THE EXPORT OF HAZARDOUS WASTES: INTERNATIONAL PITFALLS / U.S. SOLUTIONS

by Paul Quade

In December of 1992, a San Diego federal district court found Sbicca of California, Inc., its vice-president, general manager and a company trucker guilty of bribing customs inspectors and of attempting to ship hazardous waste into Mexico. The case marked the first criminal prosecution in the San Diego district sparked by Mexican Customs officials. The Mexican officials turned over the truck driver to U.S. authorities after he offered them a $200 bribe. Further investigation revealed 1,870 gallons of trichlorethane, a chemical waste used for the cleaning of shoe molds. Trichlorethane damages the liver and kidneys if absorbed through the skin, inhaled or ingested.

As a result of the prosecution, the court ordered the company to pay a $50,000 dollar fine and reimburse California $14,097 for testing and disposal of the waste. Dominic Sbicca agreed to pay $1,000 fine and perform 200 hours of community service. U.S. Attorney William Braniff championed the effort as a product of "outstanding and ever-increasing" cooperation between the U.S. and Mexico. Assistant U.S. Attorney Marian E. McGuire added, "We've got to stop exporting our problems to Mexico. Companies and their employees should be on notice of . . . our growing united effort."[1]

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The production and transport of hazardous waste presents immense problems for all nations. In the U.S. alone, industries produce more than 1 million pounds of toxic waste per minute.[2] Industrial toxic wastes make up a significant portion of the 268 million tons (1986 estimate) of hazardous wastes produced annually in the United States.[3] To accommodate the enormous volume, roughly 250 thousand shipments of hazardous waste occur daily in the U.S.[4] The waste problem grows in all sectors of American society. The amount of household solid waste generated[5] annually has risen from 441 kilograms per person in 1960 to 662 kilograms in 1988. Projections for year 2010 rise above 800 kilograms.[6] The U.S. does not face the growing problem alone. Estimates of the solid waste produced by the European Community (EC) exceed 2 billion tons annually, of which 20 to 30 million are hazardous or toxic.[7] A 1992 study revealed that solid waste is piling up at the rate of 65 metric tonnes a second in Western Europe.[8] Japan produced over 312 million tons of industrial wastes in 1983,[9] of which 666 thousand tons are hazardous wastes.[10]

Of the wastes produced each year in this country, the U.S. exports over 160 thousand tons of hazardous or toxic wastes. Yet, that sizable figure represents only 0.1 percent of the total U.S. production.[11] On the international front, the Organization for Economic Cooperation and Development (OECD) collects data on european transboundary movements of hazardous wastes. OECD comprises 24 industrialized nations including the U.S., Japan, Australia and the European Communities. A recent OECD report estimated that 100 thousand transboundary movements originated in OECD nations in 1985. While the report contained statistical, definitional and reporting problems, the known international trade in hazardous wastes is immense.[12] The 100 thousand trip figure means that "a cargo of hazardous wastes crosses a national

frontier more than once every five minutes, 24 hours a day, 365 days per year." In addition, those movements involved over 2.2 million tons of hazardous wastes.[13] The then Federal Republic of Germany (West Germany) alone exported a total of 700 thousand tons of hazardous wastes, comprising 14% of its total production. The Netherlands exported 155 thousand tons. On the other end, France accepted 250 thousand tons of hazardous wastes, mostly imported from West Germany.[14] Total international hazardous waste export estimates range from several million tons to more than 20 to 30 million tons per year.[15]

The question remains: what policies has the U.S. adopted, and what polices should the U.S. adopt to deal with the growing problems of hazardous waste production and exportation? A survey of possible approaches include: 1) continue current practices; 2) establish unilateral policies; 3) enter into bilateral agreements; 4) establish regional policies; and 5) enter into multinational agreements to establish international norms. Whatever long-term approach the U.S. chooses, the policy selection should meet certain criteria. First, the policy must actually monitor, regulate or stop the transboundary movement of hazardous wastes. Second, the policy should take into account the efficiency of exporting and importing hazardous wastes. Third, the policy must weigh the risks of the transboundary movement in hazardous wastes. Fourth, the policy should promote economic, industrial and social development for both the industrial and developing nations. Fifth, the U.S. should factor in the internal economic sustainability of the policy, in light of all the above criteria. Sixth, the policy should take into consideration the morality or equity of the hazardous waste trade. Finally, any policy must satisfy a "realpolitik" inquiry. Thus, the inquiry must first address the political feasibility of the policy, both domestically and internationally. The policy must then satisfy an inquiry into the practicality of implementation.

Up until this point, the U.S. has adopted a policy of primarily relying on unilateral and bilateral efforts. The U.S. has participated in international efforts, such as the United Nation's Basle Convention on the Control of Transboundary Movements of Hazardous Wastes (Basle Convention). However, the U.S. commitment to a true international, multifaceted approach proves dubious under closer scrutiny. Further examination of U.S. policy reveals that the essence of the U.S. approach focuses on unilateral and bilateral efforts to regulate the transportation of hazardous wastes. Indeed, the Basle Convention relies upon domestic enforcement mechanisms and permits bilateral agreements outside the treaty.

In order to understand the U.S. approach and its implications for the future, this Paper will focus on U.S. policies and efforts to regulate the transboundary movements of hazardous wastes. First, however, this Paper will examine the problem itself and the growing incentives to exporting waste. A brief survey of other U.S. international efforts will follow, including regional agreements with Canada and Mexico, as well as U.S. participation in the Basle Convention. I argue that the existing unilateral, regional and international mechanisms fail to satisfy the vast majority of the criteria outlined above; criteria that must be met to successfully monitor and regulate the international trade in hazardous wastes. The U.S. approach shall receive the most exhaustive analysis, and the brunt of the criticisms. In conclusion, I advocate the position that the U.S. should commit to more stringent international enforcement efforts to regulate and ultimately stop the transboundary movement of hazardous wastes.

Incentives to Export Hazardous Wastes

The obvious reason for the increasing growth in hazardous waste exports is

money. Domestic waste production, transportation and disposal companies face skyrocketing expenses. The U.S. Environmental Protection Agency (EPA) reported that the price for disposing of hazardous waste have increased "sixteenfold" over the last twenty years. The current disposal costs for landfilling range from $250 to $350 per ton.[16] Incineration costs rise above $2,000 per ton in some regions of the U.S.,[17] and the average soared from $500 in 1980 to more than $1,500 in 1989.[18] The costs in Europe correspond with the U.S. figures. While the monetary cost of hazardous waste disposal has increased significantly in the developed nations, the complexity of the hazardous waste problem, domestic pressures and international relations necessitate a greater explanation.

Indeed, the analysis of monetary expenses itself cannot end with the rise in domestic costs. Companies associated with the hazardous waste trade must consider the disposal costs in other nations as well as international transportation expenses. First, in less developed countries, low and least developed countries (LDC, LLDC), and newly industrialized countries (NIC) expenses range from $2.50 to $40 per ton to dispose of hazardous wastes.[19] A huge difference when compared to U.S. and European figures. Yet, generators and disposers must also factor in the administrative, packaging and transportation expenses associated with the export of hazardous wastes. Even taking into account those expenses, the marginal costs savings average at least $100 per ton, assuming the disposer complies with all legal requirements.[20] Under current estimates, the $100 per ton savings translates into a total financial savings, for all industrial disposers combined, ranging from $900 million to $1.05 billion annually.[21] For the average producer or disposer the financial motivations are obvious.

The financial analyses, however, fail to factor in the transfer of monetary risks to other nations and the long-term increase in liability, legal, clean-up and insurance costs for both the exporting and importing nations. In addition, the financial estimates do not assess the huge illegal hazardous waste trade and the related costs of regulation and enforcement. From a national policy perspective the financial data fail to reveal the whole situation.

The fact remains that disposal costs in the industrialized nations continue to skyrocket while they remain low in the LDCs and LLDCs. NICs occupy a transitional role. While costs remain relatively low, NICs are beginning to encounter their own hazardous waste glut as industrial activities grow in those countries. Thus, they now face, or will soon confront many of the problems outlined below.

"The growing public awareness about environmental issues in general and hazardous wastes in particular have provoked strong opposition to hazardous waste facilities and demands for greater regulation."

Within the developed and nations several factors contribute to the growing expense of disposing of hazardous wastes. On a fundamental level, greater environmental awareness plays a key role.[22] Within the U.S., Japan, and the European nations, the general public has become increasingly aware of the depletion of natural resources due to personal consumption, as well as air, land, and water pollution. Ultimately, the public is slowly realizing relationship between industrial growth, waste production, the environment and human health. High profile events such as the Love Canal toxic waste dump, the Union Carbide disaster in Bhopal, India, the Exxon Valdez oil spill, the Long Island "Garbage Barge," and the ozone controversy all contribute to heightened public

awareness. Closer to the topic at hand, a recent survey indicated the 43 percent of the public in OECD nations was concerned about industrial waste disposal, and 38 percent about transboundary pollution.[23]

The growing public awareness about environmental issues in general and hazardous wastes in particular have provoked strong opposition to hazardous waste facilities and demands for greater regulation. Although the U.S. Congress enacted the majority of U.S. environmental laws in the early 1970's, Congress has subsequently enlarged their coverage. In addition, government monitoring and enforcement efforts have generally increased due to public pressure. Laws such as the National Environmental Policy Act (NEPA),[24] the Comprehensive Environmental Response, Conservation and Liability Act (CERCLA),[25] and the Resource Conservation and Recovery Act (RCRA)[26] represent federal laws that have experienced renewed vitality.

RCRA establishes the backbone of the U.S. regulatory scheme in the hazardous waste arena. Congress amended RCRA in 1980, 1984 and again in 1988, each time expanding the coverage of the Act. In response to the RCRA amendments, the Environmental Protection Agency (EPA) expanded its definition of solid and hazardous wastes. First, in 1985, EPA redefined solid waste to included "any discarded material" not exempted by regulation.[27] In 1990, EPA promulgated a new "Toxicity Characteristic" rule to broaden its definition of hazardous waste.[28] The regulation added 25 organic chemicals to the EPA list. If one of the chemicals is present, the new rule forces the EPA to list the waste as hazardous and requiring special disposal or treatment. Individual states have similarly increased their efforts to regulate the disposal and transportation of hazardous wastes. Federal and state regulations often work jointly to require the highest level of regulation. For example, Congress enacted the Hazardous Materials Transportation Uniform Safety Act of 1990.[29] The Act provides that state statutes may afford equal or greater protection than Department of Transportation (DOT) standards so long as they are "substantively the same" as federal requirements.[30]

Similar activities have taken place in other industrialized nations. In Europe, West Germany has recently increased the number of wastes defined as hazardous from 80 to approximately 350.[31] The new law also requires producers and disposers to follow specific procedures for each hazardous waste.[32] At the same time, the German law strengthened the pollution regulations that landfill and incinerator operators must comply with.[33]

Public awareness and pressure have also increased community participation in the construction and citing of landfills and incinerators.[34] In most cases, community participation translates into community rejection. The Not In My Back Yard (NIMBY) mentality exerts a powerful influence over the establishment of new hazardous waste facilities. Today, not only are the white, middle-class neighborhoods able to wield significant political and legal clout in keeping these facilities out of their communities, but poor and minority neighborhoods have learned the game as well *[Ed. note: See Environmental Justice, page 23 of this volume].*

Consequently, landfill and incinerator operators must expend large amounts of money on public relations, legal fees and environmental studies if they wish to build a new facility. The operators assume these expenses with no guarantee that state or local government will approve the project. In addition, the heightened regulatory activities impose rigorous and costly restrictions on the operation of a hazardous waste facilities. As a result, disposal companies are building few new hazardous waste facilities.[35]

The U.S. Government Accounting

Office estimates the production of hazardous wastes increases 23 percent annually.[36] Translated, the U.S. hazardous waste total has grown to 268 million tons in 1986, up from a mere 9 million tons of hazardous waste in 1970. The cleanup of old, overlooked dumping sites, such as Love Canal, presents an additional source of hazardous materials in industrialized nations.[37] In the U.S, the number of contaminated sites in need of cleanup range from 30 to 50 thousand.[38] Belgium occupies the bottom of the European list with 850 contaminated sites, and West Germany tops the list with 35 thousand.[39]

The increase in the supply of hazardous wastes from both production and cleanup activities has created a crisis situation. In the five year period prior to 1987, approximately 2,700 landfills closed across the U.S. because they reached capacity levels.[40] The EPA estimates that "within a decade . . . more than half the states will have completely exhausted their landfill capacity and be unable to accept hazardous wastes."[41] Prior to unification, West Germany faced a 24 percent decrease in the number of landfills.[42] Introduce the East German toxic horror and who knows what the future will bring. Combine fewer new disposal and treatment facilities with the ever-increasing quantity of hazardous wastes and one can understand the growing costs of domestic disposal and the attraction of exporting.

Incentives to Import Hazardous Wastes

More intriguing than the industrialized world's motivations for exporting, however, is the large contingency of Third World nations which import, or have considered, importing hazardous wastes. Many factors drive the LDCs, LLDCs, and to a lesser extent, the NICs into the hazardous waste trade. In general, growing foreign debt burdens and shrinking economies make the large profits from importing hazardous wastes overpowering.[43] The World Bank estimates the total foreign debt of developing nations has grown from less than 100 billion in 1970 to over 1.2 trillion in 1990.[44] Weak commodity markets, the international monetary recession, and worldwide political instability have all contributed to the Third World malaise.

"Like water running downhill, hazardous wastes invariably will be disposed of along the path of least resistance and least expense. Conditions are ripe for finding 'safe havens' for hazardous waste around the globe." - Rep. James Florio

However, the importation of hazardous wastes brings not only greater income, taxes and licensing fees, but the waste itself. Each nation must weigh the short-term economic benefit with the long-term risks of importing the waste. Widespread lack of information regarding the adverse environmental and human health impacts complicate the decision. The lack of information begins with the governments themselves and extends to the largely undereducated citizens. Gross misrepresentations on the part of transporters regarding the actual hazards of the imported waste compound the problem.

Guinea-Bissau represents a perfect example of the financial quagmire that many Third World nations face and the overpowering lure of importing hazardous wastes. Guinea-Bissau, located on the western coast of Africa, has a population of 300 thousand. Guinea-Bissau is one of Africa's poorest nations with a Gross National Product (GNP) of $150 million and a growing foreign debt of over $300 million. The World Bank estimates its debt-service ratio at 1,900 percent.[45] OECD regards a 150 percent debt-service ratio at the margin to file bankruptcy. In 1988, the Swiss firm, Intercontract, in conjunction with a Detroit attorney, offered Guinea-Bissau a contract to import 50 thousand tons of hazardous wastes

annually over a 15 year period. The total shipment of 15 million tons would contain toxics such as arsenic, phosgene, and methyl isocyanate - all deadly. Intercontract offered Guinea-Bissau $120 million a year over five years for a total of $600 million. Guinea-Bissau initially agreed to the deal, but later canceled the agreement in response to massive public dissent.[46]

Heightened awareness about the environmental and human health dangers convinced Guinea-Bissau to repudiate the agreement. That same awareness has led some 83 nations to ban the import of hazardous wastes.[47] In fact, the 12-member EC and the 69-member African, Caribbean, and Pacific (ACP) states signed a complete ban on hazardous wastes trade between the two blocs.[48] Nevertheless the trade continues. Many LDCs, LLDCs and NICs are not able to resist such lucrative offers. As Greenpeace representative Jim Pucket recently said, "If left to the free market, the international waste trade will always flow in the path of least resistance -- to those areas of the world most devastated already by failed economies or war."[49]

The Path of Least Resistance - Legal? and Illegal Export Strategies

As long as the economic incentives exist to export, and the demand for the monetary gain related to importation continues, hazardous waste generators and transporters will find havens." Legal waste shipments represent only a fraction of the total trade in hazardous wastes. Sham recycling schemes and criminal shipments constitute a large proportion of the hazardous waste trade to the Third World. Indeed, no one knows the magnitude of illegal hazardous waste trade. The Inspector-General of the EPA testified before Congress that the EPA does not know whether it controls 10 or 90 percent of the wastes shipped abroad.[50]

According to the EPA, sham recycling takes two forms. First, the transporter classifies the waste materials as recyclable, and in actuality the receiver could recycle the waste. Instead the receiver, usually in the Third World, illegally disposes of the shipment in some other manner. The second method involves misclassification of the waste in order to avoid regulatory control on the generation, transportation, and disposal of the wastes.[51]

The legal recycling of hazardous wastes represents a large business in the LDCs, LLDCs and NICs. It also presents a controversial issue. Some developing countries, such as Korea, Taiwan, Mexico, and Argentina maintain that the recyclable value of hazardous wastes is economically crucial to their development. On the other hand, some industrialized nations, such as the Scandinavian countries and Switzerland, contend that "recycling" is a sham and a method of disguising waste that is in fact unrecyclable.[52] Current events lend support to the Scandinavian-Swiss contention. In October, 1992, the EC environment ministers agreed to allow the export of hazardous wastes to non-ACP nations for the purposes of recycling.[53] Further, a U.S. company recently shipped 10 tonnes of poisonous mercury to a British recycling firm in South Africa. Downstream from the "recycling" plant, Zulu villagers drank from a river with mercury concentrations 1.5 million times higher than the standard set by the World Health Organization.[54]

Illegal shipping represents another method of meeting the Third World demand for the cash flow associated with hazardous wastes. World Paper recently reported an example of the continuing demand for hazardous wastes in the face of the EC-ACP ban.[55] A Nigerian firm, called Nation Wide Consult, Ltd. advertised its waste disposal services to some European hazardous waste generators. The Lagos based firm sent a promotion letter, that read in part, "We . . . have succeeded in putting together locally, a scheme that is very safe

for the importation of hazardous waste into Nigeria."[56] The letter suggested to the European companies that they could label their hazardous wastes as "edible oil" to escape the strict export regulations now in place. Alternatively, the Lagos firm suggested that "[y]ou can export as [sic] hazardous waste, but without disclosing the destination."[57] The letter concluded, "We have the wherewithal to receive and handle [the hazardous waste]."

So too thought a Nigerian landowner in a separate incident. 24 months after illegally receiving hazardous waste, Sunday nana Nana died of respiratory disease.[58] U.S. News & World Report also reported on several "premature births and 19 deaths from contaminated rice" in the Koko region of Nigeria, where the waste was stored.[59] After the Nigerian government ordered a cleanup, three workers reported severe chemical burns, and doctors "reported that some of the crew were vomiting blood . . . and one man had been partially paralyzed."[60] The wastes contained several deadly chemicals, including PCBs.[61] The incident arose when an Italian businessman, Gianfranco Raffaelli, offered Sunday nana Nana $100 a month to store 4,000 metric tonnes of hazardous wastes in his backyard. Raffaelli, in conjunction with the Nigerian firm, Iruekpen Construction Co., falsified and forged documents and bribed Nigerian health inspectors and customs officials to get the wastes into the country.[62] Raffaelli made a $4.3 million dollar profit. And so the deadly trade continues legally or illegally.

Private importers and the Third World nations that accept hazardous waste imports face a stark reality associated with the short-term economic benefits they reap. Encouraging the importation of waste into a nation necessarily means a limited environmental regulatory system. Many of the prime international importers face such adverse economic conditions that environmental and human health considerations often wind up at the bottom of their priority lists. Thus, the pressures to import remain high. As discussed above, economic factors also motivate private generators, transporters and disposers of hazardous waste in the industrial nations. But what about the U.S. legal efforts to regulate the hazardous waste trade? As we shall see, the U.S. efforts attempt to walk the line between the economic interests and calls for greater regulation and protection. Usually, U.S. efforts fall on the commerce side of the fence at the expense of adequate protection.

U.S. Policy and Practices

The Resource Conservation and Recovery Act (RCRA)[63], originally passed in 1976 and later amended in 1984 and 1988, represents the primary U.S. effort to regulate hazardous wastes from "cradle to grave." Although RCRA as originally enacted did not expressly mention exports, the generation and transportation provisions applied equally to waste destined for domestic or international disposal. The 1984 Hazardous and Solid Waste Amendments (HSWA)[64] marked the first congressional attempt to address the export of hazardous wastes.[65] Congress passed the

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HSWA export provisions based on two fundamental, but conflicting premises. First, market mechanisms should govern international transactions in hazardous wastes, not paternalistic, extraterritorial applications of U.S. law.[66] Second, generators and transporters should conduct their business in such a way "to promote the protection of health and the environment."[67] With these two goals in mind, Congress expanded the coverage of RCRA to the transboundary movement of

hazardous wastes. However, as is evident upon examination of RCRA, the HSWA export provisions reflect the open commerce goal, to the neglect of the health and environment protection goal.

The dilemma between commerce and protection in hazardous waste exportation first came to a head during the Carter Administration. In 1981, President Carter signed Exec. Order No. 12,264.[68] The Order required U.S. officials to review the export of all domestically banned and restricted products or substances.[69] The Order allowed the export of most materials, providing the importing nation's government was notified. In the case of "extremely hazardous" products or substances, Department of State officials were required to condition hazardous material export permits upon consent of the importing government. A month later, President Reagan revoked the Carter Order. President Reagan termed the policy a "self-inflicted trade barrier" and cited State and Commerce Department reports which suggested the notification and consent requirements would put U.S. firms at a competitive disadvantage.[70]

In 1984, when Congress enacted HSWA, the weight seemed to shift to the health and environmental protection goals. The RCRA amendment imposed notification and consent requirements similar to the Carter Order. Essentially, HSWA prohibits the export of hazardous wastes unless the exporter notifies and obtains consent from the importing government.[71] The RCRA statutory requirements represent the "prior informed consent" (PIC) approach, the foundation of U.S. policy and practice.

The RCRA provisions grant the Environmental Protection Agency (EPA) primary authority to monitor and regulate the extraterritorial transportation of hazardous wastes.[72] Any person who intends to export a hazardous waste must notify EPA. The notification must contain: (1) basic information about the exporter; (2) the type and estimated total quantity of hazardous waste; (3) the period and frequency of the shipments; (4) the ports of entry to and departure from each country through which the waste will pass; (5) the manner of transportation and method of treatment, storage or disposal; and (6) basic information about the primary and any alternative disposal facilities.[73] The notification can cover multiple shipments of multiple hazardous wastes for a maximum period of 12 months.[74]

Within 30 days of notification, RCRA § 6938(d)(1) requires the Secretary of State,[75] "acting on behalf of the Administrator" to forward a copy of the exporter's notification to the government of the receiving country. The EPA added a requirement that the Secretary transmit the notification to any country through which the waste will pass.[76] In addition, the Secretary must forward a description of the federal regulations that would apply to the treatment, storage and disposal of the hazardous waste in the U.S.[77] She must advise the receiving country that U.S. law requires the consent of that country before exportation.[78] Lastly, the Secretary must request a written consent or objection to the terms of the notification.[79] The importing country may then consent to the notification, consent with conditions, object, request additional information for consideration, or do nothing. If the importing nation conditions the approval, objects or chooses to do nothing the exporter has no legal recourse under RCRA. The importing country must consent in writing in order for the exporter to ship the waste.[80]

At that point in the process, the EPA Administrator must convey the consent, objection or other communication to the exporter within 30 days of the Secretary's receipt of the communication. In practice the importing country reserves the power to withdraw or further condition a prior consent at any point. If, however, the exporter should change the terms contained

within the notification or consent requirements, then she must renotify EPA. The importing country must then provide another written consent before the exporter may ship the waste.

The EPA compels the hazardous waste exporter to meet additional regulatory requirements before shipping. Exporters must prepare an extensive manifest with the importing country's written consent attached. The exporter must also certify that the shipment conforms to the conditions contained in the consent.[81] During transport, the exporter must ensure that the manifest and consent forms accompany the shipment at all times.[82] Once the waste is in the importing country, the exporter must ensure delivery to the designated or alternate facility. If unable to do so, the exporter must notify the EPA of the change in conditions and must wait for the receiving country to consent to the change. If such consent is not forthcoming then the exporter must return the waste to the U.S.[83] Thus, RCRA and the related EPA regulations place stringent requirements on the generator and transporter who wishes to dispose of hazardous waste outside of the U.S. Even with these strict requirements the number of notices of intent to export hazardous filed in the U.S. rose from 12 in 1980 to over 600 in 1988.[84]

However, as implemented, the HSWA export provisions of RCRA contain several loopholes and deficiencies. First, the PIC procedures required by RCRA do not cover "non-hazardous" wastes, even when the wastes are defined as hazardous abroad.[85] As Subcommittee on Government Operations Chairman Mike Synar (D-Okla.) noted, the classification problem is "beginning to pose environmental, health, and diplomatic problems."[86] The most notorious "non-hazardous" waste incident involved the exportation of municipal incinerator ash from Philadelphia, Pennsylvania.

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In August 1986, the ship *Khian Sea*, loaded with 15 thousand tons of the toxic ash, left Philadelphia headed for the Bahamas. After Greenpeace, rather the EPA, notified the Bahamian authorities of the hazardous nature of cargo, the *Khian Sea* was turned away. An unbelievable two-year journey then began. The *Khian Sea* made several fruitless stops before dumping 2,500 to 4,500 tons of the toxic incinerator ash on a Haitian beach.[87] The captain of the ship generously described the cargo as non-hazardous "top soil ash fertilizer."[88] Greenpeace again notified the authorities of the true nature of the cargo. Haitian officials were infuriated and ordered the ship to leave. After the ship left Haiti, countries on five continents rejected the *Khian Sea's* cargo, primarily due to Greenpeace efforts.[89] In November 1988, the *Khian Sea* docked at an Indian harbor with an empty cargo hull.[90] Greenpeace officials speculate that Philadelphia's "non-hazardous" municipal incinerator ash was dumped in the Indian Ocean.[91] Thus far Congress has not remedied the classification problem. As a result, the EPA can not monitor or regulate the export of "non-hazardous" wastes, and the U.S. continues its political exposure to such debacles as the *Khian Sea* affair.

The second deficiency of the HSWA export provisions is the lack of ground-level compliance monitoring measures. Congress has consistently underfunded and understaffed the EPA program on hazardous waste exports.[92] In 1988, the EPA assigned one person to handle the entire program.[93] Compounding the problem, Congress created bureaucratic disarray when

it apportioned responsibilities between the EPA, the Customs Service and the State Department.[94] The EPA Inspector General, John C. Martin, testified before Congress that an audit conducted by his office "found instances where hundreds of tons of hazardous waste were exported without notifications."[95] Mr. Martin testified that his office uncovered evidence that nine U.S. companies exported more than 790 tons of hazardous waste to Canada without filing notification forms with the EPA.[96] Moreover, the audit discovered that "enormous quantities of hazardous waste were exported without exporters filing the required annual reports."[97] These instances confirm that EPA is underfunded, understaffed, and that the current U.S. regulatory system has proven inadequate. The EPA audit concluded that "hazardous waste exporters could disregard EPA regulations with little chance of detection."[98]

The third problem involves the liability provisions of RCRA. Congress, in fact, established stringent civil and criminal penalties for violations of RCRA and the HSWA export provisions.[99] However, several factors undermine the effectiveness of the otherwise strong penalty provisions. The EPA fails to prosecute the vast majority of violations that take place because of the funding, staffing and bureaucratic weaknesses outlined above.[100] Equally significant, only the U.S. government may bring enforcement actions for extraterritorial violations of RCRA and HSWA.[101] Once a hazardous waste shipment leaves U.S borders, neither a foreign government nor private parties can enforce the generation, transportation, disposal or export provisions of RCRA. In short, Congress did not provide for RCRA's extraterritorial application. Absent clear congressional intent, the courts presume that the domestic legislation applies only within the U.S.[102] Similarly, complainants cannot enforce extraterritorial violations of CERCLA, the other half of the U.S. regulatory and liability system for domestic hazardous waste treatment.[103] Conflict of law dilemmas, violation of national sovereignty, and inappropriate paternalism are often cited as rationale for not applying environmental liability and enforcement provisions outside the U.S.[104]

Notwithstanding the deficiencies, Congress established comprehensive liability provisions for violations of RCRA. The civil penalty provisions grant the EPA Administrator the right to issue an order requiring RCRA compliance within specified time period or she may commence a civil action to force compliance.[105] Civil penalties may reach $25 thousand for each violation, and each day constitutes a separate violation for purposes of the provision.[106] In part, the criminal penalty provisions allow the Administrator to prosecute persons who knowingly transport, treat, store, dispose of, or export any listed hazardous waste and "thereby places another person in imminent danger of death or serious bodily injury."[107]

In 1984, HSWA added § 6928(d)(6) to RCRA, which permits the prosecution of transporters who export a listed hazardous waste without the consent of the receiving country. Exporters may also face criminal sanctions if they transport or dispose of hazardous wastes in violation of an international agreement where one exists between the U.S. and the importing country.[108] The criminal penalties cannot exceed $50 thousand for each day of the first violation or five years imprisonment.[109] For each subsequent violation, the maximum punishment shall double with respect to both fine and imprisonment.[110] In addition to the other criminal provisions, the penalties for knowing endangerment convictions can reach $250 thousand and fifteen years in prison for individuals, and $1 million for organizations.[111]

U.S. Bilateral Agreements with Canada and Mexico

In 1986, the United States signed bilateral agreements with Canada and Mexico on the transboundary movement of hazardous wastes.[112] The agreements constitute an integral component of U.S. hazardous waste policy, as Canada and Mexico are the primary recipients of U.S. hazardous wastes. Of the known U.S. exports, Canada accommodates approximately 80 to 90 percent of U.S. hazardous waste, and Mexico admits 10 to 12 percent of the remainder.[113] The treaties also present an interesting scenario to reflect over when considering the shape of future U.S. policy. Canada, as an industrialized nation, can theoretically manage the waste. Whereas Mexico arguably lacks the regulatory and enforcement capabilities to handle the more than 16 thousand tons of hazardous wastes it receives annually from the U.S.[114]

Although the RCRA export provisions do not apply to Canada and Mexico because of the agreements, the substance of both treaties resemble the PIC provisions of HSWA.[115] Notwithstanding the similarities, the HSWA provisions and the treaties differ in fundamental ways. Unlike RCRA, an exporter may transport hazardous waste into Canada unless that government objects to the shipment within thirty days.[116] The U.S.-Mexico Agreement does not contain such an implied consent provision, but instead requires written consent within 45 days after the importing country receives the notification.[117] Deviating from HSWA, both agreements require that waste shipments conform to the regulations of the importing country with respect to the transport and the definition of hazardous wastes. Neither agreement, like RCRA, imposes compliance with any U.S. standard for treatment, storage or disposal. The agreements rely upon Canadian and Mexican regulations to govern the transportation, treatment, storage and disposal of the waste once it reaches the border to those countries.[118]

To conform with Canadian regulations, U.S. waste generators must register with Canada and provide the same information required of domestic generators.[119] Other provisions in the U.S.-Canada Agreement call for cooperative efforts to monitor and spot-check hazardous waste shipments in order to ensure compliance with the regulations of both countries.[120] Finally, the agreement provides for the readmittance of a shipment if the receiving country chooses to return the waste.[121]

The U.S.-Mexico Agreement also requires the coordination of monitoring and spot-checking efforts, as well as the exchange of information between the two nations pertaining to transboundary shipments of hazardous waste.[122] The most important requirements of the agreement relate to the "Maquiladora Program."[123] [*Ed. note: See Standoff at the Border, page 75 this issue*] The agreement includes specific provisions for raw materials brought into Mexico for processing and manufacturing at maquiladora (foreign owned) industrial plants. If the manufacturing process generates hazardous wastes, the maquiladora shall readmit the waste into the county where the raw material originated.[124] Finally, the enforcement and liability provisions require that in case of a hazardous waste shipment that does not comply with the agreement or national law, the exporting country - the EPA - shall undertake all "practicable steps" to take legal action. Those steps include: 1) return

"... Canada accommodates approximately 80 to 90 percent of U.S. hazardous waste, and Mexico admits 10 to 12 percent of the remainder."

the hazardous waste to the exporting country; 2) return the ecosystem to the *status quo*; and 3) repair monetary damages caused to persons, property and the environment.[125]

On its face, the U.S.-Mexico Agreement mandates more stringent requirements than the agreement between the U.S. and Canada. However, the PIC procedures appear to work better with Canada. Even though the EPA found evidence of nine illegal shipments to Canada, constituting 790 tons of hazardous waste,[126] over 500 shipments went to Canada that year. Moreover, Canada successfully rejected 61 proposed exports to their country during that period.[127] The primary reason revolves around the fact that exporters ship a vast majority of the waste to only two facilities.[128] Further, Canada has the wherewithal to monitor and enforce the provisions of the agreement, as well as its own transportation and disposal regulations.[129]

On the other hand, the U.S.-Mexico Agreement has proven difficult to enforce. Mexico faces severe economic difficulties which lead to the undervaluation of human health and environmental protections. The complexity of applicable regulations and bureaucratic disarray between the two nations also contribute to the problem.[130] Furthermore, the recognized prevalence of "sham recycling"[131] undermines the enforceability of the agreement.[132] Lastly, consider the adequacy of the ultimate destination. Canada effectively manages state-of-the-art facilities that pose little known hazard to human health or the environment.[133] In Mexico, a dependable treatment and disposal system simply does not exist due to the lack of money, staff and basic implementing legislation.[134] In the final analysis one can only conclude that the U.S.-Mexico Agreement fails to adequately regulate the transboundary movement of hazardous wastes between the two nations.

U.S. Participation in the Basle Convention[135]

On May 17, 1991, then President George Bush transmitted to the Senate for its advice and consent the Convention on the Control of Transboundary Movements of Hazardous Wastes (Basle Convention). The Bush Administration, after signing the Basle Convention on March 22, 1989, advocated that "[t]he Convention, which was negotiated under the auspices of the United Nations Environment Program with the active participation of the United States, makes environmentally sound management the prerequisite to any transboundary movement of wastes."[136] Although a respectable first step, the Basle Convention has not lived up to Mr. Bush's expectations. In 1989, 116 nations had officially approved the Convention,[137] but it failed to enter into international force until May 5, 1992, when the requisite number of countries actually signed.[138] Thus far, only 54 nations have signed and twenty nations have ratified the Convention.[139] The Senate did ratify the Convention in August of 1992. The Basle Convention remains a ghost in U.S. law, however, as initial attempts to enact domestic implementing legislation have failed.

"The notice-and-consent regime the Basle Convention establishes advances environmental goals that the United States has long held."
- President George Bush

The Basle Convention adopts the PIC approach to regulating the transboundary movements in hazardous waste.[140] The Convention, like RCRA, requires the notification and consent of the importing country before the exporter can ship the hazardous waste.[141] The intent to export notification must contain analogous information to what RCRA requires.[142] The notification may also embrace multiple shipments of waste over a 12 month

period.[143] Moreover, Basle requires the exporter to comply with the terms and conditions of the consent, and to ensure the manifest and consent forms accompany the shipment at all times.[144] As illustrated above, the PIC approach adopted by the Basle Convention, and several of its specific requirements, mirror RCRA. U.S. fingerprints are undeniably all over the Basle Convention, but in many ways RCRA and the Convention differ.

Expanding U.S. responsibilities under RCRA, the Basle Convention applies to exports of not only hazardous waste, but municipal waste and residues from municipal incineration.[145] The Convention also defines hazardous waste more broadly than RCRA.[146] Furthermore, transit countries must provide written consent to the waste shipment, not only the importing country.[147] More significant, however, is the Basle Convention's "environmentally sound management" requirement.[148] The Convention requires that the exporter and exporting country ensure that hazardous waste shipments are treated or disposed of in an environmentally sound manner within the importing country.[149] Equally important, signatories must enter into an international liability protocol. The protocol will establish liability and compensation guidelines for damages resulting from the illegal transboundary movement and disposal of waste.[150] The protocol will apply equally to the exporter and the exporting country. Therefore, the Basle Convention holds the exporting country, not only the exporter, legally accountable for the "hazards" created by the improper management of its waste. A significant departure from RCRA.

Ultimately, the Basle Convention attempts to remove the monetary incentives to exporting hazardous waste. The Basle Convention advances towards that end by requiring hazardous waste management in an "environmentally sound manner" and by imposing liability on the exporter and the exporting country for improper hazardous waste transportation and disposal. Only time will tell whether the Basle Convention will reach those lofty goals. The long-term survival of the Basle Convention depends, in significant part, on active U.S. participation. Consequently, the U.S. Congress should take the next step to furthering the lofty goals of Basle by enacting domestic implementing legislation.

The Limitations of PIC & Future U.S. Policy - The Complete Ban

PIC sums up the current U.S. solution for regulating the transboundary movements in hazardous wastes. Domestically, Congress enacted the HSWA provisions of RCRA to further the PIC approach. On the international front, the Canadian and Mexican agreements and the Basle Convention provide the vehicles for the U.S. position. Two related questions remain, however. First, does current U.S. policy meet the criteria outline above, and hence further U.S. long-term interests? If not, what policy approach should the U.S. adopt? Let us consider the first question.

The initial criteria that the policy must satisfy is that it adequately monitor, regulate or stop the transboundary movement of hazardous wastes. Current U.S. policy fails horribly with respect to the adequacy of the regulation, and does not purport to stop the trade in hazardous waste. Underfunding and understaffing of the enforcement agencies, classification discrepancies, bureaucratic disarray, and the limited scope of the liability provisions contribute to the overall lack of regulation. The U.S.-Canada Agreement represents the only possible exception to the weak regulation rule.

The policy must also weigh the human health and environmental risks against the efficiency of the transboundary movement in hazardous wastes. Obviously any transportation and disposal of hazardous wastes presents risks. Under the PIC regime, those risks are predominantly

shifted from the exporting to the importing country. Countries that can not adequately manage the waste because of the lack of money, infrastructure and technology. Not all risks are shifted, however. The exporter must transport the waste large distances within the exporting country. Current data does not exist comparing accident levels between waste treated domestically and waste exported for disposal, but common sense indicates the farther the waste is transported, the more likely accidents will happen.

On the other hand, the export of hazardous wastes presents economic efficiency considerations. U.S. generators and exporters, and disposers in the importing countries, receive economic benefits from the practice. Essentially, the debate is reduced to private economic benefit versus public risk. The scales tip toward the public as the human health and environmental risks to the U.S. and other nations are too high. In addition, other economic interests outweigh the economic interests that the hazardous waste trade protects, as the following discussion demonstrates.

The policy should also represent a sustainable way to promote economic, industrial and social development for both the industrial and developing nations. Current economic analyses of the impact of restricting the export of hazardous wastes fail to consider the large, but shrinking, market that exists in this country to treat, store and dispose of the wastes. Disposal, legitimate recycling and waste minimization companies represent big business. In addition, the technologies that develop out of such programs benefit industrial growth by making industry cleaner and more efficient over the long-term. Equally important is the sustainable economic development of the LDCs, LLDCs and NICs. Importing hazardous wastes from the U.S. does not represent a viable future for these nations.

Finally, the policy must weigh the morality or equity of the hazardous waste trade against a "realpolitik" inquiry. Domestic economic interests represent the primary barrier to enacting more stringent legislation limiting the transboundary movement in hazardous wastes. These interests must give way to long-term development and international considerations. The U.S. can ill-afford such international debacles as the *Khian Sea* affair. In addition, the export of our hazardous waste problem brings into question moral issues. Simply stated, the export of hazardous waste to the Third World represents a morally derelict policy.

"Danger: Basel Convention Legalizes Toxic Terror." - Greenpeace

In my view, the U.S. should expend more energy exporting legitimate recycling technologies, and clean and efficient industrial programs.

Although the Basle Convention takes significant steps to monitor, regulate and hold accountable violators, Basle is currently a paper tiger. Thus far, it lacks any enforcement capability. With only 20 countries ratifying the convention, and no staff and little money, the criticisms appear valid. Several LDC's and LLDC's, argue that the PIC approach adopted by the Basle Convention is inherently flawed. Along those lines, Greenpeace has argued that RCRA and the Basle Convention merely facilitate "toxic colonialism."[151] Indeed, Greenpeace, in response to the Convention, draped a banner on the building across from the conference center stating "Danger: Basel Convention Legalizes Toxic Terror."[152]

Currently, the "Waste Export Control Act" (WECA) represents the only viable step to meeting the above criteria.[153] The bill, first introduced in the spring of 1989 and reconsidered in later years, limits the export of hazardous wastes to exceptional circumstances. The

substantive provisions of WECA reflect both a moral and a practical concern. WECA, unlike current RCRA provisions, fully acknowledges the responsibility of the U.S. for protecting human health and the environment. The bill also recognizes international "realpolitik" considerations.

WECA's stated purpose is to amend RCRA by banning exports of solid waste, incinerator ash, and toxic waste unless a bilateral agreement or an export permit guarantee that the exporter will transport and dispose of the waste in an safe manner.[154] The exporter must demonstrate that the disposer will utilize processes that protect human health and the environment in ways "no less strict than that which would be required by this Act if the solid waste were managed in the United States."[155] The permit requirements are extensive. The exporter must include not only basic information about the shipper, but must provide extensive documentation on all parties involved in the export scheme. The information that WECA requires includes the waste trade experience of the parties, their competency and reliability, and the ability of those parties to pay for potential damages.[156] Most importantly, under WECA, the EPA could refuse to grant exporters a permit if they have not taken "reasonable efforts to eliminate or minimize waste generation prior to export."[157]

WECA also provides rigorous and widely applicable liability provisions. WECA states that if the export of hazardous wastes injure or destroy natural resources within the importing country, the foreign government may sue in the U.S. to collect compensation damages on behalf of its citizens.[158] In addition, the bill seeks to amend RCRA § 6928(d)(6) by broadening criminal liability to include the knowing export of waste in the absence of an international agreement.[159]

Congress has thus far taken no action to enact WECA. Although WECA fails to eliminate the transboundary movement in hazardous wastes, it represents a politically viable and significant step in the right direction. The bill weakens the stranglehold of the PIC approach and gives the enforcement agencies some teeth. However, Congress must also fund and staff the enforcement agencies or WECA will be a paper tiger, much like the Basle Convention.

Conclusion

At the heart of both RCRA and the Basle Convention is the goal of waste minimization.[160] Legitimate recycling and source reduction programs constitute a central component of that goal.[161] Congress found, when implementing RCRA, that the recovery and conservation of [usable] materials can reduce the dependence of the U.S. on foreign resources."[162] As long as developing and developed nations provide as cheap source of hazardous waste disposal, exportation will continue to grow and frustrate the waste minimization goals of RCRA. Generators, transporters and disposers will choose to export rather than develop and implement recycling, source reduction and waste minimization programs. The U.S. government, by allowing the export of hazardous wastes, undermines the laudable goals Congress set when it enacted RCRA and ratified the Basle Convention.

Most importantly, the U.S. should fulfill its political, economic, human health, environmental, and ultimately, moral obligations. The EC and developing nations are taking steps to ameliorate the hazardous waste problem. Meanwhile, the U.S. Congress fails to take action on WECA or enact Basle Convention implementing legislation in order to give RCRA teeth. As incidents like the *Khian Sea* mount, other countries can only conclude that the U.S. is derelict in its duties. Such efforts as the Sbicca prosecution represent only a "finger in the dam" of the illegal hazardous waste trade and cannot stop the deadly flood of hazardous wastes.[163]

Simply stated, the PIC approach

which allows the continued export of hazardous wastes helps destroy the U.S. capacity to lead the world into the 21st Century. Therefore, the U.S. must first take the politically feasible steps of enacting WECA and implementing the Basle Convention in order to strengthen the monitoring, enforcement and liability provisions of RCRA. Yet, strengthening the PIC approach is insufficient. Ultimately, the U.S. must ban the export of hazardous wastes and stop dumping on our neighbors.

ENDNOTES

1. Alan Abrahamson, *Firm Admits Guilt in Toxic Shipment*, Los Angeles Times, December 3, 1992, at B1.
2. Andrea Shalal-Esa, *Congress Gridlock Blocking Bid to Curb U.S. Toxic Waste Exports*, The Reuter Business Report, Aug. 13, 1992 (available on Lexis) [hereafter Shalal-Esa].
3. *Waste Export Control: Hearing on H.R. 2525 Before the Subcomm. on Transportation and Hazardous Materials of the House Comm. on Energy & Commerce*, 101st Cong., 1st Sess. 23 (1989) [hereafter Hearings on H.R. 2525]; Christoff Hilz, The International Toxic Waste Trade 21, 38 (1992) [hereafter Hilz].
4. Richard M. Hall, Jr., RCRA Hazardous Wastes Handbook 4-1 (9th ed., 1991).
5. "Generate" and its derivatives are used interchangeably with "produce" and its derivatives.
6. *Go tell it on the mountain (of garbage); Facts and figures on a smelly, dirty, toxic, and growing problem*, World Paper, March 1993, at 3. [hereafter Go tell it on the mountain].
7. Brian Love, *Taming trash or trading it -- Europe in a quandary*, The Reuter Library Report, Sept, 25, 1992 (available on Lexis) [hereafter *Taming Trash*]; Commission of the EC. 1989, *A Community Strategy for Waste Management*. SEC (89) 934; Hilz, at 20.
8. *Taming trash.*
9. Hilz at 23 (citing Ministry of Health and Welfare, *Solid Waste Management in Japan*, 18 (Tokyo 1990)).
10. Hilz at 21 (citing OECD study).
11. *Hearing on H.R. 2525*; Shalal-Esa; Hilz at 22.
12. Hilz at 19, 23-24.
13. Hilz at 24 (citing OECD study).
14. Hilz at 22.
15. Hilz and J.R. Ehrenfeld, *Transboundary Movements of Hazardous Wastes*, Int'l Envtl Aff. Vol.3, No.1, 27 (Winter 1991).
16. Hilz at 45; Worldwatch Institute, *State of the World 1988*, 3 (Norton & Company, 1988).
17. Ibrahim J. Wani, *Poverty, Governance, Rule of Law, and International Environmentalism: A Critique of the Basel Convention*, 1 Kan. J.L. & Pub. Pol'y 37, 38 (1991).
18. Hilz at 45.
19. *Id.* at 46.
20. *Id.* at 46.
21. *Id.*
22. *Id.* at 42.
23. *Id.*
24. 42 U.S.C § 4321 *et seq.* (1988).
25. 42 U.S.C. § 9601 (1988). Congress enacted CERCLA in 1980. The Superfund Amendments and Reauthorization Act (SARA) strengthened CERCLA in 1986.
26. 42 U.S.C. § 6901 *et seq.* (1988). RCRA was enacted in 1976 and last amended in 1988.
27. 40 C.F.R. § 261.2(a) (1985).
28. 55 Fed. Reg. 11798 (Mar. 29, 1990); *see also, Environmental Defense Fund v. Reilly*, 884 F.2d 1431 (D.C. Cir. 1989)(the circuit court ordered EPA to promulgate new regulations by March 15, 1990).
29. Pub. L. No. 101-615.
30. 49 U.S.C. § 1804 (a)(4)(A),(B) (Supp. 1992)
31. Hilz at 43.
32. *Id.*
33. *Id.* at 44.
34. U.S. hazardous waste disposal falls into three categories: landfilling, physical-chemical treatment and incineration. Although this Paper makes little distinction between the methods of disposal, the reader should keep this in mind. European nations, in particular West Germany and the United Kingdom, have conducted deep sea incineration and dumping for many years. After considerable international outcry most European nations have stopped or significantly curtailed their dumping activities. Currently, 45 tons of mercury, 3,500 tons of lead, and 95 tons of cadmium are dumped into the North Sea each year. Hilz at 32-34.
35. Hilz at 41-42.
36. *Id.* at 38.
37. *Id.* at 39-41.
38. R. Findley and D. Farber, *Environmental Law in a Nutshell* 162 (1988).
39. Hilz at 41.
40. *Id.* at 41. *See also* Porterfield & Weir, *The Export of U.S. Toxic Wastes*, The Nation, Oct. 3, 1987, at 340-341 [hereafter Porterfield & Weir].
41. *Id.*
42. *Id.*
43. *Id.* at 47-50.
44. World Bank, *World Debt Tables*, vols. 1-3, Washington, D.C. (1989).

45. The debt-service ratio represents the amortized interest payments on foreign debt as a percentage of the countries exports of goods and services.

46. Anderson, *The Global Poison Trade*, Newsweek, Nov. 7, 1988, at 66.

47. *Go tell it on the mountain* at 3; *see also* David J. Abrams, *Regulating The International Hazardous Waste Trade: A Proposed Global Solution*, 28 Colum. J. Transnat'l L. 801, 840 (1990).

48. Debra Percival, *Environment: EC Fights Back by Publicizing Toxic Waste Trade*, Inter Press Service, November 9, 1992 (available on Lexis) [hereafter Percival].

49. *Taming Trash; see also*, Kenda Jo M. McCrory, *The International Exportation of Waste: The Battle Against the Path of Least Resistance*, 9 Dick. J. Int'l L. 339 (1991) [hereafter McCrory] (criticizing RCRA prior informed consent strategy and calling for greater U.S. leadership in Basle convention).

50. Hilz at 17.

51. *Id.*

52. *UNEP Conference Ends Without Calling For Toxic Trade Ban*, Int'l Envt. Daily (BNA), Dec. 8, 1992 (reporting on United Nations Environmental Program conference convened to deliberate the Basle Convention).

53. Percival.

54. Wood, *Global Dumping: My Trash, Your Country*, World Paper, March 1993, at 9.

55. *Id.*

56. *Id.*

57. *Id.*

58. *Go tell it on the mountain.*

59. *Dirty jobs, sweet profits*, U.S. News & World Report, November 21, 1988, at 55 [hereafter *Dirty Jobs*].

60. Hilz at 30.

61. PCB stands for polychlorinated biphenyl. PCBs refer to over 200 flame-resistant compounds used primarily in electrical equipment such as transformers, capacitors and heat-transfer systems. Mary Critharis, *Third World Nations are Down in the Dumps: The Exportation of Hazardous Waste*, 16 Brooklyn J. Int'l L. 311 (1989). PCBs are stable even at high temperatures, and may not break down in the environment into non-toxic compounds for many years. J. Gordon Arbuckle, Michael A. Brown, et al., Environmental Law Handbook, 178, (8th ed., 1985). The toxicity of PCBs has been widely noted. In fact, the U.S. has expressly prohibited manufacturing PCBs since 1979, when it passed the Toxic Substances Control Act (TSCA), 15 U.S.C.A. § 2601 et. seq. (1988).

62. *Dirty Jobs* at 55.

63. 42 U.S.C.A. §§6901 *et seq* (1988).

64. Codified at 42 U.S.C.A. §§6921-6923, 6938, HSWA went into effect on November, 8 1986.

65. RCRA, as amended, does not address the disposal of exported wastes. This Paper will argue *infra* that the lack of disposal provisions constitutes a major shortcoming of RCRA.

66. *See* James J. Florio, *Congress as Reluctant Regulator: Hazardous Waste Policy in the 1980s*, 3 Yale J. on Reg. 351 (1986) (describing Congressional intent behind passage of RCRA); Greg D. Galli, *Hazardous Exports to the Third World*, 12 Colum. J. Envt'l L. 71, at 74-79 (1989) (discusses the rationale for the U.S. policy position on the international trade in hazardous wastes); Cyrus Mehri, *Prior Informed Consent: an Emerging Compromise for Hazardous Exports*, 21 Cornell Int'l L.J. 365 (1988) (criticizing the U.S. and international notice and consent provisions as inadequately protecting world health and the environment).

67. RCRA § 6902 (1988).

68. 46 Fed. Reg. 4659 (1981).

69. Department of State officials were to supervise the activities of other responsible agencies, such as the Department of Commerce and the U.S. Environmental Protection Agency.

70. *See* Report to the President on the Review of U.S. Hazardous Substances Export Policy; Cover Letter to U.S. Trade Representative from Secretaries Haig and Baldridge, *reprinted in* 5 Int'l Env't Rep. (BNA) No. 6, at 267-68 (May 10, 1982); Captain Peter D.P. Vint, *The International Export of Hazardous Waste: European Economic Community, United States, and International Law*, 129 Military L.R. 107 (1990) [hereafter Vint] (surveying U.S. and international law, including the Basle Convention).

71. RCRA § 6938(c),(d) (1988).

72. Specifically, RCRA §§ 6903(1), 6904-6913, 6922-6923 and 6925 delineate the authority of Administrator of the Environmental Protection Agency to promulgate regulations and to monitor and manage the generation, transportation and disposal of solid and hazardous wastes. Section 6938(b) grants the Administrator authority to promulgate regulations regarding the export of wastes. Sections 6938(c)-(h) further grant the Administrator, in conjunction with the Secretary of State, the duty and power to implement the provisions of the section. The Administrator necessarily delegates a majority of the duties mandated under RCRA to subordinates within the EPA.

73. RCRA § 6938(c)(1)-(6); 40 C.F.R. § 262.53(a) (1989). *See also* Stephen Johnson, *The Basel Convention: The Shape of Things to Come for United States Waste Exports?* [hereafter Johnson] 21 Envtl L. 299 (1991) (discussing RCRA's notification and consent requirements).

74. 40 C.F.R. § 262.53(a).

75. The President appoints the Secretary of State, a Cabinet level position, to head the Department of State, the primary foreign relations office in the U.S. government. The Secretary of State necessarily delegates the duties mandated under RCRA to subordinates within the Department of State.

76. 40 C.F.R. § 262.53(e) (1989). *See also* Johnson at 309.

77. RCRA § 6938(d)(4) (1988).

78. RCRA § 6938(d)(2) (1988).

79. RCRA § 6938(d)(3) (1988).

80. RCRA § 6938(a) (1988).

81. 40 C.F.R. § 262.54(g) (1989).

82. 40 C.F.R. § 263.20(c) (1989).

83. 40 C.F.R. § 262.54(g) (1989).

84. Hilz at 103; *see also Go tell it on the mountain.*

85. The "EPA interpreted congressional intent in enacting HSWA as not requiring the notification and consent provisions to apply to wastes not regulated within the U.S." The EPA Inspector-General then testified that Congress should broaden the procedures to cover municipal waste, including those not legally defined domestically as "hazardous." *International Export of U.S. Waste. Hearing before a Subcommittee of the Government Operations*, 100th Congress, 2nd Sess. (1988) [hereafter Government Operations Hearings]. *See also* Hilz at 102; F.J. Handley, *Hazardous Waste Exports: A Leak in the System of International Legal Controls*, 89 Envt'l L. Rep. 10171-182 (1989) [hereafter Handley] (detailing the options for altering U.S. controls presented by an EPA-State Department interagency working group).

86. *Government Operations Hearings* at 1.

87. *Hearing on H.R. 2525* at 163 (statement of Rep. John Conyers, Jr.).
88. *Government Operations Hearings* at 112. *See also* Hilz at 26.
89. *Hearings on H.R. 2525* at 165.
90. *Id.*
91. *Id.*
92. *Id.* at 102-104.
93. *Id.* at 104.
94. *Government Operations Hearings* at 23.
95. *Id.* at 16; *See also* Handley at 10,174-75.
96. *Government Operations Hearing* at 16-27.
97. *Id.* at 21.
98. *Id.* at 4.
99. RCRA § 6928 (1988). *See also* Teresa A. Wallbaum, *America's Lethal Export: The Growing Trade in Hazardous Waste*, 3 Ill. L. Rev. 889 (1991) [hereafter Wallbaum] (analyzing emerging U.S. and international regulatory efforts including an in-depth critique on RCRA's civil and criminal provisions).
100. Hilz at 102-104; McCrory at 343; Wallbaum at 901; Julienne I. Adler, *United States' Waste Export Control Program: Burying out Neighbors in Garbage*, 40 Am. U. L. Rev. 885, 907 (1991) [hereafter Adler] (analyzing the liability provisions of existing and proposed waste export control legislation).
101. Handley at 10,174; Wallbaum at 913-914; McCrory at 342; Adler at 902-908.
102. *Foley Bros., Inc. v. Filardo*, 336 U.S. 281, 285 (1949) (nothing in the Eight Hour Law indicated Congress intended to extend the Act's coverage to U.S. citizens working in another country).
103. 42 U.S.C § 9601 *et seq.* (1987). CERCLA explicitly states that it imposes liability only for illegal waste released into navigable waters or territory under the jurisdiction of the U.S. *See also* Adler at 902-908.
104. Galli at 75-79.
105. RCRA § 6928(a)(1) (1988).
106. RCRA § 6928(g) (1988).
107. RCRA § 6928(e) (1988).
108. RCRA § 6928(d)(6) (1988).
109. RCRA § 6928(d) (1988).
110. *Id.*
111. RCRA §6928(e) (1988).
112. Agreement Between the Government of the United States of America and the Government of Canada Concerning the Transboundary Movement of Hazardous Waste, Oct. 28, 1986 [hereafter U.S.-Canada Agreement]; 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, Nov. 12, 1986 [hereafter U.S.-Mexico Agreement] *reprinted in* EPA, National Enforcement Investigations Center, Enforcement Strategy Hazardous Waste Exports apps. B and C (Mar. 1988). *See also* Hilz at 106-112; Vint at 126-129; Adler at 896.
113. *Hearings on H.R. 2525* at 169. (testimony of Francis Spivy-Weber, Dir., International Program and V. Ann Strickland, Deputy Counsel and Dir., Toxics Program, National Audubon Society. *See also* Handley, *Exports of Waste from the United States to Canada: The How and Why*, 20 Envtl. L. Rep. (Envtl. L. Inst.) 10,061 (1990) [hereafter Handley II].
114. I obtain this estimate by multiplying 10% x 160,000 tons of hazardous waste, the amount of waste EPA estimates the U.S. exports. *See supra* note 11.
115. The export provisions of RCRA do not apply to Canada and Mexico. RCRA § 6938(f) provides "[w]here there exists an international agreement between the United States and the government of the receiving country establishing notice, export, and enforcement procedures for the transportation, treatment, storage, and disposal of hazardous wastes."
116. U.S.-Canada Agreement at art. 3(d).
117. U.S.-Mexico Agreement at art. III.
118. U.S.-Canada Agreement at art. 2; U.S. Mexico Agreement at art. II.
119. U.S.-Canada Agreement at arts. 3 and 8.
120. U.S.-Canada Agreement at arts. 4 and 5.
121. U.S.-Canada Agreement at art. 6.
122. U.S.-Mexico Agreement at arts. II(3) and XII.
123. Mexico established the Maquiladora Program in 1965 to assist in the economic and industrial development of northern Mexico. The Program was designed to attract U.S. industries into Mexico by providing duty-free imports and exports, tax incentives, and cheap labor. *See* Elizabeth C. Rose, *Transboundary Harm: Hazardous Waste Management Problems and Mexico's Maquiladoras* 23 Int'l Law. 223 (1989) [hereafter Rose] (examining the maquiladora program, its environmental impacts and possible solutions, including the U.S.-Mexico Agreement).
124. U.S.-Mexico Agreement at art. XI.
125. U.S.-Mexico Agreement at art. XIV.
126. *See* note 94 and accompanying text.
127. *Government Operations Hearing* at 26-67. *See also* Hilz at 110; Handley II at 10,061 & n. 1.
128. Hilz at 111; Handley II at 10,063.
129. *Id.*
130. Hilz at 111-112.
131. *See* notes 51, 52 and accompanying text. *See also* Rose at 228.
132. Hilz at 111-112.
133. Hilz at 111; Handley II at 10,065.
134. Rose at 236-238.
135. For an excellent discussion of the Basle Convention and other international efforts, *see* Kilcoyne, *The Basel Convention: Will it Curtail Hazardous Waste Exports?* 16 Environs 47 (Dec. 1992) [hereafter Kilcoyne].
136. Bush's accompanying letter, continued, in part: To that end, it bars transboundary movements unless every country involved has consented. Even when consent is obtained, shipments must be prohibited when either the country from which the wastes are exported or the country in which the wastes will be disposed have reason to believe that the shipment will not be handled in an environmentally sound manner. . . . The notice-and-consent regime it establishes advances environmental goals that the United States has long held. We were one of the first nations to enact

legislation prohibiting exports of hazardous wastes without the consent of the importing country. S. Treaty Doc. No. 5, 102d Cong., 1st Sess., at III (1991).

137. Touhy, *116 Nations Adopt Treaty on Toxic Waste,* Los Angeles Times, March 23, 1989, at 6, col. 1.

138. *Five more Countries Sign the Basel Convention Just Before Deadline, Bringing Total to 54,* 13 Int'l Env't Rep. (BNA), No. 4 (April 11, 1992).

139. *Id.*

140. Johnson at 312-317; McCrory at 347-349; Hilz at 137-151.

141. Basle Convention at art. 6.

142. Basle Convention at art. 6-Annex VI. *See also* note 73 and accompanying text.

143. Basle Convention at art. 6. *See also* note 74 and accompanying text.

144. Basle Convention at art. 6. *See also* notes. 81, 82 and accompanying text.

145. Basle Convention at art.1, Annexes I-III. *See also* notes 85-91 and accompanying text.

146. *Id.*

147. Basle Convention at art. 6. *See also* notes 75-80 and accompanying text.

148. Basle Convention at arts. 4 and 6.

149. Shortly, as required by Basle, parties to the Convention will meet to draft technical guidelines specifying what constitutes management "in an environmentally sound manner." Basle Convention at art. 4. *See also* Johnson at 315.

150. Basle Convention at art. 12. *See also* Kilcoyne at 51-52; Johnson at 315-316.

151. *Hearings on H.R. 2525* at 292.

152. McCrory at n. 94.

153. *H.R. 2525,* 101st Cong., 1st Sess. (1989). *See also* Adler at 898-902; Hilz at 101-102.

154. *H.R. 2525* §§ 12002, 12003.

155. *Id.* § 12003(b)(8).

156. *Id.* §§ 12003(b)(9),(13)-(14),(16).

157. *Id.* § 12003(b)(15).

158. *Id.* § 12005. This section allows a foreign government to bring an action under CERCLA section 107, 42 U.S.C. § 9607 (Supp. V 1987), "as if costs or damages were incurred in the United States."

159. *H.R. 2525* §12006(c). *See supra* notes 100-112.

160. RCRA § 6922(b) (1988); 40 C.F.R. §262.56. *See Hearings on H.R. 2525* at 23-24 (statement of Rep. John Conyers, Jr.). *See also* McCrory at 346-347. Basle Convention at art. 10. *See also* Johnson at 316.

161. The Basle Convention proposes establishing regional waste management and minimization centers. The centers would disseminate training information and facilitate technology transfers. Basle Convention at art. 14.

162. RCRA at § 6901(c)(3). RCRA § 6902 further states that the primary objective of the Act is "to promote the protection of health and the environment and to conserve valuable material and energy resources by," among other things, "promoting . . . new and improved methods of collection, separation, and recovery, and recycling of solid wastes."

163. *See supra* at 80.