

A NEW DYNAMIC FOR THE HAZARDOUS WASTE TRADE IN NORTH AMERICA

WHITEHOUSE, TIM¹ AND RAIN, KELLY²

¹ INECE & Associates, 2300 Wisconsin Avenue NW, Suite 300B, Washington, DC 20007, twhitehouse@inece.org.

² Law Fellow, Institute for Governance & Sustainable Development, 2300 Wisconsin Avenue NW, Suite 300B, Washington, DC 20007, kelly.rain@gmail.com.

SUMMARY

The United States is moving beyond an import-safety approach where decisions are made at the border to one that targets critical points in the imports life cycle. This trend is occurring in the hazardous waste trade in North America, where significant weaknesses exist in the United States' ability to track hazardous waste across North American borders. This paper reviews on-going efforts to improve hazardous waste tracking across borders in North America. To build on these efforts, this paper recommends that the United States and Mexican governments require foreign consignees of United States or Mexican hazardous waste to send a certification back to them stating that the recycling or disposal activity has occurred. It also recommends that the United States and Mexico manually share data on hazardous waste shipments from *Maquiladoras* to the United States. These two steps would greatly improve the ability of North American governments to monitor hazardous waste shipments. These efforts should occur as part of a larger effort to ensure that the borders do not act as a shield to protect wrong doing in any NAFTA country, and that all actors in the production, distribution, and sale of imports are held accountable for ensuring that their products meet the environmental, health, and safety standards of the country where they are being sold.

1 INTRODUCTION

This paper evaluates the United States' experience working to improve the tracking of transboundary hazardous waste shipments with Canada and Mexico. These efforts are largely consistent with the framework presented in the recent United States government report, *Action Plan for Import Safety: A Roadmap for Continual Improvement*.¹ We offer suggestions for how these three countries can work together to ensure that their borders do not act as a shield to protect wrong doing in any NAFTA country.

2 THE PROBLEM

Public institutions have had difficulty keeping pace with the scope, pace, and complexity of the rapid growth in international commerce. Since 1950, global trade

has grown twenty-seven fold to an estimated U.S. \$16 trillion in 2007, equal to 31 percent of world gross domestic product (GDP).²

In countries throughout the world, this difficulty is evidenced by serious health, safety, and environmental problems with certain imported products. Examples in the United States include cadmium-contaminated zinc sulfate fertilizer from China, lead-tainted toy jewelry from Mexico and China, engines that are non-compliant with the Clean Air Act, smuggled wildlife, and ozone depleting substances from all parts of the globe.³

Trade-related hazardous waste issues are more nuanced. Most hazardous waste generated in the United States, Mexico or Canada remains in North America. Problems have been documented in this North American trade in hazardous waste and with hazardous waste management along the United States-Mexico border. Yet no recent gripping or “smoking gun” situation has galvanized political attention on compliance-related problems that may exist with this trade.⁴

A number of reasons exist why the United States is taking steps to improve its ability to better manage these shipments despite this lack of a “smoking gun.” Hazardous waste has become a border security issue, both because of the dangers inherent in the waste itself and because of the difficult nature of properly inspecting the sealed drums containing these wastes. Moreover, because generators have to pay to dispose of hazardous wastes, strong incentives exist to illegally dispose of these wastes if adequate compliance monitoring controls do not exist. Finally, governments in North America have felt acute political pressures to make sure NAFTA does not cause a “race to the bottom” in terms of environmental standards.

3 AN EVOLVING RESPONSE

Governments have historically responded to trade-related problems by increasing the number of border requirements applicable to imported goods. The United States Customs and Border Protection (Customs) now monitors imported goods for compliance with more than 400 laws and 34 international treaties, statutes, agreements and conventions on behalf of 40 federal agencies. Some agencies such as the Department of Agriculture, the Food and Drug Administration, and the Fish and Wildlife Service have inspectors at border ports to assist in these inspections.

Border inspections alone, however, can no longer ensure that international trade is compliant with domestic environmental laws. Customs typically is able to inspect only about 3 to 5 percent of all shipments.⁵ Even if Customs were able to raise the amount of cargo it could inspect, most ports have little space for trucks or containers to wait and backups would cause gridlocks in the transportation system.

These border realities have caused the United States to move beyond an import-safety approach where decisions are made at the border to one that targets critical points in the imports life cycle. The *Action Plan for Import Safety* finds that the border should be one of many spots in a network of interconnected points in the import process where verification and inspection of goods occurs.

The plan puts forth five “building blocks” to advance a common vision of the safety of product imports. These are: increasing accountability, enforcement, and deterrence; focusing on risks over the life-cycle of an imported product; building interoperable systems; fostering a culture of collaboration; and promoting technological and innovative and new science.

Underlying this plan is a call for government agencies to work with the private sector and foreign governments to “prevent harm in the first place” by improving manufacturing and distribution processes of U.S. imports.

This framework is consistent with many on-going governmental efforts to improve import compliance. Customs, for example, is leading a federal government effort under a partnership known as the International Trade Data System, to utilize the new Customs electronic data management system, the Automated Commercial Environment, for the electronic collection, use and sharing of international trade data. This system will offer single window electronic filing of documents to the trade community and support the electronic exchange of information between government agencies.

A number of federal agencies are also working to promote compliance before the point of entry. Currently, for example, the Food and Drug Administration inspects foreign medical factories importing products to the United States⁶ and the U.S. Department of Agriculture evaluates the equivalence of foreign meat and poultry food regulatory systems and sanitary measures to insure the product meets U.S. import requirements.⁷

4 TRACKING HAZARDOUS WASTE SHIPMENTS IN NORTH AMERICA

The United States, Canada and Mexico employ the concept of prior informed consent to control transboundary hazardous waste shipments. Under this system, material regulated in one country as hazardous waste may only be exported with the prior consent of the importing country. A number of weaknesses exist in the system that makes it difficult to track international shipments of hazardous waste from cradle-to-grave.

4.1 The Current System

The prior informed consent concept and domestic hazardous waste management laws rely on government agencies sharing information on transboundary hazardous waste shipments. In all three countries, importers and exporters must

obtain written approvals from national governments to ship hazardous waste or hazardous recyclable material from one country to another. Consent must also be obtained from the destination country. Under this notice system, importers will receive permission to ship a specific kind and amount of waste from one country to another for a designated period of time.

Facilities that accept hazardous waste from foreign generators must notify the U.S. EPA region before the first shipment arrives, but are not required to re-notify the U.S. EPA unless the character or source of the waste changes. When an actual shipment crosses the border, the U.S. receiving facility is required to send a copy of the manifest to EPA Headquarters within 30 days of receipt.

This notice-based system does not track actual shipments, and does not operate on a "real-time" basis. It does give the United States some control over what hazardous waste enters the country, where it should be going and how it will be treated. For the reasons discussed in the next section, however, collecting and matching all the paperwork necessary to identify whether specific hazardous waste shipments are going where they are suppose to be going is extremely difficult, undermining effective compliance monitoring.

4.2 Weakness in the System

At least three major weaknesses exist in this system. The first weakness is that the notice system is paper-based, and consequently imposes a high administrative burden on the governments and limits their ability to use the information for compliance monitoring. Currently, countries share export requests and consent documents with one another by sending copies through the mail, by fax, or by cable and enter data into multiple systems manually. It does not allow for the real-time exchange of information between governments and government agencies, resulting in processing backlogs and inaccuracies in existing data systems because data must be entered manually.⁸

The second weakness is that *maquildora* industries, assembly factories in Mexico operating under a special tax program, are exempt from this system. Under Mexican law, *maquiladoras* are required to export their hazardous waste. Although almost all of this waste goes to the United States, *maquildoras* are exempt from the notice system under the La Paz Agreement.⁹ As a result, the Environmental Protection Agency does not have accurate information on the quantity, type, origin, method of handling, of *maquiladoras* sending waste into the United States. In the past, the manifest was the critical document for beginning any compliance review of *maquiladoras*. However, efforts to collect manifests at the border and enter them manually into a data base called HAZTRAKs proved extremely unreliable, time consuming and expensive. In addition, logistical and financial obstacles derailed efforts to link the HAZTRAKs database with other United States hazardous waste databases and with Mexican data bases.

The final weakness in this system is that no return notice system is in place in the United States as it is in Canada to ensure that the waste actually goes where it is suppose to go. Only Canada has an integrated transboundary hazardous waste management system. In Canada, the consignee of hazardous waste must send a certification to Environment Canada stating that the recycling or disposal activity has occurred. So, for example, if a Canadian company receives permission from Environment Canada to send hazardous waste to the United States, once the waste actually arrives at its destination facility in the United States, that facility must notify Environment Canada when it has recycled or disposed of that waste. With shipments originating in the United States, or Mexico for that matter, no such return notice is required. The United States does not know whether shipments leaving the country actually reach their approved destination. Likewise, Mexico does not know whether shipments that are supposed to enter the United States actually reach their destination.

5 A NEW DYNAMIC FOR THE HAZARDOUS WASTE TRADE

5.1 The Framework for Cooperation

Efforts to address these problems have evolved along the lines of the building blocks put forth in the United States *Action Plan on Import Safety*. These efforts are occurring largely — but not exclusively — through the work of the Commission for Environmental Cooperation, often referred to as the environmental side agreement to NAFTA.

In 2003, the Environmental Ministers of the Commission for Environmental Cooperation put forth a resolution to promote greater cooperation on the transboundary hazardous waste trade in North America. The resolution called on the three countries to work to strengthen the environmentally sound management of hazardous waste and hazardous recyclables on waste streams of common concern; to work toward the interoperability of waste tracking systems; and to support capacity building needs in Mexico. This resolution reinvigorated the work of the Commission for Environmental Cooperation's Hazardous Waste Task Force, which has been largely dormant the preceding years.

5.2 Developing a Business Process Model

The first step of the hazardous waste task force was to understand how the North American hazardous waste trade actually worked. The task force held three public workshops to develop schemas, known as business process models, which outlined all the steps that need to occur for hazardous waste to be traded between the three countries. Although the purpose of the business process models was to lay the ground work for the electronic exchange of information between the countries, it also ended up giving the governments a complete understanding of the trade process, and as a consequence helped identify ways to maximize government efficiencies, direct resources toward weak spots and to look for points of collaboration.¹⁰

5.3 First Steps Toward Inter-operability

With respect to the electronic exchange of information, the governments are developing common data standards for export requests and consent documents and a method for sharing this information electronically. The Commission for Environmental Cooperation project will allow governments to exchange this export request and consent information electronically. This will reduce government administrative burdens, improve data quality, make it easier to provide data to environmental enforcement and border protection agencies, facilitate the adoption of emerging tracking technologies and help the governments provide more timely and coherent information on what crosses their national borders. This project will also enhance compliance. The new electronic system will include information on shipment requirements contained in the notice and consent documents. This will allow the governments to compare the requirements with the actual shipment information in order to determine possible violations.¹¹

5.4 Electronic Tracking of Waste

The U.S. Environmental Protection Agency (EPA) is exploring the feasibility of using radio frequency technology (RFID) to track actual hazardous waste shipments entering the United States. Currently, EPA is designing a demonstration pilot for *maquiladora* waste entering the United States. RFID refers to small electronic devices that consist of a small chip and an antenna. The RFID chip can transmit manifest data on the hazardous waste shipment to government agencies in near real-time at designated points in the process, such as the generating facility, the border and the treatment, storage and disposal facility. The results from this pilot may inform the application of this technology to a much broader range of international trade in environmentally dangerous goods and substances.

6 CONCLUSIONS

Unlike the Food and Drug Administration or USDA's inspection work overseas, the United States Environmental Protection Agency does not have a compelling public health, safety or environmental reason for the regular inspection of Mexican or Canadian generators or transporters of hazardous waste. However, all three countries have compelling reasons to want to know whether waste shipped within North America actually reach its intended destination and that the borders are not used as a shield to protect unlawful behavior. The work described above represents important first steps in this process. Some additional steps by the United States could greatly enhance this effort.

6.1 Develop a Close-Looped, Canadian-Style System

Only Canada has the ability to track hazardous waste shipments from cradle-to-grave. The simplest, easiest way to improve the ability of the United States to monitor shipments would be for the United States and Mexico to adopt a similar

system to that of Canada, where the consignee of the waste must notify the exporter's government that the shipment has actually arrived at its destination.

6.2 Share Data on Maquiladora Shipments

The idea of linking HATRAKs with Mexican databases was ahead of its time. However, the goal of linking databases should not obscure the fact that the United States and Mexico could manually share information to determine the extent of compliance-related issues with *maquiladora* shipments.

In Mexico, a *maquiladora* determines whether a waste is hazardous in Mexico and the United States. If the waste is hazardous in the United States, the *maquiladora* arranges with a U.S. facility to receive its hazardous waste before preparing an *aviso de retorno* (return notice application). The information collected on an *aviso de retorno* is entered into a data base in Mexico. This information includes information on the generator, the destination and shipping route of the waste, and the company that will handle the return of the waste.

If the United States should receive this information from Mexico, EPA and the states could incorporate this information into the routine, periodic inspection cycle.

6.3 Develop a Common Vision, Objectives and Strategies

North America has made tremendous progress in cooperating on ways to improve the compliance monitoring of hazardous waste shipments. Given that governments of Canada and Mexico have changed since the Commission for Environmental Cooperation's Council Resolution 03-08, it may be time to consider another resolution which puts forth a comprehensive framework for improving the compliance monitoring of transboundary hazardous waste shipments. This framework could reinforce ongoing trilateral efforts while emphasizing the need to share information on actual shipments, promote cradle to grave tracking of waste shipments, and reinforce the need for proper training of border inspectors.

This framework should be part of a larger vision, with clearly defined objectives and strategies, that work to ensure that the borders do not act as a shield to protect wrong doing in any NAFTA country, and that all actors in the production, distribution and sale of imports are held accountable for ensuring that their products meet the environmental, health and safety standards of the country where they are being sold.

7 REFERENCES

¹ *Action Plan for Import Safety: A Roadmap for Continual Improvement*, A Report to the President: Interagency Working Group on Import Safety (Nov. 20007), <http://www.importsafety.gov/report/actionplan.pdf>.

² World Trade Organization, *World Trade Report 2007* (2007), at Executive Summary.

³ McQueen, M.P., *Agency Misses Chance to Curb Lead in Jewelry*, THE WALL STREET JOURNAL (12 Feb. 2008); *Imported Cadmium-Contaminated Zinc Sulfate Used in Fertilizer and Other Products*, Washington State Department of Ecology (July 2000), <http://www.ecy.wa.gov/pubs/0004025.pdf>; see *Face to Face with Toy Safety: Understanding an Unexpected Threat*, ENVIRONMENTAL HEALTH PERSPECTIVES (2 Feb. 2008); Stefan Lovgren, *Wildlife Smuggling Boom Plaguing L.A., Authorities Say*, NATIONAL GEOGRAPHIC NEWS (26 July 2008); see Environmental Investigation Agency, *Preventing Illegal Trade in ODS* (31 May 2007), <http://www.eia-international.org/cgi/reports/reports.cgi?t=template&a=138>.

⁴ Some of the problems have been document in publications such as *Strengthening U.S.-Mexico Transboundary Environmental Enforcement: Legal Strategies for Preventing the Use of the Border as a Shield Against Liability* (Environmental Law Institute, 2002, http://www.elistore.org/reports_detail.asp?ID=10706); *The Generation and Management of Hazardous Wastes and Transboundary Hazardous Waste Shipments between Mexico, Canada, and the United States Since NAFTA: A 2004 Update* (Texas Center for Policy Studies, 2004, www.texascenter.org/publications/hazwaste04.pdf); and *Crossing Over: US Lacks Good Data on Hazardous Materials Trucked from Mexico* (The San Diego Union-Tribune (June 12, 2006), www.signonsandiego.com/uniontrib/20060612/news_1n12waste.html).

⁵ Variations of this number have been reported; for example, the Food and Drug Administration examines 1-1.5 percent of food imports. Diedtra Henderson, *Food Imports Seldom Checked*, THE BOSTON GLOBE (1 May 2007) (Since 1997, FDA officials say, they have examined just 1 to 1.5 percent of food imports, while shipments skyrocketed from more than 4 million entries in 1997 to more than 15 million in 2006); see Press Release, Senator Maria Cantwell, *Senate Passes Comprehensive Cantwell-Backed Port Security Package* (14 Sept. 2006), <http://cantwell.senate.gov/news/record.cfm?id=263078> (“... we are inspecting the contents of less than 3 percent of the more than six million containers entering our country each year.”).

⁶ Overseas medical facilities are inspected at a rate of once every 13 years. In comparison, American medical facilities are inspected every two years. The problems arising from such a disparity has been highlighted by at least four deaths and hundreds of allergic reactions related to the Chinese-supplied blood thinner heparin. *FDA Inspections Lag in Overseas Drug Factories*, The Washington Times (28 Feb. 2008), <http://www.washingtontimes.com/apps/pbcs.dll/article?AID=/20080228/BUSINESS/906826390/1001>.

⁷ See *Process for Evaluating the Equivalence of Foreign Meat and Poultry Food Regulatory Systems*, USDA: Food Safety and Inspection Service (Oct. 2003), <http://www.fsis.usda.gov/OPPDE/IPS/EQ/EQProcess.pdf>.

⁸ Commission for Environmental Cooperation, *Tracking Hazardous Waste: Improving the Transboundary Tracking of Hazardous Waste in North America: A Regional Approach to a Global Effort* (Sept. 2007), at 1, http://www.cec.org/files/PDF/LAWPOLICY/hazwaste%20tracking_en.pdf; Commission for Environmental Cooperation, *Tracking and Enforcement of Transborder Hazardous Waste Shipment in North America: A Needs Assessment* (1999), at 36, <http://www.cec.org/files/PDF/LAWPOLICY/HazW-Ang.pdf>.

⁹ La Paz Agreement, 80 Stat. 271; 1 U.S.C. 113 (signed August 14, 1983, approved July 8, 1966), <http://yosemite.epa.gov/oia/MexUSA.nsf/ae0396372fe73b828825671c007e0b90/208f81d47fde81b9882566b10061cbc2!OpenDocument>.

¹⁰ Commission for Environmental Cooperation, *Crossing the Border: Opportunities to Improve Tracking of Transboundary Hazardous Waste Shipments in North America* (Oct. 2005), http://www.cec.org/files/pdf/LAWPOLICY/Crossing-the-Border_en.pdf.

¹¹ Tracking Hazardous Waste, *supra* note 8.

Excerpt from the Proceedings of the International Network for Environmental Compliance and Enforcement's (INECE) Eighth International Conference, Linking Concepts to Actions: Successful Strategies for Environmental Compliance and Enforcement, held 5-11 April 2008, in Cape Town, South Africa.

Reproduction of this document in whole or in part and in any form for educational or non-profit purposes may be made without special permission from the INECE Secretariat, provided acknowledgement of the source is included.

The INECE Secretariat would appreciate receiving copies of any materials that use this publication as a source.

Opinions expressed are those of the authors and do not represent the views of their governments or organizations, the INECE Secretariat, or Cameron May.

Please access <http://www.inece.org/conference/8/> for the full Proceedings.

INECE Secretariat
2300 Wisconsin Ave, NW Suite 300B
Washington, DC 20007
inece@inece.org
<http://www.inece.org>