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## NAFTA and the Petrochemical Industry: A Disastrous Combination for Life at the U.S.-Mexico Border

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## NAFTA and the Petrochemical Industry: A Disastrous Combination for Life at the U.S.-Mexico Border

There is a neighborhood in Mexico, about three miles from Brownsville, Texas, near Matamoros, Mexico, that is not considered part of Matamoros. It is a "colonia"<sup>1</sup> which exists in the unoccupied area between two United States (U.S.) owned maquiladoras<sup>2</sup> which produce petrochemicals.<sup>3</sup>

The one-room family homes which comprise the colonia are dirt-floored shacks built from wood strips and packing crates. The fifteen foot square shacks house three-generation families and do not provide electricity, running water or sewerage. To compensate for the lack of running water, employees of the petrochemical plants are allowed to take home discarded steel drums in order to store water. These drums were previously used to transport hazardous waste generated by the petrochemical plants, as is evidenced by the U.S. companies' logos still visible on the steel sides. The water stored in these containers is used for drinking water and bathing, but it is taken from a stream where swimming has been prohibited by the Mexican government. Discarded waste from the petrochemical plants clutters the banks of the stream and the water resembles a brownish-sludge.

This unattended hazardous waste deposited by the petrochemi-

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1. See J. Michael Kennedy, *Teeming 'Colonias'; Border has Worst of Both Worlds*, L.A. TIMES, Oct. 2, 1989, at A1. Colonias are unauthorized subdivisions of U.S. and Mexican border cities. Approximately 140,000 people have bought small parcels of land and tried to build a home along dirt roads, seeking the promise of a better life in the United States. Colonia residents live without running water or sewers and often, the wells dug for water have been contaminated by nearby septic tanks. In one colonia, two-thirds of the residents had contracted hepatitis by the time they were 35. *Id.*

2. See Patrick McDonnell, *Border Boom Feeding Hazardous-Waste Ills; U.S., Mexican Environmental Agencies Push to Quantify Problems and Identify Polluters*, L.A. TIMES, Sept. 10, 1989, at B1. Maquiladoras are 100 per cent foreign owned companies which may import all raw materials, machinery, equipment, and components required for production, free of Mexican import duties. Upon completion, the maquiladora may export all products to any other country. *Id.*

3. See Helene M. Cole, *Renal Toxicity of Xylene*, 261 JAMA 2258 (1989). Petrochemicals are volatile organic solvents that are easily absorbed through respiratory, gastrointestinal, or dermal routes. Upon absorption, petrochemicals readily cross the blood-brain barrier, producing a variety of central nervous system effects. Workers in the U.S. who have undergone long-term exposure to low levels of petrochemicals reported increased symptoms of fatigue, difficulty concentrating, and headaches. *Id.* See also *Turning Environmental Problems into Profits*, UPI, Mar. 26, 1991, available in LEXIS, Nexis Library, UPI File. Petrochemicals are used in the manufacture and production of goods including plastics, pesticides and petroleum products. *Id.*

cal companies has caused serious health and environmental problems along the entire U.S.-Mexico border area. The colonia which occupies the space between the two U.S. companies has been evacuated twice in the past two years due to accelerated levels of contamination resulting from environmental misconduct. These evacuations were only temporary and when the colonia residents returned, they continued to be exposed to hazardous levels of chemical pollution. Since January 1991, thirty-six cases of anencephaly have been reported in Matamoros.<sup>4</sup>

The situation discussed above raises some precarious questions. What if one of the petrochemical plants has a hazardous chemical waste accident resulting in serious environmental and health consequences on the U.S. side? Would the North American Free Trade Agreement (NAFTA) provide for any sanctions? Would the Mexican Ministry of Social Development (Sedesol) be able to take any effective action against the maquiladora? Would the U.S. government have any power to penalize or regulate the U.S.-owned company operating in Mexico?

## I. Introduction

This Comment will discuss the issues relating to the preceding questions in a light that focuses on the introductory hypothetical situation. Section I describes the maquiladora program and its effects on the environment at the U.S.-Mexico border. Additionally, it will introduce the environmental and health problems that the petrochemical industry produces through the maquiladora program. Section II analyzes NAFTA's failure to address the environmental problems created by the petrochemical industry. Section III discusses the reasons behind Sedesol's failure to enforce Mexico's environmental protection laws. Section IV addresses potential legal solutions to redress the environmental and personal damage sustained as a result of the petrochemical companies' unsound environmental practices. Finally, Section V discusses a variety of structural adjustments that would begin to solve the problems caused by the petrochemical industry at the U.S.-Mexico border.

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4. See *What is Anencephaly?* BORDER CAMPAIGN BACKGROUND ARTICLE #1 (Border Campaign, Brownsville, TX) 1992. Anencephaly is a fatal birth defect in which babies are born with either incomplete or missing brains and skulls. The infant usually dies at birth or within a few days. Increasing scientific data points to certain toxins, including petrochemicals, as likely causes. This coincides with the discovery of high levels of petrochemicals, such as xylene, in the Rio Grande River and on land near maquiladoras in Matamoros. The quantities discovered were many thousands of times higher than U.S. EPA standards. *Id.*

## II. The Maquiladora Program and the Effects of the Petrochemical Industry on Environmental and Health Issues

### A. *The Maquiladora Program*

In 1965, Mexico implemented the Border Industrialization Program in an effort to revitalize its economy and employment levels.<sup>5</sup> This plan gave birth to the maquiladora program which generates approximately \$3 billion of foreign exchange earnings for the Mexican economy each year.<sup>6</sup> This amount is more than the tourism industry and second only to Mexico's oil and gas exports.<sup>7</sup> In the past decade, practically all newly created manufacturing jobs resulted from the growth of the maquiladora program.<sup>8</sup>

The maquiladora program consists of approximately 1800 factories in northern Mexico, employing half a million workers, and stretches from Tijuana, south of San Diego, CA, to Matamoros, bordering Brownsville, TX.<sup>9</sup> Foreign owners include IBM, General Electric, Motorola, Ford, Chrysler, General Motors, RCA, United Technologies, ITT, Eastman Kodak and Zenith, as well as a number of Japanese and European companies.<sup>10</sup> Mexico attracts these powerful companies because of inexpensive labor and its more lenient environmental laws.<sup>11</sup> The total production costs are also an incentive for manufacturers because of tax, insurance, and wage benefits.<sup>12</sup> Although Mexico has strengthened its industrial pollution standards, several Mexican officials indicated that they are taking a flexible approach to enforcement against maquiladoras.<sup>13</sup> That flexibility results from the maquiladora program's creation of jobs and revenue for Mexico's lagging economy.<sup>14</sup> Many regulatory and bu-

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5. See Joseph LaDou, *Deadly Migration: Hazardous Industries' Flight to the Third World; Environmental Impact of Shift of Manufacturing Operations to Ill-prepared Developing Countries*, 94 *TECH. REV.* 46, 49 (1991).

6. *Id.*

7. *Id.*

8. *Id.* A fifth of the country's total number of manufacturing jobs resulted from the rapid growth of the maquiladoras. *Id.* at 50.

9. Joseph LaDou, *Deadly Migration: Hazardous Industries' Flight to the Third World; Environmental Impact of Shift of Manufacturing Operations to Ill-prepared Developing Countries*, 94 *TECH. REV.* 46, 49 (1991).

10. *Id.*

11. See Chris Kraul, *A Warmer Climate for Furniture Makers; Mexico: Fleeing Anti-Smog Laws, Some Los Angeles Manufacturers Flock South, Where Environmental Laws are Less Restrictive*, *L.A. TIMES*, May 14, 1990, at D1.

12. *Id.* Furniture manufacturers pay Mexican workers about 25 per cent of what workers in Southern California receive. U.S. companies also avoid paying high workers' compensation insurance premiums to Mexican laborers. *Id.*

13. *Id.* Rene Altamirano Perez, general director of the Secretaria de Desarrollo Urbano y Ecologia (SEDUE) (Mexico's former equivalent of the U.S. EPA), said, "[P]reviously, Mexico had been more concerned about the maquiladoras in terms of the employment that they create for many people without jobs, particularly women and campesinos (farm workers), rather than the environmental hazards relating to industrial processes." *Id.*

14. Chris Kraul, *A Warmer Climate for Furniture Makers; Mexico: Fleeing Anti-Smog*

reaucratic barriers have been eased to enhance the size of the program because it is one of Mexico's few economic hopes.<sup>15</sup> In addition, Mexico's President Salinas ordered the government to expedite the maquiladora permit process because Mexico does not want to send negative signs to potential, and badly needed foreign investors.<sup>16</sup>

### *B. Environmental and Health Ramifications*

In 1988, the Mexican government passed an extensive set of new environmental laws, based on U.S. statutes, which provided for closures of maquiladoras, fines up to \$100,000 and jail terms for company officials.<sup>17</sup> EPA officials assert that the laws and regulations are comparable to those in the United States.<sup>18</sup> However, a lack of resources make environmental enforcement a seemingly endless problem for Mexican officials who must regulate 120,000 facilities nationwide.<sup>19</sup> In 1992, Sedesol increased the environmental protection budget for the border area by 450 per cent and the number of border environmental inspectors to 200.<sup>20</sup> However, in Nuevo Laredo, the town across the border from El Paso, Texas, twenty-five million gallons of raw sewage are pumped into the Rio Grande River on a daily basis.<sup>21</sup> Like other "colonias", half of Nuevo Laredo's thirty garbage dumps are located along the river.<sup>22</sup> Swimming is banned, but the residents on both sides of the border continue to use the river for drinking water.<sup>23</sup>

The maquiladoras which use and produce petrochemicals not only pose a risk to the environment, but they also present serious health risks to those who suffer from exposure. Courts have found

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*Laws, Some Los Angeles Manufacturers Flock South, Where Environmental Laws are Less Restrictive*, L.A. TIMES, May 14, 1990 at D1.

15. McDonnell, *supra* note 2, at B1. Number of maquiladora plants in Tijuana: 1983: 140; 1984: 167; 1985: 203; 1986: 267; 1987: 317; 1988: 388; 1989: 450. Tijuana Work Force: 1983: 19,239; 1984: 24,473; 1985: 24,815; 1986: 31,793; 1987: 40,409; 1988: 51, 496; 1989: 60,000. *Id.*

16. Kraul, *supra* note 11, at D1.

17. McDonnell, *supra* note 2, at B1.

18. See SUSAN FLETCHER & MARY TIEMANN, CONGRESSIONAL RESEARCH SERVICE, ENVIRONMENT & TRADE (July 28, 1992) at 8. The comprehensive environmental protection law increased federal responsibility to issue regulations and set standards on a wide range of environmental matters. Sedesol has issued regulations covering air pollution, solid waste disposal, environmental impact assessment and automobile emissions control. Furthermore, Mexican leaders have increased the resources allocated to environmental protection; from 1989 to 1991, Mexico's environment and natural resources budget grew from roughly \$6 million to \$36 million. In 1991, the number of environmental inspectors increased from 19 to 100, with 50 hired specifically for the border area. *Id.* at 9.

19. *Id.*

20. *Id.*

21. Kennedy, *supra* note 1, at A1.

22. *Id.*

23. *Id.*

petrochemicals such as xylene, benzene, and toluene to be hazardous substances.<sup>24</sup> Chemical contamination resulting from releases of xylene has compelled the EPA to classify some of the areas on the National Priority List, which lists the most seriously contaminated hazardous waste sites in the United States.<sup>25</sup> Therefore, if petrochemical plants operating in Mexico are contaminating the environment to the extent that their effects are felt on the U.S. side of the border, it is likely that Mexican employees are constantly exposed to hazardous chemicals throughout the workday. Furthermore, the fact that the employees store drinking water in containers used to transport chemicals and chemical waste implies that the employees' families are also suffering from constant exposure to these chemicals.<sup>26</sup>

In the United States, personal injury suits have been brought for exposure to the same petrochemicals that Mexican employees work with on a continual basis in the maquiladoras. An independent contractor performing services at a Texas oil company was awarded \$25,000 for personal injuries suffered as a result of exposure to petrochemicals such as benzene, toluene, and xylene during one day of work.<sup>27</sup> In another case, an employee recovered worker's compensation for continuous exposure to petrochemicals, through ingestion and inhalation, of toluene, xylene, hexane and heptane, while performing his duties in a rubber processing plant.<sup>28</sup>

Not only have the U.S. courts labeled petrochemicals as hazardous to the environment and industry employees' health, but they have also allowed recovery for personal injury claims brought as a result of exposure to these petrochemicals. Consequently, significant health risks are imposed upon Mexicans employed in maquiladoras which use and produce petrochemicals.

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24. See *Transportation Leasing Co. v. State*, No. 89-7368-WMB, 1991 U.S. Dist. LEXIS 20734, at \*11 (C.D. Cal. 1991).

25. See *Intel Corp. v. Hartford Accident & Indem. Co.*, 952 F.2d 1551, 1553 (9th Cir. 1991). Xylene has also been classified as a hazardous substance under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) 42 U.S.C. §§ 9601-9675 (1988).

26. See LaDou, *supra* note 5, at 51.

27. See *Marathon Oil Col. v. Sterner*, 624 S.W.2d 198, 202 (Tex. Ct. App. 1981). After smelling a "rotten odor" for ten to fifteen seconds in the vessel in which the employee was working, he developed a severe headache, began dry heaving and defecated on himself. *Id.*

28. See *Viock v. Stowe-Woodward Co.*, 467 N.E.2d 1378, 1380-81 (Ohio Ct. App. 1983). The employee was diagnosed as suffering from "[d]iffuse pulmonary infiltrate, bilateral, probably secondary to chemical pneumonitis". *Id.*

### III. Potential Effects of NAFTA's Failure to Address the Problems Created by the Petrochemical Industry

#### A. *The Completion of NAFTA Negotiations*

A free trade agreement between the United States and Canada went into effect on January 1, 1989.<sup>29</sup> In June 1990 President Bush and President Salinas of Mexico agreed to begin negotiations for a bilateral free trade agreement.<sup>30</sup> One year later, trade ministers from the United States, Canada, and Mexico formally began negotiating a North American free trade agreement.<sup>31</sup> This agreement, the North American Free Trade Agreement (NAFTA), signed by all three countries on August 12, 1992, is scheduled to take effect on January 1, 1994.<sup>32</sup> Formal negotiations began in June 1991, after Congress extended through May 1993, the fast-track negotiation authority.<sup>33</sup> This allows the President to negotiate an agreement that Congress can either adopt or reject, but can not amend.<sup>34</sup> Currently, NAFTA has been signed by all three member countries, and is now under consideration by Congress.<sup>35</sup>

Under NAFTA, no country may impose a tax, duty or charge on the export of energy or basic petrochemical goods unless the same tax or duty is applied to identical goods consumed domestically.<sup>36</sup> As Mexico has reduced tariffs and opened its economy, chemical imports and exports in the United States have rapidly increased.<sup>37</sup> The implementation of NAFTA will provide for further expansion of chemical trade between the U.S. and Mexico. NAFTA's removal of barriers to trade will completely open a large market for chemical products in Mexico.<sup>38</sup>

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29. CONGRESSIONAL REFERENCE DIVISION, CONGRESSIONAL RESEARCH SERVICE, *Mexico-U.S.-Canada: North American Free Trade Agreement*, IP 445M (1992).

30. *Id.*

31. *Id.*

32. See Stuart Auerbach, *U.S., Canada and Mexico Agree to Form Trade Bloc*, WASH. POST, Aug. 13, 1992, at A12.

33. See OFFICE OF THE PRESS SECRETARY, THE WHITE HOUSE, *Fact Sheet, The North American Free Trade Agreement*, [hereinafter Fact Sheet] (Aug. 12, 1992).

34. *Id.*

35. See Auerbach, *supra* note 32, at A12. Congress has 90 days from the date of submission to draft legislation that will implement the agreement into law. Congress then has 90 legislative days, which could stretch out for as long as eight months, to adopt or reject the implementing legislation for the treaty. *Id.*

36. See *Petrochemicals One of Major NAFTA Winners for U.S. Industry*, 11 INT'L PETROCHEMICAL REP. 8 (1992).

37. See Charles Berry, *Mexican Producers: Wary of Life After NAFTA*, CHEM. WEEK, Sept. 9, 1992, at 9. Last year, the United States exported \$2.62 billion worth of chemicals to Mexico, an increase of 83 per cent since 1987. Mexico's export of chemicals to the U.S. reached \$721 million, an increase of 84 per cent. *Id.*

38. See Andrew Wood, Elizabeth S. Kiesche & Ronald Begley, *NAFTA: Weighing the Benefits of North American Free Trade*, CHEM. WEEK, Aug. 26, 1992, at 15. Mexico is already the third largest chemical trading partner of the U.S. and a wave of investment in Mexican goods headed for the U.S. will spur chemical growth. *Id.*

The potential for rapid expansion of the chemical trade under NAFTA is evidenced by Mexico's recent removal of foreign investment restrictions on approximately seventy petrochemicals.<sup>39</sup> Under the Mexican constitution, foreign investment is limited to secondary petrochemicals.<sup>40</sup> Foreign investors can only produce secondary petrochemicals after obtaining a permit from the Ministry of Energy, Mines and Parastate Industry.<sup>41</sup> A group of petrochemicals was recently reclassified as secondary, thereby opening them to foreign investment.<sup>42</sup>

Along with the liberalization of Mexico's petrochemical industry, Pemex has begun to establish joint ventures with foreign investors to build chemical production plants in Mexico.<sup>43</sup> With the increase in free trade and number of joint ventures in the chemical industry, NAFTA will inevitably lead to a significant increase in petrochemical production and use in the manufacturing sector. Currently, some Mexican business operators claim that the Mexican chemical industry is relatively small and is therefore not a significant health or environmental hazard.<sup>44</sup> However, the increase in production and industry use of petrochemicals is likely to result in a significant acceleration of chemical accidents. With major growth in the industry, the potential for more severe chemical accidents will accelerate at a rate that an already dangerous industry can not afford. As a result, increased environmental hazards in the border area will also exacerbate the problem to uncontrollable levels. In the past, the Mexican government has acquiesced to environmental and health hazards because of the importance of the petrochemical industry to the maquiladora program.<sup>45</sup> Consequently, NAFTA will enhance the

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39. See Karen Heller, *North America: Free At Last?*, CHEM. WEEK, Aug. 19, 1992, at 9. There are only a few petrochemicals still restricted to foreign investment: ethane, butane, heptane, hexane, pentane, naphtha, methane and propane. These chemicals can only be produced in Mexico through Petroleos Mexicanos (Pemex) or its subsidiaries or affiliated companies, wholly owned by the Mexican government. *Id.*

40. See *Private Companies Could Produce 57 Petrochemicals Under New Law*, NOTIMEX MEX. NEWS SERVICE, July 17, 1992.

41. See *NAFTA Meets Most of ISAC's Requirements*, 11 INT'L PETROCHEMICAL REP. 4 (1992).

42. *Id.* This list includes: acetylene, ammonia, benzene, butadiene, butylenes, ethylene, methanol, n-paraffins, orthoxylene, paraxylene, propylene, toluene, and xylene. *Id.*

43. Andrew Wood & Rick Mullin, *Valero and Vista Set to Join Petchem Ventures in Mexico*, CHEM. WEEK, Sept. 16, 1992, at 8. Pemex selected Valero Energy (Houston) to join a 500,000-m.t./year methyl tert-butyl ether (MTBE) venture, and is close to completing a deal with Vista Chemical (Houston) for a linear alkybenzene (LAB) unit. *Id.*

44. See Leslie Layton, *Mexico's Responsabilidad Integral: A High-Stake Move*, CHEM. WEEK, Dec. 11, 1991, at 60. Luis Hierro Romero, head of the safety, hygiene and environmental protection commission at ICI do Mexico, a Mexican Chemical Company, said, "while accidents in Mexico's chemical industry are more frequent, they are less severe due to the operations' comparative smallness. *Id.*

45. *Id.* DuPont attempted to move families out of a two-mile zone around Quimica Fluor's hydrofluoric acid plant in Matamoros, in which it had a 33 per cent control. A presidential decree prohibited forced evacuation but also banned new residential development there.



likelihood of hazardous chemical accidents and increase the threat to the health of its citizens and the environment. These dangerous effects may be accepted by the Mexican government as the cost for increased foreign investment.

NAFTA has been embraced by the signatory countries with many high ambitions and expectations.<sup>46</sup> Some government and industry economists view the provisions regarding basic petrochemicals and energy trade and investment as a disappointment because they fail to meet the objectives of many analysts.<sup>47</sup> The Advisory Committee for Trade Policy and Negotiations (ACTPN), however, asserts that while its negotiating objectives for environmental protection were limited in scope, their goals have been greatly exceeded by NAFTA.<sup>48</sup> During the negotiation process, governments of the signatory countries increasingly came to the realization that expansive trade and environmental protection can not be separated.<sup>49</sup> Upon the conclusion of negotiations, the ACTPN asserted that the environmental measures are "unprecedented in a trade agreement and represent a significant step toward greater cooperation and greater environmental protection in North America".<sup>50</sup>

The strained balance between free trade and the environment represents one reason that NAFTA failed to provide any explicit environmental protection provisions. If a country has stricter environmental standards, these standards may be viewed as nontariff trade

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*Id.*

46. See *North Am. Free Trade Agreement*, REPORT OF ADVISORY COMMITTEE FOR TRADE POLICY AND NEGOTIATIONS, Sept., 1992. The Advisory Committee for Trade Policy and Negotiations (ACTPN) consists of leaders from a cross section of industry, including representatives from business, labor and an environmental representative. "The ACTPN believes that the NAFTA is a major, comprehensive, historic endeavor that is in the best economic interest of the United States. As a result of this agreement, economic, political and social relationships between Mexico, Canada and the United States will be fundamentally changed for the better." *Id.*

47. *Id.* at 42.

48. *Id.* at 81. The Advisory Committee for Trade Policy and Negotiations stated the following general objectives: U.S. environmental laws and regulations should not be weakened, initiatives to improve environmental standards and enforcement could best be achieved in parallel with NAFTA, and the U.S. should seek to strengthen enforcement of environmental standards throughout the free trade area. *Id.*

49. *North Am. Free Trade Agreement*, REPORT OF ADVISORY COMMITTEE FOR TRADE POLICY AND NEGOTIATIONS, Sept., 1992.

50. *Id.* at 81-82. The Advisory Committee for Trade Policy and Negotiations asserts that the following goals have exceeded the government negotiators prior expectation: the signatories committed themselves to the principles of sustainable development; NAFTA explicitly assures that U.S. environmental standards will be maintained, and that the signatories will seek to work toward equivalence at the level of the strictest standards among the parties to the agreement; NAFTA allows states, provinces, and local governments of the signatories to establish more stringent environmental standards so long as such standards are applied without discrimination; NAFTA assures that no signatory will be permitted to relax environmental standards in order to attract investment; parallel activities such as the U.S.-Mexico Border Plan and the establishment of a Joint Commission for the Protection and Improvement of the Environment will foster environmental cooperation in areas of standards and enforcement. *Id.*

barriers.<sup>51</sup> Conversely, a lack of effective environmental enforcement measures may be viewed as an implicit subsidy and an unfair incentive for foreign investment.<sup>52</sup>

During negotiations, the U.S. government has taken the position that NAFTA will help Mexico's foreign debt crisis<sup>53</sup> because it will boost the Mexican economy and provide the government with more funds for environmental protection measures.<sup>54</sup> A major flaw in this position is that it erroneously assumes that the Mexican government has the political willpower to allocate large amounts of money to environmental enforcement when it faces problems that most citizens will deem more pressing, such as housing, health care and education. Furthermore, NAFTA does not address the immediate need for cleaning up the existing contamination on both sides of the border area.

The U.S. government also claims that a fifty million dollar World Bank loan to Mexico for environmental protection will be an effective measure.<sup>55</sup> Not only will this one-time loan increase Mexico's debt, but only \$8 million of this loan will go directly to the enforcement of environmental laws.<sup>56</sup> In addition, 50 million dollars, if the entire amount were to go to environmental measures, would not touch even the surface of the minimal requirement of 575 million dollars needed to match what Texas spends on a per capita basis.<sup>57</sup>

The U.S. government also points to the temporary and permanent closures of maquiladoras<sup>58</sup> as an increase in Mexican commitment to environmental protection measures. While these closures are a step in the right direction, they will be hard to continue because NAFTA does not provide a constant source of funding for these purposes. Moreover, it is likely that some of the temporary closures, such as those that only lasted two days, did not make any substantial progress in the fight against maquiladora misconduct.<sup>59</sup>

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51. See FLETCHER & TIEMANN, *supra* note 18, at 6.

52. *Id.*

53. See NAFTA and U.S./Mexico Border Environment: Options for Congress, (Tex. Center for Pol'y Studies, Austin, TX) Sept. 1992, at 1-1. Mexico's foreign debt has been increasing recently and is now over \$100 billion. Mexico's debt service in 1990 was 27.8 per cent of the value of its exports. Mexico is also the largest borrower from the World Bank. *Id.*

54. See Fact Sheet, *supra* note 33. Economic reforms in Mexico have resulted in a drop in the inflation rate, from over 100 per cent in 1986 to under 20 per cent in 1991, and its economy has grown at an average rate of 3.1 per cent over the last four years, after stagnating during the 1980's. From 1986-91, U.S. exports to Mexico increased from \$12.4 billion to \$33.3 billion, twice as fast as U.S. exports to the rest of the world. *Id.*

55. See NAFTA and U.S./Mexico Border Environment, *supra* note 53, at 1-1.

56. *Id.*

57. *Id.* In 1988, Texas spent \$575 million on environmental protection (\$6.78 per capita). Texas was 50th out of the U.S. states in spending on the environment. *Id.*

58. See Mexico's New Environmental Agency on the Move in First 100 Days, NOTIMEX MEX. NEWS SERVICE, Sept. 21, 1992.

59. *Id.*

Due to the anticipated increase in trade, NAFTA will generate rapid industrial growth in Mexico, especially in the border area. The border area represents a favorable choice for U.S. corporations because of its proximity to the U.S. markets. Industrial growth under NAFTA will enhance the existing uncontrollable environmental problems caused by petrochemical plants and other maquiladoras in the border area. Even prior to NAFTA negotiations, industrial development stemming from the maquiladora program and the affiliated population explosion surpassed the Mexican government's attempts at establishing an environmental protection infrastructure.<sup>60</sup> As a result, sewage and industrial wastewater treatment are frequently inadequate and improperly handled wastes from the maquiladoras contaminate drinking supplies.<sup>61</sup> These pollution hazards and the transboundary movement of hazardous waste is also causing serious air and water contamination in the U.S., forcing some border areas to violate U.S. environmental laws.<sup>62</sup>

The U.S. also applauds its relationship with the newly formed Ministry of Social Development (Sedesol) and their prospects for environmental protection. However, the relationship is nothing more than an informal agreement to protect the environment.<sup>63</sup> If the existing relationship is evaluated based on the present quality of the border environment and threats to public health, the arrangement is clearly ineffective. In light of NAFTA's failure to define specific environmental provisions to solve current problems, the EPA and Sedesol need to design a formal binding arrangement that provides for a constant flow of funds, resources, information and personnel aimed specifically at environmental protection measures at the border.

### *B. Recent Developments Under NAFTA*

Despite completion of the NAFTA negotiations, the treaty's implementation will not be a simple process. NAFTA, negotiated by former U.S. and Canadian leaders, George Bush and Brian Mulroney, presently faces two new administrations which will attempt to enact the treaty. The Clinton administration announced that it plans to implement NAFTA by January 1, 1994.<sup>64</sup> However, the administration has repeatedly said that while it will not reopen negotiations on the treaty, it will not send NAFTA to Congress for consideration

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60. See FLETCHER & TIEMANN, *supra* note 18, at 6.

61. *Id.*

62. *Id.*

63. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 2-1.

64. See *Union Leaders Sharply Criticize NAFTA Before House Ways and Means Subcommittee*, DAILY LAB. REP., BNA, Mar. 12, 1993, at A14.

without effective supplemental agreements.<sup>65</sup> Proposed supplemental agreements to NAFTA are expected to focus on Mexico and address environmental protection, labor standards and the sharp import surges that will result from the reduction of tariffs and trade barriers.<sup>66</sup>

Carol Browner, director, U.S. Environmental Protection Agency, expressed optimism toward the first round of negotiations on supplemental agreements to NAFTA, but described them as "very preliminary".<sup>67</sup> The purpose behind the supplemental agreements is to provide a mechanism that will work toward upward harmonization of environmental and labor standards between the parties.<sup>68</sup> The agreement on labor standards is expected to address poor working conditions in Mexico and the fear of job losses in the United States.<sup>69</sup> The agreement on environmental protection is expected to address long-term funding of border cleanup and infrastructure improvement, as well as the creation of a North American Commission on the Environment (NACE) and assurances that all parties are enforcing their national environmental laws.<sup>70</sup> While the Clinton administration adamantly supports the supplemental agreements, a senior member of President Salinas de Gortari's government said that Mexico would "walk away from the table if the U.S. demands were deemed excessive."<sup>71</sup>

#### IV. Sedesol's Failure to Enforce Environmental Protection Laws

In an effort to reorganize Mexican governmental functions and revitalize environmental protection, the Ministry of Social Development (Sedesol) replaced the Secretaria de Desarrollo Urbano y Eco-

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65. *Id.*

66. See David R. Sands, *Talks End on Trade Pact Amendments*, WASH. TIMES, Mar. 19, 1993, at C1. Canadian negotiator John Weekes said that both Canada and Mexico questioned the need for a side agreement on import surges, noting that there are provisions in the NAFTA text already addressing the question. He also said that the emphasis was on the environment and labor. *Id.*

67. See *NAFTA, Browner Expresses Optimism About First Round of Side Pact Talks*, DAILY REP. EXEC. BNA, Mar. 19, 1993. On March 17, 1993, NAFTA parties conducted first round negotiations on a supplemental agreement on labor. On March 18, 1993, the parties met to discuss an environmental side agreement. *Id.*

68. See *Negotiations on Supplemental NAFTA Pacts Will Not be Rushed*, *Official Says*, BNA INT'L ENV'T DAILY, BNA, Mar. 19, 1993.

69. See *Union Leaders Sharply Criticize NAFTA*, *supra* note 64. Ron Carey, president, the International Brotherhood of Teamsters, said NAFTA, as it is currently negotiated, would enable Mexican truck drivers making seven dollars per day to drive freight to U.S. cities, displacing U.S. drivers making up to seventeen dollars per hour. Carey called for the supplemental agreement to include minimum labor standards, a mechanism and schedule for closing the U.S.-Mexico wage gap, protection for workers' rights, a supra-governmental enforcement process and a cross-border transaction tax that would provide adjustment aid to workers and communities. *Id.*

70. See *NAFTA, Browner Expresses Optimism*, *supra* note 67.

71. Sands, *supra* note 66, at C1.

logia (SEDUE) as the Mexican counterpart to the U.S. EPA.<sup>72</sup> In its first one hundred days of existence, Sedesol embarked on what appeared to be a stringent environmental protection crusade aimed at forcing compliance by U.S.-owned maquiladoras.<sup>73</sup> Inspections resulted in seven permanent closures and the temporary closure of 109 facilities pending compliance with existing Mexican laws.<sup>74</sup> Sedesol made public participation in environmental protection activities part of its agenda. The Ministry placed an assistant attorney general in command of a new office who has formalized complaint and follow-up procedures for environmental infractions.<sup>75</sup> The Attorney General's Office also began to conduct environmental audits which target highly polluting industries.<sup>76</sup>

Despite Sedesol's recent efforts, Mexico lacks the resources to wage an effective campaign for the enforcement of environmental measures. First, Mexico must contend with severe financial restraints which detract from its ability to regulate the maquiladora industry.<sup>77</sup> Second, political constraints place harsh limitations on governmental measures to stop the maquiladoras from violating environmental laws.<sup>78</sup> Due to the tremendous amount of foreign revenue the maquiladoras produce, the Mexican government enthusiastically supports the maquiladora program.<sup>79</sup> Consequently, Mexican environmental agencies are in a precarious situation. If Sedesol attempts to force maquiladoras to comply with environmental standards, the government may reduce the agency's already insubstantial budget.<sup>80</sup> If municipal governments consider complaining about hazardous waste dumping, unsafe working conditions, poor sewage treatment facilities, or medical care, the owners of the maquiladoras may move the

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72. See *Mexico's New Environmental Agency*, *supra* note 58.

73. *Id.*

74. *Id.* 202 inspections took place in the Mexico City Metropolitan Zone; 52 at maquiladora plants along the U.S. border; 32 additional inspections in Matamoros; 14 in Veracruz; 17 in the Pacific port of Lazaro Cardenas; 12 in Queretaro and 11 at toxic waste disposal facilities throughout the country. *Id.*

75. *Id.* The Attorney General is currently investigating 269 complaints. As of Sept. 21, 1992, pending complaints included water pollution (20 per cent), other forms of pollution (19 per cent), hazardous activities (14 per cent), illegal tree felling (12 per cent), air pollution (11 per cent), activities endangering protected lands (5 per cent), toxic waste (4 per cent), and noise pollution (4 per cent). See *Mexico's New Environmental Agency*, *supra* note 58.

76. *Id.* Audits have been conducted in four Pemex petrochemical facilities, one oil refinery, one maritime port complex, and nineteen private sector industries in Coatzacoalcos-Minatitlan. Four industrial parks in Matamoros-Reynosa, three in Tijuana-Mexicali, and twenty in the Mexico City Metropolitan area have been subject to the environmental audits. *Id.*

77. See LaDou, *supra* note 5, at 52.

78. *Id.*

79. *Id.* Foreign companies and investors have provided for 60 per cent of all industrial investment in developing countries over the past decade. For Mexico, such investment is the primary source of new jobs. (The \$3 billion produced each year is second only to Mexico's oil and gas exports.) *Id.* at 47.

80. *Id.* at 52.

plants to less resilient cities or countries.<sup>81</sup> This would result in a tremendous reduction of the much-needed job-base. These political constraints were exemplified in May 1989, when SEDUE began to require all maquiladoras to obtain water discharge permits in order to comply with Mexico's laws on toxic waste treatment.<sup>82</sup>

Despite the monetary and financial constraints that hinder Mexico's attempt to provide environmental protection, the United States has taken action to help Mexico with its environmental problems and to clean-up previously polluted areas. The U.S. government, the state of California and the city of San Diego have agreed to pay most of the \$192 million cost of a treatment plant at the San Diego-Tijuana border.<sup>83</sup>

The United States also implemented the federal Rio Grande Pollution Correction Act of 1987 in order to solve pollution problems in that river.<sup>84</sup> Due to its limited scope and lack of financial support, the act was a disappointment to the environmental community.<sup>85</sup> The Act's virtual failure led to a substantial amount of further proposed legislative attempts.<sup>86</sup>

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81. LaDou, *supra* note 5, at 52.

82. *Id.* With a permit, the plants may dump the treated water into the sewer system, and any plant violating this requirement can be fined up to \$70,000 and those responsible can be imprisoned for six years. So far, this has produced minimal results, because like most environmental laws in developing countries, the threat is made by an agency that lacks the full backing of its government and the resources to carry out its mission. *Id.*

83. *Id.* at 50. Mexico's government lacks the resources to prevent the flow of 10 million gallons of raw sewage which flows from Mexico into the Tijuana River polluting the beaches of San Diego every day. *Id.*

84. The Rio Grande Pollution Correction Act of 1987, 22 U.S.C. § 277 (1987).

85. See LaDou, *supra* note 5, at 52.

86. See FLETCHER & TIEMANN, *supra* note 18, at 10-13.

#### PROPOSED U.S. LEGISLATION:

H.R. 3773, 102d Cong., 1st Sess. (1991).

Directs EPA to establish an office in a community located not more than 10 miles from the U.S.-Mexico border; Introduced Nov. 13, 1991; referred to Committee on Merchant Marine and Fisheries.

H.R. 4059, 102d Cong., 1st Sess. (1991).

Amends the Agricultural Trade Development and Assistance Act of 1954 to authorize additional functions within the Enterprise for the Americas Initiative. Authorizes the President to sell at a discount up to 40 per cent of debt owed by seven Latin American nations to the U.S. Government on the condition that debtor countries commit a specified amount to support eligible environmental activities through a new Good Neighbor Environmental Fund or other existing environmental fund. Establishes a Good Neighbor Environmental Fund for the (U.S.-Mexico) border to finance environmental improvement projects. Introduced Nov. 26, 1991; referred to Committee on Agriculture and the Committee on Foreign Affairs.

H.R. 4883, 103d Cong., 2d Sess. (1992).

Declares that any NAFTA agreement must include the achievement of certain environmental, labor, and agricultural standards as principal U.S. negotiating objectives, including preventing export of toxic and hazardous products, and products produced under environmental conditions that undermine comparable standards in the importing country; requires adoption in NAFTA that systematic denial or practical negation of such standards constitutes an unfair trade practice. Introduced Apr. 9, 1992; referred to Committee on Ways and Means.

H.Con.Res. 247, 102d Cong., 1st Sess. (1991).

Expresses the sense of the Congress that the United States should not enter into any international agreement, or approve any international report, that would impair U.S. authority

Unfortunately, none of the actions taken by either the U.S. or Mexico have attacked the problems at the foundation of the maqui-

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to enforce and strengthen environmental, labor, agricultural, and public health and safety standards. Introduced Nov. 23, 1991; referred to Committee on Ways and Means. H.Con.Res. 325, 103d Cong., 2d Sess. (1992).

Expresses sense of Congress that the President should reach an agreement with Mexico on the development of a bilateral commission to raise money for environmental protection infrastructure and cleanup projects along the U.S.-Mexico border. Introduced May 27, 1992; referred to Committees on Foreign Affairs, Ways and Means, Energy and Commerce, and Public Works and Transportation.

H.Res. 146, 102d Cong., 2d Sess. (1991).

Expresses the sense of the House of Representatives regarding the United States objectives to be achieved in the negotiations of future trade agreements based on the Administration's May 1, 1991, Presidential response to Congress; reserves the right to rescind fast-track authority should the Administration fail to address environmental and other issues in NAFTA negotiations; and advises the President to seek joint solutions to U.S.-Mexico border environmental problems. Introduced May 9, 1991; referred to Committee on Rules and Committee on Ways and Means. Ordered reported without recommendation by Committee on Rules May 14; report filed May 15 (H.Rept. 102-64, Part I). Ordered reported favorably with amendments by Committee on Ways and Means May 14; report filed May 16 (H.Rept. 102-64, Part II). Passed House May 23, 1991.

H.Res. 149, 102d Cong., 2d Sess. (1991).

Expresses the sense of the House of Representatives that it is imperative that any trade agreement with Mexico should achieve certain negotiating objectives including those involving environmental, health, and safety standards; amends House rule with respect to any implementing legislation resulting from trade negotiations. Introduced May 9, 1991; referred to Committee on Rules and Committee on Ways and Means.

H.Res. 151, 102d Cong., 2d Sess. (1991).

Expresses the sense of the House of Representatives regarding extending "fast track" procedures to bills to implement future environmental and labor standards agreements. Introduced May 14, 1991; referred to Committee on Rules and Committee on Ways and Means. H.Res. 161, 102d Cong., 2d Sess. (1991).

Expresses the sense of the House of Representatives that (1) it should be U.S. policy to seek in trade negotiations the adoption and enforcement of equivalent environmental standards among the trading nations of the world; (2) until such policy is implemented, the President should seek, through the Uruguay Round of trade negotiations, and as part of the next round of GATT and NAFTA negotiations, agreement on mechanisms under which the United States and its trading partners can eliminate or reduce competitive disadvantages resulting from the differing national environmental standards; and (3) any agreement regarding such international environmental standards would not impair the implementation of U.S. environmental protection statutes. Introduced May 23, 1991; referred to Committee on Ways and Means, Subcommittee on Trade.

S. 59, 102d Cong., 2d Sess. (1991).

Directs the U.S. Trade Representative, the EPA Administrator, and the National Academy of Sciences to study the impact on international trade of international environmental agreements and foreign nation environment, conservation, and health laws. Introduced Jan. 1, 1991; referred to Committee on Finance.

S. 503, 102 Cong., 2d Sess. (1991).

The United States-Mexico Border Environmental Protection Act establishes a \$10 million emergency fund for environmental cleanup and investigations; directs EPA to establish an advisory committee to monitor and study environmental conditions along the border; and authorizes the Secretary of State, acting through the International Boundary and Water Commission (IBWC), to conclude agreements with Mexico to correct cross-boundary pollution problems. Establishes the IBWC Fund to carry out this Act. Introduced Feb. 26, 1991; referred to Committee on Foreign Relations. Ordered to be reported with amendments favorably and placed on the legislative calendar on Nov. 19, 1991.

S. 1965, 102d Cong., 1st Sess. (1991).

Amends the Federal Water Pollution Control Act to direct the Secretary of Commerce to impose fees on all goods imported from countries that do not impose water pollution standards as stringent as those imposed by the United States. Introduced Nov. 14, 1991; referred to Committee on Finance.

ladora program. The most essential step is to raise a consistent amount of money to provide for constant improvements and structural changes in the program's infrastructure.<sup>87</sup> But, since both governments embrace the present maquiladora system, any law that attacks the problems at their foundation would lack serious potential for enactment.<sup>88</sup> In reality, Mexico can not be expected to initiate measures that would present legitimate solutions to the environmentally hazardous activities of the maquiladoras. Mexico, a country desperate for foreign capital and jobs, is likely to resent any outside pressure to penalize an industry which represents a major source of these necessities.<sup>89</sup>

Currently, the United States uses the maquiladora program as a place to export obsolete and hazardous technology in order to sustain a profitable, though disgraceful, enterprise system. Therefore, the United States and Mexico must design international treaties to replace the incentives that pose major threats to the border-area environment. The United States must require its companies to follow one set of environmental and safety standards whether they operate at home or abroad. The longer environmental damage and unsafe working conditions continue in the petrochemical plants, the greater the cost of resolving these problems. By neglecting environmental concerns, U.S. owned companies shift a tremendous burden to Mexico, who is least able to bear it.<sup>90</sup>

The laws of Mexico require waste generated by foreign-owned maquiladoras to be transported back to its country of origin.<sup>91</sup> Recycling is not an option because Mexico does not have the resources to provide for an effective recycling campaign.<sup>92</sup> The Texas Water Commission reports that only sixty percent of the waste produced by maquiladoras leaves Mexico. The remaining waste is disposed of illegally in Mexico.<sup>93</sup> When hazardous waste does return to the U.S., it is often shipped in improperly labeled containers.<sup>94</sup> Those shipments

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87. See LaDou, *supra* note 5, at 52.

88. See Sandy Tolan, *From Tijuana to Matamoros*, N.Y. TIMES, July 1, 1990, (Magazine) at 19. "I see it [the maquiladora program] as a win-win situation for both the U.S. and Mexico; the maquiladoras promise to bring a golden age on the border," says Representative Jim Kolbe, one of the industry's chief promoters in Congress, whose southern Arizona district adjoins the Mexican state of Sonora. *Id.*

89. LaDou, *supra* note 5, at 53. In general, developing countries maintain that only after they have achieved the standard of living of First World countries will they adopt similar environmental policies. Additionally, these countries do not have well-funded environmental groups because popular support for actions that may impede the growth of the job market and a rise in living standards is basically nonexistent. *Id.*

90. *Id.*

91. McDonnell, *supra* note 2, at B1.

92. *Id.* Mexico has seven recycling facilities nationwide, including one in Tijuana, which has 450 maquiladoras. *Id.*

93. LaDou, *supra* note 5, at 51.

94. *Id.*



are supposed to be reported to the EPA, but in 1989, there were only twelve recorded shipments into California and Arizona.<sup>95</sup>

Since the Mexican country of origin laws appear ineffective, a more stringent set of rules must be implemented. The purpose underlying the country of origin laws is valid and they have the potential to be effective, but without a proper enforcement mechanism, the laws lack legitimacy. The Mexican government needs assistance to legitimize their country of origin laws. Enforcement of country of origin laws should be a potential function of a binational environmental enforcement agency.

## V. What Legal Remedies Will be Available to Redress the Environmental and Personal Injuries Sustained under NAFTA?

### A. *Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)*

Presently, it is unknown whether the EPA can obtain jurisdiction over maquiladoras in Mexico whose environmental policies cause hazardous health threats in the United States. If the EPA presents evidence that hazardous waste from petrochemical plants or maquiladoras crosses into the United States in the form of surface and groundwater contamination, then it could possibly obtain an injunction or order under section 106 of CERCLA.<sup>96</sup>

The scope of U.S. jurisdiction under CERCLA is not specifically defined. CERCLA defines the term "otherwise subject to the jurisdiction of the United States" as including jurisdiction resulting from an "international agreement to which the United States is a party."<sup>97</sup> Pursuant to the Environmental Cooperation Agreement signed by the United States and Mexico,<sup>98</sup> it is possible that this definition could result in U.S. jurisdiction over petrochemical plant activities occurring within one hundred kilometers of the border. While no lawsuits have been filed in the U.S. for environmental misconduct in Mexico,<sup>99</sup> a liberal application of the CERCLA language

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95. McDonnell, *supra* note 2, at B1.

96. 42 U.S.C. § 9606. Section 106 states:

In addition to any other action taken by a state or local government, when the President determines that there may be an imminent and substantial endangerment to the public health or welfare of the environment because of an actual or threatened release of a hazardous substance from a facility, he may require the Attorney General of the United States to secure such relief as may be necessary to abate such danger or threat . . . .

*Id.*

97. 42 U.S.C. § 9601(19).

98. *Environmental Cooperation Agreement*, Aug. 14, 1983, U.S.-Mex., Article 4, T.I.A.S. No. 10827. "For the purposes of this Agreement, it shall be understood that the border area refers to the area situated 100 kilometers on either side of the inland and maritime boundaries between the Parties." *Id.*

99. See Maura Dolan & Larry B. Stammer, 2 *Indicted in Hauling of Toxic Waste in*

is likely to provide the U.S. with a method for obtaining jurisdiction over U.S. owned maquiladoras conducting business within one hundred kilometers of the border.

According to section 18 of the Restatement (Second) of Foreign Relations Law of the United States, state or federal jurisdiction could be granted over conduct that occurs outside of the U.S. if it causes a substantial effect within the United States and is a direct and foreseeable result of conduct outside the United States.<sup>100</sup> Jurisdiction occurs in three situations: (1) where Congress clearly intended a statute to apply outside of the U.S.; (2) where the non-applicability of a statute in a foreign country will result in adverse effects within the U.S.; (3) where the conduct regulated by the government occurs within the United States.<sup>101</sup>

Recent case law has utilized CERCLA provisions to hold domestic parent companies liable for the environmental misconduct of their domestic subsidiaries.<sup>102</sup> In *Mobay Corp. v. Allied-Signal, Inc.*, the court found direct liability of owners and operators of a parent company for the environmental misconduct of its subsidiary, pursuant to CERCLA sections 107 and 113.<sup>103</sup> That court cited a House Report which stated CERCLA's principal goal of decisive action to begin remediation of the nation's major hazardous waste sites.<sup>104</sup> Further, a fundamental policy underlying CERCLA is to accomplish this objective at the primary expense of responsible private parties rather than taxpayers.<sup>105</sup>

The First Circuit found that courts are "obligated to construe (CERCLA's) provisions liberally" in order to achieve the remedial goals of protecting public health and the environment.<sup>106</sup> Moreover, since the improper disposal of toxic waste represents a serious problem on a national level, the development of CERCLA was based upon the recognition of generally inadequate state level responses to

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*Mexico*, L.A. TIMES, May 11, 1990, at A1. On May 10, 1990, the first federal felony indictment was announced under an environmental law in a case involving the smuggling of toxic wastes from California to Mexico. While this incident is distinguishable from a corporation based in Mexico which illegally and hazardedly disposes of toxic chemical waste generated from a petrochemical plant located outside of the U.S., it is a step in the right direction. *Id.*

100. RESTATEMENT (SECOND) OF FOREIGN RELATIONS LAW OF THE UNITED STATES, § 18 (1965).

101. *Id.*

102. *See Mobay Corp. v. Allied-Signal, Inc.*, 761 F. Supp 345, 349 (D. N.J. 1991).

103. *Id.*

104. *Id.* House Report on H.R. 7020 became the CERCLA statute. *Id.*

105. *Id.* The House Report explained that the purpose of Section 107 of CERCLA is "to provide a mechanism for prompt recovery of monies expended for the costs of remedial actions from persons responsible therefor and to induce such potentially liable persons to pursue appropriate environmental response actions voluntarily." *See Mobay Corp. v. Allied-Signal, Inc.*, 761 F. Supp 345, 349 (D. N.J. 1991).

106. *See Dedham Water Co. v. Cumberland Farms Dairy, Inc.*, 805 F.2d 1074, 1081 (1st Cir. 1986).

environmental hazards.<sup>107</sup>

The *Mobay* court joined other federal courts in developing a federal common law for determining a parent company's liability for its subsidiary's action under CERCLA.<sup>108</sup> It followed the First Circuit by holding that a parent company is liable for the acts of its subsidiary as an "operator" of an offending facility.<sup>109</sup> The court in *Kayser-Roth* defined an "operator" as one having "active involvement in the activities of the subsidiaries".<sup>110</sup> Six factors are used to evaluate the "active involvement" standard: 1) monetary control over accounts; 2) restriction of subsidiary's financial budget; 3) mandate that it conduct governmental contact for the subsidiary; 4) approval of the subsidiary's lease arrangements; 5) approval of capital transfers; and 6) placement of parent personnel in many subsidiary director and officer positions.<sup>111</sup> Other district courts, who have considered this issue, have also held parent corporations liable under CERCLA if it controlled or participated in the subsidiary's activities.<sup>112</sup> To be an operator, the minimum requirement is active involvement in the activities of the subsidiary.<sup>113</sup> This test serves CERCLA's general remedial purpose of facilitating the fast and efficient cleanup of toxic waste.<sup>114</sup> A district court in Vermont found a parent corporation liable for subsidiary responsibilities as a matter of law, without any demonstration of control.<sup>115</sup>

While all of the CERCLA cases involve the operation of subsidiaries located in the United States, a liberal interpretation of the CERCLA language could expand liability to the petrochemical companies and other maquiladoras operating in Mexico. Most maqui-

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107. See *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 809 (S.D. Ohio 1983). The court determined that issues relating to the scope of CERCLA liability should be decided by uniform federal rules. The court concluded that the delineation of a federal rule was consistent with the legislative policies and history of CERCLA and that no compelling local interests mandated the incorporation of state law. *Id.*

108. *Mobay Corp.*, 761 F. Supp. at 351.

109. See *United States v. Kayser-Roth Corp.*, 910 F.2d 24, 27 (1st Cir. 1990). Congress, by including a category in addition to owners, implied that a person who is an operator of a facility is not protected from liability by the legal structure of ownership. *Id.*

110. *Id.*

111. *Id.* at 28.

112. See *United States v. McGraw-Edison Co.*, 718 F. Supp. 154 (W.D.N.Y. 1989) (summary judgment denied because factual issues existed with regard to direct liability); *U.S. v. Nicolet, Inc.*, 712 F. Supp. 1193, 1202-03 (E.D. Pa. 1989) (denying parent's motion to dismiss because as a stockholder and direct participant in management, it could be liable for subsidiary's cleanup costs); *Rockwell Int'l Corp. v. IU Int'l Corp.*, 702 F. Supp. 1384 (N.D. Ill. 1988) (summary judgment denied because parent corporation may be liable under CERCLA if it actively participated in the management and control of the subsidiary's facility); *Colorado v. Idarado Mining Co.*, 916 F.2d 1486 (10th Cir. 1990) (parent corporation extensively involved in affairs of subsidiary could be characterized as "owner" or "operator"); *Idaho v. Bunker Hill Co.*, 635 F. Supp. 665, 671-72 (D. Idaho 1986) (evidence of control over subsidiary sufficient to impose liability on parent as "owner" or "operator").

113. *Kayser-Roth*, 910 F.2d at 27.

114. *Mobay Corp.*, 761 F. Supp. at 354.

115. See *Vermont v. Staco, Inc.*, 684 F. Supp. 822, 831-32 (D. Vt. 1988).

ladoras are completely owned by a U.S. corporation<sup>116</sup> and therefore, are likely to be characterized as subsidiaries. The EPA or the United States may be able to obtain jurisdiction over the petrochemical plants if the U.S. based company exercises direct control over the maquiladora's actions, especially if it controls their hazardous waste disposal practices. In the alternative, a U.S. court could apply the six-factor "active involvement" standard enunciated in *Kayser-Roth*, in order to obtain jurisdiction and design a solution to the environmental encroachment.<sup>117</sup>

### B. Mexican and U.S. Citizen Suits for Personal Injury

When a foreign national has suffered a personal injury in a foreign country as a result of a U.S. corporation's actions, suits have been allowed in the United States.<sup>118</sup> State legislatures and courts have embraced this concept for many years.<sup>119</sup> Under Texas law, a resident of Matamoros, Mexico, or Brownsville, Texas would probably be able to bring a valid suit for personal injuries resulting from toxic waste disposal practices, against a U.S. owned petrochemical company operating in Mexico.

In *Dow Chem. Co. v. Alfaro*, the court found that in cases where all parties are nonresidents and the alleged injuries occurred outside of the state, the court may entertain jurisdiction, although

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116. FLETCHER & TIEMANN, *supra* note 18, at 6.

117. See *Kayser-Roth*, 910 F.2d at 27.

118. See *Dow Chem. Co. v. Alfaro*, 786 S.W. 2d 674 (Tex. 1990). Costa Rican residents and employees of Standard Fruit Company brought suit against Dow Chemical Co. and Shell Oil Co. The employees claimed that they suffered personal injuries as a result of exposure to dibromochloropropane (DBCP), a pesticide manufactured by Dow and Shell. Alfaro sued the companies in a Texas district court and was eventually successful in maintaining a cause of action. In ruling for the employees, the Texas Supreme Court relied on Section 71.031 of the Civil Practice and Remedies Code, which states:

(a) An action for damages for the death or personal injury of a citizen of this state, of the United States, or of a foreign country may be enforced in the courts of this state, although the wrongful act, neglect, or default causing the death or injury takes place in a foreign state or country if:

(1) a law of the foreign state or country or of this state gives a right to maintain an action for damages for the death or injury;

(2) the action is begun in this state within the time provided by the laws of this state for beginning the action; and

(3) in the case of a citizen of a foreign country, the country has equal treaty rights with the United States on behalf of its citizens.

(b) All matters pertaining to procedure in the prosecution or maintenance of the action in the courts of this state are governed by the law of this state.

(c) The court shall apply the rules of substantive law that are appropriate under the facts of the case.

*Id.*

119. *Id.* In Texas, statutory predecessors of section 71.031 have existed since 1913. The original law stated "[t]hat whenever the death or personal injury of a citizen of this state or of a country having equal rights with the U.S. on behalf of its citizens, has been or may be caused by a wrongful act, neglect or default. . . such right of action may be enforced in the courts of this state . . ." 1913 TEX. GEN. LAWS 338, 338-39. *Id.*

they are not bound to do so.<sup>120</sup> In that case, the court determined that public policy favored taking jurisdiction.<sup>121</sup> The court concluded that the courts of Texas had discretion in the matter of exercising jurisdiction where all parties were nonresidents of the state, and the cause of action arose in the state of the nonresidents.<sup>122</sup> Consequently, a state court that borders Mexico is likely to find that its public policy would favor the exercise of the court's discretion in obtaining jurisdiction over claims brought by Mexican or U.S. citizens as a result of injuries sustained from petrochemical plant operations in Mexico. Public policy would favor the exercise of discretion in granting jurisdiction since it would be desirable to allow citizens of both countries to have the opportunity to redress their injuries in a U.S. court. Furthermore, it is likely that U.S. courts would be more sympathetic to claims resulting from petrochemical companies' unsound operations for two reasons. First, the Mexican judicial system does not have the strength that U.S. courts have to enforce sanctions or fines. Second, because of the Mexican government's favorable view of the petrochemical industry, it would be reluctant to allow substantial recoveries or fines against the companies due to the fear of losing foreign investors.

## VI. Recommendations for the Future

### A. Structural Adjustments

1. *Extraterritorial Changes.*—While NAFTA represents a comprehensive free trade arrangement which supports environmental measures in a general manner, it does not provide any specific solutions for the environmental problems at the U.S.-Mexico border. A specific environmental treaty, drafted with strong language, is a necessary step to strengthen cross-border cooperation because it could increase the roles of the governments and environmental organizations.<sup>123</sup> Additionally, a treaty specifically focusing on environmental issues would be able to address the immediate environmental problems at the border on an issue by issue basis.

One specific provision of the proposed treaty should be a mandatory set of environmental practice requirements for any U.S. corporation involved in manufacturing or assembly in Mexico.<sup>124</sup> A

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120. *Alfaro*, 786 S.W.2d at 677.

121. *Id.*

122. *Id.*

123. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 2-2.

124. See Congressman Richard A. Gephardt, *Address on the Status of the North American Free Trade Agreement Before the Institute for International Economics*, (July 27, 1992). Congressman Gephardt has suggested the creation of a code of conduct for maquiladora industries. His suggestion focused on labor issues in order to provide more protection to the Mexican employees. *Id.*

similar code of conduct could be designed for environmental protection measures. Provisions would require petrochemical and other maquiladoras to notify the bordering state's environmental agency, the EPA and Sedesol of the type of operation, the pollution control methods, estimates of air, water, and solid waste pollution, systems for hazardous waste disposal and other relevant environmental concerns.<sup>125</sup> This would assure that the governments of the United States and Mexico, and the public would be receiving the same information about environmental threats caused by U.S. companies.<sup>126</sup>

The creation of a binational environmental agency would solidify U.S.-Mexico cooperation and increase the environmental enforcement power in the border area.<sup>127</sup> Such an agency could be designed without interfering with either country's jurisdiction or sovereignty. If environmental problems were first referred to the appropriate domestic agency and sufficient action was not taken, then the binational agency could initiate its own solutions and actions.<sup>128</sup>

In order to coordinate environmental protection measures with a binational agency, the EPA should establish a well-funded and well-staffed U.S.-Mexico border office whose sole area of responsibility would be environmental concerns.<sup>129</sup> Not only would the office bring the EPA closer to the border, but it would force the EPA to be more responsive and effective in that area.<sup>130</sup> A border office would also increase public involvement and scrutiny of environmental enforcement procedures.<sup>131</sup> Functions of a border office might conceivably include the implementation of an environmental code of conduct, the compilation and distribution of information concerning petrochemical and other maquiladora business practices, and the coordination of environmental protection measures with a binational agency.

An environmental code of conduct could be codified by enacting a Foreign Environmental Standards of Conduct Act which would require U.S.-based corporations operating in foreign countries to conform to U.S. environmental standards.<sup>132</sup> This law would require

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125. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 2-3.

126. *Id.*

127. See FLETCHER & TIEMANN, *supra* note 18, at 12-13. Similar ideas have been proposed in Congress. In H.Con.Res. 325, 103d Cong., 2d Sess. (1992), Congressman Wyden proposed the development of a bilateral commission to raise money for environmental protection infrastructure and clean-up projects along the U.S.-Mexico border. In S. 503, 102d Cong., 2d Sess. (1991), Senator McCain proposed a \$10 million emergency fund for environmental clean-up and investigation, and directed the EPA to establish an advisory committee to monitor and study environmental conditions along the border. *Id.*

128. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 1-5.

129. See FLETCHER & TIEMANN, *supra* note 18, at 11. In H.R. 3773, 102d Cong., 1st Sess. (1991), Congressman Coleman proposed that the EPA establish an office in a community locate not more than 10 miles from the U.S.-Mexico border. *Id.*

130. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 2-2.

131. *Id.*

132. See FLETCHER & TIEMANN *supra* note 18, at 10. In H.Res 161, 102d Cong., 2d

maquiladoras to act in a manner in which many companies already claim to conduct business. Many corporations claim to follow a "functional equivalency" of U.S. environmental standards, but the increasing amount of toxic pollution from petrochemical and other industries proves otherwise.<sup>133</sup>

Another option to increase the responsibility of petrochemical companies conducting unsound environmental practices is to establish a fee on exports of hazardous waste and chemicals to Mexico and on imports of hazardous chemicals from Mexico.<sup>134</sup> Hazardous waste imported into the U.S. should not be subject to the fee because it would promote the continued environmental abuses of waste disposal in Mexico, rather than encouraging the use of environmentally sound disposal methods in the U.S.<sup>135</sup> The proceeds from the fees would create an EPA environmental law enforcement fund with a set percentage allocated to the U.S.-Mexico border for environmental enforcement.<sup>136</sup> Legislation implementing similar fees has been proposed in conjunction with the Federal Water Pollution Control Act, which would impose fees on all goods imported from countries that do not impose water pollution standards as stringent as those required by the U.S.<sup>137</sup> This type of fee would provide a constant source of revenue for agencies designed to enforce the environmental laws in the border area.

Congressman Richard Gephardt has supported the creation of a similar transboundary tax on goods moving across the U.S.-Mexico border.<sup>138</sup> The proceeds of the tax would fund environmental cleanup on both sides of the border and help Americans who lose their jobs because of competition from low-paid Mexican workers.<sup>139</sup> While the proposed tax and import-export fee appear to contradict the principles of free trade enunciated in NAFTA, the necessity to fund environmental protection measures mandates a program that will provide a continuous source of revenue.

2. *Changes in the Mexican Legal System.*—In order to strengthen environmental law enforcement in Mexico, citizens of both countries should be allowed access to U.S. courts for personal

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Sess. (1991), Congressman Swift proposed that U.S. policy in trade negotiations should seek adoption and enforcement of equivalent environmental standards among the trading nations. *Id.*

133. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 1-4.

134. *Id.*

135. *Id.*

136. *Id.*

137. See FLETCHER & TIEMANN, *supra* note 18, at 13-14. In S. 1965, 102d Cong., 1st Sess. (1991), Senator Gorton proposed that the Secretary of Commerce impose such a fee. *Id.*

138. See *Can't Do It Without Congress*, L.A. Times, July 29, 1992, at B6.

139. See Stuart Auerbach, *Gephardt Draws Line on Trade Pact*, WASH. POST, July 28, 1992, at C4.

injury claims against U.S.-owned petrochemical plants and other maquiladoras operating in Mexico. Although this systemic change is likely to create opposition from the business lobby in the U.S.,<sup>140</sup> it is necessary to provide Mexican citizens with the opportunity to be compensated for actions that would be illegal had they occurred in the United States. Presently, this is not a feasible option for Mexican citizens because the Mexican judicial system lacks a substantial amount of independence and an action in U.S. courts is difficult to maintain due to venue rules favoring defendants.<sup>141</sup> However, recent cases demonstrate that some courts will allow foreign citizens the opportunity to bring a cause of action for recovery against U.S. companies operating abroad.<sup>142</sup> If Mexican citizens are provided access to U.S. courts, the potential liability would be a strong incentive for U.S.-owned maquiladoras to operate under the same environmental standards as they would in the United States.<sup>143</sup> The liability incentive would be further strengthened if U.S. shareholders were allowed a derivative right of action against U.S. companies operating in Mexico. Congressman Richard Gephardt has suggested that a derivative right of action would force U.S. companies to abide by the laws of Mexico.<sup>144</sup>

Another area for improvement lies in making information concerning environmental problems accessible to citizens of both countries. Revelation of information concerning permits, emission data and environmental impact statements are available to the public under U.S. laws, but not under Mexican laws. The Mexican environmental authorities have been unwilling to release information, and U.S. citizens may face some resistance if they seek to access environmental information concerning U.S. corporations operating in Mexico.<sup>145</sup> Consequently, legislation is needed which would require U.S. companies to file toxic release emission statements and copies of all permits received from the Mexican government in order to impose regulations similar to those that U.S. companies follow.<sup>146</sup>

#### *B. Right to Know Laws*

The adoption of right to know laws could be a legislative force

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140. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 1-3.

141. *Id.*

142. See *supra* notes 102, 106, 107, 109, 112, 115, 118.

143. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 1-3.

144. See Congressman Gephardt, *supra* note 124. "I don't want our companies to be sued. That's why this legislation (permitting a derivative right of action) will allow for a company to inoculate itself against a suit by having an environmental inspection. This would act as a 'Good Housekeeping Seal of Approval' and preclude a suit." *Id.*

145. See *NAFTA and the U.S./Mexico Border Environment*, *supra* note 53, at 4-1.

146. *Id.* at 4-2.



in addressing the environmental and health problems that face the U.S.-Mexico border communities. Right to know statutes would allow the public to access previously confidential information on toxic chemical pollution from corporate files of petrochemical companies operating in Mexico.<sup>147</sup> These laws would require companies who produce toxic chemical pollution to publicly disclose amounts, location, and methods of storage and disposal.<sup>148</sup> Congressman Gephardt has suggested that border communities need to expand their right to know statutes to require U.S. companies doing business in Mexico, within 100 kilometers of the border, to inform the public of any release of toxic substances.<sup>149</sup> He further maintains that similar legislation on Mexico's behalf is a necessary step for the enforcement of environmental measures.<sup>150</sup>

From an individual citizen's standpoint, right to know laws improve the public's knowledge of the health and environmental risks caused by the disposal of hazardous waste.<sup>151</sup> Increased public knowledge will result in broader public participation in environmental protection movements. Also, these statutes would substantially benefit the workforce employed at maquiladoras because they will provide employees with information about hazardous conditions in the workplace.<sup>152</sup> Currently, U.S. labor unions, who are attempting to guarantee affirmative rights for union members, utilize the concept behind right to know laws.<sup>153</sup> The programs would provide support for workers injured as a result of company environmental policies, reduce workplace hazards and mandate safer working conditions.<sup>154</sup>

Moreover, right to know statutes would be a significant help to the media in the investigation of hazardous waste and environmental problems.<sup>155</sup> In order to inform the public, the media needs relevant information and a "meaningful context to evaluate pollution."<sup>156</sup> The vast resources available to the media would allow them to utilize right to know laws to their greatest potential.

Furthermore, legislators need timely information from maquiladoras in order to identify environmental problems, evaluate policies, develop solutions, and implement effective pollution prevention

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147. See *The Right to Know-the Right to Act*, BORDER CAMPAIGN BACKGROUND ARTICLE #4, (Border Campaign, Brownsville, TX) 1992.

148. *Id.*

149. See Congressman Gephardt, *supra* note 124.

150. *Id.*

151. See *The Right to Know-the Right to Act*, *supra* note 147.

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.*

156. See *The Right to Know-the Right to Act*, *supra* note 147.

laws.<sup>157</sup> If the law-makers use the right to know laws to their fullest extent, then they can work with emergency planners and response teams to establish a public planning structure which would utilize current information to plan for chemical emergencies.<sup>158</sup>

Right to know statutes would also affect industry and its regulators in a positive manner. In the past, public disclosure has influenced high level decision makers and has strengthened the role of environmental managers in some U.S. corporations.<sup>159</sup> With the use of such statutes, industry regulators would be able to improve their evaluation of current industry policies and priorities.<sup>160</sup>

The current right to know laws do not apply to the 1800 U.S. owned maquiladoras located in Mexico.<sup>161</sup> If Congressman Gephardt's proposition to impose the laws on U.S. companies conducting business within 100 kilometers of the U.S.-Mexico border is implemented, then the citizens in the border communities are likely to become more proactive because they will be receiving information.<sup>162</sup> The increase in knowledge of the environmental practices of the petrochemical plants will lead to a better equipped and organized public participation base, which will provide a foundation for effective environmental protection.<sup>163</sup> With public participation, information concerning the inherent hazards of the industry will have a meaningful impact on the citizens. Finally, if the legislators give the emergency planning committees consistent funding, they will be able to provide the workforce and industry personnel with useful information and a clear mandate to prevent and plan for chemical accidents.<sup>164</sup>

## VII. Conclusion

The United States and Mexico face an alarming situation. The U.S. views NAFTA as a mechanism to offset the trading power of the European Community. Mexico views NAFTA as the opportunity to become part of a superpower trading bloc, and significantly increase its potential for higher annual revenues. NAFTA's implementation will cause a surge in industrial growth at the U.S.-Mexico border, fulfilling Mexico's goal of increased revenue. Unfortunately, continued development at the border will exacerbate the present irrepressible environmental degradation and detract from the quality of

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157. *Id.*

158. *Id.*

159. *Id.*

160. *Id.*

161. *Id.*

162. See Congressman Gephardt, *supra* note 124.

163. See *The Right to Know-the Right to Act*, *supra* note 147.

164. *Id.*

life on both sides of the border.

Both the U.S. and Mexico must begin to make necessary structural adjustments at the border. Otherwise, the countries will ultimately mandate a situation that demonstrates that free trade under NAFTA is a much higher priority than the condition of the environment and its coinciding adverse health effects on the citizens of both countries.

*Sloan Rappoport*