
THE UNITED STATES' ENFORCEMENT APPROACH TO THE EXPORT AND IMPORT OF HAZARDOUS WASTE

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SUMMARY

This paper provides an overview of the United States' hazardous waste import/export enforcement program administered by the Environmental Protection Agency (EPA). The paper explains the internal workings of the U.S. import/export system and presents it as one example of how nations may use their own laws and interagency cooperation to build a national enforcement program that will deter illegal transboundary shipments of hazardous waste.

The United States Government (U.S.) supports a strong national enforcement program to deter illegal transboundary shipments of hazardous waste. In order to detect illegal shipments of hazardous waste, the U.S. program is based upon an effective notification and tracking system and an enforcement system that includes inspections and civil and criminal enforcement sanctions and penalties. It also seeks to maintain effective international cooperation, communication and outreach in technical, legal and enforcement areas.

The U.S. model of detection and cessation of illegal waste traffic is based on six elements: an effective statutory and regulatory program; domestic interagency cooperation; international cooperation and outreach; compliance assistance; compliance monitoring; and effective enforcement response. Each of these elements is discussed in detail below. Finally, the author reflects on some future challenges for the U.S. in improving and updating its import/export enforcement and regulatory system.

1 INTRODUCTION

In the past three years, approximately .1 percent of all regulated hazardous waste generated in the U.S. was legally exported. However, this small percentage totaled 137,000 tons of waste in 1990 and 1991 and 146,000 tons in 1992. Ninety-eight percent of exported waste went to Canada and Mexico. Mexico received approximately 49 percent of the waste, all of which was in the form of baghouse dust from the steel industry. This waste was shipped to a facility in Monterrey, Nuevo Leon, Mexico for recycling. The 51 percent that was shipped to Canada went to a variety of facilities for recycling or treatment and disposal. In addition to Canada and Mexico, ten other countries received hazardous waste from the U.S. (See Tables 1 and 2). EPA does not maintain a national database on hazardous waste imported into the U.S. at this time and thus does not have statistics on types, quantities or sources.

2 STATUTORY AND REGULATORY PROGRAM FOR CONTROLLING HAZARDOUS WASTE IMPORT AND EXPORT

2.1 Statutory authority

In 1984 the Hazardous and Solid Waste Act Amendments (HSWA) added Section 3017 to the Resource Conservation and Recovery Act (RCRA). Section 3017 states that, "no person shall export any hazardous waste...unless...the government of the receiving country has consented to

Table 1. Summary of Hazardous Waste Exports by Receiving Country Based on Annual Reports Received by EPA through December 31, 1993

Receiving Country	1992*	1991	Waste Exported in Tons**		Total (89-92)*
			1990	1989	
Belgium	30	350	168	254	802
Canada	72,303	77,197	92,099	104,135	345,734
Finland	476	2,162	2,631	2,138	7,407
France	78	43	355	0	476
Germany	0	0	401	474	875
Japan	51	32	238	131	452
Korea	61	0	0	0	61
Mexico	72,178	57,095	39,209	28,101	196,583
South Africa	0	0	0	23	23
Sweden	224	266	280	178	948
The Netherlands	200	0	0	0	200
United Kingdom	289	173	1,289	5,657	7,408
Totals	145,890	137,318	136,670	141,091	560,969

* The 1992 value is calculated from Annual Reports submitted by 1992 Exporters and received by 12/31/93.

** Volumes are converted to tons, and for most countries except Canada, are based on actual weights reported in the Annual Reports. For Canada, about 30 percent of total volume is based on approximate conversions from reported gallons or cubic yards.

accept such hazardous waste." This requirement seeks to assure informed consent prior to the export of U.S. hazardous waste to another nation.

2.2 Regulatory Program

2.2.1 Requirements of export/import regulations

In August 1986, EPA promulgated regulations to implement RCRA Section 3017. These regulations create a system to track waste from its generation in the U.S. or abroad, through its internationally sanctioned movement, to its legally authorized acceptance by a foreign facility or for final disposal in the U.S.

The export regulations (40 CFR §262.50) (1) outline a process for: providing notification of intent to export; requiring government to government communication to obtain the receiving country's consent, awaiting acknowledgement of a receiving country's consent to the shipment; accompanying manifests with acknowledgement of consent documents; delivering manifest copies to U.S. Customs Service at the point the waste leaves the U.S.; filing exception reports if receipt of the waste is not confirmed by the receiving facility; filing annual reports summarizing amounts and types of waste exported for the preceding year; and maintaining records of exports on-site for government inspection. Primary exporters (including intermediaries arranging for the movement of waste) must comply with these requirements.

The import regulations (40 CFR §262.60) establish a process to assure compliance with domestic manifest requirements modified for the foreign generator (40 CFR §262.20(a)). Additional importer requirements (40 CFR §§265.12(a) and 264.12(a)) require U.S. treatment, storage or disposal facilities to notify the EPA or authorized states at least four weeks before receiving waste from a

Table 2. List of Receiving Countries and Number of Corresponding Letters of Intent to Export Received by EPA. From 1990 through 1993. From the NEIC HW Export Database.

Receiving Country	Number of Notifications to Export			
	1993	1992	1991	1990
Belgium	3	4	5	4
Bolivia			1	
Canada	496	386	375	375
China	1		2	2
Finland	1	4	22	1
France	5	7	3	4
Germany	3	1	4	5
India				1
Italy			2	
Japan	3	6	5	3
Korea		2		1
Mexico	15	19	11	20
Sweden	4	1	1	1
The Netherlands		1		
United Kingdom	10	6	8	19
Venezuela			1	
Totals	541	437	440	436

foreign source. Special requirements promulgated under Section 6(e) of the Toxics Substances Control Act (TSCA) ban the import or export of wastes containing polychlorinated biphenyls (40 CFR §761.20) in concentrations greater than 50 ppm. Under the law, people can petition for an exemption from this prohibition. Exemptions are granted if EPA finds no unreasonable risk to health or environment and that the petitioner has made good faith efforts to find safe substitutes for PCB's.

2.3 Bilateral and multilateral requirements

The U.S. is a party to bilateral agreements with Canada and Mexico, and also maintains multilateral agreements governing transboundary shipments of hazardous waste. Notification and consent requirements are specified in the Mexican and Canadian bi-lateral agreements. The Organization for Economic Cooperation and Development (OECD) Council Decision for the Transboundary Movement of Hazardous Wastes for Recovery Operations also requires prior notice and consent by competent authorities of foreign governments. The OECD decision sets out a three-tier system (Red, Amber and Green) for the handling of hazardous and non-hazardous waste. The Red tier is for hazardous waste that requires written consent or objection to transboundary movement. The Amber tier includes hazardous and non-hazardous waste that may move under tacit consent. The Green tier includes non-hazardous waste, which can also move under tacit consent.

When notifications of intent to import are received at EPA, they are reviewed for completeness and conformance to the applicable agreements, entered into a database, and forwarded to the EPA's Regional office for review of the importing facility's permit status and enforcement history. If the U.S.

has no objection to the import, the shipments may go forward under tacit consent after 30 days have lapsed, or with written consent as required by OECD for Red tier wastes, or when the exporting country expressly requires written response.

2.4 Enforcement tools for hazardous waste import/export

Strong enforcement mechanisms help ensure compliance with the regulations and provide a deterrent to illegal waste traffic. EPA employs its strong criminal enforcement authorities, supplemented with civil judicial and administrative enforcement capabilities, to provide the necessary flexibility in responding to illegal traffic.

EPA has undertaken most of the import/export enforcement actions to date after detecting violations of the documentation requirements (e.g., failure to submit an annual report, manifest violations, etc.). Documentation violations may be an indicator of serious hazardous waste management problems at a facility. EPA may verify a facility's compliance by conducting follow-up inspections. These inspections can be used to examine contracts with foreign facilities and manifests of imported or exported waste and may reveal failures to notify EPA of an import or export.

The EPA enforces statutory, regulatory and international requirements concerning hazardous waste using the authorities of RCRA, TSCA, and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

2.4.1 RCRA Enforcement Authority

EPA can initiate administrative or civil judicial enforcement actions to seek penalties of up to \$25,000 per day per violation under the authority of RCRA Section 3008(a). This section also provides authority to issue compliance orders, initiate civil actions for injunctive relief, and suspend or revoke any RCRA permit issued by the federal government or by a state. For criminal violations, EPA may seek up to \$50,000 per day per violation or up to five years imprisonment for specified violations.

2.4.2 RCRA Inspection Authority

EPA can enter, inspect, copy records of, and obtain samples from facilities that handle hazardous wastes, including generators, under the authority of RCRA Section 3007. EPA also has the authority to require persons to furnish information regarding the waste they have handled and delineates the availability of such information to the public.

2.4.3 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

In special circumstances the emergency removal authority of CERCLA Section 107 (also called Superfund) has been used to ensure proper disposal of drums that have been illegally exported and returned to the U.S. by the receiving company. CERCLA allows EPA to take direct action to remove hazardous substances which pose a threat of release to the U.S. environment and recovery costs from responsible parties; or to require the responsible parties to take action in the first instance. CERCLA's emergency removal authority does not apply to environmental threats outside of the territorial waters of the U.S., thus it is limited to facilitating disposal of waste once returned to the U.S.

3 DOMESTIC INTERAGENCY COOPERATION

3.1 Communication on import/export notification

The EPA's Office of Waste Programs Enforcement, RCRA Enforcement Division, is named as the competent authority for processing import and export notifications. The EPA personnel who process the notifications for the export or import of hazardous waste review submittals of notifications for any outstanding inconsistencies or deficiencies. The review may include: verification of the type and the volume of waste to be exported/imported, the existence of a receiving facility in the importing country, confirming that the receiving facility is permitted, and obtaining consent from the receiving country.

EPA Headquarters and Regional import/export coordinators keep each other informed of shipments and facilities which could pose potential environmental threats and of importers, exporters, transporters, and brokers who may be subject to enforcement action due to their import/export activities through regular conference calls and periodic conferences. Regional criminal enforcement staff contact Headquarters for information on facilities which have notified of their intent to export in order to determine whether there are potential violations or criminal activity taking place.

EPA may contact the U.S. Department of State and U.S. Embassy in the importing or exporting country for assistance in processing the notifications and verifications. For example, EPA Headquarters recently received a notice of intent to export submitted by a U.S. entity serving as a potential broker for numerous wastes from unidentified generators shipping to a non-existent facility in a developing country. The State Department was alerted and the notice was denied because it did not provide the required information under the RCRA export regulations.

3.2 Communication and cooperation on compliance monitoring and enforcement

Congress, in 18 U.S.C. 3063, gave EPA the primary responsibility for assuring compliance with the environmental statutes it administers. EPA works closely with a broad cooperative network of federal and state enforcement agencies on domestic and/or international hazardous waste matters, including detection of exports that do not proceed in accordance with the export requirements. To assist in these matters, EPA has Memoranda of Understanding (MOUs) on hazardous waste matters with the Department of Transportation (DOT), Federal Bureau of Investigation (FBI), U.S. Customs Service, Department of Labor's Occupational Safety and Health Administration (OSHA), and the Coast Guard. (Currently, EPA, DOT and the U.S. Customs Service are discussing potential revisions to their respective MOUs to keep pace with changing coordination needs.) The EPA also works closely with the Department of Justice (DOJ) and the Department of State. Some examples of joint agency efforts include DOT working with the EPA to detect hazardous waste transportation violations and joint investigations conducted by the FBI and EPA. OSHA's compliance monitoring violations of health and safety standards sometimes reveal violations of environmental laws, including the export laws, resulting in referrals to EPA. EPA and the Coast Guard coordinate extensively when contamination threatens inland waterways and coastal areas. DOJ represents EPA in civil judicial and criminal cases. The U.S. Customs Service plays an integral part in the prevention of illegal traffic of hazardous waste.

The Memorandum of Understanding between EPA and the U.S. Customs Service originated on December 29, 1986, when Customs and the EPA entered into an agreement for the enforcement of the hazardous waste requirements. The MOU established a program to monitor and spot-check international shipments of hazardous waste to assure compliance with hazardous waste export requirements. The U.S. Customs Service provides EPA with valuable oversight on the movement of wastes across U.S. borders and ports, and EPA provides training to Customs officials to ensure their expertise in providing such oversight. Under the Export Administration Act Amendments (2) of 1985, Customs has broad authority to stop, search, and examine shipments of hazardous waste when it has reasonable cause to suspect that those wastes are being illegally exported. If it has probable cause, Customs may seize and detain any suspect shipment.

In addition to working with Federal agencies, EPA works closely with state agencies in detecting and responding to transboundary hazardous waste shipment violations. For example, in developing a system to track hazardous waste import shipments from Mexico, EPA has relied heavily on states to obtain shipment data. Moreover, EPA is funding state efforts to provide support in training Customs personnel in detection of illegal waste shipments to and from Mexico. A model task force, involving federal, state and local environmental and law enforcement agencies in California, has detected a number of illegal shipments. The key to the success of the task force is their constant presence on the border and at facilities. Many times, this presence can be more practically obtained by state and local law enforcement agencies than by the federal government.

4 INTERNATIONAL COOPERATION AND OUTREACH

4.1 International cooperation

Routine and timely coordination between countries is critical to the detection and deterrence of illegal transboundary waste movements. For example, the U.S. Government alerts foreign governments about exporters whose notifications of intent to export provide vague or misleading information about shipments of hazardous waste or raise questions about environmentally sound management of the waste in the foreign country. Similarly, the EPA either directly or through the Department of State notifies foreign governments when the exporter attempts to circumvent requirements of international agreements. EPA has also provided information to foreign governments on the enforcement status of U.S. importing facilities so that they can make informed decisions on whether to allow exports to those facilities.

The U.S. enjoys particularly strong, cooperative relationships with Canada and Mexico in the area of transboundary shipments of hazardous wastes. EPA views these relationships as an extremely effective method of detecting and halting illegal waste traffic. To enhance such cooperation with other countries, EPA has provided assistance to countries developing their own compliance monitoring and enforcement programs. EPA has provided training to representatives of foreign environmental enforcement agencies and to inspectors for detecting illegal waste traffic. Some examples of our cooperative efforts follow.

4.2 Cooperation with Canada

Because most of the waste exported from the U.S. goes to Canada, it has been essential that the two countries develop a close working relationship. One example of close cooperation on the processing of import/export notifications was Environment Canada's participation in a 1993 national meeting with EPA hazardous waste import/export personnel. Environment Canada staff provided valuable information on the processing of export and import notices, Canadian laws and regulations governing the environment and enforcement procedures, including penalties.

An example of EPA coordination with Canada on compliance monitoring and enforcement was the 1989 detection of PCBs, solvents and waste oils blended and mixed with fuels. These contaminated fuels were sold to customers in Canada and New York State. EPA informed Environment Canada of the operations, and Canada responded promptly by limiting the number of ports of entry for such imports. Canada then monitored and tracked the shipments closely. EPA and Canada have also worked together on coordinated border crossing inspections, information exchanges, and a toxic reduction agreement among the U.S., Canada, New York State, and Ontario.

4.3 Cooperation with Mexico

In 1983, the U.S. and Mexico entered into an agreement to work together to improve environmental protection in their joint border area. That agreement, The Agreement between the

United States of America and the United Mexican States on Cooperation for the Protection and Improvement of the Environment in the Border Area (also referred to as the La Paz Agreement), contains provisions for annexes which address specific environmental issues. Based on the La Paz Agreement and its annexes, the two countries agreed to develop a comprehensive environmental plan for the border region. The resulting Integrated Environmental Plan for the Mexican-U.S. Border Area, First Stage, 1992-94 (Border Plan) mapped out a strategic plan for the U.S. and Mexico to enhance coordination and assist in building each others' environmental capabilities. The Border Plan allowed for cooperation from each nation to improve the following: coordination of numerous agencies responsible for regulation of the transported wastes; logistics of transboundary transport; tracking of the amount of hazardous waste generated in Mexico (Maquiladoras) from U.S. raw materials; and tracking of the amount and type of hazardous waste transported and the ultimate location of its disposal.

In addition, the Border Plan memorializes several U.S./Mexico workgroups, including the Cooperative Enforcement Strategy Work Group and the Hazardous Waste Workgroup. These workgroups aim to expand both countries' environmental enforcement and hazardous waste management capacity through enhanced cooperation. Both work-groups have established subgroups. For example, the Cooperative Enforcement Strategy Workgroup has geographically based sub-workgroups comprised of regional EPA and SEDESOL officials, while the Hazardous Waste Workgroup has established functionally based workgroups in order to enhance information exchange, technical assistance on transboundary movement of hazardous waste, and sitings of abandoned or illegal hazardous waste dump sites. Other activities conducted by the workgroups and sub-workgroups include cooperative training and joint facility visits, information management training and assistance, and cooperative priority setting, and cluster filings of enforcement actions simultaneously announced by both countries.

The U.S./Mexico Hazardous Waste Workgroup has developed a specialized, binational Hazardous Waste Tracking System database to track shipments of hazardous waste across the U.S./Mexican border. Within EPA, this database is managed by the Regional office in Dallas. The potential of the database as a compliance monitoring tool was first demonstrated in June 1993, when EPA filed three administrative enforcement actions for import shipment violations, developed with the use of the database. Additional cases have recently been filed from evidence gathered from the database.

Cooperative Enforcement Work Group activities between the U.S. and Mexico have led to increased detection and cooperation in investigating illegal shipments and cleaning up illegally dumped transboundary shipments. This cooperation has led to U.S. criminal actions for illegal shipments. U.S. and Mexican Customs Services have increased direct interaction in detection and safe handling of transboundary waste shipments. Furthermore, the U.S. has provided training to Mexican environmental inspectors, and the two governments plan to increase their use of cooperative enforcement tools such as the binational Hazardous Waste Tracking System to target illegal transboundary waste shipments for an enforcement response.

4.4 NAFTA-related cooperation

The U.S., Canada, and Mexico signed an agreement to promote environmental cooperation, in conjunction with the North American Free Trade Agreement (NAFTA), forming a trilateral Commission on Environmental Cooperation. The Commission will consist of a Council of three members (comprised of the Cabinet-level officials from Canada, Mexico, and the United States), a Joint Public Advisory Committee (comprised of non-governmental organizations acting in an advisory capacity), and a Secretariat. Each country commits to effective enforcement of its environmental laws, and the Commission is empowered to respond to complaints of lax enforcement, including the initiation of dispute resolution procedures leading to the possibility of trade sanctions or monetary penalties imposed on a country which fails to adequately enforce its environmental laws.

The Commission will consider the regional environmental implications of industrial process and production methods (e.g., life cycle analyses, and chemical input analyses to determine impact on waste generation, transboundary waste movement, and waste minimization opportunities), promote greater public access to information about hazardous substances and consider ways to promote the assessment and mitigation of transboundary environmental problems. The Commission will serve as a point of inquiry and resolution for public environmental concerns. One of the major goals of the Commission is to discuss regional environmental issues, for example, addressing capacity issues on a regional scale to minimize transboundary shipments.

4.5 Multilateral cooperation

In addition to building our relationship with Canada and Mexico, EPA supports current international efforts to enhance cooperation in environmental enforcement. EPA has developed a working relationship with the International Criminal Police Organization (INTERPOL) and participated in the June 1992 Symposium on Fraud and Environmental Crime sponsored by INTERPOL. In November of 1992, INTERPOL's general assembly passed resolutions formally recognizing the existence of environmental crime, reflecting the first major initiative by the world law enforcement community to officially recognize the seriousness of environmental crimes.

In September of 1993, Earl Devaney, Director of EPA's Office of Criminal Enforcement, headed the U.S.' delegation to INTERPOL and made a presentation that focussed on improving the international community's capacity to investigate environmental crime. He was elected chairman of INTERPOL's Workgroup on Transboundary Movement and Dumping of Waste Products, which will enact recommendations for INTERPOL in May of 1994.

4.6 International workgroups

EPA is actively participating on several workgroups regarding international agreements, such as the OECD Decision and the Basel Convention. EPA has found that actively participating in these workgroups offers the best exchange of thoughts on global environmental changes and the development of preventive measures to protect human health and natural resources.

5 COMPLIANCE ASSISTANCE

5.1 Compliance assistance

In general, companies exporting large volumes of hazardous waste have a fairly good knowledge of the RCRA export regulations. Facilities exporting waste to Canada and Mexico on a regular basis are familiar with the procedures and provisions of the two bi-lateral agreements governing trade of hazardous wastes with those countries. However, we have found that there is less familiarity with the export/import provisions of the OECD agreement. Because of this, EPA has met directly with the regulated industry on several occasions to brief them on the agreement and the regulatory changes EPA is developing to implement the OECD requirements. When OECD implementing regulations are complete, EPA will publish them in the Federal Register, thereby providing additional notice to the regulated industry. However, even before these regulations are published, we are receiving and processing notifications and assisting companies in complying with requirements of the OECD agreement.

EPA operates a contractor run RCRA/CERCLA Hotline that is available to the public through a toll free telephone number. The public may request and receive copies of international agreements (bi-laterals with Canada and Mexico, the OECD agreement and Basel Convention), Fact Sheets on Basel and OECD, as well as copies of the export/import regulations and other information from the Hotline. Hotline personnel are trained to answer questions posed by the exporter or importer on the

transboundary movement of hazardous waste. If the Hotline staff are unable to answer the exporter or importer's questions, an EPA employee will contact the exporter or importer to offer assistance.

EPA provides training for federal and state inspectors on the export/import regulations and international agreements. This training is provided free of charge to the inspectors as part of the RCRA Advanced Inspector Institute Training. For inspectors and law enforcement personnel who are unable to attend the institute, EPA has just recently produced an export/import inspection video that is available in English, French and Spanish. The export/import inspector video was produced by the Office of Enforcement, National Enforcement Investigations Center, located in Denver, Colorado and the RCRA Enforcement Division.

EPA and SEDESOL jointly hosted a Maquiladora Conference in November of 1993 in Tijuana, Mexico. U.S./Mexican hazardous waste border activities, U.S./Mexican Customs requirements for hazardous waste, and transport requirements were discussed. Canada and individual U.S. states participated by giving presentations on their hazardous waste requirements. A pollution prevention seminar was offered as part of the conference. In addition, a bilingual manual entitled, "Hazardous Waste and the Maquiladora Industry" which among other things, discussed import and export requirements, was distributed.

6 COMPLIANCE MONITORING

EPA requires domestic hazardous waste generators, facilities and transporters to obtain identification numbers and imposes stringent recordkeeping, reporting, facility management and waste tracking requirements. This has proven to be an effective and efficient means of ensuring that generators and transporters adhere to strict environmental standards, and serves as a deterrent to illegal trafficking of hazardous waste.

EPA believes it is imperative to try to stop the transboundary illegal disposal of hazardous waste by preventing it from ever leaving the country of origin. Monitoring of the domestic regulatory program is one of the most effective and efficient ways to deter illegal exports. The hazardous waste program is based on cradle-to-grave management of hazardous waste. A manifest system that is uniform among all 50 states tracks the waste from point of generation to point of disposal. Without this paper trail, the job of detection would be difficult, if not impossible. If the waste is exported, the manifest is returned from the foreign receiving facility to the U.S. exporter, who is required to maintain it in their files for three years.

6.1 Information gathering and tracking

EPA maintains an export information management system to track submissions of notices of intent to export, acknowledgements of consent, export manifests collected by U.S. Customs Service, and annual reports. EPA continues to implement improvements and modifications in the processing and tracking of hazardous waste exports. These efforts include the allocation of more resources to process and collect data, and development of an improved national tracking system. The new national tracking system being developed by EPA headquarters will include additional import and export data elements crucial to fulfilling requirements in international agreements, such as Basel and OECD, and their anticipated implementing legislation and regulations. The new database will also have the ability to link up with other enforcement databases. EPA is developing standard operating procedures to facilitate processing of notifications and ensure quality control of the information collected.

Illegal exports are stopped at the Canadian and Mexican borders, if they are not accompanied by an EPA Acknowledgement of Consent. Facilities that have taken imported waste that have failed to notify the EPA or state as required by the import regulations are detected during routine EPA or state inspections of the facility. EPA or state inspectors may compare annual reports with notifications of intent to export to reveal exporters who may have exceeded allowable quantities or types of waste, and/or who have failed to notify the Agency of an export. The uniform manifest that must accompany

the waste to the U.S. border and is returned to EPA from Customs, is another way to identify illegal exports. Examples of detection of illegal shipments are given below.

6.2 EPA Alerts

EPA relies on the information forwarded from the regulated community within the U.S. and from companies operating on foreign soil. For example, in 1993, EPA received several copies of a letter distributed throughout the United States and Europe by person(s) living in Nigeria who were soliciting the illegal disposal of hazardous waste for a very cheap price. EPA immediately cabled the Nigerian Government to alert them of this potential environmental danger. In addition to notifying the Nigerian Government, EPA also notified the U.S. Department of Commerce and the U.S. Department of State. EPA will continue to work closely with other Federal agencies, foreign governments and U.S. Embassies to keep them apprised of suspected illegal activity.

6.3 Tips

EPA relies on the tips and information provided by the public. As public awareness increases on the handling of hazardous waste, more and more concerned citizens are notifying EPA when they suspect illegal activity at a plant, facility or non-hazardous waste dumping grounds. Tips by employees of a violating company are another important means of detecting violations, particularly those that are criminal in nature. EPA has taken action on tips provided by foreign enforcement authorities. One tip, provided by the Mexican customs service, resulted in a criminal indictment for violations of U.S. environmental laws.

7 EFFECTIVE ENFORCEMENT RESPONSE

In March, 1988, EPA issued an enforcement strategy for its newly promulgated hazardous waste export regulations. This document was key to identifying the roles and responsibilities of the various EPA offices involved, as well as the U.S. Customs Service. It identified what known facts about the regulated community, where good compliance was expected and where potential violations might be found. It contained a strategy for targeting inspections where violations were anticipated, building on existing domestic inspection targets. It also targeted key ports of entry and exit for border spot checks. The strategy addressed the classification of violations and the appropriate enforcement response, ranging from informal actions like a notice of violation or warning letter to formal civil enforcement orders to criminal actions for violations done with knowledge and intent. The strategy is based on the premise that a strong enforcement program is key to deterring illegal activities.

Since issuing the strategy, EPA has made it a practice to undertake "enforcement initiatives." An enforcement initiative involves the targeting of inspections and investigations at a certain activity or sector, and publicly announcing resulting enforcement actions through high visibility press announcements. For example, EPA undertook an enforcement initiative on September 26, 1991 to target illegal export and import of hazardous waste and chemicals. The EPA filed a total of 23 cases to enforce the export and import regulations of RCRA and other U.S. environmental protection statutes, including 16 administrative actions to address a broad range of export and import violations under RCRA.

In addition to the administrative cases, EPA, with the aid of Department of Justice, files many civil and criminal cases per year. Several criminal cases pertaining to illegal exports have been filed over the past few years. The decision to file a criminal case is based on the knowledge and intent of the violator. For example, a recent case decision involved the illegal export of drums containing hazardous waste to Pakistan where the perpetrator planned on dumping the waste down the family owned mine shafts. (3) The Pakistani authorities intercepted the shipment and the drums were sent back to the United States where the waste was properly disposed of. The Court ordered the defendant

to pay over \$250,000 in restitution and fined him \$200,000. The perpetrator had full knowledge of the intended illegal export and illegal disposal.

In another recent criminal case, *U.S. v. Stoller Chemical Co., et.al*, three individuals and two corporations were convicted for the illegal export of hazardous waste to Bangladesh and Australia. The Stoller Co. had legally been using waste products from copper processing to make fertilizer. However, when they experienced a shortage of this legally exempt waste, they substituted a more toxic, non-exempt waste. As a result, the shipment became subject to RCRA Section 3017 notification and consent requirements. Because no notice was filed by the exporter, neither receiving country was asked for or gave consent. By the time the situation was uncovered in the U.S., the waste was en route to the receiving countries. Fortunately, government to government contact was made and most of the waste was intercepted before it was applied as fertilizer.

Civil and criminal prosecution of recalcitrant violators often proves to be the best deterrent of crime. The importance of criminal liability is that it provides added incentive to refrain from harmful conduct by emphasizing its culpable character, and, in many cases, by allowing more stringent enforcement measures or penalties to be imposed. (4) However, it is also the most resource intensive approach for the Agency. EPA would like to look to more innovative enforcement tools to deter crime and ensure compliance. (5) A proposed study of the recent enforcement initiatives undertaken by EPA and the states will help EPA build a profile of the type of activities used by violators and help EPA focus its resources in an effective manner.

8 FUTURE CHALLENGES

Although the United States has made great progress in the control of transboundary movements of illegal wastes, it will be a challenge to keep abreast of the changing global issues in hazardous waste management and implement growing requirements with limited resources. These challenges lie in such diverse areas as: 1) enhancing enforcement, 2) improving domestic capacities, 3) working with other countries to facilitate efficient notification, tracking and enforcement measures; and 4) becoming parties to and implementing international agreements designed to enhance international regulation of hazardous waste trade. These goals will be addressed in the remainder of this section.

8.1 Enhancing enforcement

There are a number of concerns in enforcing import/export requirements. Circumstances and issues not anticipated or addressed by current laws and regulations have arisen stemming from the growing trade in hazardous waste and the advent of new international agreements.

In order to meet our obligations as a Basel signatory, EPA is currently meeting with other executive departments and agencies and is preparing to work with Congress on amending RCRA to allow full implementation of the Basel requirements. We are considering provisions that would include more authority to regulate and enforce the passage of imports of hazardous wastes into the U.S., limit the types of wastes leaving the U.S., allow for repatriation of waste when a foreign facility is not equipped to handle the waste, and allow the U.S. to determine if the waste will be managed in an environmentally sound manner in the country of import. In addition, the U.S. is developing legislation to control the movement of hazardous waste by U.S. citizens in Antarctica and to ensure its return to the U.S. under most circumstances.

8.1.1 Exports

EPA lacks authority to enforce against an exporter or importer who transports waste that is not covered under EPA's domestic hazardous waste program. This is an issue particularly for waste exported for recycling, since many recycling operations are not regulated under domestic U.S. law.

For example, if a company wanted to export lead acid batteries for recycling in a foreign country, the batteries would not be subject to the U.S. export regulations because they are not subject to domestic manifest requirements.

Currently, EPA cannot unilaterally stop a shipment of hazardous waste to a receiving country if that country has consented to receive the waste. For example, if EPA knows of questionable recycling or disposal practices at the receiving facility, it can only notify the competent authority of these practices.

Also EPA currently lacks authority to require an exporter to obtain financial assurance for shipments to another country to ensure that adequate funds are available to redress problems in the event the waste is misdirected or mismanaged. Only the receiving country may require the exporter to have financial assurance to cover any damage that may be caused by the exported waste.

Although EPA has increased its law enforcement staff to handle illegal activity in hazardous waste, illegal export of hazardous waste cases often prove to be the most difficult to prosecute. This is attributed to the complexity of EPA's regulations defining hazardous waste. In addition, the best evidence of the violation, the waste itself, has often already been exported, requiring direct, timely coordination with foreign governments to develop the evidence to and ensure proper management of the exported waste. Prosecution of these cases is resource intensive for both the Agency and the Department of Justice.

8.1.2 Imports

Under current regulations, a broker who imports hazardous waste can repackage, reconsolidate and remanifest it so that the final U.S. receiving facility does not know where, or from whom, the waste originated. This can occur at an unpermitted transfer facility, if the waste is held for 10 days or less, or at a permitted storage facility. There are no annual reporting requirements for imported waste, making it difficult to quantify. The only data available are based on notices received from countries that are parties to OECD or other bilateral or multilateral agreements. (See Table 3)

Table 3. Summary of Notices Submitted to EPA by Foreign Countries Intending to Import Waste into the United States from January 1, 1993 through December 31, 1993.

Foreign Country	Number of Notices
Austria	2
Canada	663
Germany	77
The Netherlands	1
Singapore	2
Sweden	1
Switzerland	27
Taiwan	17

The import regulations do not define "importer." In reality, the generator, transporter, any brokers and the importing facility are all involved in a waste import. Without a clear definition of importer, the mutual responsibility of these parties for the manifest and notifications is unclear.

EPA also needs to be able to do compliance monitoring checks on imports. One approach would be to require that a copy of the manifest be left with U.S. Customs when the waste enters the country. This would assist both in enabling us to ensure that imported waste is properly managed in

the U.S. and in enabling us to cooperate with the exporting country in detecting violations of their waste export laws.

8.2 Improving domestic capability

8.2.1 Increased interaction among the EPA's Headquarters, EPA Regional offices and states

Although EPA Headquarters, EPA Regions and states all support a spirit of cooperation regarding the regulation of transboundary movement of hazardous wastes, resource constraints sometimes inhibit timely interactions. Presently the EPA holds a monthly import/export conference call between Headquarters and the Regions to discuss any new import/export information, including enforcement information and updates on any policies, guidance or items of international interest that may have arisen over the past month. Increased effort to coordinate and disseminate information among EPA and the States regarding facilities, transporters, brokers, specific shipments, etc. and keep all apprised of any suspicious activities would be beneficial.

8.2.2 Improving the capabilities of the computer databases used to track transboundary shipments of hazardous wastes

Although EPA has begun developing a new national computer database to track the import and export of hazardous waste, the system is far from complete. Several Regions have implemented their own separate tracking systems. EPA as a whole would benefit from any integration of these systems. Two benefits would be a greater ability to monitor and track the transboundary movement of hazardous waste and a greater ability to use the database for compliance and enforcement activities. Other countries, such as Canada, are experimenting with automatic data processing of notifications. This is an approach that the U.S. should explore.

Another idea would be to establish electronic communication with other countries for the purpose of sharing and tracking import/export information more efficiently. This would aid all involved countries with the tracking and enforcement of shipments of hazardous wastes. This could possibly be done via the already established Internet System or through other E-mail systems.

Another possible improvement would be to work with U.S. Customs to obtain manifest information via electronic media in order to present a more complete picture of import/export activity. The Customs information would provide us the actual amounts of hazardous wastes that are imported and exported. (The notifications we now receive are before the fact and thus only give approximations of actual wastes and volumes.) Currently data on actual shipments is available to the EPA on an irregular basis and is not always timely.

8.2.3 Improving preventative measures inside the U.S. to decrease the amount of wastes sent beyond our borders

The U.S. EPA supports waste minimization as part of its pollution prevention program. Supplemental Environmental Projects involving waste minimization are being incorporated into enforcement settlements. States are now putting pollution prevention and waste minimization into their laws. Increasing outreach efforts to educate the public and the regulated industry are in effect. Currently, generators of hazardous waste must certify in their biennial reports that they have a waste minimization program in place. Under 40 CFR § 262.56 exporters must also certify that they have a waste minimization plan in their biennial reports. Despite these requirements, additional waste minimization is possible. Domestic efforts to minimize waste generation will hopefully decrease the need to export wastes.

8.3 Becoming a voting member of Basel

The Clinton Administration is attempting to produce legislation that will incorporate the precepts of the Basel Convention, thus allowing U.S. ratification. EPA has given a high priority to becoming a party to Basel. Even though we are not currently a voting member, the U.S. actively participates in meetings and committees. We attempt to abide by the rules when exporting hazardous wastes and encourages other countries to abide by the rules when importing hazardous wastes to the U.S.

8.4 Working with other countries to facilitate efficient notification, tracking and enforcement measures

After the U.S. becomes a party to Basel and promulgates regulations to implement both the Basel Convention and the OECD agreement, there will be predefined notification and tracking methods the U.S. and other member countries will be obligated to follow. One significant implementation problem is the discrepancy in hazardous waste codes among countries. In many cases, one country's waste codes do not easily translate into another country's system, even when a narrative description of the waste is included. The task of translation is time consuming and difficult at best and impossible at worst. However, countries will not be willing to consent to shipments if they are not confident they know what the wastes are.

Similarly, it would be useful to have some commonality among key definitions such as "recycling" and "recovery facility", so that trading countries know exactly what a facility does, and to what materials. This will help to reduce the confusion in the transboundary trade of waste, and thus reduce illegal exports.

Finally, the term "environmental sound management" (ESM) as used in the Basel Convention, must be defined. Without a definition each country must rely on its own judgement of what comprises "ESM", leaving a widespread range of interpretations.

9 CONCLUSION

The U.S. believes that it is necessary to enhance domestic compliance monitoring and enforcement capabilities and cooperate with other countries in order to effectively monitor and halt illegal transboundary shipments of hazardous waste. We are continually striving to improve our system and, in doing so, strengthen and enhance our methods of deterring the illegal import and export of hazardous waste.

The EPA places a high priority on the integrity of its information management system, compliance monitoring and enforcement program, and coordination with other state and federal agencies and enforcement agencies from other nations. Working together, the domestic compliance monitoring and enforcement agencies from the many countries involved in waste trade have made great progress in detecting and halting illegal waste traffic.

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REFERENCES

1. The Code of Federal Regulations (CFR), updated annually, contains all regulations. The hazardous waste regulations are in the volume covering Parts 260 to 299. The CFR is published by the U.S. Government Printing Office.
2. Export Administration Act [EAA], 50 U.S.C. app. §2411 (1969), as amended by the Export Administration Act Amendments of 1985, Pub. L. No. 99-64.99 Stat. 120 (1985).
3. See, United States v. Tarig Ahmad, No. CV92-201 (C.D. Cal. Aug. 9, 1993).
4. See generally Richardson, Ogus, and Burrows, Policing Pollution (Oxford, 1982), 15-17.
5. EPA and states have created several pilot enforcement programs such as the field citation program or the "toxic tickets" issued by the inspector directly to violators of the hazardous waste regulations; handling referrals from the RCRA Hotline of criminal hazardous waste activity; and building a manifest data base to track hazardous waste sent to the United States from Mexico.