under the Basel Convention there



is an exemption for assemblies including printed circuit boards, electronic components and wires that are destined for direct reuse.

The import of electronic waste is illegal into mainline China, however it is alleged that legislation in Hong Kong provides loopholes allowing e-waste to enter the country and make its way to scrap yards in China. The loopholes are said to include:

- No clear definition for 'reuse', 'reprocessing', 'recycling', 'recovery operations';
- Loose definition of the term 'contamination';
- Not all types of electronic waste are under control and whilst attention is given to old batteries and cathode ray tubes, printed circuit boards are given less attention.

Only about 50% of a computer can be recycled, as on average they comprise 32% ferrous metal, 23% plastic, 18% non-ferrous metal (lead, cadmium, antimony, beryllium, mercury), 15% glass and 12% electronic boards (gold, palladium, silver, platinum). The toxicity of the waste is mostly due to the lead, mercury and cadmium – the non-recyclable components of a single computer may contain almost 2 kg of lead. Much of the plastic used contains flame retardants, which makes it difficult to recycle.

## Area information

### China

The growing manufacturing industrial activities in Southern China in the past years, and their increased demand for recovered scrap materials as secondary and inexpensive raw material, has resulted in a

significant increase in the transboundary movement of waste for recycling purposes.

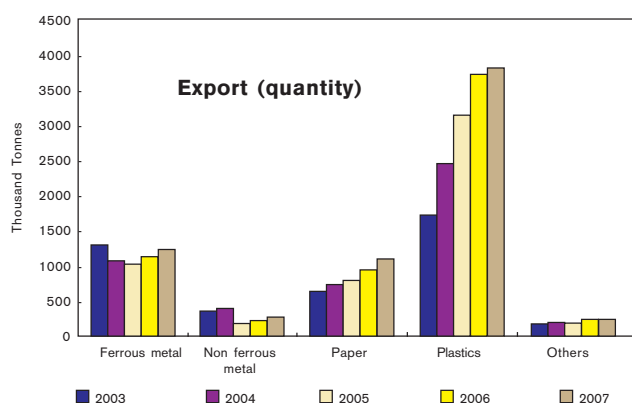
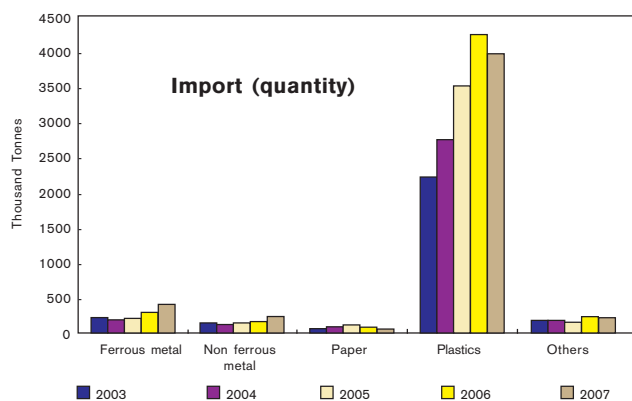
The diagram below was produced by the Government of the Hong Kong Special Administrative Region's Environmental Protection Department to show their major waste trade partners.



Their statistics show that between 2003 and 2007 the amount of waste imported and exported has increased from 7.09 million tonnes to 11.6 million tonnes. Approximately two-thirds being plastics. Up to 2006 there had been a year-on-year increase of about 16% and only a 2.4% increase between 2006 and 2007.

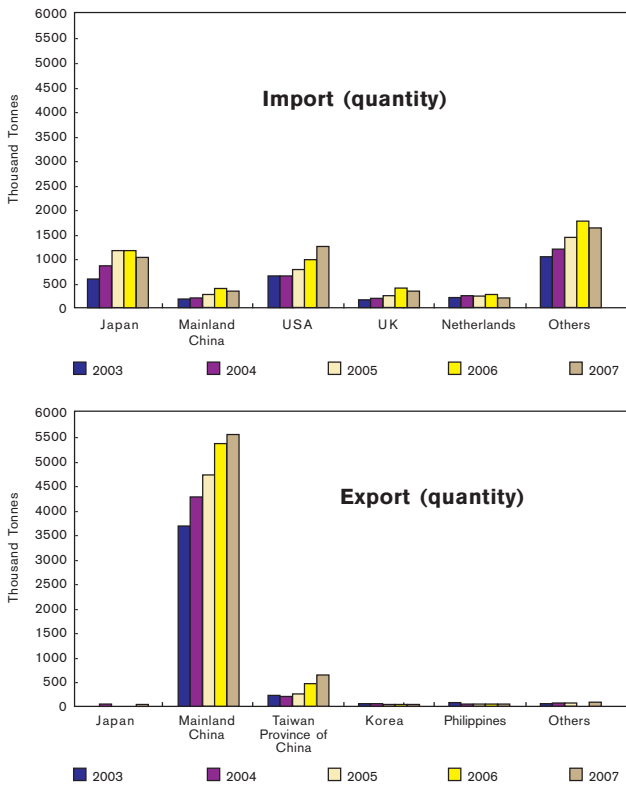
The graph below gives a breakdown of the five major waste categories imported and exported by Hong Kong between 2003 and 2007.

**Hong Kong's waste trade figures (2003 - 2007)**



The graph below gives a breakdown of the amount imported and exported from and to their major waste trade partners.

**Hong Kong's waste trade figures (2003 - 2007)**

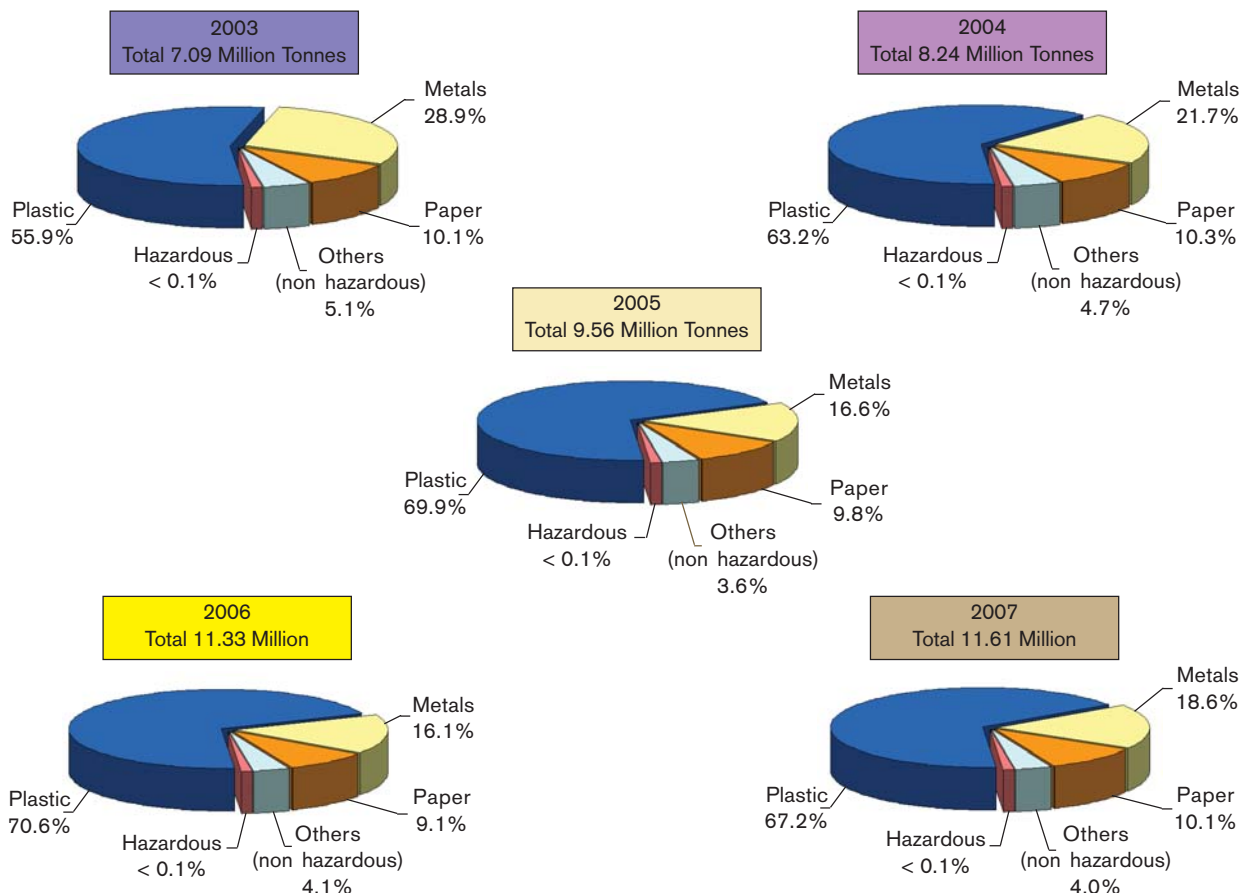


The regulatory control over the import and export of waste in Hong Kong comes under the Waste Disposal Ordinance (WDO), which is enforced by the Environment Protection Department. The WDO provides for enhanced control on movements of wastes into and out of Hong Kong through a permit system, which corresponds with the Basel Convention. However, it has been intimated that Hong Kong is used as an illegal gateway to circumvent China's regulations.

Under the WDO, any import and export of prescribed hazardous, non-recyclable and contaminated waste for whatsoever purpose, and import and export of other waste for a purpose other than recycling, must be authorised by the EPD through a permit. A person who conducts controlled waste import/export activities without a permit or disposes of any imported waste listed in the Sixth Schedule, for which an authorisation is required, commits an offence that could be subject to a fine or prison term.

According to the waste characteristics, wastes commonly generated worldwide are classified by the WDO into two main categories, namely the Sixth and Seventh Schedules. The Sixth Schedule is aligned to the Basel Convention's Annex IX, List B. Whilst the Seventh Schedule is aligned to the Basel Convention's

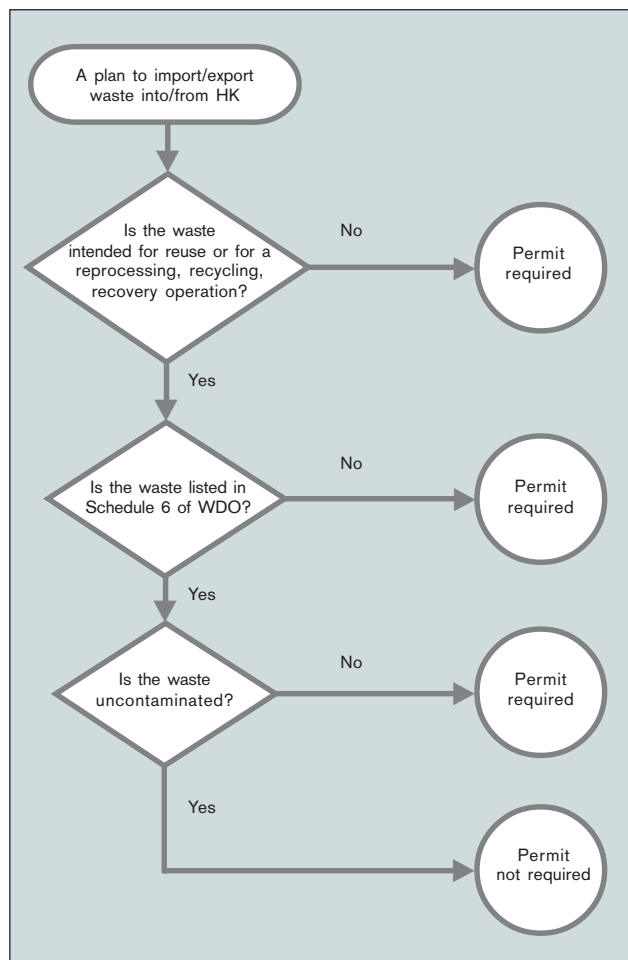
**Hong Kong's waste trade (import and export) statistics**



Annex IX, List A. Though neither Schedules directly follows the listings as given in the Basel Convention.

With the exception of the import or export of uncontaminated waste in the Sixth Schedule for the purpose of reprocessing, recycling, recovery or reuse, all other waste import and export activities require valid permits issued by the EPD. Waste movements between Hong Kong and the mainland China are also subject to the same control.

The following is the procedure to be followed to decide whether a permit is required:



'Green waste' is a term commonly used to describe waste that can be readily recycled and is free from contamination.

For the purposes of waste import and export, waste is contaminated if it is contaminated by a substance to an extent which:

- Significantly increases the risk to human health, property or the environment associated with the waste; or
- 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.

Common types of 'green waste' imported/exported through Hong Kong include paper, paperboard and paper product waste (G1\*), solid plastic and rubber waste (GH & GK\*) and non-hazardous metal & metal alloy waste in metallic non-dispersible form (GA, GB & GC\*). Note \* refers to waste categories in the Sixth Schedule. The WDO requires **no** permit for import or export of green wastes for recycling purposes. This exemption however does not apply to the import or export of any waste, including green waste for disposal.

New provisions under the Waste Disposal Ordinance took effect from 1 April 2008, whereby anyone intending to dispose of imported non-hazardous waste at the designated waste disposal facilities, such as landfills, must apply for authorisation from the Director of Environment Protection. Authorisation will not normally be granted unless the applicant can prove that the waste was originally imported for recycling and he has exhausted all possible recycling outlets and all means to return the waste to the place of origin.

For green waste to be imported into mainland China, the shipments concerned may need to be inspected by designated parties at the exporting countries or other places approved by the mainland authorities. Importers, exporters, traders or any parties concerned should confirm the latest requirement prior to effecting any shipments destined for the mainland.

The State Environmental Protection Administration (SEPA) of China is the designated authority for the environmental management of solid waste imports and is responsible for issuing two kinds of import licence:

- Import licence of the People's Republic of China (PRC) for *automatic* licensing of solid wastes that can be used as raw materials; and
- Import licence of the People's Republic of China (PRC) for *restricted* solid wastes that can be used as raw materials.

Imported solid waste shall meet national environmental protection standards of the PRC and satisfy the quality inspection and examination conducted by the national quarantine department. The General Administration of Quality Supervision, Inspection & Quarantine (AQSIQ) of China, administers the registration scheme of the overseas suppliers of imported solid wastes as raw materials, and authorises relevant institutions to conduct pre-shipment inspection of solid waste imported for use as raw materials.

Based on the above, imports should have the following:

- Waste Import Licence issued by SEPA – SEPA Licence (obtained by recyclers and/or utilisers of the imported waste in China prior to the waste import);
- License of Registration for Overseas Supplier Enterprise of Imported Scrap Materials issued by AQSIQ (AQSIQ Licence); and
- Certificate for Pre-Shipment Inspection of Recycling Scraps to China (pre-shipment inspection certificate).

Container operators who accept waste product bookings to China should request the AQSIQ Licence number at time of booking, as it should be confirmation that the shipper is approved by the Chinese Government authorities to ship waste products to China.

By 17 September 2008 the Chinese Government approved some 2,169 overseas scrap suppliers and cancelled the approval for 770 registered overseas scrap suppliers. The majority of the cancellations did not re-apply for registration. Container operators can check the AQSIQ website [www.ccc-us.com](http://www.ccc-us.com) for a list of warned/cancelled/suspended registration numbers.

Container operators should not accept bookings from shippers whose registration numbers are on this 'black list'.

Another useful website is operated by WorldScrap [www.worldscrap.com/modules/aqsiq](http://www.worldscrap.com/modules/aqsiq). A search option on this website allows AQSIQ numbers to be entered individually and the certificate state is given as either 'Normal', 'Cancel' or 'Suspended'. Lists can be printed off for individual countries. The accuracy of the information on this website has not been established.

Waste shipments to China should be accompanied by the above documents; and

- The "Consignee" of the waste as stated in the shipping documents shall match with the "Importer", as stated in box 1 of the SEPA Licence;
- The "Disposal/Recovery Facility" of the waste as stated in the shipping documents shall match the "Recycler", as stated in Box 3 of the SEPA Licence;
- The "Name & Chemical Composition of the Waste" as stated in the shipping documents shall be basically consistent with the "Description of Goods", as stated in Box 5 of the SEPA Licence;
- The "Exporter" of the waste shall be holder of the AQSIQ Licence and should also be the holder of

the Pre-Shipment Inspection Certificate, as its name will appear in the certificate;

- In case of any translation of the above documents being involved, the exporter shall provide the legally valid/endorsed translated text.

It would appear that good practice would be for the shipper to provide a copy of the above documentation to the container operator as early as possible, but not later than the cut-off time of loading on the main line carrier. If a shipper has not submitted the export declaration, it is likely that they have not sold the cargo to a specific consignee. This increases the chances of cargo arriving at destination becoming abandoned.

Below is an example of a Certificate for Pre-Shipment Inspection of Recycling Scraps to China covering twelve container loads of 'recovered paper' being shipped from Rotterdam. Here the inspection statement says that "No excess prohibitive materials or harmful substances were found during the on-the-site inspection". Therefore, it would appear that a subjective assessment is undertaken and different inspectors could have different opinions, as to the term 'excess'.

**Sample 正本 ORIGINAL**

中国检验认证集团欧洲有限公司  
CCIC EUROPE B.V.

Address: Noordeinde 36, 3061 EN Rotterdam, The Netherlands  
Tel: 0031-10-4129861  
Fax: 0031-10-4116003  
E-mail: ccic-europe@planet.nl

证书编号(No.) E107086784E1  
签发日期(Date) 2007-05-24(Y-M-D GMT+8)

**运往中国的废物原料装运前检验证书**  
Certificate for Pre-Shipment Inspection of Recycling Scraps to China

发货人(Shipper): America Chung Nam Inc.  
A840041714  
货物种类(Scrap Category): 废纸/Recovered Paper  
数量(Quantity): 12箱/Container(s)  
检验日期(Date of Inspection): 2007-05-18(Y-M-D)  
检验地(Country/Region of Inspection): 荷兰/Netherlands  
申报出口口岸(Export Port Declared): 鹿特丹(荷兰)/Rotterdam

1. 货物装箱情况(Load Condition of Cargo):  
上述货物在检验地点检验后装入如下标识符号的集装箱内运输:  
The above goods have been loaded into container(s) with the following identified numbers after on-site inspection:

箱号(Container No.)	封号(seal No.)	箱号(Container No.)	封号(seal No.)	箱号(Container No.)	封号(seal No.)
APHU6322736	KL0583229	APHU6428060	KL0689610	APLU9927138	KL0689621
BHU4947130	KL0689618	GSTU7582377	KL0689616	GSTU7381445	KL0689624
TCKUM463368	KL0583233	TOLU3807554	KL0689622	TRLU4634926	KL0583239
TRLU4674045	KL0583248	TRLU5436993	KL0583243	TTNU9410616	KL0689614

2. 检验(Inspection):  
根据中国国家标准GB16487-2005对上述货物进行外观检验或放射性检测,在现场检验过程中未发现禁止性物质或有害物质或放射性超过标准限值。  
The above cargo was visually inspected or radiation detected according to Chinese Standard GB16487-2005. No excess prohibitive materials or harmful substances were found during on-site inspection.

3. 结论(Conclusion):  
根据上述检验结果,本批货物符合中国国家标准GB16487-2005《进出口固体废物环境保护控制标准》的控制规格要求。  
Based on the said inspection, the above cargo was in conformity with provisions of the Chinese Standard GB16487-2005 (Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials).

检验员(Inspector): Weiw ei Li  
证书签字人(Authorized Signatory): 张忠亮  
检验公司(Inspection Company): 中国检验认证集团欧洲有限公司(CCIC EUROPE B.V.)

本证书仅证明上述货物在检验时符合GB16487-2005标准进行检验时的环保状况,该检验不包含对货物状况的其他鉴定(如货物的名称、种类、规格、品质、数量/重量等等)。因此,本证书不作为货物检验报告或其他任何状况的证明文件,也不应被用于任何与货物状况无关的合同纠纷(如付款或担保等)。  
This certificate can only be used for the sole purpose of certifying the conformity of the above inspected cargo with the Chinese Standard GB 16487-2005 (Environmental Protection Control Standard for Imported Solid Wastes as Raw Materials) Other aspects of the cargo, including but not limited to commodity name, classification, specification, quality, quantity/weight etc., were not part of this inspection. Therefore, the Certificate cannot be used for any purpose other than sale purpose, and the parties of the recycling material transactions shall not rely on this Certificate as a proof of satisfaction of any contractual obligation by any parties.

本证书自签发之日起90天内有效。  
This Certificate is valid within 90 days from the date of issuing.  
备注: REF# 2705619  
COMMODITY: WASTE PAPER A4

SEPA's environmental management policies include:

- Forbidding the sale of imported waste to others domestically;
- Permitting only one license per customs port;

- Supervising the approval of permits;
- Requiring that a recycling plant's license be granted to the nearest port, so as to limit transport distance of wastes; and
- Limiting imported wastes that pose high environmental risks to treatment in designated factories or reuse in renewable resource parks.

The list of wastes prohibited against import includes some 53 types, such as: urban garbage, medical waste, waste organic solvent, waste clothes, waste tyres and tyre pieces, battery waste and scrap, used batteries, as well as 21 household appliances and waste electric motors including air-conditioners, televisions and computers (including their parts and accessories, dismantled parts, broken parts and scraps unless stipulated otherwise by the state). A container operator's booking department needs to be familiar with such prohibitions.

## EU regulations

Commission Regulation (EC) 1013/2006 applicable since 12 July 2007 covers the shipment of waste. Commission Regulation (EC) 1379/2007 amends Annexes 1A, 1B, VII & VIII of Regulation (EC) 1013/2006. Basically annex III, IIIA & IIIB cover different types of non-hazardous waste, whilst annexes IV & IVA cover different types of hazardous waste. These regulations are also supplemented by Regulation (EC) 1418/2007 concerning the export for recovery of certain waste listed in Annex III or IIIA to certain countries to which the OECD (Organisation for Economic Co-operation & Development) Decision on the control of transboundary movements of waste does not apply. Under these new rules stricter procedures must be followed.

The shipment of non-hazardous waste to non-OECD Decision countries for recovery is governed by Article 37 of the new regulation, which stipulates that the European Commission shall send a written request to each country to which the OECD Decision does not apply, seeking:

- Confirmation in writing that the waste may be exported from the European Community for recovery in that country; and
- An indication as to which control procedure, if any, would be followed in the country of destination.

Each country to which the OECD Decision does not apply shall be given the following options:

- A prohibition;

- A procedure of prior written notification and consent as described in Article 35; or
- No control in the country of destination.

A list of the countries that responded, with a summary of their responses, can be found on [www.environment-agency.gov.uk/commondata/acrobat/glw\\_exports\\_v8\\_pdf\\_1981162.pdf](http://www.environment-agency.gov.uk/commondata/acrobat/glw_exports_v8_pdf_1981162.pdf). This is version 8 of the document, which appears to be regularly updated.

Countries that responded included amongst others China, Hong Kong and India.

Under the present regulations there are basically three options:

- **Prohibition;**
- **Notification controls;** and
- **Green list controls** (lowest level of control).

**Prohibition** – movements not allowed under any circumstance include almost all:

- Imports and exports for disposal; and
- Exports of hazardous waste to developing countries, even if moving for recovery.

**Notification controls** apply to all allowed imports and exports of:

- Hazardous waste moving for recovery operations;
- All types of wastes moving for disposal; and
- Some shipments of non-hazardous wastes to non-OECD countries (includes Annex IIIB waste).

**Green List controls** – since 12 July 2007, under these controls, exporters of waste must:

- Ensure that the green list waste type can still be sent to that country under Green List controls;
- Know where the waste is going to be recovered in the destination country before shipping the waste;
- Ensure the waste is dealt with in an environmentally sound manner throughout its movement and recovery;
- Complete the Annex VII document specified in the rules with all the required information, including details of the producer or collector of the waste and

the destination facility before shipping the waste (copy of this document must be retained for 3 years);

- Ensure that a copy of the above document accompanies the waste;
- Enter into a written contract containing specified provisions for the recovery of the waste with the person receiving the waste before the waste is shipped;
- Ensure that the person receiving the waste in the destination country signs the document that accompanies the waste to confirm receipt.

It is important to understand the difference between recovery and disposal (definitions are as defined in Article 1(1) e & f of Directive 2006/12/EC), as this will determine the appropriate control, if the waste movement is permitted.

Waste being exported under Green List controls must be accompanied by a completed Annex VII form. The person who arranges the shipment of the waste must complete and sign this form. It would appear that it would be good practice for the shipper to provide a copy of this documentation to the container operator as early as possible, but not later than the time of cut-off for loading on the main line carrier.

The regulations are subject to the interpretation of the national authorities and therefore there may be different views.

The United Kingdom's Environment Agency has given the following advice to a number of frequently asked questions, but it may not be the same for other authorities:

- *The completed Green List Form must accompany each consignment of waste throughout its journey. A movement of one or more lorries or containers can be considered as a single consignment providing that the lorries or containers start from the same location on the same day and follow the same route to the same recovery facility. All loads in a single consignment must comprise a single type of waste and be the subject of a single contract for recovery. Other authorities in countries to and through which the waste travels en route to destination may take a different view and may consider that each individual container should be accompanied by a completed Green List Form.*
- *The Green List Form must physically accompany the waste shipment and should be available for inspection during its journey. Where permitted by the competent authorities concerned the document may be in an*

*electronic form with a digital signature if it can be made readable at any time during the transport.*

- *Whilst putting the Green List Form in a pocket inside the door of a shipping container might be an acceptable approach legally, it may cause delays if, during transport, regulators want to inspect the document. It would be preferable if businesses transporting waste would find another mechanism to ensure the Green List Form relating to the contents of any particular container could be made available to be checked without the need to open the container on every occasion.*

## United States of America

The Resource Conservation & Recovery Act (RCRA) is the public law in the United States that creates the framework for the proper management of hazardous and nonhazardous solid waste.

Since the United States is not a party to the Basel Convention it can export waste to those countries with which the US Government has negotiated a separate waste trade agreement.

## Current trends

When considering the above regulatory requirements the following points need to be taken into account:

- The volume of traffic in recycled materials is increasing globally;
- The classification of waste can sometimes be hard as 100% pure waste streams are difficult to produce unless an advance separation process is used – not all countries have access or can afford such technology;
- Certain countries are tightening their legislative instruments;
- Certain types of waste are becoming more valuable to export – such as WEEE (Waste Electrical and Electronic Equipment), which is very expensive to recycle/treat in Western Europe;
- That there is no universal agreement on the global ban of hazardous waste – few countries have actually ratified/implemented controls globally; and
- The growing confusion that waste is not waste, but being exported as a raw material for recycling. There is a need to check carefully about disposal routes on offer – or treatments and re-use of the same material – the legal differences are important here between definitions.

## Observations from shipments of waste at the load port

The first indication that a container operator may have that there is something untoward with a container load of waste is upon receipt by the loading terminal, when they find that the container is damaged. This would most likely be the sidewall panels bulging outwards beyond their accepted envelope. The container below, was found on arrival at the loading terminal to have its side wall panels bowing outwards and corrugations creased. Also, the roof panel was bowing upwards.



Image 2, below, shows the stow in the doorway when container was opened. The container had been loaded with bales of waste plastics (e.g. bottles and packages). The bales were of rectangular shape with a long tack (right-hand bale) and short tack (two left-hand bales).



Image 3 shows the right-hand side bales stowed tight to the underside of the roof panel. This was because two bales had been stowed with their long tack upright. This resulted in roof panel bowing upwards. The bales were also of non-uniform size.



### The following images show the content of containers discovered as a result of damaged container side walls

Image 4 is from an incident where the exporter had declared his shipment – three container loads – as “electrical motors”. On the basis of that description no-one would have expected to find an assortment of electrical motors just thrown into the containers with other rubbish that included plastic intermediate bulk containers (IBCs).



From a doorway inspection of a container at the loading terminal, it is not always possible to identify the cause of the damage to the structure of a container. To determine the cause may require attendance at the unpacking of the container, which may be some distance away from the port.

Image 5, shows an example where, during the unloading of the container, it was found that the top right-hand bale of waste paper in the row (marked by red arrow) was ‘canted’ at an angle on the horizontal plane. This resulted in pressure being applied during the course of loading to the left and right hand sidewall

panels, which resulted in them bulging outwards and being permanently deformed by up to 100mm.



Image 6, below, shows another incident where the cause of damage was discovered during unloading of the container. The bale of waste paper in the top left-hand row was not stowed with its side parallel to the fore & aft line of the container, but was 'cocked' at an angle thereby increasing its width in the stow. This bale was stowed adjacent to the maximum bowing outwards of the left-hand sidewall panel.



Poor stowage of the bales within the container was not the only problem. The waste paper was contaminated with tin cans, some of which had sharp jagged edges, plastic bottles, plastic bags, pieces of wood and twigs and a complete inflatable rubber mattress – not the smallest of objects to overlook. (Image 7)



Waste paper contaminated with other such waste cannot be recovered in an environmentally sound manner. This type of waste should not be moved under Green List controls.

The container below was rejected by the ship's staff at the time of loading aboard their vessel, as liquid was leaking out from the door seal. When inspected at the terminal's leaker bay, the front of the doorsill was heavily stained with a black oily like substance.



When the container's doors were opened a distinct oily type odour was detected and emulsified oil was found on top of the door sill. Two solid plastic type IBCs were stowed in the doorway and contained shredded plastic waste. (Image 9)



Behind these IBCs shredded plastic waste had been stowed loose to approximately half the height of the container.



Other IBCs had been stowed on top of the loose shredded plastic waste (Image 11). These IBCs were free to move which could make the container unstable for handling and transportation.



## References

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Exporting recyclable waste for recovery in non-OECD countries

Moving waste between countries-determining the controls on waste exports

An introduction to moving waste between countries

## Steps that can be taken to reduce the risks faced from the perils of waste shipments

- Container operator to maintain a list of pre-approved waste shippers and the type of waste they ship;
- Container operator to maintain a list of the documents required by the authorities at the ports of loading and discharge, which are required so that a trans-boundary movement of waste can go ahead;
- Container operator to provide their booking staff with list of commodities that may cause problems, if shipped as waste (e.g. second-hand tyres, computers and their monitors, televisions etc.)
- Shipper to provide copy of the documentation required by the authorities at the place of origin for trans-boundary movements of waste;
- Shipper to provide copy of the documentation required by the authorities at the place of delivery for trans-boundary movements of waste;
- Shipper to provide the Waste Import Licence issued in China to recyclers and/or utilisers of the imported waste (SEPA Licence);
- Shipper to provide the Licence of Registration for Overseas Supplier Enterprise of Imported Scrap Materials issued in China (AQSIQ Licence);
- Shipper to provide Certificate for Pre-Shipment Inspection of Recycling Scraps to China;
- For shipments of waste to China container operators to use publicly available websites such as [www.ccc-us.com](http://www.ccc-us.com) and [www.worldscrap.com/modules/aqsiq](http://www.worldscrap.com/modules/aqsiq) to check validity of AQSIQ registration number that the shipper should be able to supply.

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