IMPEL-TFS Seaport Project

'Illegal waste shipments to developing countries, common practice'

Project report, June 2003 - May 2004

European Union Network for the Implementation and Enforcement of Environmental Law

June 2004

VROM

IMPEL-TFS SEAPORT PROJECT

'ILLEGAL WASTE SHIPMENTS TO DEVELOPING COUNTRIES, COMMON PRACTICE'

PROJECT REPORT, JUNE 2003 - MAY 2004

June 2004
110643/CE4/0K3/000284

Contents

Preface

This report gives the final results of the IMPEL-TFS-seaport project. The aim of this project was the improvement of the European enforcement of waste shipment regulation as laid down in EU Regulation 259/93 and the Basel convention, by improved cooperation between the enforcement authorities. The project identified several levels of improvement. A network of enforcers in the participating ports was formed and this network is used to exchange information about violations of the regulation, differences in interpretations and enforcement knowledge. More important, the network was used to plan actual joint enforcement activities. Standard methods of enforcement were developed and used, joint priorities were established and joint actions were performed. Thus, the project made an important contribution to both the integrity of the Internal (waste) Market and the environmental aims behind European waste shipment regulation. I am pleased that a second project will follow in the near future, building on the experience gained in the first project and on an increased number of participating ports.

The results of the project are very interesting to read and caught my interest. Regarding the number and type of violations encountered, the necessity of and the urgency to improve European enforcement of waste shipment regulation seems obvious. The need for a more engaging cooperation as a part of this, is put in a new perspective. The number of authorities involved in enforcing this regulation is large, and at the moment all authorities independently set their priorities, their capacities and their interpretations of the legislation. Given the 'fluid' character of waste streams, it is not hard to imagine that these streams will choose the line of least resistance. Building a more engaging cooperation between all involved enforcement authorities on a step-by-step basis is one of the great challenges in the near future for all organisations that are involved in the regulation of international waste shipments.

In this project enforcement officials of the six participating countries have done an outstanding job taking this project from 'scratch'. They chose to fulfil their assignment doing whatever was necessary to start joint enforcement activities in the participating countries. Thus, they delivered one of the first examples of actual joint enforcement of waste shipment regulation in Europe. I wish to congratulate them, the participating countries and Europe with this result.

Mr Gerard Wolters, Inspector General VROM-Inspectorate, The Netherlands

CHAPTER 1 Introduction

1.1 BACKGROUND AND PROBLEM DEFINITION

In 1994 the Council Regulation on the supervision and control of shipments of waste within, into and out of the European Community (hereafter referred to as EU Regulation 259/93), came into force. One of the main purposes of the European waste regulation is to prevent shipments of environmentally harmful waste to countries that do not have the provisions to cope with these wastes. Examples are shipments of hazardous electronic scrap to Asian countries and shipments of dangerous chemical waste to Africa. The companies that are involved in these shipments have proven to be very sensitive to enforcement activities, even if they fully comply with existing regulations. If the enforcement level in one port increases, companies quickly move their activities to an adjacent port in another European country.

So, if a real influence of enforcement on the destinations of these waste streams is desired, enforcement authorities in the European seaports have to cooperate in order to align their enforcement activities. Checking waste shipments has to be carried out "from the cradle to the grave", in order to protect the environment. Although provisions of EU Regulations are directly applicable in all Member States, organisations have to cooperate over their national borders because of the simple fact that transboundary movements of wastes exceeds these borders. Besides, according the Article 30 of the Regulation, Member States have to take the necessary initiatives to check the provisions of this piece of environmental legislation (see below).

ARTICLE 30 OF THE REGULATION

1. Member States shall take the measures needed to ensure that waste is shipped in accordance with the provisions of this Regulation. Such measures may include inspections of establishments and undertakings, in accordance with (…), and spot checks of shipments.
2. Checks may take place in particular:
   - at the point of origin, carried out with the producer, holder or notifier;
   - at the destination, carried out with the final consignee;
   - at the external frontiers of the community;
   - during the shipment within the community.
3. Checks may include the inspection of documents, the confirmation of identity and, if appropriate, the physical control of the waste.

Above-mentioned events were the reason for The Netherlands VROM Inspectorate to start a European enforcement project, in which the enforcement of waste shipment regulation is strengthened between a number of large European seaports.
An outline of the project, its aims and set up is given in chapter 2.

1.2 PARTICIPATING COUNTRIES/SEAPORTS

Six countries are participating in the project: Belgium, Germany, Latvia, The Netherlands, Poland, and the United Kingdom. Within these countries the participation is focussed on specific regions because of the involved seaports. The participation of Latvia and Poland was of special interest because of their position as (future) EU Member State.
An overview of enforcement authorities and contact persons participating in this project is given in annex 1.

Photo 1.1: project participants

More specifically, the following seaports are involved in this project: Antwerp (Belgium), Hamburg (Germany), Riga (Latvia), Rotterdam (The Netherlands), Gdansk (Poland) and Felixstowe (United Kingdom). More information about the way the management and enforcement of waste shipment regulations is organised within these countries is presented in more detail in chapter 3 and annex 2.
The project management was in hands of the VROM-Inspectorate of the Netherlands. Consultants of ARCADIS supported the project and drafted the project report.

1.3 RELATION WITH THE IMPEL AND IMPEL-TFS NETWORK

The European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) is an informal Network of the environmental authorities of the Member States, future Member States and candidate countries of the European Union and Norway. The network is commonly known as the IMPEL Network. The European Commission is also a member of IMPEL and shares the chairmanship of meetings.

The project is carried out under the umbrella of the IMPEL-TFS network. The IMPEL-TFS network (TFS is an abbreviation of TransFrontier Shipment) is a network of representatives from enforcement authorities of the Member States and some other European countries

dealing with matters on waste shipment regulations. The IMPEL-TFS network was set up in 1992 in order to harmonise the enforcement of EU Regulation 259/93 (replacing EC Directive 84/631) on Transfrontier Shipments of Waste with regard to the supervision and control of waste shipments into, out of and through the European Union.

A proposal for an enforcement project in European seaports was announced during the IMPEL-TFS conference in Vienna in June 2002 and was accepted. The project started in spring 2003, and will be finalized during spring 2004. The project is carried out by a number of enforcement authorities in European countries, responsible for the enforcement of waste shipment regulations.

1.4 BRIEF OUTLINE OF RELEVANT WASTE SHIPMENT REGULATIONS

International waste shipment agreements and regulations

A number of international regulations are in force, aiming at preventing shipments of environmentally harmful waste to countries that do not have the provisions to cope with these wastes. The most important regulations are the Basel Convention, the OECD Decision of 30 March 1992, EU framework Directive 75/442 and EU Regulation 259/93.

European waste shipment regulations

In 1994 the Council Regulation on the supervision and control of shipments of waste within, into and out of the European Community (EU Regulation 259/93), came into force. Regulation 259/93 gives effect in the EU to a number of important international agreements and conventions, including the aforementioned Basel Convention and the OECD Decision. EU Regulation 259/93 differentiates between recovery and disposal operations of waste and lays down the notification procedures. The definition of waste and which actions are defined as recovery and disposal, are laid down in EU framework directive 75/442.

Recovery operations

Waste mentioned for recovery is divided in annex II, III and IV (the green, amber and red list of waste) of the Regulation. Movements of green listed waste between Member States must be accompanied by information in Article 11. Transfrontier shipments of amber and red listed waste and not mentioned waste for recovery, always need to be notified to involved competent authorities.

Disposal operations

Transfrontier shipments of waste mentioned for disposal, always need to be notified to involved competent authorities.

Notification procedures

The notification procedure for waste shipments, and the administrative requirements following out of these procedure, depends on:

- The country of origin and the country of destination;
- The transport route (including the countries of transit);
- Purpose of the shipment: ultimate disposal or recovery;
- The type of waste.

Export ban

Additionally, EU Regulation 259/93 was amended by Council Regulation 120/97 implementing what is referred to as the Basel export ban. This amendment prohibits the

export of hazardous wastes listed in Annex V of EU Regulation 259/93 to countries that are not parties to the OECD Decision.

Position of Latvia and Poland

Because Latvia and Poland were no EU Member States at the beginning of this project, enforcement of the Regulation was not possible for them. Enforcement of waste shipment regulation was primary based on the provisions of the Basel Convention and eventual additional national legislation.

1.5 TARGET GROUPS OF THIS INTERIM REPORT

The paper is addressed to:

- The European Commission (DG ENV);
- IMPEL-TFS Seaport project participants and their own organizations;
- IMPEL;
- IMPEL-TFS members;
- Organizations involved in and responsible for enforcement of waste shipment regulations in the participating countries;

1.6 SET UP OF THIS REPORT

Chapter 2 of the project report gives a short overview on the aims and set up of the project.

The national enforcement structures within countries participating in this project is described in more detail in chapter 3. This summarised information is based upon the national overviews of enforcement structures as highlighted in annex 2.

Chapter 4 gives an overview of the enforcement methods that have been developed within this project, a short description of these methods and the results that have been gained from working with these methods.

The actual enforcement results of the countries participating in this project are – per country – presented in chapter 5, illustrated by some cases.

Chapter 6 givens an outline of the cooperation and information exchange that has been established within the project, illustrated with some cases as well.

Finally, conclusions and recommendations are given in chapter 7.

The enforcement authorities and contact persons participating in this project are presented in annex 1. An overview of enforcement structures of the participating countries c.q. seaports is described in annex 2.

CHAPTER 2 Project aims and - set up

2.1 PROJECT AIMS

The IMPEL-TFS Seaport project has the following aims:

- To improve the enforcement of EU Regulation 259/93 and the Basel Convention in the participating seaports by aligning enforcement activities. This will be done by:
    - Getting insight into the relevant enforcement structure and involved network;
    - Setting up a uniform enforcement approach/method for the enforcement of the relevant legislation (manual);
    - Stimulating bilateral and multilateral enforcement actions in accordance with a uniform method;
- To set up an enforcement network of contacts for enforcement activities;
- To improve the exchange of information and to improve cooperation between national and international authorities;
- To exchange knowledge and experiences.

2.2 PROJECT SET UP

The project is set up amongst a number of phases with meetings, as described below.

2.2.1 PREPARATION PHASE

The relevant enforcement network within the participating countries and seaports were identified during first initial phase of the project, which was carried out during spring 2003. Countries were invited to participate in the project, were visited by the project manager and general information was gathered about the national enforcement structures. Also the relevant authorities were invited to participate in the first project meeting.

2.2.2 FIRST PROJECT MEETING

The project aims and its set up were agreed at the first project meeting. Also agreements on working procedures, type and amounts of inspections and the way of reporting results during the operational phase of the project were agreed during a this first meeting, which was organised on 4 – 6 June 2003 in Rotterdam, The Netherlands.
More specifically agreements were reached on:

- The focus on waste streams and destinations to be checked within this project. The involved EU countries focussed their inspections on the export of wastes to non-OECD countries, and to the export of all kinds of wastes to Latvia and Poland. Latvia and

Poland focussed their inspections on the export of wastes to non-OECD countries, and import of wastes into their own country. Special attention was paid to non-declared or green listed wastes. By the way: particular circumstances or doubts about certain shipments have not been excluded;

- General methods to be used during the inspections. Three uniform methods (with accompanying report forms for exchange of information) were developed and agreed, focusing on:
  - 4 Inspection of custom documents;
  - 4 Inspection of storage locations and warehouses;
  - 4 Traffic inspections.
- Last but not least: all participating countries agreed to perform one method at least one time.

2.2.3 OPERATIONAL PHASE

The operational phase of the project started in June 2003 and was finished on 15 April 2004. During the operational phase the participating authorities carried out joint and coordinated enforcement activities and inspections 'on site'. Other activities during this phase were:

- Building a website for this project for exchange of information;
- Drafting of a project flyer;
- Exchange of inspectors between participating seaports (on a voluntary bases);
- Drafting a report with interim results as of December 2003;
- Publishing three newsletters with actual results.

2.2.4 SECOND PROJECT MEETING

A second meeting with project participants was held on 22 and 23 April 2004 in Mechelen, Belgium. During this second meeting agreements were reached on:

- The results of the operational phase;
- Conclusions and recommendations from the project;
- The draft project report;
- Enforcement actions to be taken after the meeting;
- The framework of the follow up project.

2.2.5 REPORTING PHASE

During the reporting phase the present project report was finalised and send to the target groups as mentioned in chapter 1. The project and its results will also be on the agenda of the IMPEL-TFS conference, which will be held from 7 – 9 June 2004, in Malta.

CHAPTER 3 National enforcement structures

3.1 INTRODUCTION

This chapter contains information on the national enforcement structures on the enforcement of waste shipment regulation in the countries c.q. seaports that are participating in this project. The information below is a summary and is structured around some main topics, based on more detailed information as presented in annex 2 of this report.

There are large differences in characteristics of the six European seaports. The seaports do not only differ in size (area) and in their 'core business' like container or bulk, but also in their service area (intercontinental, continental, short sea) and focus on import, transit or export of goods.

3.2 INVOLVED ORGANISATIONS

The variety in tasks, competencies and jurisdictions of organisations involved in this enforcement project vary enormously and is – amongst others – a consequence of the constitutional structure of the country/countries involved.

In some cases, like Belgium and Germany, enforcement of waste shipment regulation is laid down on a regional or local level, while in other countries (like the Netherlands) the enforcement is a concern of one national oriented enforcement authority.

Also tasks and competencies relating to permitting of waste shipments vary. In some countries, permits for import, export and transit are submitted by one competent authority (e.g. The Netherlands). In other counties, like Belgium, various competent authorities are concerned with permits on waste transit, and permits for import/export of wastes. Also competencies related to enforcement of transit and/or import/export is organised differently in some countries.

3.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

In many countries some kind of cooperation exists between environmental agencies (involved in the enforcement of waste shipment regulations) and other authorities, like custom and police organisations. Mostly, environmental agencies operate under a Ministry of Environment, while custom authorities operate under a Ministry of Finance. The way this cooperation is (formally) organised varies. In some countries there is a formal agreement (Memorandum of Understanding, MoU) between these organisations, with explicit

described tasks, competencies and accessibility of data (e.g.: Belgium and The Netherlands). However, in the majority of the participating countries cooperation between environmental agencies and other authorities (customs, police) is carried out in an informal way, mostly also depending on personal contacts. In some countries there was, at the start of this project, no cooperation at all between these organisations (Latvia, Poland). In some particular countries enforcement of TFS regulations is (very) low on the priority list of customs.

Information exchange between enforcement agencies and customs is often easier in those circumstances were formal agreements have been made. Arguments like "data protection" can be a major bottleneck to improve the exchange of information between organisations which cooperate on a non-formal bases.

3.4 LEGAL POWERS

Legal powers available for the enforcement of waste shipment regulations (and eventual follow up actions in case of illegal shipments or infractions) vary, also because of huge differences in the number of involved organisations, tasks and competencies and the way cooperation between different organisations is (formally) organised. In some countries legal powers are laid down at one organisation (like The Netherlands), while in other countries different organisations have to be involved in various kinds of inspections (Belgium, Germany, Latvia).

Photo 3.1: traffic inspection

Mostly, the following tasks are available for checking waste shipments:

- Inspection of documents;
- Carrying out inspections 'on site';
- Open containers or shipments for investigation during traffic inspections. (In some countries, like Latvia and Poland, this only may be done if the owner is actually present at the opening);
- Sampling of waste.

For some activities cooperation with other authorities is needed because of legal competencies, like:

- Stopping vehicles for inspections or blocking shipments;
- Follow up actions in case of violations.

3.5 CURRENT DIFFICULTIES IN ENFORCEMENT

In most of the participating countries serious lacks of knowledge, means and human capacity have been identified as real bottlenecks to check the relevant waste regulations adequately. This because priorities for environmental enforcement are generally low and – as a consequence – only little or no capacity is reserved for enforcement of TFS regulations like EU Regulation 259/93. Therefore follow-up actions (because of illegal movements of infractions) can not be carried out in all cases. Also available knowledge and means are highlighted as serious bottlenecks; not all involved organisations are well known with the ins and outs of EU Regulation 259/93 and the enforcement skills needed for this regulation.

Other bottlenecks identified are:

- Unclear legislation and – definitions (like classification of waste and differences in the interpretation of legal definitions);
- Lack of cooperation with other organizations (national and international);
- Lack of exchange of knowledge and information.

3.6 CONCLUSIONS

Based on the outcomes of the paragraphs above and the information included in annex 2, the following conclusions can be drawn.

Although EU Regulation 259/93 is directly applicable in all EU Member States, a number of differences occur in the way the provisions are implemented into national enforcement structures.
Large differences in participating countries occur in the way tasks and competencies are assigned to different authorities, involved in the general management and enforcement of waste shipment regulations. In some countries the enforcement tasks and –competencies are laid down on a national scale (one central enforcement agency), while in other countries authorities on local scale are involved in the control of waste shipment regulations. Also differences occur in responsibilities concerning permits to be given for transit shipments, and/or shipments into or out of the European Union. Because of the involvement of many organisations and divers (and sometimes unclear) tasks and competencies follow up actions are unclear. In case of irregularities, infractions or illegal shipments it is difficult to contact the competent authority and contact person (e.g.: "who is responsible?"). It is difficult as well to oversee the total field of involved organisations and to determine which information is needed for which authority.

There are huge differences in the way relevant enforcement authorities cooperate with other authorities (like police and custom services) within the participating countries. In some countries formal agreements (MoU's) have been made between these authorities, while in other countries cooperation between enforcement authorities and customs is rather poor, does only exist on paper, or depends primary on personal contacts. In some countries there was – at the beginning of this project – no cooperation at all between these organisations.

Exchange of information between these (enforcement) authorities is mostly difficult in those cases where no agreements have been made (data protection). In some particular countries enforcement of TFS regulations is (very) low on the list of customs' priorities. Nevertheless, this project provided a good platform for some countries to enlarge their cooperation with other authorities and significant improvements have been made (see also the following chapters).

Because of the variety in tasks and competencies concerning enforcement of TFS regulations and the way this is organised within the participating countries, no "blueprint" can be given for an equal enforcement position. Countries have to optimise the enforcement of TFS regulations to their own national situation.

In most of the participating countries serious lacks of knowledge, means and human capacity have been identified as real bottlenecks to check the relevant waste regulations adequately. Therefore follow-up actions can not be carried out in all cases, and a certain levelling of priorities is needed to overcome the differences in enforcement levels between the countries. Within a minority of the countries there is no essential lack in knowledge, means and capacity concerning adequate enforcement of the Regulation.

CHAPTER 4 Development of enforcement methods

4.1 INTRODUCTION

This chapter describes the enforcement methods that were developed during the project. It gives also an overview of the methods applied in the various countries, and their experiences in the operational application of these methods (daily practise). The outcomes of the activities (in terms of enforcement results) are highlighted in chapter 5.

4.2 TYPES OF ENFORCEMENT METHODS DEVELOPED

4.2.1 INTRODUCTION

Types of inspections

One of the main methodological results of the project was the development of an enforcement manual, based on the national experiences of participating authorities. This manual was developed to standardise the way of working and to uniform the exchange of information during the inspections 'on site', also aiming at monitoring the progress of the enforcement project from a management point of view.

The manual describes three types of inspections:

- Inspection of custom documents;
- Inspection of storage locations and warehouses;
- Traffic inspections.

A short description of the scope of the types of inspections is presented below.

Report forms

An inspection planning form has been developed to gain an overview of inspections planned. In case of illegal shipments or infractions detected, cargo investigation forms were developed to register the information about the shipment. Another report form developed concerned a "waste verification report form", which could be used to verify particular waste shipments and to verify whether the shipment is transported to an approved (waste processing) facility.

For all types of inspections an individual report form has been developed, which was used to distribute relevant information to counterparts and to submit the overall results of inspections to the project management.

4.2.2 INSPECTION OF CUSTOM DOCUMENTS

According to (European) customs legislation for every shipment for export out of the European Union, in principle a customs clearance has to be done at the place of loading (there are also simplified procedures and exceptions, these differ per country and port). After permission of customs (mostly administrative), the shipment is allowed to go to the place were the shipment is actually leaving the EU. At this place customs documents are being handed over to custom authorities. These authorities give a final permission to deliver the shipment on a quay or terminal. This will be – in most circumstances – a customs area. After permission from customs the documents will be passed to a shipping – or transhipment company. These companies collect all documents of the out going vessel. After the vessel left the port the company has to deliver the manifest including all documents to the customs.

Custom documents can therefore be a starting point to investigate shipments that may contain waste. In most of the participating seaports the same export documents are being used (EX 1 and/or T1 form). If necessary, a physical inspection of the shipment can be carried out as a result of the inspection of custom documents.
Also automated custom systems can be and are in some countries used to select potential waste shipments, by using profiles or particular risk analyses. Cooperation with custom authorities (formal or informal) is strongly recommended in this case (see also chapter 5 and 6 for some illustrations).

4.2.3 INSPECTION OF STORAGE LOCATIONS

On a port site many lots and goods are stored, waiting for further shipment. Also waste shipments can be stored on port sites. These kinds of inspections are relatively easy to carry out by enforcement authorities themselves.

After selection of particular lots (which may be waste), document checks “on site” can be carried out like waybills (CMR), weighing slips, custom documents, TFS notifications or eventual additional national required documents. Administrative inspection can be followed by a physical inspection, aiming at checking if the actual situation is in accordance with the permit(s) given.

Inspections of storage locations do not only concern inspection of terminals. Waste shipments can also be inspected outside terminals, e.g. on locations were waste shipments are collected for further transport at sites of companies in the neighbourhood.

4.2.4 TRAFFIC INSPECTIONS

Although a port site is not always located at the border, it is obvious that many shipments are transported to the port for further shipping abroad. This also applies for transfrontier shipments of waste. The transports need to be accompanied by various documents. The kind of documents depends on the goods, destination and place of origin. The attended documents can give an indication about the load (waste or not), sender, destination and recovery or disposal operation.

In order to enlarge the change of hitting waste shipments, inspections are mostly located near a custom checkpoint or at the gate of a terminal. Documents can be checked quickly and containers can be selected or blocked for further investigation. Because inspections are taking place on the road, cooperation with other authorities (like police and/or custom agencies) is often necessary in these cases.

4.3 METHODS APPLIED

The table below gives an overview of the methods that have been applied by participating countries from September 2003 till May 2004.

	Belgium	Germany	Latvia	The Netherlands	Poland	United Kingdom
Inspections done within the project	Yes	Yes	Yes	Yes	Yes	Yes
Kind of inspection:						
∉ Custom documents	X	X	X	X	X	X
∉ Storage locations	X		X	X		
∉ Traffic inspections	X		X	X		

In particular cases, inspection of custom documents can be followed by physical inspections of individual containers (not located at storage locations).

Every country applies their accents in carrying out these inspections, depending on existing experiences, cooperation with other national enforcement authorities (including customs and/or police), national preferences, and available means and capacity. These accents are not only presented in more detail below, but also in the next chapter which deals with actual enforcement results.

4.4 EXPERIENCES WITH THE WORKING METHODS AND REPORT FORMS

General experiences

All participants highlighted the usefulness of the developed working manual. Some methods, like the method on the inspection of storage locations, were rather 'new' for some countries, because of their experiences so far. In many cases the manual was distributed to and was used by other authorities participating in the project on a national scale. In some particular cases, the manual was translated into their own language.

The manual also:

- Has led to insight into enforcement activities and results of inspections carried out by other countries;
- Stimulated the use of standard report forms by enforcement authorities involved;
- Provided a uniform base for data exchange and enforcement results.

The method on the inspection of custom documents was found to be the most effective inspection instrument. Besides, this type of inspection provides valuable information to "go up" (to waste origin) or "down the chain" (to the final destination).

Nevertheless, inspection of storage locations and warehouses, and traffic inspections were found to be very important from the point of view of deterrence.

Experiences with the report forms

Generally speaking, the report forms were found to be a good and adequate instrument to exchange information for its purpose: a uniform way of exchanging information on waste shipments.
The 'inspection planning form' was found to be very adequate for planning inspections and to inform other countries about their planned activities regarding shipments to be checked.
The cargo investigation form was found to be useful as well, but was rather time consuming to fill in.
Waste shipment verification forms were not used very often during the project; in most circumstances additional information was exchanged between participants by telephone or e-mail.
Report forms related to the inspection of custom documents, warehouses and transport checks were found to be adequate. It was not always possible to provide all of the information required, for example with regard to (follow up) actions taken.
In some cases it was found to be difficult to persuade other involved authorities to use the same forms; in some cases the developed forms were additional to those used in their daily work.

Improvement of the manual and report forms

The manual and report forms will be improved on the bases of the experiences so far, and will be used as input for the follow up of this project. Besides, an additional working method will be developed, focussing on the inspection of vessels.

4.5 CONCLUSIONS

The manual, which has been developed during this enforcement project, was found to be a good and practical instrument to carry out inspections of custom documents, storage locations and warehouses, and traffic inspections.
The method on the inspection of custom documents has been applied by all participating organisations, and was found to be the most effective inspection instrument. Besides, this type of inspection provides valuable information to "go up" (to waste origin) or "down the chain" (to the final destination).
Nevertheless, inspection of storage locations and warehouses, and traffic inspections were found to be very important from the point of view of deterrence and gathering of information.
Most of the report forms have been found adequately as well; however small improvements will be made on these report forms in the near future.

CHAPTER 5 Enforcement results

5.1 INTRODUCTION

This chapter gives an overview of inspections carried out in the framework of the project and registered with the developed report forms. Inspections that were carried out without filling in the report form are not documented and therefore not presented in this chapter. It is evident that not all inspections have been reported. A number of "parallel activities", out of sight of authorities directly involved, took place as well; not all the activities and results have therefore been "counted". In some cases, follow up actions are still in process.
The information in this chapter focuses on the quantitative figures as a result of all enforcement activities. General experiences concerning the established cooperation and the exchange of information during the project is set out in chapter 6.

5.2 RESULTS OF INSPECTIONS

The results of inspections are presented per country below. Overall results are illustrated by particular cases, describing illegal shipments (shipments detected without any permit) and/or infractions (shipments with a permit, but with administrative and/or practical errors). Results can only be interpreted per country because of the following reasons:

- Differences occur in the way administrative checks have been carried out: some were physical, and some were electronically checked. These results therefore can not be compared between the countries;
- Illegal cases identified can contain more than one shipment, or more than one container. An explanation of these differences is given at the description of the cases itself.

5.2.1 BELGIUM

Overall results

In Belgium 21 inspections have been carried out. The overall results can be described as follow:

- Approximately 8100 administrative checks were done. Administrative checks include both checks before and after selection. For example, when OVAM and police check the cargo of an entire ship, about 500 documents are handled (including documents for non-waste shipments). If customs organises an inspection, they have already made a selection of waste shipments;
- 639 physical checks have been carried out. About 500 of these checks were second hand vehicle checks on RoRo (roll off roll on)-quays. Most of these checks only take a few seconds.

In total, 191 cases of waste were found, 95 cases were found to be illegal and 31 infractions were determined.

Belgium makes a distinction between physical checks that are carried out by X-ray scans and by visual inspections. Scanning can lead to visual inspections (opening up containers). Visual inspection is therefore a more thorough way of inspection.

Some general information about the types of waste that were checked concerns:

- China: explosion of the cases of illegal waste transports to China and Hong Kong (most of it concerned scrap, cable waste, etc.), probably because of the increased activities of a few traders, and because OVAM has focussed their inspections on these kinds of traffic;
- West-Africa: the export of car wrecks and electronic waste (fridges, televisions, etc.) remains steady, but OVAM finds more illegal transports originating from Brussels region;
- Used clothes and tyres: less infractions than before. Most of the tyres and clothes are second hand.

Illegal case: copper scrap

During an inspection of customs documents in the port of Antwerp in September 2003, OVAM and maritime police selected a container loaded with "copper scrap".
The container was scanned by means of the customs' mobile container scanner, yielding an X-ray picture of a dark uniform mass, instead of scrap pieces and cables that were expected. Opening the container revealed that the container was loaded with shredder residue, probably issuing from a car wreck shredder. Very little copper scrap was found, most of it were small pieces of plastics, glass, and small stones (see photo below).

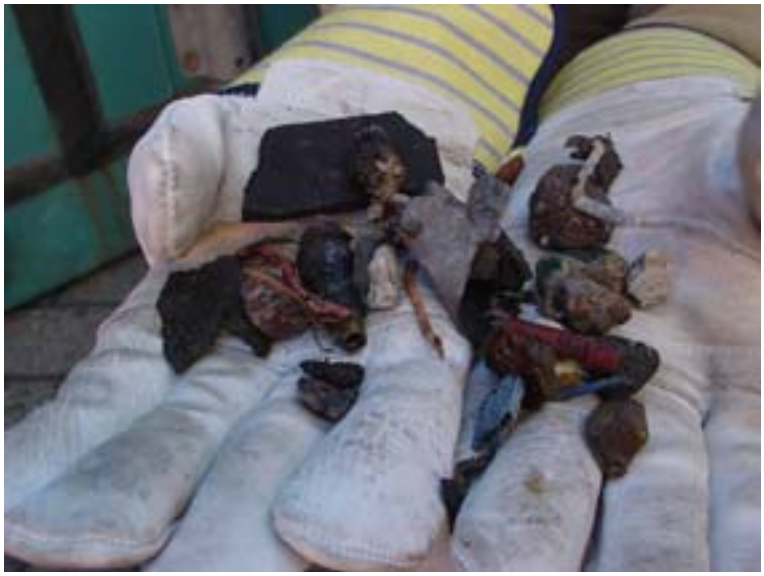

Photo 5.1: "copper scrap"

According to the documents the container was loaded in The Netherlands, with destination China. Because of the large percentage of plastics and glass, OVAM didn't allow proceeding of the transport to China. The Federal Environmental Inspection (FLI) started the TFS-procedure for the return of illegal shipments, but further investigation by The Netherlands

revealed that the container was loaded in Flanders. The container was sent back by OVAM to the place of loading.

OVAM carried out an investigation at the company were the waste was loaded. According to the explanation of the company, there had been mistake. Instead of filling the container with copper cable, they had loaded shredder residue. Neither the (Dutch) trader, nor CCIC had carried out a visual inspection. On top of this, the trader had replaced the expression "copper cable" by "copper scrap", probably because Belgian and Dutch authorities focus their inspections on "cable waste a/o".

This case is exemplary for the trading practices that OVAM encounters during port inspections: a few traders buy (whatever kind of) waste all over Western Europe, without any quality verification, with documents showing misleading information about contents and origin. Most of them with destination: China.

5.2.2 GERMANY

Overall results

In Germany one inspection was carried out in which 8 containers were checked:

- 4 containers were found to in accordance with the given permit;
- 4 containers were verbally stopped for further investigation.

The authorities assumed that the used equipments were not repairable and research was conducted. Because of lack of proof the containers were released in written form.
The inspection was a combined custom documents/storage inspection.
Of the four containers, which were found OK, two were loaded with personal goods, one with car spare parts and the last one with truck spare parts. The four, which where verbally stopped contained used TV sets, video recorder and office equipment. Not all where in working condition, but it was not possible to proof they where not repairable. That was the reason to let the containers free.

The second inspection was done together with custom colleagues. Via the ZAPP [1] 867 administrative checks were carried out for waste shipments under different profiles. Until 3 pm (ca. 7 hours) there have been:

– 1 container to Latvia with used tyres, 13 to Estonia with different declaration and non to Lithuania, there were no suspicions;
– 6 declarations of used cloths (commodity/custom-codes = 6309). They were send to Bulgaria, Republic of Congo, Tanzania, Pakistan, China and Tunisia. No suspicions raised;

[1] ZAPP = Custom Export – Monitoring in a Paperless Port. Data may be sent electronically to the ZAPP computer via a ZAPP-customer station, if an exporter or forwarder has installed himself a direct interface to ZAPP. The ZAPP computer automatically checks the coherence and plausibility and issues a so called 'B-Number' for all correct presentations and the number is then transmitted electronically to every partner involved in the export (e.g. applicant, liner agent/ship owner, quay operators). The main port custom office reserves the right to stop the transport of goods for up to 2 hours after the issue of such 'B-Number'. After that period this export consignment can be expected cleared and may be loaded for shipment by the quay operators.

– At this stage, no profile for electric/electronic-scrap could be made, because these items are classified under a lot of different commodity/custom-codes;
– Used cars (commodity/custom-codes = 8703) concerned 848 declared ones; maybe for a whole day it could be around 1.000;

The kind of administrative check via the ZAPP system is quiet different from a paper document check. They are different kind of checks and the numbers are not comparable.

During another inspection used single use cameras were detected. A description of this case is given below.

Case: Single Use Cameras

In April 2004 the police and the competent authority of Hamburg came across an ambiguity: two containers of used Single Use Cameras (SUC) including batteries, to be shipped to Hong Kong. At the first look, it seemed quite obvious, inherently from the name 'used Single Use Cameras' that the containers contained waste. In the amber list, used SUC have the code AD 130; *without* batteries they are listed as GO 050 in the 'green' list. According to the EU Regulations 1547/1999 and 1420/1999, the latter could be exported to Hong Kong, but not to China.
The two containers were stopped, which were sent through an export company in the UK, were packed in a town in the German federal state of Lower Saxony, and put in containers in the German federal state of Hamburg.
By law, the competent authority is the one from Lower Saxony where the containers were actually packed.
After some enquiry a copy of a letter / statement from the Ministry of Environment of Lower Saxony was received which stated that if the used SUC could still function, they are not regarded as waste. Parallel, a photo of a recycled SUC was received to prove how such used SUC are being recycled in China and brought back into the market.
The competent authority in Lower Saxony was informed in writing. The letter included some photos of the shipment, showing some broken used SUC *with* batteries, which could definitely not function in any case. They had to decide how to deal with this particular case, and how to, in the future, deal with this kind of (waste-) streams.
During a meeting with the company it was decided that the two containers would be brought back to Lower Saxony for separating the used SUC bodies that could be recycled from those which are scrap. The scrap rate should be below 15%. To guarantee this in the future, the company will set up a QMS (quality management system).
Products that are designed for single use and are being regarded as waste after that single use, can - over time - be developed into a reuse product, which (as long as it can be brought back to its previous purpose without harming the environment) could be located outside normal waste streams.

5.2.3 LATVIA

Overall results

3 inspection periods were planned in Latvia during the project. In total, 628 administrative checks were done and 2 physical checks were carried out:

- 10 - 12 December 2003: 298 administrative/document checks, 2 physical checks;
- 27 - 30 March 2004: 229 administrative/document checks; and
- 2 April 2004: 101 administrative/document checks.

During these inspections 3 cases with waste were found. No cases of illegal shipment were found and no infractions were determined.

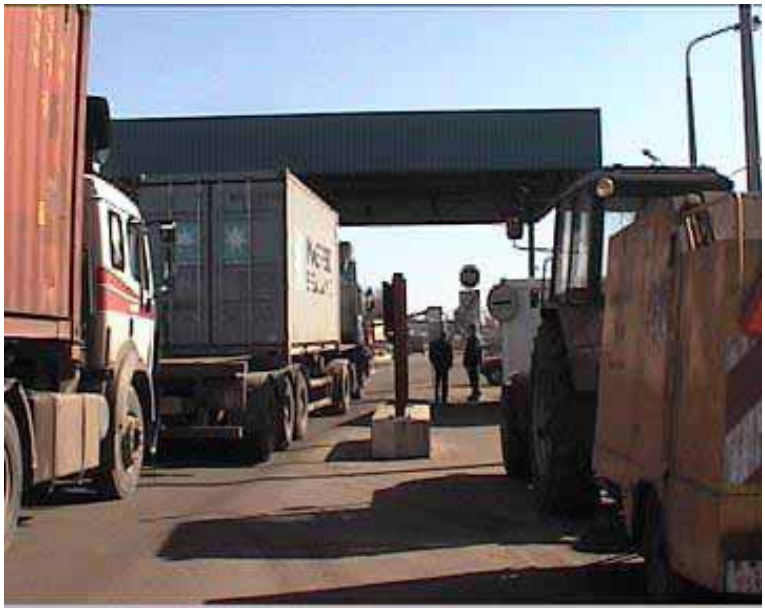

Photo 5.2: entrance into the Freeport of Riga

Results per inspection method

The inspections of custom documents concerned 507 administrative document checks. No physical checks were carried out consequently. During a traffic inspection, 121 administrative document checks were carried out, followed by 2 physical checks. In 3 cases, waste shipments were identified. During the inspection of storage locations/warehouses unpacked or open cargo was inspected carefully. No container storage places were inspected.

5.2.4 THE NETHERLANDS

Overall results

In The Netherlands 16 inspections have been carried out, containing 1.028 administrative document checks and 544 physical checks. In 277 cases of all of the inspections carried out, waste was found. The waste mostly concerned waste paper, waste plastic, copper waste, mixed metal scrap and cable waste. 2 cases were found to be illegal: one with copper waste and one with cable waste. 11 infractions were determined as well. Most of the infractions found were shipments to China without a CCIC pre-shipment certificate.
The illegal shipment of cable waste is presented in more detail below.

Illegal case: export of cable waste

Two containers were blocked by Customs in the port of Rotterdam during inspections in September 2003. The description of the goods at the customs document was “cable waste”. The country of origin and sending was Belgium. The destination of the waste was China. The shipment was booked and delivered at a container terminal in Antwerp and shipped by barge to Rotterdam. There is a lot of container traffic between Antwerp and Rotterdam by barge and rail. The reason for this is that a lot of big shipping companies have offices in both ports. Everyone can book a shipment to everywhere at those offices. The shipping

companies are deciding with which vessel the shipment will be shipped. This decision depends on economic reasons; when a vessel in one port is fully booked, they don't have to wait for another week. But it also depends on loops and alliances. E.g. a company can book a container in Rotterdam for export to Africa at an office of a big shipping company. When vessels of this company are not transported from Rotterdam to Africa but from Antwerp to Africa, the exporter delivers his shipment in Rotterdam and the shipping company delivers the shipment in Antwerp by rail or barge.

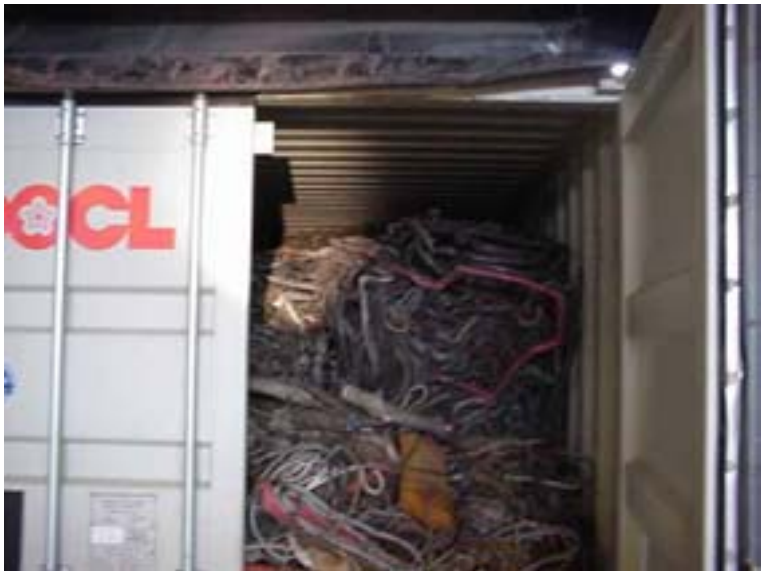

Photo 5.3: illegal export of cable waste

The above-mentioned events are also reasons why there is a lot of container traffic by feeders between the different ports in Europe.
Cable waste was found in both containers during a physical inspection of the containers, carried out by customs and VROM Inspectorate. This cable waste was a mix of ground cable with and without bitumes and other cable like household cable.
Policy in the Netherlands, and most of the other EU Member States, is that this ground cable with bitumes is not mentioned in the annexes of EU Regulation 259/93. For shipments of this type of waste always a notification procedure has to be followed.

For the other cable waste found inside the containers, policy in the Netherlands is that all cable waste (except household cable) is not mentioned in the annexes of EU Regulation 259/93. According to its policy, household cable is defined as cable that connects the instrument with the socket. This household cable is mentioned in Annex II (green list) under GC 020. The necessary notification procedure was not followed in this case and the shipment was marked as illegal.
Customs made an official report for the public prosecutor in Rotterdam. In cooperation between VROM (The Netherlands) and OVAM (Belgium) the illegal shipment was send back to Belgium, after the notifier followed the notification procedure.

5.2.5 POLAND

Within the framework of this project 1 inspection was carried out in Poland. It concerned inspections of custom documents at a container terminal in the port of Gdansk. The inspection was mainly based on custom document checks. Ten, so called ship manifests containing in total 180 cargos were analysed. Each cargo document was checked carefully; in total 180 administrative checks have been carried out. Information given in manifests was verified and supplemented with more detailed information obtained from customs electronic register (register of all containers declared to customs clearance). 3 containers were selected for physical inspection: no waste shipments (and no illegal shipments or infractions) were detected.

5.2.6 THE UNITED KINGDOM

Overall results

In the United Kingdom 3 inspections were carried out. In total 33 containers have been checked, 220 administrative document checks were done and 33 physical checks were made. The total results are as follows: in 31 cases waste was found, 5 cases were found to be illegal and 5 infractions were determined.

The method used to identify waste shipments was examination of the Customs waste export declaration database, effectively a Customs documents check. All export declarations for Felixstowe are made electronically and a 'profile' was developed to interrogate this system. The profile was used to identify specific wastes, such as waste paper and plastics, other parameters in the profile included country of destination and value of the shipment.

Illegal waste shipments detected

Examples of illegal wastes found using this method included the following:

- 'Co-mingled' mixed wastes being exported to India without notification, and including a significant proportion of plastics. The declaration for these exports being 'paper' or 'mixed paper' (see photo below);

Photo 5.4: co-mingled waste

- The export of used and damaged computer equipment, including monitors, to Pakistan. This declaration was 'plastics'. The shipment was blocked and returned to the site of origin in Wales.

During the third port check in March 2004, the Customs database was used to inspect an individual ships manifest, i.e. those declared exports being loaded to a ship. Using this method it was possible to identify a shipment of oil contaminated vehicle parts, declared as 'motor parts'.

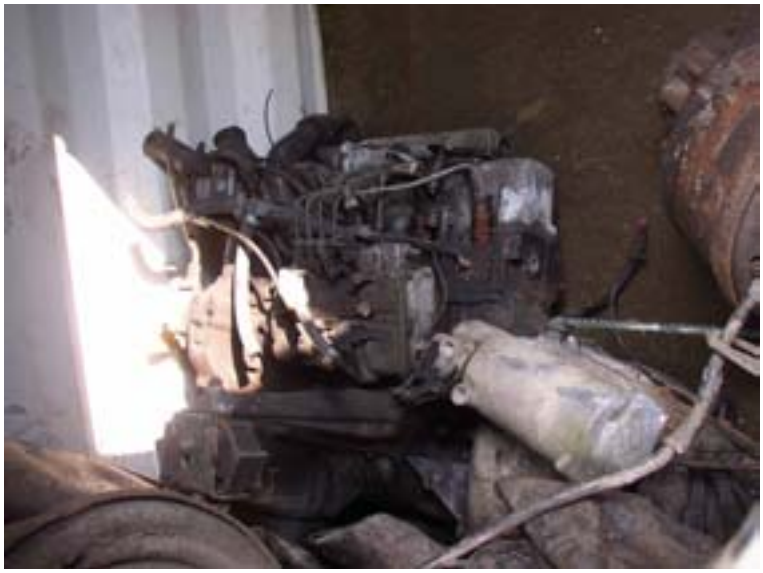

Photo 5.5: oil contaminated motor parts

5.3 CONCLUSIONS

Participating organisations carried out a huge number of checks relating to inspection of custom documents, inspection of storage locations and/or traffic inspections. Most checks focussed on administrative and/or physical inspections. Enforcement authorities, custom agencies and/or police carried out these inspections in a coordinated manner. Illegal shipments and/or infractions have been identified during a large number of inspections; enforcement of this kind of legislation is therefore absolutely needed!
Coordinated follow up actions, like returning illegal shipments to the country of origin, have been carried out by organisations involved. Follow up actions on a number of these illegal shipments and/or infractions are still running.

CHAPTER

6 Established cooperation and exchange of knowledge

6.1 INTRODUCTION

This chapter presents the results of the project in terms of the established cooperation and information exchange, highlighting issues as international and national cooperation, exchange of knowledge, and exchange of operational information, like particular enforcement cases.

6.2 IMPROVED INTERNATIONAL AND NATIONAL COOPERATION

The project resulted in improved cooperation, both on international and national level. Some of these issues are highlighted below. The improved cooperation and information exchange resulted also in exchange of operational and 'tactical' information as well.

Improved international cooperation via Internet: "viadeks website"

The VROM Inspectorate of the Netherlands facilitated the exchange of information on international level by providing an Internet website called "viadesk". The website, which is only accessible with a login name and password, provides functionalities as:

- Downloading documents (pictures, manual, newsletters, report forms, etc.);
- A database with contact information of all participants (names, addresses, telephone directory);
- An agenda with upcoming events;
- Media information (press releases, articles, etc.);
- Etcetera.

Evidently, participants indicated that more functionalities could be provided with this website, like:

- An "alert system" for illegal shipments or cases;
- A digital "reference book" with information on wastes (descriptions, industrial processes, photographs, chemical compositions, et cetera);
- Relationships with other enforcement projects, carried out under the umbrella of IMPEL and IMPEL-TFS.

Improved national cooperation

The project resulted in the set up and improvement of cooperation between environmental agencies and custom networks in a number of countries. In, for example Latvia and Poland, there was no cooperation at all between these authorities during the start of this project. In

other countries the cooperation between these networks has been improved further, like in Belgium and the United Kingdom.

6.3 EXCHANGE OF KNOWLEDGE AND EXPERIENCES

Enlightening "best practices" and cooperation models

During the fist phase of this enforcement project representatives of the VROM Inspectorate of The Netherlands visited the involved countries to highlight the aims and set up of the project. Another issue that was highlighted during these visits was the cooperation (and the usefulness of this) between enforcement agencies and customs, with the established cooperation in The Netherlands as an example. This model inspired other countries to think about these initiatives as part of the seaport project as well.

Project meetings

Project meetings were organised twice during the project: one at the start, and one at the end of the project. The meetings were found to be very useful. On one hand discussions took place about the project, the aims and the outcomes. On the other hand, information about daily enforcement issues and "best practices" have been exchanged. Participants indicated that more time should be scheduled in future meetings to discuss practical enforcement problems, - tools and – solutions.

Photo 6.1: Mechelen meeting

Exchange of inspectors

Working knowledge on practical issues has been exchanged five times during the project by the exchange of inspectors. Exchange of inspectors (on an informal basis) has been done in the following cases:

- Inspectors of the VROM Inspectorate of the Netherlands joined enforcement actions in the Port of Antwerp on 23 October 2003, 26 February and 27 February 2004. During these visits information has been exchanged concerning policy views on cable waste and car wrecks;
- Inspectors of the VROM Inspectorate of the Netherlands joined enforcement actions in the Port of Felixstowe on 9 and 10 December 2003. During these inspections information has been exchanged on profiles to be used in computerised custom systems;

- Inspectors from the port of Hamburg (environmental authorities and Hamburg customs) were invited in the port of Rotterdam and to the port of Amsterdam for a joined inspection on 25, 26 and 27 February 2004. They joined a traffic inspection by the customs in the port of Rotterdam focussing on waste shipments and an inspection by the Harbour police and the environmental authorities (OVAM) in the port of Antwerp (Belgium). Working methods were compared and enforcement information about documentation, good codes, waste profiles and the computer systems of the customs in Rotterdam and Hamburg has been exchanged. During a visit to the port of Amsterdam (the Netherlands) information and experiences concerning car wrecks and household goods have been exchanged.
- On 26 February 2004, inspectors from the port of Hamburg (environmental inspectorate and custom officers) and inspectors from The Netherlands' VROM Inspectorate visited the port of Antwerp.

The exchange of inspectors was found to be very valuable. Lack of capacity and finances appear to be very important conditions for the exchange of inspectors.

Exchange of policy views and technical issues about particular waste streams

Information on policy views and technical issues about particular waste streams have been exchanged during the project, like:

- Practical views on waste policy and - interpretations, for example concerning cable waste, compressors and car wrecks (definitions, criteria, working procedures, et cetera);
- The classification of waste streams, for example cable waste. In some Member States cable waste is classified as a not assigned waste stream; in these circumstances a notification is necessary for waste transport. In another Member State, cable waste is classified as green listed waste, which means that the shipment should only be accompanied by information as described in article 11 of EU Regulation 259/93;
- Discussions also occur on (the definition of) second hand goods versus waste, like end of life vehicles, fridges and televisions.

Photo 6.2: exchange of technical issues

6.4 EXCHANGE OF OPERATIONAL AND 'TACTICAL' INFORMATION

Exchange of operational information has been exchanged on "case by case" bases. The established enforcement network and the personal contacts that have been build during the project proved its usefulness: effective and efficient cooperation in enforcement.
Also with the help of the Internet website, which has been highlighted above.

Information exchange "case by case"

The information that has been exchanged on a "case by case bases" has been very valuable. Because contact persons were known and an enforcement network has been set up, exchange of information on daily issues has been exchanged effectively and efficiently.
For example, during the "Irish household waste" case actual information on quality and quantity of household waste has been exchanged. A short description of this case is described below.

Photo 6.3: household waste (declared as paper waste) from Ireland, destined for Asia

CASE: ILLEGAL EXPORT OF IRISH HOUSEHOLD WASTE TO ASIA

During Winter 2003, illegal export of tonnes of Irish waste destined for India, Singapore and Indonesia was detected. The waste, including some waste from local authority contractors, was detected by custom officials in the Rotterdam harbour. During spot checks household waste was discovered, instead of 'green declared paper waste' that would be recycled in Asia. The 51 containers contained household waste like old clothes, paper waste, glass, wood, carpets, plastic bottles, etc. No permit was given for this export.. The containers were returned to Ireland and legal actions were taken to involved organisations.
This signal was distributed to the other enforcement organisations participating in the seaport project. It turned out that there was a s similar situation in the Antwerp harbour. Tens of containers were blocked for further investigation. 56 Containers were returned to Ireland and legal actions were taken too. Containers with co-mingled waste from Ireland and the UK were also found in the harbour of Felixstowe, with final destination India.
As a result, about 2.000 tonnes in 107 containers were sent back from Rotterdam and Antwerp to Ireland. Both events were reported to Interpol.

It turned out that there is too little waste incineration capacity in Ireland, and waste landfills reach their capacity: fees for waste landfill increases. Policy is also focussed on recycling (in stead of landfill). Waste gains therefore the attention of brokers for these commercial "shopping activities". A number of articles have been published in various newsletters in Belgium, Ireland and The Netherlands.

6.5 CONCLUSIONS

The project had a positive influence on the established cooperation on both international and national level. Cooperation and information exchange on international level was facilitated by means of Internet website, and on national level by setting up cooperation between enforcement agencies and custom networks. Knowledge and experiences have been exchanged five times during (informal) meetings at seaports, and was found to be very valuable. Policy views, and technical and 'tactical' information has been exchanged during these visits as well. Lack of capacity and finances appear to be very important conditions for the exchange of inspectors.

Information exchange on more practical issues has been done as well, like (e.g.) differences in waste policies and in definitions and classifications of wastes (second handed goods versus waste, like end of life vehicles, fridges and televisions).
Because the network of involved organisations and contact persons within the participating seaports is known, enforcement actions (e.g. as a result of illegal movements) can be carried out more effective and efficient.

It can be concluded that international cooperation in enforcement can reduce the differences in (enforcement of) national interpretations of TFS regulations, like the Basel Convention and EU Regulation 259/93. In this way, international cooperation in enforcement and enhanced information exchange strengthens European environmental legislation, and improves the activities for environmental protection. Coordinated follow up actions have been carried out. As a result, insight into port hopping has been gained. At least one case of port hopping, in which large amounts of household waste were shipped from Ireland (via Rotterdam and Antwerp) to Asian countries, has been identified and tracked down.

CHAPTER 7 Conclusions and recommendations

7.1 INTRODUCTION

This chapter contains the conclusions and recommendations. The conclusions are structured amongst the aims and main outcomes of the project. The recommendations are addressed to the target groups identified in chapter one, and - where relevant and applicable - to individual ones.

7.2 CONCLUSIONS

7.2.1 GENERAL CONCLUSION

The outcomes of the project emphasize that (cooperation in) enforcement of TFS regulations is needed to protect the environment. Illegal shipments and/or infractions have been identified during a large number of inspections; enforcement of this kind of legislation is therefore absolutely needed.

All representatives of the six participating countries involved in this enforcement project emphasized the usefulness and successfulness of this enforcement project. The results that have been reached within this project could not have been achieved without the established cooperation and information exchange. All participants emphasized the need to continue the established cooperation, and to enlarge the activities to other European countries and other large European seaports (including national seaports not involved so far).

All involved countries checked custom documents, inspected waste storages/warehouses and/or carried out traffic inspections. Some of the actions were carried out simultaneously within an agreed time period.
Violations or irregularities have been detected in the majority of the inspections carried out within this project. Follow up actions have been carried out in a coordinated manner. As a result, insight into port hopping has been gained. At least one case of port hopping, in which large amounts of household waste were shipped from Ireland (via Rotterdam and Antwerp) to Asian countries, has been identified and tracked down.

The enforcement of relevant TFS regulations (EU Regulation 259/93, Basel Convention and additional national legislation) has been aligned and improved by:

- Getting insight into the relevant enforcement structures and the network(s) involved in the enforcement of relevant legislation (environmental agencies, custom network, police);

- The development and practical application of a uniform enforcement approach/method for the enforcement of relevant legislation (manual);
- Coordinated bilateral and multilateral enforcement actions according to the uniform enforcement approach.

These main items are highlighted below in more detail.

As a result, all project aims have been achieved.

7.2.2 INSIGHT INTO ENFORCEMENT STRUCTURES

A survey that was carried out within this project has gained to an overview of the enforcement structures of countries participating in this project. Main conclusion is that there are big differences in the way the enforcement of TFS regulations is carried out within participating countries. It turned out as well that TFS regulations are very difficult to enforce, because of the following reasons:

- Lack of capacity, knowledge and means.
  Almost all enforcement authorities involved identified major lack of capacity, knowledge and means for an adequate enforcement of relevant TFS regulations. Especially in those circumstances were signals or tips from other authorities should be picked up for action;
- Involvement of many organisations.
  In the majority of the countries, many organisations are involved in the enforcement of TFS regulations. Task and competences are not always clear, particular in those circumstances were follow up actions (legal actions, returning illegal shipments, et cetera) have to be taken. Difference in interpretations occur and make follow up actions often difficult. In most of these cases no problem owner can be found, and the primary answer "who is responsible" can not be answered. Guarantees about "waterproof" follow up actions can not be given in these circumstances;
- Complexity of EU Regulation 259/93.
  EU Regulation 259/93 has found to be difficult to enforce, especially regarding topics as "second hand products versus waste", policy views on export of wastes, et cetera;
- No structural and formal cooperation with custom authorities.
  There is no structural and formalised cooperation between environmental inspectorates and custom authorities in the majority of the participating countries. Custom authorities can have an important "eye and ear" function in detecting illegal waste shipments (import, transit and export). Formal agreements (like MoU's) between these organisations can overcome difficulties related to data protection and information exchange. Consequently, MoU's play an important role in setting up the framework for cooperation.

All these differences in enforcement structures, priorities and capacities create possibilities for companies to choose the line of least resistance for waste streams to be disposed.

Because of the variety of these issues within the participating countries, no "blueprint" can be given for an equal enforcement position. Countries have to optimise the enforcement of TFS regulations to their own national situation, based upon some kind of minimum enforcement level or – strategy.

7.2.3 DEVELOPMENT OF A UNIFORM ENFORCEMENT METHOD (MANUAL)

A uniform working method (manual) has been developed within the project, describing methodological steps to be taken in carrying out inspections of custom documents, waste storages/warehouses and transport inspections.
All authorities applied one or more of these method(s) in the project. Working with the inspection of custom documents seemed to be the most effective method: the highest degree of violations and irregularities has been found here. This method also gains information to go "up and down the chain".
The manual also has led to standardisation of the exchange of information by means of the report forms that were developed during the project.

7.2.4 ENHANCED COOPERATION AND INFORMATION EXCHANGE

Communication and information exchange has been improved significantly between the authorities involved, both on international and on national level. A website has been built for this project, with functionalities for downloading reports, getting insight into the progress of the project and a database with contact persons. It was found to be a disadvantage that the current IMPEL-TFS Internet site does not contain extensive information about e.g. TFS regulations, enforcement tools, a "digital waste reference book" and a database of involved organisations and contact persons on EU scale (including the 10 new EU Member States).

Setting up cooperation and information exchange with other important authorities (like customs) on national level was found to be very difficult in some countries, also because no formal agreements have been made so far. All involved organisations feel the need to strengthen and enlarge the established cooperation; international cooperation and information exchange has been identified as a basic element for adequate enforcement of relevant TFS regulation.

Contact persons within participating seaports are identified and involved enforcement organisations have become familiar with working in a European context. On the other hand, a database of inspectors who are involved in the enforcement of TFS regulations outside the project (preferably on EU scale) is strongly missed. The existing database of IMPEL-TFS should therefore be made more public and should be updated more often.

The meetings, which were organised twice during the project, were found to be very valuable because of their practical character; such meetings should be organised more regularly. Also the exchange of inspectors between harbours during the project were found to be very valuable ("training on the job"): experiences, and practical/tactical information has been exchanged during these events.

European cooperation and improved information exchange therefore:

- Enhances the enforcement of TFS regulations, and helps tracking down illegal shipments;
- Uniforms the (different) working methods applied in various countries;
- Reduces the differences in (enforcement of) national interpretations of TFS regulations, like the Basel Convention and EU Regulation 259/93.

7.2.5 OTHER CONCLUSIONS

Some other conclusions, based upon the results and experiences gained during the project, are:

- Involvement of inspectors in the project team.
  Inspectors who deal with enforcement matters in their daily practice carried out the project. This was found to be very valuable; experiences and daily practices have been exchanged;
- Involvement of other organisations.
  A number of organisations within participating countries have become interested in the project during the operational phase. This is an important positive side effect of the manual that has been developed: other organisations have adopted working methods in their daily work.
- Lack of tools.
  All involved organisations expressed the lack of tools to enforce TFS regulations more adequate. Tools that could be developed are for example:
  4 Digital reference book of waste;
  4 Exchange programme between inspectors ("training on the job");
  4 Training modules concerning enforcement of EU Regulation 259/93.

7.3 RECOMMENDATIONS

Main recommendation in general is that enforcement of TFS regulations (like the Basel Convention and EU Regulation 259/93) is absolutely needed to protect the environment, e.g. to prevent that wastes are disposed off illegally or are not processed in an environmental sound manner. Regulations (especially article 30 of EU Regulation 259/93[2]) can be a "paper tiger" without adequate enforcement. International cooperation between enforcement authorities is a basic principle for such "transfrontier enforcement".

Based on the conclusions the following recommendations are given. The recommendations are assigned to the target groups as mentioned in section 1.5 of this report.

7.3.1 IMPEL-TFS/IMPEL/EUROPEAN COMMISSION

1. Develop and approve an enforcement strategy for TFS regulations

An enforcement strategy, combined with a multiyear programme, should be developed for the enforcement of TFS regulations (EU Regulation 259/93), highlighting:

- The minimum principles for adequate enforcement;
- Capacity and means needed;
- Priorities (focus, wastes to be checked from an EU point of view etc.);
- Framework for (national and international) cooperation;
- Relationships with other networks (like customs and police), and facilitating the cooperation with these networks (e.g. by developing MoU's);
- Knowledge and training programmes.

The strategy should lay down these (minimum) principles as directive tasks for EU Member States, aiming to equal the differences in enforcement levels that have been identified.

[2] See section 1.1.

IMPEL-TFS should take the lead in the development of this enforcement strategy, and should submit this strategy for approval to IMPEL. IMPEL should discuss this strategy (and its consequences) with the European Commission. The Commission should agree on this strategy in order to gain full European commitment.

2. Active involvement in future Seaport project activities

The European Commission is asked to participate actively in future activities of this IMPEL-TFS Seaport project (see also recommendation 7).

7.3.2 IMPEL-TFS

3. Develop an IMPEL-TFS website with extensive information

It was found to be a disadvantage that the current IMPEL-TFS Internet site not contains all information needed for enforcement of TFS regulations, like the Basel Convention and EU Regulation 259/93. A more extensive IMPEL-TFS website should therefore be developed, with functionalities as:

- Database with organisations/contact persons.
  Various enforcement projects are carried out within IMPEL-TFS, but all with their own databases with contact information. A database of existing contacts (organisations/persons) who are involved in the enforcement of TFS regulations on EU scale should be set up;
- An alert system of illegal or suspected waste shipments;
- A digital reference book on wastes (chemical compositions, photo's, industrial processes, et cetera).

IMPEL-TFS should take the lead in this.

4. Identify barriers for data sharing

Barriers (like data protection) should be identified for the exchange of practical information and intelligence, for example of companies which are involved in TFS matters. IMPEL-TFS should identify these barriers, in order to speed up the information exchange between involved organisations.

7.3.3 NATIONAL ENFORCEMENT ORGANISATIONS

5. Work on cooperation, capacity - and network building: formal and informal

Enforcement organisations on national level, involved in the enforcement of TFS regulations, should take the lead in:

- Making formal agreements on cooperation and information exchange (MoU's) with custom and police;
- Developing training modules for the enforcement of TFS regulations carried out by environmental agencies, customs and police;
- Making general, bilateral agreements with (most important) countries about follow up activities concerning illegal waste shipments or waste shipments with infractions;
- Identifying possibilities for the exchange of inspectors between seaports;
- Prioritising enforcement of TFS regulations, and capacity building.

This recommendation is also given to authorities (responsible for enforcing TFS regulations) not participating in this seaport project.

7.3.4 PROJECT MANAGEMENT

6. Manual: fine-tuning and additional method

Although the manual was found to be very adequate, some small improvement can be made for further fine-tuning. The project management will carry out these improvements. The project management will also develop an additional working method on the inspection of vessels.

7. Upscale the project to other countries/seaports/organisations

The project should be enlarged with other European countries c.q. seaports (like France and Ireland). Also other (than currently involved) national seaport should be involved. Active participation of environmental agencies, customs and police networks will be an important element, also in relation to meetings that will be organised within this follow up project.
The project management will take the lead in the organisation of this follow up project.
The European Commission is asked to participate in the project meeting(s).

ANNEX 1 Project organisation and –participants

Belgium
Mr Bart Palmans (Country coordinator)
OVAM
Stationsstraat 110
B-2800 Mechelen
Belgium
Tel: +32 15 284511
Fax: +32 15 434403
Email: Bart.palmans@ovam.be

Germany
Mr Klaus Willke (Country coordinator)
Behörde für Umwelt und Gesundheit
Amt für Umweltschutz
Billstrasse 84
D-20539 Hamburg
Germany
Tel: +49 40 428452129
Fax: +49 40 428452129
Email: Klaus.willke@bsu.hamburg.de

Latvia
Mr Ojars Gerke (Country coordinator)
Marine Environment Board
Voleru St.
LV-1007 Riga
Latvia
Tel: +371 7 465575
Fax: +371 7 465888
Email: ojars.gerke@jvp.gov.lv

Netherlands
Mrs Nancy Isarin (Project manager)
Inspectorate of the Ministry of Housing, Spatial Planning and the Environment
P.O. Box 29036
3001 GA Rotterdam
The Netherlands
Tel: +31 10 2244417
Fax: +31 10 2244485
Email: Nancy.isarin@minvrom.nl

Mr Huib van Westen (Country coordinator)
Inspectorate of the Ministry of Housing, Spatial Planning and the Environment
P.O. Box 29036
3001 GA Rotterdam
The Netherlands
Tel: +31 10 2244306
Fax: +31 10 2244485
Email: Huib.vanwesten@minvrom.nl

Poland

Mrs Magda Gosk (Country coordinator)
Chief Inspectorate for Environmental Protection
Wawelska 52/54
00-9922 Warsaw
Poland
Tel: +48 22 5792729
Fax: +48 22 8251104
Email: mgosk@gios.gov.pl

United Kingdom

Mr Lyndon Essex (Country coordinator)
Environment Agency
Cobham Road
IP 3 9 JE Ipswich
United Kingdom
Tel: +44 1473 273984
Fax: +44 1473 724205
Email: Lyndon.essex@environment-agency.gov.uk

Project secretariat

Mr Charles Nijssen
ARCADIS
P.O. Box 264
6800 AG Arnhem
The Netherlands
Tel: +31 26 3778602
Fax: +31 26 4457549
Email: c.e.g.e.nijssen@arcadis.nl

Ms Angela van Heeswijk
ARCADIS
P.O. Box 264
6800 AG Arnhem
The Netherlands
Tel: +31 26 3778554
Fax: +31 26 4457549
Email: a.a.a.j.w.heeswijk@arcadis.nl

ANNEX 2 National enforcement structures

ANNEX 2: ENFORCEMENT STRUCTURES

IMPEL-TFS SEAPORT PROJECT

PROJECT REPORT, JUNE 2003 - MAY 2004

June 2004
110643/CE4/0K2/000284

Contents

CHAPTER 1 Introduction

Six countries are participating in the IMPEL - TFS Seaport project: Antwerp (Belgium), Hamburg (Germany), Riga (Latvia), Rotterdam (The Netherlands), Gdansk (Poland) and Felixstowe (United Kingdom).

This annex gives specified information about the way the management and enforcement of waste shipment regulations is organised within these countries, this with regard to:

- EU Regulation 259/93;
- Basel convention;
- Eventual additional national legislation.

The majority of the participating countries gave specific information following a questionnaire. These results or this questionnaire form the basis of this report.

Each chapter describes the enforcement structure of the seaport in question.

- Chapter 2 describes the enforcement structure of the port of Antwerp.
- Chapter 3 gives a description of the port of Hamburg.
- Chapter 4 gives information about the port of Riga.
- Chapter 5 describes the port of Rotterdam.
- Chapter 6 gives information about the port of Gdansk.
- Chapter 7 describes the structure of the port of Felixstowe.

Within most chapters the description of tasks, competences and experiences is focussing on the authorities that are participating in the IMPEL-TFS Seaport project. In many cases these authorities are regional or local oriented authorities; a general description on experiences on national level is not given in these cases. The information was described in a short period of time; therefore (still) some information is incomplete.

The following documents and sources have been used for this survey:

Documents:

- Department of the Environment March 1995. Transfrontier shipments of waste; The rules for importing waste. EC waste regulation, reference 94EP245
- Environment Agency April 2002; The transfrontier shipments of waste. How to complete a Notification and Movement tracking form. ISBN 185705817.
- Inspection for Environmental Protection, Warsaw November 2002
- Port of Gdansk Authority Co 2001; Port of Gdansk towards universality.

- Port of Hamburg, Port of Hamburg Handbook 2002/2003
- Port of Rotterdam august 2002, Port Statistics 2002; Rotterdam Municipal Port management. Published 2003. Reference corp/1006/0503/27k.
- Port of Rotterdam, Rotterdam world port, Rotterdam Municipal Port management.
- Republic of Latvia Overview 1998, the Ministry of Environmental Protection and Regional Development.

Internet:

- www.portofrotterdam.com
- www.hafen-hamburg.de
- www.portofantwerp.be
- www.havengateway.org
- www.portofgdansk.pl
- www.rop.lv
- www.lloyd.be/Ports_worldwide
- www.vidm.gov.lv
- www.vvi.gov.lv
- www.lielrigasrvp.gov.lv

CHAPTER 2 Belgium: Antwerp

2.1 PORT FACTS

Antwerp is located in the Flemisch Region, the northern part of Belgium. The port of Antwerp handles about 130 million tons of cargo per year. The most important area served by maritime cargo is with the United States (about 17 million tons/year) and with the United Kingdom (about 10 million tons/year). The ports of Rotterdam and Antwerp have a pipeline connection (R.A.P.L. Rotterdam Antwerp pipeline). This pipeline transports imported crude oil between both ports.

The characteristics of the port of Antwerp are summed up in the table below.

Facts and Figures Port of Antwerp [1] (2003)	
Surface area	13.455 ha
Commercial sites	480 ha
Water and (rail)roads	2.103 ha
Containers (TEU/year)	
Throughput	5.445.000
Incoming	2.642.000
Outgoing	2.803.000
Bulk goods (metric tons/year)	61.039.000
General Cargo (metric tons/year)	81.835.000

2.2 INVOLVED ORGANISATIONS

Belgium is a federal state, and is divided into separate regions. Within these regions, the following organisations are involved in the management and enforcement of waste shipment regulation:

- Flemish region; which includes the Flemish Public Waste Agency (further referred to as OVAM) and the Department of Environmental Inspection (AMINAL); in real terms, only OVAM carries out waste traffic inspections;
- Walloon region; which includes the Department of Environmental Police (further referred to as DPE), and the Office Wallon des Déchets (OWD);
- Brussels (the metropolitan region of Belgium), which includes the Brussels Institute for Environmental Management (further referred to as BIM).

The Federal Environmental Inspection (further referred to as FLI) operates on a federal level.

[1] Statistics 2003 website port of Antwerp. www.portofantwerp.be

In the following table the involved organizations are presented, together with general characteristics on their tasks and competencies, number of employees and their knowledge level with regard to waste shipment regulation.

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
FLI	National	Yes, within the EC	No	2	high
OVAM	Regional (Flemish Region)	Yes, excluding transit transports through Belgium	Yes, excluding transit transports through Belgium	40 of 400 (enforcement in port of Antwerp: 4)	high
BIM	Regional (Brussels region)	Yes, only in and out of the Brussels Region	Yes, only in the Brussels Region	1 of 56	high
Police services	Federal and local	No	Yes	Unknown	moderate
OWD	Regional (Walloon region)	Yes, only in and out of the Walloon Region	No, by DPE only in the Walloon Region	Unknown	unknown

This chapter mostly focuses on the regions of Flanders, because of its involvement in the IMPEL-TFS Seaport project. Besides, some information on the Brussels region is also mentioned.

2.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

Cooperation between national organisations

Operational working relations between above-mentioned organizations are:

- Joint enforcement activities between OVAM, FLI, police (and customs);
- Communication on technical points of view between OVAM, FLI, OWD and BIM;
- Forwarding of enforcement cases: e.g. whenever an illegal waste transport coming from Brussels is detected in Flanders (by police and/ or OVAM inspectors), the case will be forwarded to BIM for follow up.

The co-operation between regions (OVAM, BIM, OWD), federal government (FLI) and customs on enforcement actions is laid down in a covenant (which came into force in 1994). This covenant describes the division of powers of the concerned authorities: for example who will be responsible for enforcement in the different Belgian regions, who will handle transit transports, et cetera. This agreement also organises the joint follow-up of a team of ex-customs agents who are enforcing TFS-transports throughout Belgium.
This covenant is rather high level and it doesn't provide practical guidelines, but all enforcement actions are carried out within its context.

BIM participates with customs, federal environmental police, local police, shipping police, OVAM, OWD and the Federal Government.. BIM doesn't carry out any port inspections in Antwerp. They are responsible for follow-up of illegal transports originating from Brussels, but detected in Antwerp.

Cooperation with other countries

OVAM cooperates with enforcement representatives of other countries, mainly with The Netherlands, Germany and the United Kingdom. This cooperation is carried out in informal way (e.g. also by means of the IMPEL-TFS Seaport project). The cooperation is brought in practice, especially on subjects like:

- Communication of technical points of view;
- Joint handling and/or forwarding of specific cases (e.g. returning illegal shipments);
- Joint inspections.

2.4 LEGAL POWERS

OVAM

Enforcement actions are carried out by OVAM inspectors in main ports and companies, and along traffic axes in Flanders. These enforcement actions are always carried out in collaboration with federal (and local) police forces.

Inspections originate from administrative checks/selections and external signals/tips. The actual inspections are done by physical inspections, eventually followed by sampling of waste and analyses. In preparation of the inspections the OVAM primary relies on the consultation of documents and signals of others (police, other authorities, competitors, et cetera). Legal follow up action are being taken in those circumstances were the situation is not in accordance with the relevant legislation/permit in question. Shipments of waste can be returned as well.

BIM

Enforcement of the BIM activities is only carried out within the Region of Brussels. Like the OVAM, BIM also prosecutes inspections concerning transport and companies. BIM acts on signals of others or on registration. In contrast to OVAM, BIM carries out inspections mainly administrative and physical. Settlement is followed by criminal prosecution (trail booking is sent on to the public prosecutor) or administrative means, if the operation is not in accordance with legislation. Sanctions of BIM contain fines, return of shipments, withdrawal of permissions and administrative sanctions.

FLI

Enforcement of the FLI activities is only carried out in relation to transit of Waste through Belgium. FLI does have 12 people on the road daily to control passing transports. These 12 federal officers are also used by the regional authorities for doing transport control (cfr. covenant of 1994). On federal level, there is a law that is giving the competency for doing control and investigation.

Besides the section for supervision and control of shipments of waste (transit), FLI has two other sections, one for doing inspection on biocides for non-agriculture use and one for doing inspections on dangerous products and preparations.

Customs

Customs enforce waste transports passing through exit offices (seaports and Belgian frontiers). Customs can operate independently but rely on OVAM, BIM or OWD for technical advice. Apart from assistance over the telephone, OVAM and FLI officers carry out visual inspections of containers blocked by customs, if requested. Customs, OVAM and federal police in seaports sometimes carry out joint inspections. Especially the deployment of the customs' container scanner is important.

Exchange of knowledge

Information about company profiles and the type of information is registered in files/dossiers and in a digital system. The OVAM uses TFS forms for the registration. The registered information is provided for exchange of knowledge with FLI, BIM, OWD, DPE, police and customs, and other equivalent authorities in Europe. In practice the co-operation focuses on:

- Communication of technical points of view;
- Forwarding of specific cases (e.g. return of illegal shipments);
- Joint inspections.

Knowledge within the co-operating organisations is performed on ad hoc bases, case by case.

BIM does not specify the information system in the same detail, but register information about the owner, the carrier, destination, origin, waste material and quantities. This information is shared with others. Knowledge is exchanged with OVAM, OWD and the Federal Government.

FLI does use the same application as OVAM for storage information in relation to notification forms and tracking forms.

Tasks and qualifications

The involved organisations have a lot of qualifications for executing their enforcement task as presented in the following table. The table also indicates how often the qualification is actually used.

Qualifications	Extent of usage		
	Ovam	FLI	BIM
Open containers or shipments	Sometimes	Sometimes	Always
Carry out inspection	Sometimes	Sometimes	Always
Inspect documents	Always	Always	Always
Sampling	Sometimes	Sometimes	Sometimes
Analyses	Sometimes	Never	Never
Detain shipments for closer investigation	Always	Always	Sometimes
Block shipments	Always	Always	Always
Legal proceeding	Sometimes	Never	Always

OVAM, BIM and FLI are not qualified to stop someone or perform arrests; cooperation with police is needed in these circumstances. BIM only starts the procedure of enforcement, after information of different competent governments, such as the police or customs is gained. In these cases the cooperation proceeds into strict action. Legal follow up actions are initiated in those cases were violations are detected.

2.5 CURRENT DIFFICULTIES IN ENFORCEMENT

The OVAM experiences difficulties in the enforcement of the EC Regulation 259/93 with regard to:

- Lack of capacity;
- Lack of exchange of knowledge on national and international level; and
- Unclear definitions/misinterpretations of concepts.

BIM experiences also a number of difficulties as mentioned by OVAM, like:

- Lack of capacity;
- Lack of means;
- Vague legislation;
- Unclear definitions/ misinterpretations of concepts.

CHAPTER 3 Germany: Hamburg

3.1 PORT FACTS

Hamburg, located in the north-eastern part of Germany, is the most eastern Atlantic port and the most western in the Baltic area. The most important area served by container shipping is East Asia (over 51 per cent of the port's turnover is with ports in Asian countries) and the Far East. Around 60 per cent of cargo at Hamburg is imported. The imported goods consist for 45 per cent on raw materials, semi-finished products and agricultural products. Characteristics of the port of Hamburg are summarized in the table below.

Facts and figures Port of Hamburg (2002/2003[2])	
Surface area	7.399 ha
▪ Land	4.331 ha
▪ Water	3.068 ha
Containers throughput (TEU/year)	6.137.000
▪ Incoming	unknown
▪ Outgoing	unknown
Bulk goods (metric tons/year)	39.203.000
▪ Coal and ores	18.838.000
▪ Oil and chemicals	13.611.000
▪ Agribulk	6.754.000

Container checks have shown that large quantities of waste material are being exported from or via the port of Hamburg to Africa or Asian countries. Main destinations of these exports are China, Hong Kong, Taiwan, India, Ghana and Nigeria. In comparison, the export of waste material to Baltic States can be neglected, with the exception of destinations like Lithuania and Latvia[2].

3.2 INVOLVED ORGANISATIONS

The following table shows the organisations, which are involved in the enforcement of the EU Regulation 295/93 in the port of Hamburg.

[2] Sources: Port of Hamburg Handbook 2002/2003; www.hafen-hamburg.de

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
UBA	National	Yes	No	6 of ?	High
BMF / Custom	National / Regional	No	Yes	1 of 13 *	High to Good
BMVBW / BAG	National	No	Yes	Unknown	Unknown
BFI / WSPF 21	(City-)State	No	Yes	2 of 34 **	High
BSU	(City-)State	Yes	Yes	2 ½ of 50 ***	High

* Part of the Custom for the Port of Hamburg
** WSPF 21
*** Waste Management Department of the BSU

Execution of the Regulation in general

The execution of the EC Regulation 259/93 in the Federal Republic of Germany is the task of the (16) Federal States of Germany. The responsibility for measures in connection with cross border transports of waste material, is subject to the authority of that particular Federal State in which the transport is started or in whose competence area the waste material is first stored or treaded.

The Federal Environmental Protection Agency (UBA)

The Federal Environmental Protection Authority in Berlin (*Umweltbundesamt*) is the competent authority to handle transit transport of waste materials through the Federal Republic of Germany and is the "National Focal Point" of the BASEL Convention.

The Federal Ministry of Finance (BMF)

Part of the Federal Ministry of Finance Authority is the Custom Administration. The regional custom office notify the relevant competent authority, if a suspicion of an offence against prohibition and restriction occurs.

The Federal Ministry of Transport, Building and Housing (BMVBW)

The Federal Goods Authority (BAG) is part of the Federal Ministry of Transport, Building and Housing and fulfils administrative tasks and others for the Federal Government concerning goods traffic.

The State Ministry of Interior of Hamburg (Bfl)

One of the biggest part of the Interior Authority of Hamburg is the police force. The Waterway protection police department (WSPF 21) has the responsibility for handling environmental infringements in the territory of Hamburg.

The State Ministry of Urban Development and Environment of Hamburg (BSU)

The Waste Management Department of the State Ministry of Urban Development and Environment of Hamburg has the local responsibility for art. 2 (d and c) of EU Regulation 259/93. One of the main tasks is granting permissions for export and imports for notified waste, which have occurred within their area of competence or which shall be disposed of. Waste transports across frontiers, which are made by the port cities only for logistic reasons, are also being monitored and controlled.

3.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

Cooperation between national organisations

The Waste Management Department of the BSU cooperates with the WSPF 21 (police) and the local custom on an informal base. If necessary they give support to other competent authorities, for example when waste (for which other authorities are responsible) has stopped in the port of Hamburg. Since recently they are involved with the consultation of the new European Waste Shipment regulation at the EU Council (and communicate about this to all the Federal States).

Cooperation with other countries

Cooperation with competent authorities of other countries is established and tended for granting notifications. Furthermore deeper cooperation has been established inside the framework of the IMPEL-TFS, moreover with Belgium, VROM (NL), UK and Hong Kong. It is brought into practice by exchanging information and giving support for returns of illegal shipments.

3.4 LEGAL POWERS

Main Customs Office for the Port of Hamburg

The Main Customs Office for the Port of Hamburg is part of ZAPP, a data exchange system for monitoring all export data of the port of Hamburg. There they can search for all kind of goods and more, also for certain waste streams, which is done on a regular base.

The Waterway protection Police Department of Hamburg (WSPF 21)

This organization maintains is in charge for handling all environmental infringements in the territory of Hamburg. This covers technical investigations of shipment, industrial area and the transport of dangerous goods on road and rail. The supervision of waste material transports across frontiers is a particular focus since the EC Regulation 259/93 has come into force.

Controls of waste material transports take place regularly, which contain checks of container spots as well. The controls are carried out in close cooperation with abovementioned authorities and in cooperation with the port of Hamburg. If the inspection concludes suspicious factors indicating that loads could contain waste material, the export is prohibited for the time being, and investigations concerning type and composition as well as origin of the waste material are taken up.

The police and the Waste Management Department of the BSU are informed by the customs office about transports brought into the Free(trade)port with suspicion that the loaded goods contain waste material. Further, the police are permanently kept informed concerning large-scale environmental criminal offences. The federal Office of Criminal Investigations exchanges information throughout the whole Federal Republic of Germany regarding these issues.

The Federal Goods Transport Authority (BAG)

This authority fulfils administrative tasks for the Federal Government concerning goods traffic. The Federal Authority carries out also control on motorways and federal roads. These controls are applied to both German and foreign vehicles. Besides offences against the

legal provisions concerning transport of dangerous goods and regulations of the driving personnel, offences against the waste material legislation is also punished.

Tasks and qualifications

The involved organisations have legal powers for executing their enforcement task as presented in the following table. The table also indicates how often they use it.

Qualifications	Extent of usage	
	WSPF 21	BSU
Open containers or shipments	Quite often	Sometimes together with WSPF 21
Carry out inspection	Quite often	Sometimes together with WSPF 21
Inspect documents	Always	Sometimes
Sampling	Sometimes	Sometimes
Analyses	Sometimes	Never or give it outside
Detain shipments for closer investigation	Sometimes	Never
Block shipments	Sometimes	Sometimes
Legal proceeding	Sometimes	Seldom administrative measures

Only after gaining information of other competent authorities (police or customs) the BSU starts the procedure of enforcement. In these cases the cooperation proceeds into strict action.

3.5 CURRENT DIFFICULTIES IN ENFORCEMENT

The Waste Management Department of the BSU experiences the following difficulties in the enforcement of EU Regulation 259/93:

- Unclear legislation;
- Sometimes lack of cooperation with other organisations;
- Lack of national/international exchange of knowledge;
- Unclear definitions/misinterpretations of concepts.

CHAPTER 4 Latvia: Riga

4.1 PORT FACTS

The Freeport of Riga is located in the Gulf of Riga and in the Daugava River delta. The Freeport of Riga and Ventspils are operating as so called 'Freeports' for almost 10 years. Companies working in Freeports can receive up to 80% tax discount. 80% of the cargo turnover in the Freeport of Riga is transit freight to and from CIS. Main types of cargo handled in the Freeport are containers, various metals, timber, coal, fertilizers, chemical cargoes, oil products and food.

Some general characteristics of the Freeport of Riga are summarised in the table below.

Facts and figures Freeport of Riga[3]	
Total quayside Land Water	7300 ha 2500 ha 4800 ha
Surface area ▪ Warehousing capacity ▪ Open storage	2590 ha 800 ha 2500 ha
Containers throughput (TEU/year)	146.000
Bulk goods (metric tons/year) ▪ Dry bulk ▪ Liquid ▪ General Cargo	21.722.000 9.801.000 5.045.000 6.876.000
General Cargo	6.876.000

4.2 INVOLVED ORGANISATIONS

In the following table the involved organizations are presented, together with general characteristics on their tasks and competencies, number of employees and their knowledge level with regard to waste shipment regulation.

[3] Source: www.rop.lv

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
Ministry of Environment	National	Yes, for transboundary movements of waste	Yes, legal responsible body	1 of 7	high
Environmental State Inspectorate	National	No	Yes, excluding transport within EC	1 of 7	high
Lielriga Regional Environmental Board (7)	Regional	Yes, for waste transport and treatment in Latvia	Yes, excluding transport within EC	2 of 13	moderate
Marine Environment Board	National (only at sea and in seaports)	No	Yes, excluding transport within EC (only at sea and in seaports)	1 of 7	moderate

- The Ministry of Environment is the legal competent authority of Latvia for application for transboundary waste shipment permits;
- The Environmental State Inspectorate (ESI) carries out IMPEL policy in Latvia;
- The 7 Lielriga Regional Environmental Board (LREB) issues permits for waste transport and treatment in Latvia. They are responsible for practical enforcement such as inspections and follow up actions in case of violations;
- The Marine Environment Board (MEB) carries out marine environment protection of the sea and its geographical responsibility area is Latvian EEZ and territorial waters, harbour aquatoriums, ships and seafaring facilities, artificial islands, facilities and other constructions in the Latvian waters. They are (together with the Regional Environmental Board) responsible for practical enforcement such as inspections and follow up actions in case of violations.

4.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

Cooperation between national organisations

The Ministry of Environment and Regional Environmental Boards work in close co-operation before issuing a permit for transboundary movement of waste. The ministry, regional boards and customs work in close co-operation with each other in order to clarify and investigate suspicious cases. After issuing a permit the Regional Environmental Board works in close cooperation with the Environmental State Inspectorate.

During enforcement activity the following authorities cooperate:

- Regional Environment Board;
- Environmental State Inspectorate;
- Marine Environment Board (for the port areas);
- Customs;
- Traffic Police.

Cooperation with other countries

The Environmental State Inspectorate cooperates with its counterpart in Sweden and Denmark. The Marine Environment Board has the explicit opinion that cooperation with other countries is the responsibility of the ministry of Environment of Latvia.
The Custom operates with its counterparts in Russia and other Baltic states; specific agreements are made for this cooperation.

4.4 LEGAL POWERS

Exchange of knowledge

The participating organizations haven't made clear how information is shared. The Marine Environment Board suggest that practical working methods during inspections would improve the level of knowledge. Both the Environmental State Inspectorate and Customs suggest that the knowledge level about the enforcement of EU regulation 259/93 for transfrontier shipments of waste should be improved.

Tasks and qualifications

None of the operating organizations carry out inspections on an active bases. The operating organizations have a lot of qualifications for executing their enforcement task as presented in the following table. The table also indicates how often the qualification is actually used.

Qualifications	Extent of usage		
	Lielriga Regional Environmental Board and Marine Environment board (in seaports)	Environmental State Inspectorate	Custom of Riga
Stop someone	Never	Sometimes	Always
Open containers or shipments	Never	Sometimes	Always
Carry out inspection	Sometimes	Always	Always
Inspect documents	Sometimes	Always	Always
Sampling	Sometimes	Sometimes	Sometimes
Analyse	Sometimes	Sometimes	Sometimes
Detain shipments for closer investigation	Never	Sometimes	Always
Block shipments	Never	Never	Always
Arrest	Never	Never	Sometimes
Legal proceeding	Sometimes	Always	Always

4.5 CURRENT DIFFICULTIES IN ENFORCEMENT

The operating organizations experience a number of difficulties during the enforcement of EU regulation 259/93. Latvia joint the EU in May 2004. The regulations are relatively new for both Latvia and Poland. The difficulties mentioned must be reviewed in context to the inexperience with the regulation.

The Lielriga Regional Environmental Board and the Marine Environment Board experiences mainly:

- Lack of capacity;
- Lack of means;

- Lack of knowledge.

For the MEB enforcement of EU Regulation 253/93 is a new task, which has been assigned by the Ministry of Environment in the frames of the IMPEL-TFS project. Therefore they believe to have less knowledge, capacity and expertise in this field than other EU countries. They experience that lack of technical means and international cooperation is also a set back.

The environmental State Inspectorate experience difficulties in a broader scope:
- Lack of means;
- Vague definitions/ misinterpretations of concepts.

Custom of Riga experiences difficulties as a result of:
- Lack of means;
- Lack of knowledge;
- Lack of exchange of knowledge national/international.

During the project (may 1st 2004) Latvia has become a Member State of the European Commission. Formally Latvia could not apply the EU Regulation 259/93 until accession to the EU. Therefore, the information provided in the questionnaire refers to currently binding system of supervision and control, based on relevant Latvian legislation.

CHAPTER 5 Netherlands: Rotterdam

5.1 PORT FACTS

The Port of Rotterdam is the largest European container transport harbour and one of the world's most important junctions when it comes to traffic of goods. The growth in container transhipment in Rotterdam is largely due to the increase in container traffic between Western Europe and Asia. Forty percent of all container traffic via Rotterdam either originates from or is destined for an Asian port and mainly to Singapore. Short sea shipping is dominated by shipment to the United Kingdom.

The characteristics of the port of Rotterdam are summed up in the table below.

Facts and figures Port of Rotterdam (2002[4])	
Total quayside	80 km
Surface area ▪ Commercial sites ▪ Water and (rail)roads	 10.500 ha 3.500 ha
Containers throughput (TEU/year) ▪ Incoming ▪ Outgoing	6.515.000 3.288.000 3.277.000
Bulk goods (metric tons/year) ▪ Coal and ores ▪ Oil and chemicals	239.400.000 83.400.000 155.900.000
General Cargo (metric tons/year)	82.700.000

5.2 INVOLVED ORGANISATIONS

In the following table the involved organizations are presented, together with general characteristics on their tasks and competencies, number of employees and their knowledge level with regard to waste shipment regulation.

[4] Sources: Port Statistics 2002; Rotterdam Municipal Port Management knowledge center Port and Industry; published 2003. And www.portofrotterdam.com

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
VROM inspectorate region South West	National	No	Yes	8 of 110	high
IMA	National	Yes	No	6	high

The VROM Inspectorate is part of the Ministry of Housing, Spatial Planning and Environment (VROM). In total the VROM-Inspectorate has over 750 employees. About 40 employees, divided over the 5 regions, are entrusted with the management and enforcement of the Regulation 259/93. The region South-West includes the Port of Rotterdam.

The IMA (international report point for waste materials) works in assignment of the policy department SAS of the VROM inspectorate. SAS is the authority that formally grants permissions for shipments in the framework of EU Regulation 259/93.

5.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

Cooperation between national organisations

The VROM Inspectorate cooperates with environmental specialists at customs, the police and the Traffic Inspectorate of the ministry of Traffic and Waterworks. The cooperating organizations exchange information on a structural and on case-by-case bases. Most of these people are trained for the enforcement of Regulation 259/93. Part of this training is given by the Ministry of VROM. The total number of specialists in The Netherlands is about 150.

The following numbers of specialists work in the port of Rotterdam.

Specialists in the port of Rotterdam	Number
Customs	8
Police	2
Harbour Police	3
Railroad Police	2
Traffic Inspectorate	2

Those specialists function as contact person for the VROM-Inspectorate for their organisation. The tasks of these specialists with regard to enforcement of the Regulation 259/93 are as follows:

- Train and support their colleagues;
- Make a first selection of shipments;
- Carry out a first physical inspection or second opinion together with their own colleagues.

The cooperation is formalised in an agreement and brought in practice via joint inspections. The VROM-Inspectorate gives support to customs and police officers. Only in simple cases Customs and Police carry out criminal enforcement actions by their selves. In some other cases they contact the VROM-Inspectorate and handle the case over to the VROM

Inspectorate. Administrative enforcement actions are always taken by the VROM-Inspectorate.

Cooperation with other countries

Cooperation with other countries exists on voluntary base, mostly with Belgium and Germany. Within the framework of IMPEL-TFS cooperation is also established with important other countries, like other European and Eastern Asia[5] countries. International cooperation is brought in practice by exchanging information and giving support with returns of illegal shipments. This cooperation is carried out on informal bases.

5.4 LEGAL POWERS

The VROM Inspectorate South West is actively carrying out transport inspections and company inspections. The reason for inspections is mostly originating upon signals of others. The inspection does not operate on selection or registration of organizations and transports (preventive operation).
In preparation of the inspections the VROM Inspectorate relies on consulting documents and having contact with other competent authorities, like provinces and municipalities. The actual inspections are done by administrative and physical checks, sometimes followed by sampling and analyses of waste.
If the given situation is not in accordance with the legislation in general or the given permit, criminal prosecution and administrative measures follow. Sanctions that are given when operating in conflict with the legislation are return of shipments, legal penalties or administrative sanctions. The Inspectorate can withdraw given permissions, but this sanction is not often used.
The results of inspections are registered in the VROM Inspectorate database.

Tasks and qualifications

The VROM Inspectorate South West has qualified personnel for executing their competences in enforcement tasks. The table also indicates how often the competences are actually used.

Qualifications	Extent of usage
Stop a vehicle for inspection	Sometimes
Open containers or shipments	Always
Carry out inspection	Always
Inspect documents	Always
Sampling	Sometimes
Analyse	Sometimes
Detain shipments for closer investigation	Always
Block shipments	Sometimes
Legal proceeding	Always

5.5 CURRENT DIFFICULTIES IN ENFORCEMENT

The VROM Inspectorate experiences the following difficulties in the enforcement of EU Regulation 259/93:

- Unclear legislation;

[5] Another project that is currently carried out under the umbrella of IMPEL-TFS is the TFS-Asia project. Within this project information is exchanged and cooperation is established on TFS shipments with Asian countries.

- Lack of cooperation with other organizations (mostly international);
- Lack of national/international exchange of knowledge;
- Unclear definitions/misinterpretations of concepts.

CHAPTER 6 Poland: Gdansk

6.1 PORT FACTS

The Port of Gdansk is situated at the intersection of the principal European transport routes, providing the most convenient connection between both Central and Eastern Europe and Scandinavia as well as between Western and Eastern Europe. Additionally, for countries such as the Czech Republic, Slovakia, Ukraine, the Belarus Republic and Hungary, the Port of Gdansk provides easy access to the Baltic Sea.

The characteristics of the port of Gdansk are summed up in the table below.

Facts and Figures Port Gdansk[6]	
Total quayside	10 km
Surface area Commercial sites Water and (rail)roads	662 ha 654.000 m2 unknown
Containers throughput (TEU/year) Incoming Outgoing	18.000 unknown unknown
Bulk goods (metric tons/year)	15.307.000
General Cargo (metric tons/year)	1.236.000

6.2 INVOLVED ORGANISATIONS

In the following table the involved organizations and their authority is presented, together with general characteristics on their tasks and competencies, number of employees and their general knowledge level with regard to waste shipment regulation.

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
Chief Inspectorate for Environmental Protection	National	Yes	Yes	9	high
Regional Inspectorate for Environmental Protection (*Voivodship*)	Regional	No	Yes	Differences occur between Inspectorates	moderate

[6] Source: Port Gdansk ; towards universality ; port of Gdansk Authority Co; and www.portgdansk.pl

Regional Inspectorates (*Voivodship*) are in general responsible for all inspection activities. The Regional Inspectorates carry out inspections of transboundary waste shipments quite frequently through planned or ad hoc controls.

6.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTRIES

Cooperation between national organisations

The Inspectorate for Environmental Protection cooperates with customs, Border Guard, and the Inspection of Road Transport. The cooperation with the "Inspection of Road Transport" has a form of official agreement. (cooperation covenant).

Cooperation with other countries

Poland cooperates with every country that needs or requires such cooperation, and is carried out on informal bases. Official cooperation in the field of transboundary waste shipments has been established with Germany. This cooperation is brought into practise by organising annual meetings of Polish-German Working Group on Waste. During these meetings not only implementation of environmental law but also particular enforcement problems are usually discussed

6.4 LEGAL POWERS

The Inspection for Environmental Protection actively carries out inspections, which solely concern company inspections. The inspections are initiated upon:

- Selection (preventive measures);
- External signals;
- Annual plans prepared by the Chief Inspectorate.

The Inspectorate does not carry out transport inspections.

In preparing the inspections, the Inspectorate for Environmental Protection relies on consulting documents. Third parties are not consulted actively. Inspections contain administrative and physical checks, sometimes followed by waste sampling and analyses.

The Inspectorate for Environmental Protection can initiate criminal prosecution or administrative measures if the actual situation is not in accordance with the legislation or particular permits given. Other sanctions that can be applied are:

- Return of illegal shipments;
- Withdrawal of permissions;
- Financial penalties.

Exchange of knowledge

Information on permissions that have been granted is registered in the Chief inspectorate for Environmental Protection and may be obtained by other authorities on their request (which is quite frequently the case, especially requests coming from customs and border guard).

Tasks and qualifications

The Inspection for Environmental Protection has a number of qualifications and competences for executing their enforcement task with regard to waste shipment regulations. The table also indicates if these competencies are actually used.

Qualifications	Extent of usage
Stop a vehicle for inspections *	Sometimes
Open containers or shipments	Sometimes
Carry out inspection	Always
Inspect documents	Always
Sampling	Sometimes
Analyse	Sometimes
Detain shipments for closer investigation	Sometimes
Arrest	Never
Legal proceeding	Never

* only in case of joint actions with Inspection of Road Transport

Besides the above mentions qualifications, the Inspectorate for Environmental Protection is also qualified to impose administrative penalties.

6.5 CURRENT DIFFICULTIES IN ENFORCEMENT

The Inspectorate for Environmental Protection experiences a number of difficulties during the enforcement of waste shipment regulation. Poland will join the EU in May 2004. The regulations are relatively new for both Poland and Latvia. The difficulties mentioned must be reviewed in context to the inexperience with the regulation. The difficulties as mentioned are:

- Lack of capacity;
- Unclear definitions/ misinterpretations of concepts.

During the project (May 1st 2004) Poland has been integrated into the European Commission. Formally Poland could not apply the EU Regulation 259/93 until accession to the EU. Therefore, the information provided in the questionnaire refers to currently binding system of supervision and control, based on relevant Polish legislation (Act on Waste).

CHAPTER 7 United Kingdom: Felixstowe

7.1 PORT FACTS

The Port of Felixstowe is the largest container port in the United Kingdom. The port is currently undergoing a significant expansion (5 times the size they were 25 years ago). Felixstowe Port is a member of the Hutchison Port Holdings (HPH) Group, a wholly owned subsidiary of the multinational conglomerate Hutchison Whampoa Limited (HWL). Every continent is served by deep-sea services calling at Felixstowe and short sea operators. The latter ones use the Port to connect countries from Portugal up to Finland, Russia and the Baltic region.

The characteristics of the Felixstowe Port are summed up in the table below.

Facts and figures Port of Felixstowe[7]	
Total quayside	4 km
Surface area Commercial sites Water and (rail)roads	- - -
Containers throughput (TEU/year) Incoming Outgoing	2,800.000 - -
Bulk goods (metric tons/year) Coal and ores Oil and chemicals Containers	- - - -
General Cargo (metric tons/year)	-

Felixstowe is the point of export for much of the UK's 'mixed' wastes.

7.2 INVOLVED ORGANISATIONS

In the following table the involved organizations are presented, together with general characteristics on their tasks and competencies, number of employees and their knowledge level with regard to waste shipment regulation.

[7] Source: www.havengateway.org

Organisation	Level	Grant permission	Enforcement Authority	No. employees EC regulation	Knowledge level
The Environment Agency (TFS Centre *)	National	No	No	12 of 9000	high
The Environment Agency (Local office **)	Local Level	Yes	Yes	4	moderate

The Environment Agency was established by the Environmental Act of 1995. In total 9.000 employees work for the Environment Agency, which makes it the largest environmental organisation in Europe. The Environment Agency operates throughout national centres on a national level. The employees who work in these centres are experts on specific subjects e.g. flood warning, hazardous substances and transfrontier shipments of waste.

* The TFS National Service, based at Warrington in North West England, acts as a focus for the Agency's role as Competent Authority. It provides technical and administrative support to other Agency staff, external customers (such as industry) and allows for effective links with other Competent Authorities (regulators) working in the UK (such as the Scottish Environmental Protection Agency and the Northern Ireland Department of Environment) and overseas. It also carries out the reporting obligations under the Waste Shipments Regulation and acts as a focal point for the Agency's enforcement of TFS.

** The area offices are responsible for technical assessment of the notifications monitoring. Responsibility for enforcement at Felixstowe is delegated to the 'Environment Management' Teams based at the Agency's Ipswich office, these teams also have many other enforcement and other duties. Currently only two or three officers have any experience in this area of enforcement, largely as a result of this project. This situation is being reviewed.

7.3 COOPERATION BETWEEN NATIONAL ORGANISATIONS AND OTHER COUNTIES

Cooperation between national organisations

The Environment Agency has developed some co-operation locally with Her Majesty's Customs & Excise. The co-operation is not formalised, but is a local arrangement between the Agency's local office and Customs at Felixstowe. It is hoped that in future a Memorandum of Understanding may be developed between the two organisations.

Cooperation with other countries

Co-operation with other countries exists with Scotland and Northern Ireland, specifically the Scottish Environmental Protection Agency and the Northern Ireland Department of Environment, acting as competent authorities in their areas. The co-operation takes the form of regular meetings and working relationships or specific projects. The co-operating organisations share limited intelligence in order to exchange information.

7.4 LEGAL POWERS

The Environment Agency actively carries out port inspections at Felixstowe, but largely as a result of this project. The reason for inspection mostly relies:

- Selection of waste exports through examination of Customs data
- Intelligence from colleagues and also Customs

The actual inspections are done by administrative and physical checks followed by sampling of waste. If the inspected waste export is not in accordance with the legislation, then the shipment will be blocked. Sanctions available include return of the waste and following a full investigation, prosecution may result.

Tasks and Qualifications

The Environment Agency has limited competencies for executing their enforcement task at Felixstowe. In the following table the qualifications are presented. The table also gives an insight in how frequent the competence is used.

Qualifications	Extent of usage
Stop a vehicle for inspection	Never
Open containers or shipments	Sometimes
Carry out inspection	Sometimes
Inspect documents	Sometimes
Sampling	Sometimes
Analyse	Never
Detain shipments for closer investigation	Sometimes
Block shipments	Sometimes
Arrest	Never
Legal proceeding	Sometimes

7.5 CURRENT DIFFICULTIES IN ENFOCEMENT

The Environment Agency experiences difficulties in the enforcement of EU Regulation 259/93, and these are summarised below:

- Lack of capacity – the Environment Management teams technically responsible for TFS enforcement work at Felixstowe are not dedicated for TFS work, but have many other priorities such as regulation of waste management facilities and responding to reports of pollution incidents. TFS enforcement work is not necessarily seen as high priority. As the profile of this work is raised, it is hoped that its priority compared with other work will also be raised and greater resources released.
- Lack of knowledge – although knowledge of TFS issues in the small national team is high, at local level knowledge and experience of this work is very low and this highlights a need for training.
- Vague legislation – the TFS legislation is considered to be somewhat complex; the domestic UK legislation – the Transfrontier Shipment of Waste Regulations 1994 is clearer especially regarding criminal offences, but this still makes references to EU Regulation 259/93.
- The project has highlighted the need for much better co-operation between the Environment Agency and HM Customs & Excise, possibly in the form of a formal

Memorandum of Understanding – this would be a national agreement and assist with enforcement work at ports other than Felixstowe.

- Lack of exchange of knowledge national/ international – again the project has highlighted the importance of the exchange of intelligence between colleagues within the Environment Agency, between organisations and also countries;
- Vague definitions/ misinterpretations of concepts – there appears to be some differences of opinion in the interpretation of the Waste Shipment Regulations by different member states, largely as a result of some of the vague definitions given. This would be greatly improved by a new clearer set of Regulations.

COLOPHON

CLIENT:

VROM Inspectorate, The Netherlands

STATUS:

Final project report, June 2003 – May 2004

AUTHORS:

Ms Angela van Heeswijk ARCADIS
Ms Amy Oerlemans ARCADIS
Mr Charles Nijssen ARCADIS

CHECKED AND APPROVED BY:

Mr Charles Nijssen ARCADIS

RELEASED BY:

Ms Nancy Isarin VROM Inspectorate

June 2004
110643/CE4/0K3/000284

ARCADIS Ruimte & Milieu BV
Beaulieustraat 22
P.O. Box 264
6800 AG Arnhem
The Netherlands
Tel +31 26 3778 899
Fax +31 26 4457 549
www.arcadis.nl