

ARTICLES

THE PROCEDURAL IMPLEMENTATION PROCESS AND A MODEL SUBSTANTIVE APPROACH TOWARDS THE STORAGE, TREATMENT, AND DISPOSAL OF HAZARDOUS WASTE IN WESTERN EUROPE

G. NELSON SMITH, III*

1. INTRODUCTION

The problem of storing, treating, and disposing of hazardous waste is a serious international problem. A 1984 U.S. Environmental Protection Agency survey reported that 265 million tons of hazardous waste are released in the United States each year.¹ Moreover, a 1985 West German study estimated that West Germany generated four to four-and-one-half million tons of hazardous waste annually.² The figures from the former Soviet Union were even more startling. These figures show that about 98.5% to 99% of the total amount of natural substances involved in production represent reproduction "wastes."³ Ten to twenty percent of the total wastes

* Associate, Squire, Sanders & Dempsey, Cleveland, Ohio; B.S. Howard University (magna cum laude), 1982; J.D. University of Virginia, 1986; Member: Virginia State Bar. Mr. Smith practices in the areas of environmental and international law.

¹ Nancy E. Milsten, Note, *How Well Can States Enforce Their Environmental Laws When The Polluter Is The United States Government?*, 18 RUTGERS L.J. 123 (1986) (citing M. WOROBEK, TOXIC SUBSTANCES CONTROL PRIMER: FEDERAL REGULATION OF CHEMICALS IN THE ENVIRONMENT 153 (1984)).

² Günter Hager, *Waste Control Under German Law: Liability and Preventative Measures*, 25 HOUS. L. REV. 963, 963 (1988) (citing *Verhandlungen des Deutschen Bundestages* [BT-Drucksache] 10/2885 at 10). "The *Verhandlungen des Deutschen Bundestages* is a report of the proceedings of the German Federal Parliament." *Id.* at 963 n.1.

³ M.M. Brinchuk, *Legal Problems of Hazardous Industrial Wastes in the USSR*, 4 CONN. J. INT'L L. 353, 353 (1989). The author noted that "[a]pproximately five billion tons of various wastes accumulate annually in the Soviet Union." *Id.*

produced at non-ferrous metallurgy enterprises, the chemical industry, and other branches in the Soviet Union have toxic properties.⁴

Western European problems and practices in the field of hazardous waste are generally similar to those in the United States.⁵ In most instances, for example, hazardous waste laws developed directly or indirectly as a result of a major catastrophe. In 1980, the U.S. Congress passed the Comprehensive Environmental Response, Compensation and Liability Act of 1980 ("CERCLA").⁶ CERCLA was passed as a result of hazardous waste disposal problems in Niagara Falls, New York, Lathrop, California, and Elizabeth, New Jersey.⁷

In November of 1986, a fire at the Sandoz Warehouse 956 near Basel, Switzerland caused between 10,000 and 15,000 cubic meters of water to enter the Rhine River through the Sandoz sewer system.⁸ This water was contaminated with

⁴ *Id.*

⁵ Alan C. Williams, *A Study of Hazardous Waste Minimization in Europe: Public and Private Strategies to Reduce Production of Hazardous Waste*, 14 B.C. ENVTL. AFF. L. REV. 165, 170 (1987). Williams stated, however, that the above article was based on his personal observations in Belgium, France, West Germany, the Netherlands, and the United Kingdom. It was not intended to describe practices in all European countries. *Id.* at 170 n.12.

⁶ 42 U.S.C. §§ 9601-9675 (1988).

⁷ The three Hooker Chemical disposal sites in the Niagara Falls, New York, area contained an estimated 352 million pounds of industrial chemical waste, including trichlorophenoxyacetic acid ("TCP"), an herbicide often contaminated by dioxin, one of the most toxic substances known to humans, and lindane, a highly toxic pesticide product. The Chemical Control Site in Elizabeth, New Jersey, contained over 40,000 barrels of hazardous waste. At least 100 pounds of picric acid, a powerful explosive, also was found stored on the site. Tens of thousands of barrels of these materials were unsafely "stored" within a few feet of the company's incinerator, within a mile of a local railroad right-of-way, and within one-quarter mile of huge liquefied natural gas and propane storage tanks. The Occidental Chemical Companies site at Lathrop, California discharged thousands of gallons of pesticide formulation wastes into the ground on the company site. Here, pesticide formulation of waste products placed in lagoons were allowed to percolate into the extremely permeable soil, threatening the area's drinking and irrigation water. See Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 1980 U.S.C.A.N. (94 Stat. 2767) 6119, 6121 (codified at 42 U.S.C. §§ 9601-9675 (1988)).

⁸ Aaron Schwabach, Comment, *The Sandoz Spill: The Failure of International Law to Protect the Rhine From Pollution*, 16 *ECOLOGY L.Q.* 443, 443 (1989).

insecticides and other chemicals that were stored in the warehouse.⁹ The spill of toxic chemicals into the river had a horrendous effect on the environment surrounding the Rhine. The accident was recognized by many as "Western Europe's worst environmental disaster in decades."¹⁰ This accident occurred even though two treaties were in place to protect the Rhine against pollution: the Convention Concerning the International Commission for the Protection of the Rhine Against Pollution¹¹ and the Convention on the Protection of the Rhine Against Chemical Pollution.¹²

Finally, accidents in the United States and throughout the world have caused some Western European countries to stand up and take notice of the environmental perils that face this planet. The Three Mile Island accident led the Swedish Parliament to decide in 1980 to phase out the use of nuclear power in Sweden by the year 2010. However, as a result of the Chernobyl accident in the Soviet Union, political parties have actually talked about accelerating the date of the phase-out.¹³ In essence, the problem of storing, treating, and disposing of hazardous waste is a severe problem that affects nations on both sides of the Atlantic.

The purpose of this Article is to define carefully the hazardous waste laws of the United States's Western European counterparts and to provide an intra-European comparison of many of these countries' liability provisions. Part 2 examines the problems associated with storing hazardous waste in Western Europe and discusses the effects of waste disasters and the waste laws of various countries. Countries that do not specifically define "hazardous waste" are analyzed in Part 3. Finally, in Part 4, this Article proposes a model decree for a Uniform Hazardous Waste Law for Western Europe.

⁹ *Id.*

¹⁰ *Id.*

¹¹ Vereinbarung über die Internationale Kommission zum Schutze des Rheins gegen Verunreinigung, Apr. 29, 1963, 994 U.N.T.S. 3.

¹² Convention on the Protection of the Rhine Against Chemical Pollution, Dec. 3, 1976, 16 I.L.M. 242.

¹³ *Nuclear Waste Disposal in Sweden*, 119 PUB. UTIL. FORT., May 14, 1987, at 34, 34.

2. GENERAL PROBLEM OF STORING WASTE IN WESTERN EUROPE

Western Europe has a serious problem finding appropriate storage locations for hazardous waste. In 1987, it was estimated that there were over 600,000 industrial and commercial installations in France, subject to government control, which posed a possible danger to public health and safety.¹⁴ Moreover, in 1985, the West German Federal Environmental Agency (Bundesumweltamt) estimated that there were approximately 35,000 hazardous waste sites in West Germany: 30,000 old dumps and 5,000 former industrial sites.¹⁵ Just two years later, an investigation by the German Institute for Urban Studies determined that the previous numbers were grossly underestimated and that the actual amount of old dump sites was between 42,000 and 48,000.¹⁶ Finally, in the former Soviet Union, it was estimated that waste occupied more than four million hectares of agricultural land.¹⁷ As a result of this lack of space and of disasters such as the Sandoz spill and Chernobyl, many environmentalists have called for the development of new technology to alleviate the problems caused by hazardous waste.¹⁸

¹⁴ Williams, *supra* note 5, at 187. Approximately 50,000 of these installations were subject to authorization by the government, that is, they had to obtain authorization before commencing or modifying their operations if they threatened "a grave danger or nuisance with respect to the interests protected by the law." *Id.*

¹⁵ See Hager, *supra* note 2, at 963 (citing *Verhandlungen des Deutschen Bundestages* [BT-Drucksache] 10/2977, at 28).

¹⁶ *Id.* (citing Deutsches Institut für Urbanistik, *Altlasten als Rechtsproblem—Neue Difu-Studie zur Altlastenproblematik*, 6 NVwZ 962 (1987)).

¹⁷ Brinchuk, *supra* note 3, at 353-54 (citing Lemeshev, *Ekonomika i ekologiya: problemy integratsii i upravleniia*, in GORIZONTY EKOLOGICHESKOGO ZNANIIA 155 (1986); *Ekonomicheski problemy resursosberezeniia* (materially "Kruglogo stola"), 4 VOPROSY EKONOMIKI 109 (1986)).

¹⁸ See Williams, *supra* note 5. Williams opined that:

[i]n the 1980's, the proper management of hazardous waste has captured the attention of national, state, and local elected officials, environmentalists, industry, and the public. This attention was turned at first to correcting the inadequacies of past waste management practices But the focus of current public discussion about hazardous waste management is turning to a new question How can the production of hazardous waste be

2.1. *Effects of Chernobyl and the Sandoz Spill on the Western European Economy*

With the world's critical ecological status, particularly "the predicted increase in international environmental effects and industrial catastrophes," the attention of the global community has been directed toward "measures to prevent situations likely to damage the environment across boundaries of national jurisdiction."¹⁹ This is especially true in Western Europe, where virtually any environmental disaster has international consequences. As a result of the fallout from Chernobyl, for example, nuclear contamination migrated throughout Europe. This migration forced the Polish Government to inject children with shots of iodine solution and to temporarily ban the drinking of milk.²⁰ In Romania, people were ordered not to drink rainwater because of the nuclear fallout.²¹ Sweden suffered dramatic financial losses due to the contaminated food chain; the accident's effects extended to reindeer, berries, and fish.²² The effects of Chernobyl's contamination were felt as far away as Great Britain.²³

The Sandoz spill had a similarly devastating effect on the Western European economy. The contamination compelled the governments of France, the Netherlands, Switzerland, and West Germany to close all Rhine drinking-water processing plants.²⁴ Pollutants were so severe in France that sheep that

minimized in order to eliminate the need for treatment and disposal of hazardous waste with all of the associated environmental and public health risks?

Id. at 167-68.

¹⁹ Alexandre S. Timoshenko, *The Problem of Preventing Damage to the Environment in National and International Law: Impact Assessment and International Consultations*, 5 PACE ENVTL. L. REV. 475, 476 (1988).

²⁰ Victoria R. Hartke, Note, *The International Fallout From Chernobyl*, 5 DICK. J. INT'L L. 319, 320 (1987). See generally William D. Marbach, *Anatomy of a Catastrophe*, NEWSWEEK, Sept. 1, 1986, at 26.

²¹ Hartke, *supra* note 20, at 320.

²² *Id.*

²³ *Id.* Here it was noted that "[s]heep farmers in Great Britain were unable to bring their animals to slaughter because the sheep had ingested contaminated grass." *Id.*

²⁴ Schwabach, *supra* note 8, at 447; see Paul Lewis, *Huge Chemical Spill in the Rhine Creates Havoc in Four Countries*, N.Y. TIMES, Nov. 11, 1986, at A1.

drank water from the Rhine died.²⁵ To avoid such a catastrophe, West German farmers refused to permit livestock to graze near the Rhine.²⁶ Moreover, those who relied on the Rhine for drinking water had to have water brought in by trucks.²⁷ Many tourists who had come to West Germany for well-known festivals²⁸ quickly departed.²⁹ The contamination had such a devastating effect on West Germany ecologically, psychologically, and financially that former Chancellor Willy Brandt referred to the spill as the "Bhopal on the Rhine."³⁰

2.2. *The General Application of Western European Hazardous Waste Laws*

Generally, the hazardous waste laws in most Western European countries distinguish between household and industrial waste.³¹ Industrial waste usually refers to special categories of wastes which are categorized as such either because of the danger they pose or the problem their disposal poses.³²

Hazardous waste laws in Western Europe generally apply to solids, liquids, and contained gases. While some countries include waste oils, titanium dioxide ("TiO₂") and polychlorinated biphenyls ("PCBs") under their hazardous waste laws, others do not.³³ Similarly, in many countries, ship, mine, and radioactive wastes are excluded from hazardous waste laws, although radioactive waste is considered hazardous in the United Kingdom if it has other hazardous properties as

²⁵ Schwabach, *supra* note 8, at 447; see Jennifer B. Hull, *A Proud River Runs Red*, TIME, Nov. 24, 1986, at 36, 36.

²⁶ Schwabach, *supra* note 8, at 447.

²⁷ *Id.* at 447-48. See Lewis, *supra* note 24.

²⁸ Schwabach, *supra* note 8, at 448; see also Lewis, *supra* note 24; Russell Watson, *The Blotch on the Rhine*, NEWSWEEK, Nov. 24, 1986, at 58, 58.

²⁹ Schwabach, *supra* note 8, at 448; see Watson, *supra* note 28, at 58.

³⁰ Schwabach, *supra* note 8, at 448 & n.51.

³¹ Organization for Economic Co-operation and Development, Environment Committee Waste Management Policy Group: National Legislation and International Rules Applicable to Hazardous Waste Management in OECD Member Countries [hereinafter *OECD Report*], in EUROPEAN ENVIRONMENTAL LAWS AND REGULATIONS, IX-31, IX-57 (2d ed. 1983).

³² *Id.*

³³ *Id.*

well.³⁴ Unfortunately, there is no consistent definition of hazardous waste. Different applications of the term "hazardous waste" include hospital wastes, animal carcasses, and explosives.³⁵ Whatever the case, because of the potential dangers that may arise out of handling, storing, disposing, or transporting hazardous waste, most Western European countries have developed some special hazardous waste rules and regulations.³⁶

Several Western European countries have been attempting to define hazardous waste. What is commonplace in virtually all of these definitions is the notion of a particular threat, although there is no precise interpretation as to what makes the waste hazardous.³⁷ While some Western European countries limit the affected properties to humans, others have expanded the definition to include the biosphere or parts of it, such as plants, livestock, and bodies of water.³⁸ Countries with lists of hazardous wastes include the Federal Republic of Germany, France, the Netherlands, and the United Kingdom.

2.2.1. *Federal Republic of Germany*

The Federal Republic of Germany has fairly comprehensive hazardous waste laws. In 1972, it passed the Federal Waste Disposal Act, an outline law on the disposal of waste (the "FWDA").³⁹ This law, reviewed in 1986,⁴⁰ "defines and regulates the authorities responsible for pollution, [as well as] the conditions and requirements for the collection, treatment, and disposal of certain substances and mixed wastes (dangerous wastes . . .)."⁴¹ The FWDA also outlines a plan to

³⁴ *Id.*

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Id.*

³⁸ *Id.* The United Kingdom, for example, has established "various criteria . . . for determining whether a particular waste is 'dangerous to life.'" *Id.*

³⁹ See Hager, *supra* note 2, at 964. In German, the law is known as "Abfallgesetz" [hereinafter AbfG]. *Id.*

⁴⁰ *Id.* (citing Gesetz über die Vermeidung und Entsorgung von Abfällen (Abfallgesetz-AbfG) vol. 27, Aug. 1986, 1986 Bundesgesetzblatt [BGBl] I 1410, corrected at 1501).

⁴¹ Dietrich Schröder, *Pollution: Waste—Germany F.R.*, 1987 EUR. ENVTL. Y.B. (DocTer UK Ltd.-Int'l Inst. for Env'tl. Stud.) 471.

dispose of waste in the länders.⁴² "Article 2(1) contains the basic principle governing disposal: '[w]aste shall be so disposed of that the welfare of the community is not impaired.'⁴³ As a result of this principle, the generator of the waste must make the waste available to the public authority required to dispose of it.⁴⁴ "The authorities responsible for the removal and disposal of waste are the Districts (*Kreise*) and the Independent cities (*kreisfreie Städte*) . . ."⁴⁵ Both the collection and transportation of urban wastes are organized and carried out by municipalities.⁴⁶

If the authorities are unable to dispose of any waste which cannot be disposed of with household waste, they are not required to dispose of the waste at all.⁴⁷ Under these circumstances, the generator is required to "either dispose of these wastes or use a licensed enterprise such as a private waste disposal enterprise, a public law corporation or a public authority."⁴⁸ In the Federal Republic of Germany, hazardous waste laws are classified in three ways: according to their origin, their properties, and the effect they have on the environment.⁴⁹ Moreover, waste may only be handled by licensed facilities which handle the type and quantity of waste in question.⁵⁰ Similarly, only licensed persons may collect and transport the waste, and only when the waste is certified can a disposal plant receive this waste.⁵¹ "In certain cases, [however,] the competent authority may require a disposal plant to receive and dispose of special waste, subject to appropriate remuneration."⁵²

⁴² Länder is the name given to the states of the Federal Republic of Germany. Currently, there are 16 länders. See [Reference File] Int'l Evtl. Rep. (BNA) 241:0101 (Nov. 1991).

⁴³ *OECD Report*, *supra* note 31, at IX-38.

⁴⁴ See *id.* (citing Art. 3(1) of the FWDA).

⁴⁵ Schröder, *supra* note 41, at 471. Independent cities are "cities which do not belong to any district but are themselves districts or urban areas . . . which may combine to form associations." *Id.*

⁴⁶ *Id.*

⁴⁷ *OECD Report*, *supra* note 31, at IX-38 to IX-39.

⁴⁸ *Id.* at IX-39.

⁴⁹ Schröder, *supra* note 41, at 471.

⁵⁰ *OECD Report*, *supra* note 31, at IX-39.

⁵¹ *Id.* (citing Art. 4(3) of the FWDA).

⁵² *Id.*

The main purpose of the German statute is to improve and protect the environment from the dangers of hazardous waste.⁵³ The Federal Republic of Germany intends to accomplish this by reducing the volume of waste, by issuing special decrees for recycling, and by other methods of handling waste.⁵⁴ The special decrees, for example, can mandate that manufacturers and retailers take back "harmful products like batteries [and] paints"⁵⁵ The decrees can also require manufacturers and retailers to label such harmful products.⁵⁶ Another example indicative of the Federal Republic of Germany's intent to have a hazardous-waste-free environment is "[a] special article of the statute [which] obliges those who sell oil to consumers to inform those consumers of the obligation for safe disposal and to take back used oil at no charge."⁵⁷ If the manufacturer or retailer cannot avoid producing or cannot reuse the waste, the waste must be disposed of in special facilities.⁵⁸

In 1989, the Federal Republic of Germany passed the Environmental Liability Act of December 10, 1989 ("ELA"), which holds hazardous installations strictly liable for causing environmental damage.⁵⁹ For purposes of the ELA, "installations" includes virtually all types of facilities and equipment which require a permit under the Federal Pollution Control Act, "such as furnaces, gas turbines, cooling towers, chemical manufacturing installations and pharmaceutical installations"⁶⁰ Initially, the ELA only covered water. However, the Act has now been expanded to cover soil and water.⁶¹ The ELA became effective on January 1, 1991. Under the ELA, environmental damage is presumed if it is caused by substances, vibrations, noise, pressure or other occurrences if emitted

⁵³ Hager, *supra* note 2, at 964.

⁵⁴ *Id.* at 964-65 (citing AbfG § 1(a), 14).

⁵⁵ *Id.* at 965 (citing AbfG § 14, Abs. 1, No. 3).

⁵⁶ *Id.* at 964-65 (citing AbfG § 14(I), No. 1).

⁵⁷ *Id.* at 965 (citing AbfG § 5(b)).

⁵⁸ *Id.* (citing AbfG § 4(I)).

⁵⁹ Habil Joachim Scherer, *Strict Liability for Environmental Damage in Germany*, 19 INT'L BUS. LAW. 309 (1991).

⁶⁰ *Id.*

⁶¹ Russell A. Klingaman, Comment, *The European Community and Liability for Cleaning Up Abandoned Hazardous Waste Sites: Should the EC Follow the United States' Example?*, 9 WISC. INT'L L.J. 125, 150 (1990).

in the air, ground, or water.⁶² The ELA also presumes that the occurrence escaped from an installation and entered the environment, "if [in] taking into account the circumstances of each particular case an installation is found to have been capable of causing the ensuing damage."⁶³

The presumption, however, will not apply if appropriate measures were taken by the facility prior to the accident. These procedures include operating the facility in accordance with the appropriate permits and implementing control measures. Furthermore, if more than one installation is thought to have caused the damage, the presumption of cause is not used.⁶⁴ If a company is found liable under the ELA, the company may be held liable for personal and real property, injury, and death, up to 160 million Deutsche mark, and for natural resource damages.⁶⁵ Unlike the German Civil Code, the ELA may require restoration to the property even if such costs disproportionately exceed the value of property.⁶⁶ Liability under the ELA is only excluded if the damage was caused by *force majeure*. There is a three-year statute of limitations under the ELA, which begins to run at the time the injured party has knowledge of the injury and of the identity of the person responsible for compensation.⁶⁷ Without such knowledge, the statute of limitations is thirty years from the date of the occurrence.⁶⁸

In 1991, the Federal Republic of Germany proposed the Electronic Waste Decree, which would require the collection and possible recycling of computers and electronic products by retailers and manufacturers beginning in 1994.⁶⁹ The new decree would also require retailers and manufacturers to accept computers regardless of the brand or manufacturer.⁷⁰ The purpose of the decree "will be to keep lead, cadmium and

⁶² Scherer, *supra* note 59, at 309 (citing § 3 para. 1 Umwelt HG).

⁶³ *Id.* (citing § 6 para. 1 Umwelt HG).

⁶⁴ *Id.* (citing § 7 para. 1 Umwelt HG).

⁶⁵ *Id.* at 310.

⁶⁶ *Id.*

⁶⁷ *Id.* (citing § 4 Umwelt HG).

⁶⁸ *Id.*

⁶⁹ *Environmental Pressures - Germany Outlines New Recycling Goals*, BUS. INT'L, July 26, 1991.

⁷⁰ *Id.*

platinum out of the household waste stream."⁷¹

The Federal Republic of Germany has been attempting to gain some control over its hazardous waste problems for almost twenty years. However, one of the main problems with the German approach is the lack of any centralized enforcement mechanism. Further, the Federal Republic of Germany also has no centralized structure to ensure that the regulations adopted are implemented. This is bad both for the government officials and for industries with hazardous waste facilities in the Federal Republic of Germany. Because of the lack of centralized enforcement and implementation, the federal government has little or no oversight. The lack of oversight makes it virtually impossible to hold accountable those states with poor implementation records. In short, whether the environmental laws are strong laws cannot be determined by the laws themselves. Rather, that determination is left to the discretion of the state and local provinces that must enforce the laws. Consequently, many of the laws may only be as good as the paper on which they are written.

Industry also suffers because of this lack of centralization. Because the enforcement and implementation procedures may differ from province to province, many procedures are repetitive, unnecessary, and in many cases in opposition to one another. These procedures could cost a company a great deal of money. Such a cost would be passed on to the industry's consumers, many of whom could be Germans. In short, all parties would benefit from the establishment of a centralized office responsible for overseeing enforcement and implementation of laws and regulations addressing hazardous waste.

While this need for a centralized office is indeed a problem that the German government faces with hazardous waste generation, most of the hazardous waste problems in the Federal Republic of Germany result from the reunification of East Germany and West Germany. For example, the former East Germany used to import over 700,000 tons of hazardous waste annually.⁷² Much of the imported hazardous waste,

⁷¹ *Id.*

⁷² Charles Clover, *West Declares War on East's Industrial Legacy of Death*, DAILY TELEGRAPH, June 18, 1990, at 8.

ironically, came from West Germany.⁷³ West Germany paid East Germany approximately \$24 per ton of garbage accepted.⁷⁴ In 1990, East Germany announced that its Vorketzin industrial waste dump site would refuse to accept industrial waste from the West. Moreover, East Germany stated that the Vorketzin facility, along with a second facility, Schoeneiche, would stop accepting 2.1 million tons of household waste by 1994.⁷⁵

As a result of the reunification of East and West Germany, two problems have developed. First, the Federal Republic of Germany must now find either a new location to which to transport its hazardous waste or develop a comprehensive waste minimization and recycling program. Germany has already found out that attempting to replace East Germany as a "dumping ground" is going to be extremely difficult.⁷⁶ Consequently, the choices available to handle the waste problem may be limited to waste minimization and recycling.

The Federal Republic of Germany must also tackle the problem of cleaning up East Germany's hazardous waste problems. The problems in what was East Germany are severe: thirty percent of the waters there are ecologically dead.⁷⁷ Forty-five percent of the waterways will not be able to be used for drinking purposes even after advanced treatment.⁷⁸ Moreover, it has been estimated that cleaning the hazardous waste from the soil, especially in such cities as Dresden and Leipzig, will cost billions of dollars.⁷⁹ The Federal Republic of Germany budgeted approximately \$595 million for twenty-one environmental projects in the former East Germany. One of the projects calls for aid in the construction of sewage treatment plants.⁸⁰ However, less than a year after the appropriation, the German government

⁷³ *Id.*

⁷⁴ *West Berlin Told East German Site Will No Longer Accept Industrial Trash*, 13 Int'l Env'tl. Rep. (BNA) 51 (Feb. 14, 1990).

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *East, West German Environment Ministers Call for Unification of Laws, Practices*, 13 Int'l Env'tl. Rep. (BNA) 200 (May 9, 1990).

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

had increased its commitment to \$1.6 billion.⁸¹ The question that naturally arises out of this is how much more money can Germany appropriate, and will such appropriations detract from Germany's efforts to solve the environmental problems of the former West Germany?

2.2.2. France

In France, a "wide-ranging body of laws and regulations," many of which overlap, address the subject of waste.⁸² The reasoning behind the overlap is somewhat justified because the size of the French waste disposal problem is enormous. As a 1974 report from the Interministerial Study Group for the Disposal of Solid Waste emphasized, every year France produces an estimated eleven million tons of household waste, eleven million tons of industrial waste, 110 million tons of mining residues, and eight million tons of packaging material, which includes 400,000 tons of plastic mixed with household refuse.⁸³

In France, the disposal of waste includes such processes as collecting, transporting, storing, sorting, and treating operations required for recycling or preventing problems associated with the deposit of waste.⁸⁴ This is governed by the Law of 15 July 1975.⁸⁵ In pertinent part, this law states that "[e]veryone who produces or holds waste in such a way as to produce harmful effects . . . is required to ensure that it is disposed of under proper conditions to avoid such effects."⁸⁶ The law defines waste as "any residue from manufacturing, processing or use, any substance, material or product and in general any movable goods that have been . . . abandoned by their owner."⁸⁷ Moreover, Article 3 of the 1975 law states

⁸¹ *Government Approves 35 Projects to Monitor, Clean-Up Pollution In East*, 13 Int'l Env'tl. Rep. (BNA) 463 (Nov. 7, 1990).

⁸² Serge Soumastre, *Pollution: Waste—France*, 1987 EUR. ENVTL. Y.B. 466.

⁸³ MICHAEL DESPAX & WILLIAM COULET, *THE LAW AND PRACTICE RELATING TO POLLUTION CONTROL IN FRANCE* 78 (2d ed. 1982).

⁸⁴ *Id.* at 79-80.

⁸⁵ *Id.* at 80.

⁸⁶ *Id.* (citing Art. 2 of Outline Law no. 75.633).

⁸⁷ Soumastre, *supra* note 82, at 467 (citing Art. 3 of Outline Law of 75.633).

that "[a]bandonment is deemed to be any act which, in the guise of an assignment of property free of charge or against consideration, is in fact intended to relieve the owner of its obligation to comply with the present law or implementing measures"⁸⁸

Although the 1975 law applies to waste in general, it also "establishes a special category of wastes, namely those which are capable of producing 'des effets nocifs' (Art. 2) or 'des nuisances' (Art. 8)."⁸⁹ As in Germany, the 1975 law permits only accredited installations to treat special waste.⁹⁰ Also, similar to the West German law, the French Government may control the "manufacture, importation, storage, and sale of products which generate waste."⁹¹ A control may include facilitating the disposal of wastes. If necessary, a control can even prohibit the manufacture, importation, storage, or sale of products which generate such waste.⁹²

In terms of enforcement, Article 10 of the 1975 law permits governmental authorities to step in *ex officio* to take over the treatment of dangerous toxic wastes.⁹³ Further, Article 10 allows the ministerial departments to give approved treatment plants territorial exclusivity.⁹⁴ In conjunction with granting territorial exclusivity, the government may also implement "waste recovery plans."⁹⁵

One of the most important features of the 1975 law was the establishment of the Agence Nationale pour la Récupération et l'Élimination des Déchets ("ANRED"). ANRED was established to facilitate the elimination and recuperation of wastes or "to undertake such operations where public or private means are lacking."⁹⁶ ANRED achieves these goals by "aiding the creation of treatment installations and waste exchanges; promoting the development of new technologies for recuperating and eliminating waste, and giving technical

⁸⁸ *Id.*

⁸⁹ *OECD Report, supra note 31, at IX-41.*

⁹⁰ *DESPAX & COULET, supra note 83, at 85.*

⁹¹ *Id.*

⁹² *Id.*, citing Law of 15 July 1975, Art. 10.

⁹³ *Id.*

⁹⁴ *Id.* at 468.

⁹⁵ *Id.*

⁹⁶ *OECD Report, supra note 31, at IX-41.*

assistance to local authorities and firms with waste problems.⁹⁷ Moreover, ANRED supports the government from both a technical research perspective as well as from an implementing perspective.⁹⁸ ANRED is under the auspices of three separate government ministries: The Environment, Industry and Research, and Finance ministries.⁹⁹

On July 19, 1976, France enacted Law 663 concerning the classification of installations for environmental protection.¹⁰⁰ The purpose of Law 663 was to regulate source control pollution of both industry and agriculture.¹⁰¹ Moreover, it regulates hazardous waste treatment facilities,¹⁰² dumping, and incineration.¹⁰³ Of particular importance is Article 9 of Law 663, which requires disposal that enables the recuperation of reusable or recyclable elements.¹⁰⁴ As of 1982, there was a list of the 400 different categories of main activities that required authorization or declaration to the prefect, after both public inquiry and impact analysis.¹⁰⁵

The Minister for the Environment is responsible for issuing orders and circulars establishing the technical regulations that should be referred to prefects issuing authorizations.¹⁰⁶ One such circular was issued on January 22, 1980. This circular set out the technical instructions on how to discharge industrial waste.¹⁰⁷ Moreover, the circular established the criteria for site selection or hazardous waste dumps, the requirements for accepting the waste, and the management and controls of the operations.¹⁰⁸ Similar to the January 22, 1980 circular, the circular of March 23, 1983, established instructions on

⁹⁷ *Id.*

⁹⁸ Williams, *supra* note 5, at 173.

⁹⁹ *Id.* at 173 (citing Law 76-663 of July 19, 1976, J.O. 4320-23); see *OECD Report*, *supra* note 31, at IX-41; Soumastre, *supra* note 82, at 468.

¹⁰⁰ Soumastre, *supra* note 82, at 468 (citing Law 76-663 of July 19, 1976, J.O. 4320-23).

¹⁰¹ *Id.*

¹⁰² *Id.* (citing Law of July 7, 1976).

¹⁰³ *Id.* at 468-69.

¹⁰⁴ *OECD Report*, *supra* note 31, at IX-41.

¹⁰⁵ Soumastre, *supra* note 82, at 468.

¹⁰⁶ *Id.*

¹⁰⁷ *OECD Report*, *supra* note 31, at IX-41.

¹⁰⁸ *Id.*

incinerating industrial waste.¹⁰⁹

In 1977, France enacted Law 771 implementing the Law of July 15, 1975.¹¹⁰ This specifically introduced "a system of prior controls over products."¹¹¹ Before a new chemical is legally manufactured or imported, the manufacturer or importer must submit full particulars to the authority outlining the characteristics and properties of the chemicals. After the particulars are submitted, a risk assessment to human life and the environment is completed.¹¹² Another 1977 decree also listed toxic and dangerous wastes under which the administration can request all those involved in the hazardous waste process to furnish complete information on the production, transportation, or elimination of the wastes.¹¹³ Similar to the 1975 law and the West German law, the 1977 Act also stated that treatment of the waste can only be done in installations approved for that purpose by the administration.¹¹⁴

As of 1982, there were only about twenty-five centers for the treatment of industrial waste, with a capacity of two to eighty thousand tons.¹¹⁵ There are various practices for the treatment of waste in France, among them uncontrolled tipping, a now-prohibited practice that includes discharging waste onto land without taking special precautions; controlled tipping, which involves the alternating of layers of soil and accumulated waste; incineration, which requires measures to prevent air pollution; composting, which involves enabling the agricultural use of waste after crushing and fermentation; and detoxification, which aims at making the waste harmless.¹¹⁶

The hazardous waste laws of France indicate France's concerted effort to control the country's waste problem. However, there are several deficiencies in the French hazardous waste laws. For example, Article 9 of the 1975 law states that special waste may only be treated at accredited installa-

¹⁰⁹ Soumastre, *supra* note 82, at 468.

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ DESPAX & COULET, *supra* note 83, at 84.

¹¹⁴ *Id.* at 82.

¹¹⁵ *Id.*

¹¹⁶ *Id.* at 81-82.

tions. However, France has failed to define what constitutes special waste.¹¹⁷ France has also failed to establish the requirements for accreditation.¹¹⁸ The net effect of this lack of regulatory control is that the laws in place have little or no effect. Producers, storers, and treaters have no outlined regulatory scheme to follow. Without such a scheme, many enforcement mechanisms, such as fines or criminal sanctions which could be used if such a scheme were in place, are unavailable. It is difficult to enforce hazardous waste violations without a proper standard. Because of ambiguity in the French law, ANRED's ability to control the handling of hazardous substances is unnecessarily complicated. This problem could be solved if France were to use the U.S. definition of hazardous waste under the Resource Conservation and Recovery Act ("RECRA").¹¹⁹ RECRA has defined both waste which has hazardous properties (ignitable, corrosive, reactive, or toxic)¹²⁰ and waste that has the characteristics of being hazardous.¹²¹ There is no need for France to reinvent the wheel; France need only request the statistical information from the U.S. Environmental Protection Agency to solve the problem of defining special waste.

Similarly, the accreditation problem could also be solved by establishing a comprehensive permit process which would be used to determine the capability of each installation. The permit should outline the type of waste to be treated, how much waste will be treated annually, the maximum amount of public exposure to waste treatment, and the type of technology that will be used to treat the waste. Preparation of quarterly reports on the treatment of the waste and an emergency response plan should there be a spill or leakage,¹²² as well

¹¹⁷ *OECD Report*, *supra* note 31, at IX-41.

¹¹⁸ *Id.*

¹¹⁹ 42 U.S.C. §§ 6901-6992 (1988).

¹²⁰ 40 C.F.R. 261.3 (Subpart D) (1980).

¹²¹ 40 C.F.R. 261.3 (Subpart C)(1980).

¹²² Currently, France has the Law of July 22, 1987, related to emergency response. The law allows local authorities to limit development and construction in the perimeter surrounding *new* high risk installations. This approach, however, is different from requiring that the facility have an emergency response plan in place. In other words, requiring an emergency response plan to be in place puts the burden of compliance on the facility instead of the French government. See Int'l Env'tl. Rep. [Reference File v.

as an indication of the amount of money that the treatment facility intends to spend on research and development of waste minimization and recycling plans should also be required. Prior to accreditation, the local public should have a right to voice their opinion on the proposed facility.¹²³ Only after these steps have been followed should the government grant accreditation. Implementing these modifications to France's current environmental laws would strengthen France's enforcement and deterrent mechanisms. This in turn would drastically minimize the country's potential for a hazardous waste catastrophe.

Finally, France needs to develop laws which regulate the amount of hazardous waste that may be imported into the country. France enacted the Law of 5 July 1983 on the importation of toxic and chemical waste. However, this law does not limit the amount of waste that may be imported into the country. In 1989, France imported an estimated 750 million tons of household waste and 200 million tons of toxic waste each year, primarily from Belgium, the Netherlands, West Germany and Italy.¹²⁴ Despite importing so much waste, France exports only about twenty million metric tons per year.¹²⁵ By dramatically curtailing the amount of waste that may be imported, France would not only save itself from having to dispose of the hazardous materials, but it would also encourage those that generate the hazardous waste to utilize waste minimization and recycling procedures in their manufacturing processes.

3] (BNA) 231:0104.

¹²³ The Law of 12 July 1983, as modified by the Law of 23 April 1985 became effective on October 1, 1985. It required that important large projects that may effect the environment have their environmental impact assessed. Both the Water Law of 16 December 1964 and the facility permitting process requires that a public hearing be granted under the classified Installations Law. This hearing requires that the environmental assessment be submitted for review by the public. While this process is used for the authorization of a facility, it could also be used for accreditation of the facility as well. *Id.*

¹²⁴ *New Waste Management Measures Will Ban Imports, Intensify Recycling*, 12 Int'l Env'tl. Rep. (BNA) 64 (Feb. 8, 1989).

¹²⁵ *Id.*

2.2.3. *The Netherlands*

The primary law in the Netherlands that governs the handling, treatment, and storage of hazardous waste is the Act of February 11, 1976, which is known as the Chemical Waste Act of 1976 ("CWA").¹²⁶ The CWA was designed to halt the "uncontrolled dumping of toxic wastes" in that region.¹²⁷ The Act applies to the hazardous substances listed in the Schedules to the Substances and Process Decree of May 26, 1977.¹²⁸ The list was established on the basis of characteristics such as toxicity and the effects of chemicals, including cumulative effects, persistence, and possible harmful effects to humans, animals, plants, or the biosphere as a whole.¹²⁹ Although the CWA was implemented in 1979,¹³⁰ it was not until the early 1980's that the Netherlands began to understand the problems caused by such uncontrolled dumping.¹³¹ By 1985, more than 7,000 sites were found where the ground, and in many cases the surface water, had been severely contaminated by such dumping practices.¹³² As a result of the early discoveries, legislation was passed which came into force on January 13, 1983. In similar fashion to CERCLA, this legislation was enacted to make it possible—financially, legally, and organizationally—to investigate such cases and to take the appropriate corrective action.¹³³ By the end of 1984, at least 225 locations had been cleansed or were being cleansed by using temporary measures.¹³⁴ Moreover, by 1997, at least 775 other locations were expected to be cleansed.¹³⁵

¹²⁶ Williams, *supra* note 5, at 178 n.44, citing Chemical Waste Act of 1976, Bulletin of Acts, Orders and Decrees 1976, 214, amended Act of June 13, 1979, Act of October 7, 1981, and Act of December 14, 1983. See generally *OECD Report*, *supra* note 31, at IX-44; Jacques Klaver, *Pollution: Waste—The Netherlands*, 1987 EUR. ENVTL. Y.B. 481.

¹²⁷ Klaver, *supra* note 126, at 482.

¹²⁸ *OECD Report*, *supra* note 31, at IX-44.

¹²⁹ *Id.*

¹³⁰ *Id.*

¹³¹ Klaver, *supra* note 126, at 482.

¹³² *Id.*

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

Ironically, the CWA sought to prevent the aforementioned problems years before they were actually discovered. Article 3 of the CWA prohibits anyone from disposing of chemical waste by transferring the waste to another person unless that person "(a) is licensed to store, treat, process or destroy it, (b) by virtue of an exemption is authorised to deposit the waste on or in the ground or dump at sea, or (c) resides abroad."¹³⁶ All details of the transactions must be reported to both the responsible Minister¹³⁷ and the person receiving the waste.¹³⁸ Moreover, the person receiving the waste must also report the transaction to the Minister.¹³⁹ In essence, the CWA requires that anyone wishing to dispose of waste must declare it. Furthermore, those who process or dispose of it also must have a permit.¹⁴⁰ All of these activities, like the CWA itself, are regulated at the federal level.¹⁴¹

The CWA strictly prohibits disposing hazardous and chemical waste through soil. This includes even waste that is placed in containers¹⁴² and waste processed inside factories as well as outside the places of production.¹⁴³ From July 1982 to June 1983, 114,000 tons of chemical waste were transported out of the country (primarily to West Germany, Belgium, East Germany, and France), compared to only 5,000 tons that were imported into the Netherlands for processing.¹⁴⁴ One reason for the small amount of waste imported is that only licensed companies may import chemical waste unless the waste is in transit to another country.¹⁴⁵ Exports, like imports, are also required to comply with the notification system.¹⁴⁶

From July 1982 to June 1983, 250,000 tons of chemical waste were disposed of or processed in accordance with the

¹³⁶ *OECD Report*, supra note 31, at IX-45.

¹³⁷ *Id.* (citing Art. 4).

¹³⁸ *Id.* (citing Art. 5).

¹³⁹ *Id.* (citing Art. 6).

¹⁴⁰ Klaver, supra note 126, at 481.

¹⁴¹ *Id.*

¹⁴² *Id.* (citing Art. 31).

¹⁴³ Klaver, supra note 126, at 481.

¹⁴⁴ *Id.*

¹⁴⁵ *OECD Report*, supra note 31, at IX-45 (citing Art. 16).

¹⁴⁶ *Id.*

CWA, 46% by burning and 27% by dumping.¹⁴⁷ Only licensed people may incinerate waste belonging to others, and only when a description of that waste has been provided.¹⁴⁸ The general rules, which outline licensing procedures and include a provision for granting or refusing applications, are found in Articles 9-15. Several factors may be taken into consideration when granting a license, including the efficiency of the system.¹⁴⁹

Enforcement powers of the CWA are delegated to national, provincial, and municipal officials.¹⁵⁰ Under Article 42 of the CWA, officials have the power to inspect facilities and under Article 45, they have the power to take ground, air, or water samples.¹⁵¹ Similarly, under certain circumstances, the government can compel generators to treat, process, or destroy chemical wastes on-site, provided prescribed methods are used.¹⁵² The government can also order generators to dispose of waste by a certain date.¹⁵³ Moreover, the government can order a licensee to treat a particular waste. If such treatment involves excessive costs, the licensee may be indemnified for a reasonable amount.¹⁵⁴

The Netherlands treat waste oils differently than chemical waste. With waste oils, there is a compulsory collection system.¹⁵⁵ "Of the spent oil and binge oil, about 85,000 m³ was disposed of to specialist firms for processing and/or removal."¹⁵⁶ As of 1987, approximately 240 firms were licensed as processing or removal firms.¹⁵⁷ The processed or removed oil was often incinerated and the energy used.¹⁵⁸ Funding for this waste oil system is obtained by levying lubricating oil

¹⁴⁷ Klaver, *supra* note 126, at 481-82.

¹⁴⁸ *OECD Report*, *supra* note 31, at IX-45 (citing Art. 8).

¹⁴⁹ *Id.* If an application is refused, then it may be appealed. *Id.* (citing Art. 38).

¹⁵⁰ *Id.* at IX-46 (citing Art. 41).

¹⁵¹ *Id.* at IX-46.

¹⁵² *Id.* at IX-45.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ *Id.*

¹⁵⁶ Klaver, *supra* note 126, at 482.

¹⁵⁷ *Id.*

¹⁵⁸ *OECD Report*, *supra* note 31, at IX-45.

producers.¹⁵⁹ Similarly, "[t]he chemical waste system's operating costs are [also] covered by a levy imposed on the waste industry and on waste disposal facilities."¹⁶⁰

The Netherlands has also passed Article 1401 of the Dutch Civil Code, which allows the government to recover the costs of soil cleanups from parties held liable for the contamination.¹⁶¹ Moreover, the Soil Protection Act also holds companies strictly liable for damaging the soil.¹⁶² This year the new Dutch Civil Code is expected to be completed.¹⁶³ The new Dutch Civil Code will impose strict liability against the users of dangerous substances.¹⁶⁴ If enacted, the strict liability section of the Soil Protection Act will be repealed.¹⁶⁵

2.2.4. *United Kingdom*

Two separate acts of Parliament primarily control and govern hazardous waste in the United Kingdom.¹⁶⁶ The Town and Country Planning Act of 1971 (Scotland 1972) ("TCPA"), as subsequently amended, governs land development and provides planning background and control.¹⁶⁷ The Control of Pollution Act of 1974 ("CPA") governs waste collection and disposal.¹⁶⁸ The CPA repealed the Deposit of Poisonous Wastes Act,¹⁶⁹ which covered the disposal of waste on land.¹⁷⁰ The Deposit of Poisonous Wastes Act was passed in response to the unauthorized dumping of toxic waste throughout the United Kingdom.¹⁷¹ The CPA, as amended in 1980,

¹⁵⁹ *Id.*

¹⁶⁰ *Id.*

¹⁶¹ Klingaman, *supra* note 61, at 151.

¹⁶² *Id.* at 151-52.

¹⁶³ *Id.* at 152.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ A.E. Higginson, *Pollution: Waste—United Kingdom*, 1987 EUR. ENVTL. Y.B. 482.

¹⁶⁷ *Id.*

¹⁶⁸ *Id.*

¹⁶⁹ *Id.* at 484.

¹⁷⁰ J. McLOUGHLIN, *THE LAW AND PRACTICE RELATING TO POLLUTION CONTROL IN THE MEMBER STATES OF THE EUROPEAN COMMUNITIES: A COMPARATIVE SURVEY* 305 (1st ed. 1976).

¹⁷¹ *Id.*

sought to keep the Deposit of Poisonous Waste Act intact by enacting the Control of Pollution (Special Waste) Regulations of 1980, which preserved the pre-notification system required under the former CPA.¹⁷²

a. The Control of Pollution Act of 1974

The CPA defines waste as "(a) any substance which constitutes a scrap material or an effluent or any unwanted surplus substance arising from the application of any process; and (b) any substance or any article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled."¹⁷³ Similarly, the Special Waste Regulations of 1980 define special waste (similar to hazardous waste) as "a waste which contains a chemical compound specifically listed in the regulations and which, by reason of that chemical in the waste, has a flashpoint of 21 degrees Celsius or less or is dangerous to life."¹⁷⁴ A special waste is considered dangerous to life if:

- (a) a single dose of not more than five cubic centimeters would be likely to cause death or serious damage to tissue if ingested by a child of 20 kilograms body weight or
- (b) exposure to it for fifteen minutes or less would be likely to cause serious damage to human tissue by inhalation, skin contact or eye contact.¹⁷⁵

The United Kingdom's definition is based completely on risks posed to humans, not on risks to the environment¹⁷⁶ or reference to other risks such as risks to genetic material or human offspring.¹⁷⁷ Section 1 of the CPA requires Waste Disposal Authorities ("WDAs") to make adequate arrangements to dispose of all controlled waste (domestic, commercial, and industrial waste) as well as controlled waste likely to

¹⁷² Higginson, *supra* note 166, at 483.

¹⁷³ Control of Pollution Act, S.I. 1980, No. 1709; *see* Williams, *supra* note 5, at 181 n.56.

¹⁷⁴ Control of Pollution Act, S.I. 1980, No. 1709 Reg. 2; *see* Williams, *supra* note 5, at 181 n.57.

¹⁷⁵ Williams, *supra* note 5, at 181.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

require disposal in their areas.¹⁷⁸ Such disposal arrangements can be made by either the private sector or the authority.¹⁷⁹

In 1987, the private sector controlled an estimated 98% of special waste disposal in the United Kingdom.¹⁸⁰ Most of these wastes are the products or by-products of the chemical, pharmaceutical, and metal processing industries. Many of these industries dispose, reclaim, recycle, or treat some of the wastes on-site, giving the remainder primarily to contractors who transport and dispose of the waste on their licensed sites.¹⁸¹

The United Kingdom classifies waste that cannot be recycled or re-used into two categories—low and high toxicity:

the low level toxicity category can be dumped at sea, on landfill sites, or in underground storage. The wastes of a higher toxicity level must be dealt with by the most appropriate technology, including incineration, biological, physical, and chemical treatment. Incineration is used for pathogenic wastes, certain drugs, high flammable liquids, carcinogens and other listed substances.¹⁸²

Incineration at sea is particularly used for hologynic waste, and lagoons are often utilized to separate oil and water from mixed wastes.¹⁸³ Industries use chemical treatment methods to render certain wastes insoluble, and to destroy or reduce the toxicity of toxic chemical compounds.¹⁸⁴ "This method is used for treatment of inorganic wastes, a typical use being flaked lime to neutralise acids, the oxidation of cyanides and reduction of chromates."¹⁸⁵

Sections 3 through 11 of the CPA contain fundamental controls and regulations over waste disposal. These sections include the site licensing system, "under which all sites and facilities used for the disposal of controlled waste must be

¹⁷⁸ *OECD Report, supra* note 31, at IX-49.

¹⁷⁹ *Id.*

¹⁸⁰ Higginson, *supra* note 166, at 484.

¹⁸¹ *Id.*

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

licensed.”¹⁸⁶ Applications for waste disposal licenses must be made to the WDA. The WDA is responsible for issuing licenses, to which conditions may be attached, and for regulating operations.¹⁸⁷ Before a license is issued, the WDA consults with the Health and Safety Executive in order to ensure safe working conditions for employees and residents in the vicinity.¹⁸⁸ The WDA is also required to consult with the Local District Council and the Regional Water Authority. The Regional Water Authority has the power to prevent the issuance of a license without prior consent of the Secretary of State. In determining whether to prevent an applicant from obtaining a license, the Water Authority’s principal concern is the protection of water supplies from any risk of pollution.¹⁸⁹

An additional prerequisite of licensing is that owners of sites obtain planning permission.¹⁹⁰ The planning permission process considers such factors as the impact of the development on the amenity of the locality, access to the facility, and the possibility that the facility may disturb the neighborhood.¹⁹¹ If planning matters are in order, the authority cannot reject an application for a license unless that rejection is necessary to prevent water pollution or danger to the public health.¹⁹²

Disposing hazardous wastes in landfills subjects the disposer to strict rules regarding site selection, sampling, analysis and specification of the waste disposed of, and skilled operation at the selected site.¹⁹³ Under Section 17 of the CPA, which came into force on March 16, 1981, waste producers are required to notify the WDA of their intention to dispose of a consignment of special waste¹⁹⁴ and, until it is disposed

¹⁸⁶ *OECD Report*, *supra* note 31, at IX-49.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at IX-50.

¹⁸⁹ *Id.*

¹⁹⁰ *Id.*

¹⁹¹ *Id.*

¹⁹² *Id.*

¹⁹³ Higginson, *supra* note 166, at 484.

¹⁹⁴ *OECD Report*, *supra* note 31, at IX-50. According to Section 17, this includes medical or chemical waste, which includes:

waste arising from dental, veterinary, pharmaceutical, or similar practice, investigation, treatment, care, teaching or research which by nature of its toxic, infectious or dangerous content may provide

of, to introduce a consignment note system.¹⁹⁵ Furthermore, Section 17 requires producers, carriers, and disposers to maintain registers of any consignments and to maintain permanent records of special waste deposit location sites.¹⁹⁶ In 1990, the United Kingdom enacted the Environmental Protection Act of 1990 (the "1990 Act").¹⁹⁷ As noted earlier, the Environmental Protection Act repealed or altered many of the hazardous waste laws in place from the CPA. Part II of the 1990 Act covers waste on land.¹⁹⁸ The Waste on Land section defines "pollution of the environment" as:

[p]ollution of the environment due to the release or escape (into any environmental medium) from—(a) the land on which controlled waste is treated, (b) the land on which controlled waste is kept, (c) the land in or on which controlled waste is deposited, (d) fixed plant by means of which controlled waste is treated, kept, or disposed of, of substances or articles constituting or resulting from the waste and capable (by reason of the quantity or concentrations involved) of causing harm to man or any other living organisms supported by the environment.¹⁹⁹

Under the 1990 Act, it is a criminal offense to treat, store, or dispose of waste without the appropriate authorization.²⁰⁰ If the controlled waste is carried and disposed by way of a motor vehicle, then the person who was in control or had the ability to control the vehicle is treated as though he or she knowingly gave the instructions to dispose of the waste.²⁰¹ For regular waste, a person summarily convicted under this section is subject to up to six months in jail or a fine of up to

a hazard or give offence unless previously rendered safe and inoffensive. Such wastes includes human or animal tissue or excretions, drugs and medicinal products, swabs and dressing, instruments or similar substances or materials.

Higginson, *supra* note 166, at 484-85.

¹⁹⁵ *OECD Report*, *supra* note 31, at IX-50.

¹⁹⁶ *Id.*

¹⁹⁷ Environmental Protection Act, S.I. 1990, No. 2635.

¹⁹⁸ *Id.* §§ 29-78.

¹⁹⁹ *Id.* § 29(3).

²⁰⁰ *Id.* § 33.

²⁰¹ *Id.* § 33(5).

20,000 pounds. If the person is convicted on indictment, he or she is subject to a maximum jail term of two years or a fine or both.²⁰² The penalties for conviction of illegally storing, treating or disposing of hazardous waste are just as severe as the regular waste sanctions, except that the penalty potential increases to five years upon conviction on indictment.²⁰³ Under this section, certain defenses are available to a defendant. However, the burden of proof is on the defendant to show:

(a) that he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence; or (b) that he acted under instructions from his employer and neither knew nor had reason to suppose that the acts [violated the law]; or (c) that the acts alleged to constitute the contravention were done in an emergency in order to avoid danger to the public and that, as soon as reasonably practicable after they were done, [the appropriate waste authorities were notified within the specifics of the Act].²⁰⁴

Household waste is exempt from the 1990 Act.²⁰⁵

The 1990 Act also requires companies that are authorized to store, treat, produce, carry, import, or dispose of hazardous waste to prevent the escape of waste and to prevent unauthorized individuals from being involved in the hazardous waste process.²⁰⁶ The authorized company must provide a written description of the waste to others who may handle the waste.²⁰⁷ Waste licenses are granted either to the owner or occupier of the land where the waste is stored or treated, or to the operator of the facility if the facility is a mobile plant. The licensees must follow the terms and conditions of the permit. The license cannot be transferred to another person, unless the transfer is by a waste regulation authority.²⁰⁸ In granting the license, the waste regulation authority cannot reject an

²⁰² *Id.* § 33(8).

²⁰³ *Id.* § 33(9)(b).

²⁰⁴ *Id.* § 33(7).

²⁰⁵ *Id.* § 33(2).

²⁰⁶ *Id.* § 34.

²⁰⁷ *Id.* § 34(1)(c)(ii).

²⁰⁸ *Id.* § 35.

application for a license duly made, unless it is for the purpose of preventing (a) pollution of the environment; (b) harm to human health; or (c) serious detriment to the amenities of the locality.²⁰⁹ However, prior to the granting of the license, the authority must refer the proposal to the National Rivers Authority and the Health and Safety Executive. The authority must also consider any representations made by the National Rivers Authority or Safety Executive during an allowable period. If the National Rivers Authority recommends that the license be rejected or modified, the waste regulation authority must do so unless overruled by the Secretary of State.²¹⁰ The 1990 Act also outlines parameters for the waste regulation authorities.²¹¹ The 1990 Act states that waste that is illegally deposited must either be removed within twenty-one days of the notice or it must be shown that significant steps are being taken to remove the waste.²¹² Section 62 of the 1990 Act governs special waste and non-controlled waste and requires the Secretary of State to develop regulations for the treatment or disposal of special waste.²¹³ To enforce the regulations, the Secretary may appoint inspectors or other people the Secretary believes are necessary to assist the Secretary's enforcement authority.²¹⁴

b. The Town and Country Planning Act of 1971

Unlike other Western European countries, the United Kingdom places a great deal of emphasis on governmental control of land use.²¹⁵ Waste collection and disposal in the United Kingdom is expensive. Further, the present emphasis in the United Kingdom is on proficiency: "[l]andfill remains the cheapest and most widely used disposal method, and comprehensive studies into suitability of sites for various wastes are investigated."²¹⁶ Unlike the Netherlands, treat-

²⁰⁹ *Id.* § 36(3).

²¹⁰ *Id.* § 36(4-5).

²¹¹ *Id.* §§ 50-51.

²¹² *Id.* § 59(1).

²¹³ *Id.* § 62(1).

²¹⁴ *Id.* § 68.

²¹⁵ Williams, *supra* note 5, at 180.

²¹⁶ Higginson, *supra* note 166, at 485.

ment facilities, including incinerators, are not widely supported in the United Kingdom.²¹⁷ Consequently, under the current environment and regulatory scheme, recycling and preventing waste in the United Kingdom appears to be a low priority at this time.²¹⁸

In the past, the use of land for depositing waste or refuse was controlled by the TCPA; however, now much of it is controlled by the Planning (Hazardous Substances) Act of 1990.²¹⁹ Under the TCPA, consent of the local planning authority is needed for waste deposits on a site not currently used for that purpose.²²⁰ The local planning authority must also consent to:

any deposition on existing tips which would extend its superficial area or increase the height above the level of the surrounding land, except for tips which were used for industrial wastes before 1 July 1948. Conditions attached to a consent may govern the classes of waste which may be deposited there and the management of the tip.²²¹

Because of the United Kingdom's emphasis on land disposal, two major governmental reports in recent years have criticized its system for regulating hazardous waste.²²²

Unfortunately, the United Kingdom suffers from many of the same problems as many of its European Economic Community counterparts. The most notable problem is the lack of a centralized enforcement mechanism within the United Kingdom. As noted by the House of Lords' Select Committee on Science and Technology, "[c]ontrol of waste disposal by local authorities is not good enough. Standards vary widely. They [the local authorities] have too few staff and, unless the number of competing authorities is reduced, many will have

²¹⁷ Williams, *supra* note 5, at 182.

²¹⁸ *Id.*

²¹⁹ McLoughlin, *supra* note 170, at 304.

²²⁰ *Id.*

²²¹ *Id.*

²²² Williams, *supra* note 5, at 182 & n.60 (citing Hazardous Waste Inspectorate of Department of the Environment, *Hazardous Waste Management: An Overview* (June 1985); Her Majesty's Stationer's Office (HMSO), *Managing Waste: The Duty of Care, Eleventh Report of the Royal Commission on Environmental Pollution*).

inadequate staff with low status and poor career prospects.²²³ The result of the lack of centralized enforcement has been two-fold. First, the lack of finances to support hazardous waste monitoring has been exacerbated by redundancy and inefficiency in enforcement.²²⁴ The local authorities, for example, have not been able to inspect private sites in a timely manner.²²⁵ As the Lords' Select Committee on Science and Technology noted, "[w]hile the government relies on the local authorities to control waste disposal, they have done little to make the job of those authorities easier. The present waste disposal authorities are too small to be effective"²²⁶

Because of the lack of funding and of centralized enforcement, the United Kingdom has failed to implement its own laws adequately, much less the EC Directives. As stated by the House of Commons' Environment Committee Chairman, [t]he Control of Pollution Act of 1974 has yet to be brought into full effect and, 15 years after it was passed by Parliament, the vast majority of the local authorities have not produced plans required of them for the safe disposal of waste. In consequence, standards vary alarmingly across the country, and unscrupulous operators are having no regard for the dangers created. The Department of the Environment is culpable for allowing this situation to persist. Waste disposal has been treated as a Cinderella service by both central and local government. It suffers from insufficient staff of high caliber and necessary scientific knowledge.²²⁷

The sum of these problems leads to the conclusion that the environmental laws of the United Kingdom have had little or no deterrent effect upon private corporations. It will be interesting to see, however, whether the United Kingdom's

²²³ *Lords' Committee Issues Sharp Attack on Government's Toxic Waste Disposal Record*, 12 Int'l Env'tl. Rep. (BNA) 314 (June 14, 1989).

²²⁴ *Low Funding Contributes To Deterioration of Rivers, Pollution Inspectorate Reports*, 12 Int'l Env'tl. Rep. (BNA) 188 (Apr. 12, 1989).

²²⁵ *HMP Pressured for Details of Waste Disposal Authorities*, 11 Int'l Env'tl. Rep. (BNA) 676 (Dec. 14, 1988).

²²⁶ *Lords' Committee Issues Sharp Attack on Government's Toxic Waste Disposal Record*, *supra* note 223.

²²⁷ *Id.*

enforcement will be stronger with the new laws, yet without the needed centralized enforcement.

3. WESTERN EUROPEAN COUNTRIES THAT DO NOT SPECIFICALLY DEFINE HAZARDOUS WASTE

Although the four countries discussed above define hazardous waste with specificity, several Western European countries that have definitive hazardous waste laws typically use all-encompassing language to define such waste. The most significant of these countries are Belgium, Denmark, and Italy.

3.1. *Belgium*

Like many of the environmental laws of the Netherlands, Belgium's rigid environmental law developed following the discovery of clandestine deposits of toxic wastes.²²⁸ Belgium established the principal provision for control through the Law of 22 July 1974, which was enacted by the Royal Decree of 9 February 1976 (the "1976 Decree").²²⁹ The law is aimed at protecting both humans and the environment from the dangers of toxic waste.²³⁰ Article 1 of the 1976 Decree broadly defines toxic wastes as "unused or unusable products or by-products, residues and wastes resulting from an industrial, commercial, craft, agricultural or scientific activity which could present a danger of intoxication for living beings or nature."²³¹ Article 2 of the 1976 Decree contains a list of substances that are considered toxic.²³² Moreover, it also prohibits the offer for sale, purchase, free or conditional gift, holding, storing, processing, destruction, neutralization, or disposal of toxic wastes, as well as other affiliated activities except by authorization or declaration.²³³

Articles 3 and 4 of the 1976 Decree cover the authorized use of storage facilities and installations for the destruction,

²²⁸ L.P. SUTENS & DIRK SOETEMANS, *THE LAW AND PRACTICE RELATING TO POLLUTION CONTROL IN BELGIUM AND LUXEMBOURG* 133 (2d ed. 1982).

²²⁹ *Id.*

²³⁰ *Id.*

²³¹ *Id.*

²³² *Id.*

²³³ *Id.* at 134.

neutralization, and elimination of toxic wastes.²³⁴ Specifically, these processes may only be undertaken in installations belonging to the producer of the toxic wastes or in centers approved by the King called "Centres for the Destruction, Neutralization or Disposal of Toxic Wastes."²³⁵ Application for such approval is introduced at the same time as the application for an operating authorization.²³⁶ Generally, the destruction, neutralization, or disposal of toxic wastes is carried out either in installations or in a Centre approved by the King, on the proposal of the Minister for Employment and Labor.²³⁷

The authorities granting the operating authorization, and the procedures to be followed, are the same as those that apply to Class I establishments in Chapter 1, Heading I of the General Regulation for Protection at Work.²³⁸ This relationship is similar to the relationship in the United States between the Environmental Protection Agency and the Occupational Safety and Health Administration. In applying for authorization, not only must the applicant include information on how it intends to follow the above-mentioned procedures, but the applicant must also provide information on the nature and methods of disposal it intends to use for the residue generated from treatment of toxic wastes.²³⁹ If a decision is necessary on toxic waste Centres, the authority granting the authorization must obtain prior approval from the Commission of Approval.²⁴⁰ In the event that the opinion of the Commission of Approval is unfavorable, the authorization is refused; the Commission of Approval must make its decision within two months of receipt of the application.²⁴¹

The 1976 Decree also contains a provision which authorizes the government to require packaging containing poisonous, soporific, narcotic, disinfectant, or antiseptic substances to specify the methods by which the products and packaging

²³⁴ *OECD Report*, *supra* note 31, at IX-36.

²³⁵ SUTENS & SOETEMANS, *supra* note 228, at 134.

²³⁶ *Id.*

²³⁷ *Id.* at 136.

²³⁸ *Id.* at 134 (citing Articles 2-15, 17, 18-20, and 23).

²³⁹ *Id.*

²⁴⁰ *Id.*

²⁴¹ *Id.*

should be destroyed, neutralized, or disposed.²⁴² This clause is extremely important because it enables consumers of those products to become aware of methods of waste disposal which do not constitute a danger to health or the environment.²⁴³

To enforce these laws, the King designates officials and agents who are to supervise implementation of the law and its decrees.²⁴⁴ To do so, these officials have free access at all times to all places in which toxic wastes are found.²⁴⁵ For residential premises, however, they must obtain authorization from the judge of the police tribunal.²⁴⁶ These officials also have access to places where there is reasonable suspicion that toxic waste may be present.²⁴⁷ Like prosecutors, officials can interrogate individuals, examine documents, take photocopies of documents, and even remove documents.²⁴⁸ They can also take soil, air, or ground samples to determine waste composition.²⁴⁹ The method of sampling and the procedures to be followed for analysis were fixed by the 1976 Decree,²⁵⁰ which also provides for the approval of several analytical laboratories.²⁵¹ These officials designated by the King also have many other responsibilities, which include:

(a) issuing warnings; (b) fixing the period during which an offender can regularize his position; (c) in the event of infringement, sealing off or seizing toxic wastes, even if the holder of wastes is not their owner, as well as seizing any means of transport which may have been used in committing an offense; (d) in the event of infringement, drawing up a written report. One copy of this report must, if it is to be valid, be sent to the offender within fourteen days from the verification of the infringement; and (e) possibly requesting the

²⁴² *Id.* at 137.

²⁴³ *Id.*

²⁴⁴ *Id.* at 138 (citing Article 28 of the Royal Decree of February 9, 1976).

²⁴⁵ *Id.*

²⁴⁶ *Id.*

²⁴⁷ *Id.*

²⁴⁸ *Id.*

²⁴⁹ *Id.*

²⁵⁰ *Id.*

²⁵¹ *Id.*

assistance of communal police and the gendarmerie.²⁵²

When it is ascertained that toxic wastes have (1) been dumped, (2) are the subject of activities for which an authorization or declaration is compulsory but has not been obtained, or (3) have been transported, exported, or carried in violation of the regulations issued by the King, the governor of the province where the infringement has taken place can: (1) impose conditions, or (2) hold the responsible party liable for the cost incurred by having the toxic wastes seized, destroyed, neutralized, or disposed of.²⁵³ If there is a real and imminent threat from toxic waste, authorities can order the transfer of such waste to a location designated by them or by the Minister of Employment and Work.²⁵⁴ They can also proceed with any necessary requisitions, including requesting the assistance of the armed forces, the gendarmerie, or civil defense.²⁵⁵ Finally, if an accident occurs or is imminent, the Ministers of Employment and Labor, Public Health, the Interior, and the governor of the province or the burgomaster must develop and implement emergency response measures that guarantee the safety of the population and protect the environment.²⁵⁶

Belgium's hazardous waste laws are probably the most advanced in Western Europe. Unlike any of the hazardous waste statutes of the other countries, Belgium has taken a proactive or preventive approach toward controlling the handling of hazardous waste. To receive authorization, stringent requirements must be met. The public is also informed about how to dispose of hazardous products. Moreover, for any type of suspected violation, agents of the King can take virtually any step necessary to secure the protection of the environment. The proactive and preventive laws place a harsh burden on hazardous waste facilities, yet the laws are designed to keep hazardous waste problems from ever occurring.

²⁵² *Id.* at 138.

²⁵³ *Id.* at 139.

²⁵⁴ *Id.*

²⁵⁵ *Id.*

²⁵⁶ *Id.*

The main problem with Belgium's hazardous waste laws is not directly attributable to the laws themselves. Rather, the problem lies in the fact that Belgium's approach is so far outside the EC approach. Because Belgium's laws are administratively burdensome, corporations may simply forego opening a plant or facility in Belgium. Instead, they may take advantage of the less stringent requirements of Belgium's neighbors and open their facility on the outskirts of Belgium. Belgium, in turn, may still have the hazardous waste problems, because hazardous waste migrates, yet Belgian workers will not have the jobs that come with the facility. Nevertheless, Belgium should not loosen its proactive restrictions. The other Western European countries should bring their requirements up to equal those of Belgium.

3.2. Denmark

Generally, Denmark has classified its waste into two categories: general waste and special waste (also known as hazardous waste). Special waste primarily encompasses special environmental hazards which result in specific mandatory provisions or recommendations.²⁵⁷ Special waste includes: (a) industrial and building waste, non-toxic packaging and other non-toxic waste; (b) garden refuse, vegetable waste and the like; (c) chemical waste, technical waste, sludge from industrial undertakings and other toxic wastes; (d) oil waste; and (e) hazardous waste from the hospitals.²⁵⁸

In Denmark, the subject of special or hazardous waste is governed by Notice No. 121 of 17 March 1976 (the "1976 Notice"), on chemical waste.²⁵⁹ Notice No. 121 is to be interpreted with certain provisions of Law No. 178 of May 24, 1972, on the disposal of oil and chemical waste, and Law No. 372 of June 13, 1973 on environmental protection.²⁶⁰ Act No. 178 of May 24, 1972 (the "1972 Act"), covers the disposal of oil and

²⁵⁷ See C.H. JENSEN, *THE LAW AND PRACTICE RELATING TO POLLUTION CONTROL IN DENMARK* 148 (2d ed. 1982).

²⁵⁸ *Id.* at 141 (citing and comparing *Nyt fra miljøstyrelsen No. 10/1974*, at 2).

²⁵⁹ See *OECD Report*, *supra* note 31, at IX-37.

²⁶⁰ See *id.*

chemical wastes.²⁶¹ The 1972 Act is primarily an enabling act, authorizing the Environment Minister to establish detailed regulations concerning mandatory participation by those involved in the toxic waste process in a reporting and delivery scheme.²⁶²

Unlike the 1972 Act, the 1976 Notice considers the fact that waste disposal in Denmark is largely organized and controlled at the local level.²⁶³ The 1976 Notice applies to storage, transportation, and disposal of listed and characteristic chemical wastes (e.g., those that are toxic, flammable, or corrosive).²⁶⁴ An Annex or appendix to the 1976 Notice describes characteristic chemical waste as "together with such other kinds of chemical waste as have similar characteristics, e.g. caustic, toxic or inflammable."²⁶⁵ Waste oil is included in this definition. The powers of authorities to control waste oils are under the jurisdiction of Notice No. 455 of 17 October 1972.²⁶⁶ Several years after its passage, on the basis of experience acquired and investigations undertaken, and in fulfillment of the European Economic Community (the "EEC") Directive of 16 June 1975 on the disposal of waste oil, the 1972 standards became much more rigid in many respects with the issuance of Notice No. 410 of 27 July 1977 (the "1977 Notice"), which contains the current regulations.²⁶⁷

Under the 1977 Notice, "waste oil" is interpreted as all oleaginous products which are no longer intended for use in their original purpose and state.²⁶⁸ Where waste oil is involved, those involved must notify the local authority when the quantity of waste is greater than 150 liters per year pursuant to Chapter 4.²⁶⁹

Chapter 5 of the 1977 Notice requires that the local council designate a waste delivery site unless a local authority collects

²⁶¹ JENSEN, *supra* note 257, at 148.

²⁶² *Id.*

²⁶³ *OECD Report*, *supra* note 31, at IX-37.

²⁶⁴ *Id.*

²⁶⁵ JENSEN, *supra* note 257, at 150.

²⁶⁶ *Id.* at 149.

²⁶⁷ *Id.*

²⁶⁸ *Id.*

²⁶⁹ *Id.*

the waste oil.²⁷⁰ Moreover, the accumulation of such wastes must also be reported in accordance with Chapter 5; this declaration must include information as to the nature, packaging, and quantity of the wastes involved.²⁷¹ Unlike the notification section in Chapter 4, Chapter 5 does not subject the delivery obligation to a minimum quantity; however, the local council may exempt an enterprise from the duty to deliver upon proof that the oil waste is transported and disposed of in an acceptable manner and on the enterprise's own initiative.²⁷² An example of such an acceptable manner would be if the enterprise delivered the waste oil directly to a re-processing plant.²⁷³

Besides the control inherent in the notification and delivery arrangements, the 1977 Notice gives local councils enforcement powers.²⁷⁴ The local councils may establish more detailed rules in the form of by-laws to ensure that waste oil is properly stored and transported.²⁷⁵ Specifically, Article 6 of the 1977 Notice states that such wastes "must normally be transported to a site designated by the council, unless it is demonstrated that they are otherwise being conveyed and disposed of safely."²⁷⁶ The local council may also issue specific orders.²⁷⁷ If pollution is caused during storage, transport, or disposal of waste oil, the local council can order the elimination of the pollution.²⁷⁸ In essence, the local councils are responsible for ensuring the implementation of the relevant provisions of the 1976 Notice.²⁷⁹ Many local communes have grouped together to form a cooperative organization, known as "Kommunekemi AG," to treat and dispose of the hazardous waste.²⁸⁰

²⁷⁰ *Id.*

²⁷¹ *OECD Report, supra* note 31, at IX-38.

²⁷² JENSEN, *supra* note 257, at 149.

²⁷³ *Id.*

²⁷⁴ *Id.*

²⁷⁵ *OECD Report, supra* note 31, at IX-38.

²⁷⁶ *Id.*

²⁷⁷ *Id.*

²⁷⁸ *Id.*

²⁷⁹ *Id.* (citing Section 8).

²⁸⁰ *Id.*

3.3. Italy

Italian legislation first mentioned the collection and disposal of special wastes in Royal Decree 1265 of 1934, a consolidation of laws on health.²⁸¹ Articles 217 and 218 of the consolidated legislation contained vague and broad guidelines providing that discarded matter should not cause damage or pollution and that it was the responsibility of local authorities to issue more detailed by-laws.²⁸² In 1941, Law 366 was passed setting out regulations on the collection, transportation, and disposal of solid urban waste.²⁸³ Refuse of an industrial origin and the need for its proper disposal, however, were not mentioned until 40 years later.²⁸⁴ It was not until 1982, in response to the enactment of EEC directives in 1975, 1976, and 1978, that a national law was passed.²⁸⁵

The Presidential Decree 915 of September 1982 (the "1982 Decree") and its 1984 implementing regulations were Italy's "first attempt to produce a systematic body of national regulations on the disposal of urban solids and special wastes."²⁸⁶ Although the effort was seen as a progressive step, it nevertheless came well after the date by which Italy should have implemented the EEC directives.²⁸⁷ In 1975, for example, when the first EEC directive was issued, statistics published by Italy's Confindustria (the industrial employers' association) indicated that the treatment, storage, and disposal of special wastes was a serious problem.²⁸⁸ There, it was estimated that approximately thirty-five million tons of special wastes are produced in a year, and that approximately fourteen million tons of scrap metal, spent oil, waste paper,

²⁸¹ Raffaele Bonaiuti, *Pollution: Waste—Italy*, 1987 EUR. ENVTL. Y.B. 474.

²⁸² *Id.*

²⁸³ *Id.* at 474.

²⁸⁴ *Id.* at 475.

²⁸⁵ *Id.* These directives on waste disposal referred to refuse in general, polychlorinated biphenyls, polychlorinated triphenyls, toxic, and noxious wastes. *Id.* In 1984, Italy drew up the implementing regulations of the 1982 law. *Id.*

²⁸⁶ *Id.* at 475.

²⁸⁷ *Id.*

²⁸⁸ *Id.* at 476-77.

and board could have been salvaged and sold.²⁸⁹ Of this waste, "seven million tons is sludge, which contains every kind of substances, more or less toxic, often in high concentration."²⁹⁰ In 1982, an unofficial source estimated that the production of industrial waste was forty-seven million tons, with three-and-one-half million being toxic and one million highly toxic.²⁹¹

The 1982 Decree covered every phase of disposal.²⁹² Included in refuse collection was public cleansing, sorting, transporting, treatment, and temporary disposal.²⁹³ Moreover, the 1982 Decree attached great importance to the later stages of refuse disposal.²⁹⁴ It "not only regulated the disposal of waste 'as it affects health, the economy and amenities' (as did the 1941 law) but also looked at every aspect of the subject, including health protection and safeguards for . . . the environment, such as the air, groundwater, fauna and flora."²⁹⁵ Special waste was classified as a Category 2 waste²⁹⁶ and toxic and noxious waste as a Category 3 waste.²⁹⁷ The 1982 Decree and its implementing regulations defined the standards and technical specifications for proper waste disposal, which are as follows:

- the State has the task of coordinating and defining general criteria and the technical specifications for each phase of waste disposal;
- the Regions draw up regional waste disposal plans and give authorization for each individual phase of disposal, as well as for the disposal plant;

²⁸⁹ *Id.* at 476.

²⁹⁰ *Id.* at 477.

²⁹¹ *Id.*

²⁹² *Id.* at 475.

²⁹³ *Id.*

²⁹⁴ *Id.*

²⁹⁵ *Id.*

²⁹⁶ *Id.* Category 2 (or special wastes), for example, includes wastes arising from light and heavy industry and trade, as well as hospital wastes, scrap cars, and sludge from the treatment of urban and industrial sewage. *Id.* at 476.

²⁹⁷ *Id.* Category 3 (or toxic wastes), for example, includes "wastes containing substances named in a special list in concentrations constituting a risk to health and the environment." *Id.*

- the Provinces exercise control over these phases, with the technical backing of the multi-zone health boards or *Unita Sanitarie locali* ("USL");
- the local authorities have the duty of arranging for the disposal of urban refuse, either themselves or through municipal utility agencies or by sub-contracting to specialist firms or bodies.²⁹⁸

Unlike the Federal Republic of Germany, Italy allows industrial waste, its by-products, and derivatives to be sent to the same waste treatment centers as urban refuse or treated in tips or incineration plants after technical modifications.²⁹⁹ In Italy, "special wastes can be treated and disposed of with the minimum impact on the environment by incineration."³⁰⁰ Wastes arising from hospitals, nursing homes, etc., are incinerated immediately in incineration plants which are required to conform with regulations established by the technical inter-ministerial committee.³⁰¹ If for some reason this is not possible, the waste must be transported in suitable containers to be incinerated in communal plants or installations managed by authorized contractors.³⁰² These plants must contain post-combustion chambers and sections for the purification of polluting gases.³⁰³ As of 1987, only one-third of all industrial wastes was re-used or recycled; more than half of the waste was disposed of in non-authorized tips, and only about three percent of the waste was sent to incineration plants.³⁰⁴

Nevertheless, even with this Decree, the implementing regulations, and the proceeding laws, industrial waste continues to be a problem in Italy. For example, red sludge (titanium dioxide) from the Scarlino Plant was dumped offshore in the Tyrrhenian; chemical and neutralization sludge from Porto Marghera was emptied offshore in the Adriatic;

²⁹⁸ *Id.* at 476.

²⁹⁹ *Id.* at 478.

³⁰⁰ *Id.* at 478.

³⁰¹ MARIO GUTTIERES & UGO RUFFOLO, *THE LAW AND PRACTICE RELATING TO POLLUTION CONTROL IN ITALY* 139 (2d ed. 1982).

³⁰² *Id.*

³⁰³ Bonaiuti, *supra* note 281, at 478.

³⁰⁴ *Id.* The remaining waste was being "sent to authorised tips, and treated according to the specific regulations." *Id.*

contamination of a disused quarry was discovered in Burago Molgora (Milan) by the illegal tipping of industrial residues containing PCBs and contamination of a disused quarry in Arese (Milan) by the unregulated dumping of mud, later reclaimed at a cost of ten million lire.³⁰⁵ In July 1984, there were "at least 30,000 'wild' discharges without any geological or technical precautions and without any effective control."³⁰⁶ On a positive note, however, more sophisticated ideas and new methods are being suggested and researched for the recovery and recycling of special waste. One method being used is the concept of selective collection.³⁰⁷ Generally, the mixing of special waste contaminates the waste and, therefore, prohibits its re-use. The concept being developed actually specializes in the selective collection and recovery of special sites.³⁰⁸ The goal in Italy is to extend and step up selective collection and re-use in order to reduce the volume of generated waste.³⁰⁹ Italy is also considering developing plants specifically designed for the disposal of special wastes; these plants would be under the supervision and control of the Italian authorities.³¹⁰

4. MODEL APPROACH TO WESTERN EUROPEAN HAZARDOUS WASTE LAWS

The real problem that the nations of Western Europe face is the lack of uniform substantive special waste laws. Specifi-

³⁰⁵ *Id.*

³⁰⁶ *Id.* at 477. Here the author gives an example of a "wild" discharge in noting:

The Ministero della Protezione Civile (Ministry of Civil Protection), following the disquiet among the population about pollution that led to the supply of water in the town of Casale Monferrato being suspended, decided in April 1985 to require the prefecture to compile a map of illegal discharges, but it was difficult to obtain cooperation from the local authorities. In the meantime, about half of all toxic refuse is spread in abandoned quarries, water courses and lakes; another part (about 20%) ends in tips which the law has destined for domestic refusals or on agricultural lands. Another part is entrusted to unreliable disposal plants.

Id. at 478.

³⁰⁷ *Id.*

³⁰⁸ *Id.*

³⁰⁹ *Id.*

³¹⁰ *Id.*

cally, the trans-frontier effects of hazardous waste spills such as the Sandoz Spill can be blamed primarily upon the lack of uniform statutes. While the EEC issues directives which must be implemented by its members within a set time frame, each individual state enacts its own versions of the directives. Thus, the same problems still remain. The purpose of this section of the Article is to establish a model "Substantive Law for the Handling of Hazardous Waste for Western Europe."

For several years, the EEC has passed directives which are designed to give its member states a model framework upon which to base their own statutes. These directives include Council Directive 75/442 on Waste of July 15, 1975,³¹¹ and Council Directive 78/176 on Titanium Dioxide Industry Waste of February 20, 1978.³¹² These directives are subsequently implemented in different forms by each member state.³¹³

While the directives outline the general format of laws that are to be implemented as well as the time frame for implementation, procedures for implementing the laws are left to the individual member states. The limited discretion left to individual states allows the individual states to consider their geographic, political and economic climate in establishing the most conducive method for implementing the directives. However, the practical effect of this discretion is far more elastic. Because there are currently twelve different states that are members of the EEC, the practical effect of the discretion is that, if implemented as required by the directive, there are twelve different versions of the directive to be implemented at twelve different times.³¹⁴ By keeping so much of the policy development with the individual states, there is little or no centralized oversight. The lack of centralized oversight makes it extremely difficult for the EEC to comparatively analyze the effectiveness of any of the states efforts to implement the directives.

³¹¹ Int'l Envtl. Rep. [Reference File vol. 2] (BNA) 181:0401.

³¹² *Id.* at 181:0501.

³¹³ Williams, *supra* note 5, at 185 (stating that "[t]he Directives have generally provided a framework to be filled in by legislation in the Member States.").

³¹⁴ The twelve states are Belgium, Denmark, Germany, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom.

4.1. Liability

While much of the blame for Western Europe's hazardous waste problems can be directed to the lack of enforcement by individual member states, the EEC must also be held partially responsible for the problems. The EEC was established in 1957 by the Treaty of Rome.³¹⁵ Yet for over thirty years, the EEC failed to incorporate any type of environmental requirement into the treaty. The EEC did enact directives. However, it was not until 1987 when the EEC enacted the Single European Act ("SEA")³¹⁶ that the EEC expressed environmental law-making and policy powers.³¹⁷ The specific goals of the environmental policy are outlined by Title VII of the SEA: the policies of the EEC "shall be based on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source, and that the polluter should pay."³¹⁸ Environmental policies must also be included in other policies of the EEC.³¹⁹ In 1989, the EEC proposed the Directive on Civil Liability For Damage Caused by Waste.³²⁰ The directive would hold producers of hazardous waste strictly liable for injuries sustained as a result of the waste. Common interest groups, as well as public bodies and private individuals, could sue for civil damages as well as injunctive relief. These parties would be able to sue in the national courts of the member state where the injury occurred.

Unfortunately implementing these policies indicates the passive enforcement powers of the EEC. Due to the lack of market based incentives and the lack of a centralized oversight and enforcement body, corporate and member state compliance mechanisms are generally left to the implementing discretion of each member state. As noted earlier, such member states as France and Germany lack statewide centralized oversight and implementing bodies.³²¹ Consequently, preventive

³¹⁵ Treaty Establishing the European Economic Community, Mar. 25, 1957, 298 U.N.T.S.

³¹⁶ Single European Act, Feb. 1986.

³¹⁷ See 25 I.L.M. 503.

³¹⁸ *Id.* at 515.

³¹⁹ *Id.*

³²⁰ Proposal for a Council Directive on Civil Liability for Damage Caused By Waste, 1989 O.J. (C 251).

³²¹ See *supra* notes 71-72 and 117-123 and accompanying text.

actions and remedial or corrective actions at the pollution source are primarily left up to the moral conscious of corporate entities. As proven by the tremendous hazardous waste problems throughout Western Europe, Western European corporations do not see remedial and preventive actions as cost-efficient.

The preventive and corrective section of Title VII of the SEA has failed in part due to the lack of a sufficient market-based incentive. The 'polluter pays' provision of the act, as well as the Directive on Civil Liability for Damage Caused by Waste, have failed because of the lack of an appropriate risk-based incentive. As outlined by the EEC,

the Polluter-Pays principle . . . means that the polluter should bear the expenses of carrying out pollution prevention and control measures introduced by public authorities in Member countries, to ensure that the environment is in an acceptable state. In other words the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption.³²²

The pragmatic problems with the 'polluter pays' philosophy, discussed in more detail *infra*, as well as with the Directive on Civil Liability for Damage Caused by Wastes are primarily two-fold. In many instances, the polluter may not be the cause of the pollution. For example, a storer of hazardous waste could be the receiver of improperly labeled waste. The polluter corporation, believing the improperly labeled waste to be a non-deadly compound, mixes it with waste that the corporation also believes is a non-deadly compound. Yet the combination with the improperly labeled chemical creates a deadly compound that must immediately be cleaned up. According to the 'polluter pays' and civil liability principles, the storer of the waste is responsible for clean up.

With the improper party being responsible for the clean up, it becomes virtually impossible for the corporation to incorporate the cost of cleaning up pollution into the cost of goods and services prior to discovery of the contamination. This, in turn,

³²² See "Organisation For Economic Co-Operation and Development: Council Recommendation on the Application of the Polluter-Pays Principle to Accidental Pollution", App., July 7, 1989, 28 I.L.M. 1320, 1322 (1989).

makes it impossible to take appropriate preventive measures and remedial action at the pollution source. These impossibilities also make it difficult for companies to take preventive action because they feel a moral obligation to the environment. The companies are unable to foresee the cost of any potential future liability so as to develop accurate cost methods and cost models. In short, as opposed to the current Title VII of the SEA, and the Directive on Civil Liability for Damage Caused by Waste, new methods which incorporate appropriate market based incentives so as to encourage companies to monitor their hazardous waste output should be developed.

Probably the most difficult aspect of establishing a model hazardous waste law is determining a policy on liability. The optimal law would combine deterrence provisions and equitable principles of liability at the lowest cost to both the state and private entities. Unfortunately for most Western European countries, the current laws seem to incorporate one of these principles at the expense of the other. Under German law, for example, when there is multiple party liability, the government will use its discretion when choosing between responsible parties.³²³ When determining which responsible party to address in the abatement order, the government must consider a number of factors, including the parties' financial positions and their responsibility for and ability to abate the pollution.³²⁴ Because the cost of cleaning up a hazardous waste site can be extremely expensive, and because the liable party does not have a right to contribution from other responsible parties,³²⁵ this law unquestionably has a substantial deterrent effect.

This German law seemingly encourages the government to pursue the parties with the "deeper pocket," instead of pursuing those who are actually responsible for the environmental damage. Subsequently, punishment is directed towards the wrong party, namely, the richest party, instead of the violator. Therefore, the law is not equitable, for it places a tremendous burden and emphasis on the wrong parties and the wrong issues. Moreover, because the responsibility to

³²³ See Hager, *supra* note 2, at 973.

³²⁴ *Id.*

³²⁵ *Id.*

abate the damage will be placed upon the more solvent corporations who cannot then seek indemnification from others, larger, wealthier corporations are actually compelled to consider, when contracting with smaller corporations, the possibility of being held wholly responsible for an environmental disaster. This factor needlessly drives up the price of the contract, and in turn makes it difficult for smaller businesses to compete.

Other Western European countries have adopted the "polluter pays" principle. In Belgium, the principle has been incorporated in Article 7 of the Belgium Law of July 22, 1974.³²⁶ Italy, in its Presidential Decree 915 of September 10, 1982, and in its implementing regulations of September 13, 1984, has also adopted the "polluter pays" philosophy.³²⁷ The principle was developed in Article 15 of EEC Directive 75/442,³²⁸ as well as in Title VII of the SEA.³²⁹ The principle basically provides that the holder of the waste (and/or its previous holders), or the producer of the product from which the waste came, can be held liable for environmental damage.³³⁰ Yet, as with German law, there are several problems with this approach.

While the "polluter pays" principle is more equitable than the German law, it fails to substantially compel larger corporations to carefully monitor independent contractors and sub-contractors who store, treat, or dispose of the hazardous waste because the law appears to place the blame on violators first. Article 15 of EEC Directive 75/442, however, allows the government to hold the waste generator liable, if it so desires.³³¹ Thus, the "polluter pays" principle encourages negligent monitoring by generators, but still leaves the possibility of the generator being liable for the entire clean-up cost. Application of the "polluter pays" principle would also result in higher contract costs, as generators would have to account for their potential liability when entering into contracts.

The most effective approach would be a modification of the

³²⁶ *OECD Report*, *supra* note 31, at IX-35.

³²⁷ Bonaiuti, *supra* note 281, at 476.

³²⁸ Int'l Env'tl. Rep. [Reference File vol. 2] (BNA) 181:0404.

³²⁹ SEA, *supra* note 316.

³³⁰ *Id.*

³³¹ Int'l Env'tl. Rep. (BNA), *supra* note 311, at 181:0404.

“polluter pays” principle. The Model Law would require the government to recover damages from the party most directly responsible for the disaster. After recovering from parties most directly responsible for the damage, the government would proceed down the list of responsible parties to recover from those less responsible. This law would actually deter those who store, treat, and dispose of the waste, as they, more than likely, would be held liable for a spill that occurred while the waste was in their possession. The Model Law would also encourage generators to carefully monitor the hazardous waste facility, as the failure to properly monitor waste would be considered when determining which party was the most negligent.

The Model Law would be equitable because it would place the costs of the disaster on the responsible party. In addition, the cost of a contract between the generator and the treatment, storage, or disposal facility would be minimized, as the potential liability of the innocent generator would be drastically decreased.

4.2. *Bankruptcy Trust Fund*

Even with the potential minimization of corporate liability provided by the Model Law discussed above, there is nevertheless a strong possibility that the not-at-fault party who was involved in the development of the waste, or the government itself, would be forced to pay clean-up costs. This is possible in both Western Europe and the United States.³³² A contracting facility, for example, could go bankrupt³³³ or could simply disappear, leaving a site a total disaster. The possibili-

³³² 42 U.S.C. §§ 6928, 9607(a) (1988).

³³³ See, e.g., Joseph L. Cosetti and Jeffrey M. Friedman, *Midlantic National Bank, Kovacs, and Penn Terra: The Bankruptcy Code and State Environmental Law—Perceived Conflicts and Options for the Trustee and State Environmental Agencies*, 7 J.L. & COM. 65 (1987). It was estimated that 74 hazardous waste facilities filed for bankruptcy in the United States. Moreover, the U.S. Environmental Protection Agency concluded that, in the next 50 years, approximately 25 to 30% of all hazardous waste facilities will file for bankruptcy. *Id.* at 68. A 1986 General Accounting Report estimated that clean-up cost in the United States will run between two and four million dollars per facility. *Id.* See also M. WOROBEK, *supra* note 1. Bankruptcy of hazardous waste facilities will, more than likely, become an international problem.

ty of leaving the not-at-fault party liable, once again, would lead to unjust and inequitable treatment. The not-at-fault party could require that the other party have insurance; however, such a requirement would again increase contract prices. In order to minimize the contract prices, the Model Law would require that all corporations who store, treat, or dispose of hazardous waste pay into a bankruptcy trust fund. The purpose of the fund would be to ensure that clean-up costs could be paid by the responsible party.

Bankruptcy trust funds are not a novel idea. Belgium, for example, has established "The Fund To Guarantee The Destruction Of Toxic Wastes."³³⁴ The fund is a public company which allows state participation.³³⁵ If a corporation is unable to destroy the toxic waste for which it is responsible, the fund can finance its clean-up.³³⁶ The fund is used in emergency situations³³⁷ and enables the state to pursue an active policy of encouragement or take-over when a private corporation fails in its duty.³³⁸ Bankruptcy trust funds have also been proposed³³⁹ and implemented³⁴⁰ in the United States.

The proposed trust fund would be slightly different than others, however, because it would allow private corporations to recover their financial losses if they could prove that these losses were directly attributable to the bankrupt or fleeing corporation's actions.³⁴¹ The maximum amount recoverable by the corporation would be the amount of the insolvent corporation's discharged debt.³⁴² All burdens of proof, including establishing the amount of waste that the insolvent corporation is responsible for, would remain with the solvent

³³⁴ *OECD Report*, *supra* note 31, at IX-35.

³³⁵ SUTENS & SOETEMANS, *supra* note 228, at 140.

³³⁶ *Id.*

³³⁷ *OECD Report*, *supra* note 31, at IX-35.

³³⁸ SUTENS & SOETEMANS, *supra* note 228, at 140.

³³⁹ G. Nelson Smith, III & Jeffrey A. Young, *An Environmental Dilemma: Keeping Solvent Companies Solvent When a Hazardous Waste Facility Goes Bankrupt*, VA. LAW., Mar. 1990, at 25, 29.

³⁴⁰ Illinois, for example, has a bankruptcy trust fund. See ILL. ANN. STAT. ch. 127, para. 141.84 & 141.85 (Smith-Hurd 1990).

³⁴¹ Smith & Young, *supra* note 337, at 29.

³⁴² *Id.*

corporation.³⁴³ The fees collected to finance the trust fund would be annual or bi-yearly and tied into issuing a permit to a facility. Issuance of permits, along with the implementation of most procedural aspects of the Model Law, would remain the responsibility of the individual countries.

The fee would decrease or increase in accordance with such facilities' records of compliance with the law. In other words, the fee would be similar to the way auto insurance is structured in the United States. Good drivers have lower auto insurance rates than those who do not comply with the law. This same principle would hold true in the Model Law, giving corporations that handle hazardous waste an incentive to comply with the law. Moreover, those corporations that constantly violate the law would have astronomical fees which would force them either to comply with the law or to go out of business. The key point is that the deterrent factor would remain where it should—on the companies that fail to comply with the laws.

4.3. Reasoning Behind the Need for a Different Approach

For years, the EEC has attempted to compel its members to implement EEC directives. For example, Article 189 of the EEC Treaty provides that "a directive shall be binding, as to the results to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods."³⁴⁴ Article 189 requires Member States to not only implement directives, but also to ensure that they are enforced.³⁴⁵ Moreover, if a Member State's laws contradict or conflict with EEC laws, EEC law takes precedence. As noted by the European Court of Justice in the 1964 case of *Costa v. ENEL*, the "[n]ational Courts must protect the rights that Community law confers upon individuals and must set aside all national laws that conflict with Community law."³⁴⁶ Despite the language of the EEC Treaty and the European Court of Justice, environmental directives have not

³⁴³ See 1987 O.J. (L 169) 1.

³⁴⁴ Rolf Wägenbaur, *The European Community's Policy on Implementation of Environmental Directives*, 14 *FORDHAM INT'L L.J.* 455, 456 (1991).

³⁴⁵ *Id.* at 457.

³⁴⁶ *Costa v. ENEL*, 66450006 (E.C.J. 1964).

been nearly as effective as they should be because Member States have failed to implement and enforce them in a timely manner.

To date, there have been approximately 125 environmental directives and 25 environmental regulations enacted; however, as of December 1989, there were over 200 proceedings pending against EEC members for failing to comply with environmental directives.³⁴⁷ Generally, as will be explained later in more detail, the only resource available to the EEC if a member failed to implement a directive would be legal action initiated by the EEC or a Member State. Even that action offers little or no hope to compel the states to act. The EEC itself has said so, stating that there are no provisions which would allow suspension, either temporarily or permanently, of a member for any reason.³⁴⁸ This theoretical problem becomes a practical one in places such as Italy, where the EEC Environment Commissioner has threatened to re-open legal proceedings against Italy for failing to keep its promise to clean up Italy's water supplies.³⁴⁹ The Commission had suspended legal action against Italy in 1989, after Italy agreed to cut the pesticide level in the Po Valley area and comply with the appropriate EEC Directive by 1991. As of March 1990, no money had been spent on the clean up. As noted in one article, "the Commissioner expressed concern that member countries are simply ignoring [E]EC environment directives and called for increased policing powers to be granted to the [E]EC Commission to ensure compliance."³⁵⁰

The EEC has developed intricate enforcement mechanisms for attempting to ensure that its members implement and comply with EEC directives. The EEC, however, lacks the ability to implement sanctions and force a Member State to comply with the directives. In terms of enforcement, Article 169 and Article 170 of the EEC Treaty outline the procedures for bringing before the Court of Justice an alleged failure of a member state to comply with its environmental obligations.

³⁴⁷ *Clinton Davis Hits Lack of Enforcement As Contributing To Democratic Deficit*, 12 Int'l Envtl. Rep. 579 (BNA) (Dec. 13, 1989).

³⁴⁸ 1985 O.J. (C 310) 16.

³⁴⁹ *Italy Threatened With Legal Action Over Failure to Keep Clean Water Pledges*, 13 Int'l Envtl. Rep. (BNA) 106 (Mar. 14, 1990).

³⁵⁰ *Id.*

Under the EEC Treaty, Article 169 actions are brought when the Commission is the complainant, while Article 170 Complaints are brought by other Member States.³⁵¹ Under both Articles 169 and 170, a petition to the Court of Justice can only be filed after the Commission has informed the Member State of a violation, the Member State has had an opportunity to submit its comments, and the Commission has issued a reasoned opinion. This opinion only gives the views of the EEC and does not create any type of binding obligation for a Member State.

If the Commission fails to issue an opinion within two months after an action is brought under either Article 169 or 170, the Member State bringing the action can have the Court of Justice establish an infringement of treaty pursuant to Article 175.³⁵² Likewise, the Court of Justice can also inter-

³⁵¹ Article 169 provides:

If the Commission considers that a Member State has failed to fulfil[] an obligation under this Treaty, it shall deliver a reasoned opinion on the matter after giving the State concerned the opportunity to submit its observations.

If the State concerned does not comply with the opinion within the period laid down by the Commission, the latter may bring the matter before the Court of Justice.

Article 170 states:

A Member State which considers that another Member State has failed to fulfil[] an obligation under this Treaty may bring the matter before the Court of Justice.

Before a Member State brings an action against another Member State for an infringement of an obligation under this Treaty, it shall bring the matter before the Commission.

The Commission shall deliver a reasoned opinion after each of the States concerned has been given the opportunity to submit its own case and its observations on the other party's case both orally and in writing.

If the Commission has not delivered an opinion within three months of the date on which the matter was brought before it, the absence of such opinion shall not prevent the matter from being brought before the Court of Justice.

Treaty Establishing the European Economic Community, *supra* note 315.

³⁵² Article 175 provides:

Should the Council of the Commission, in infringement of this Treaty, fail to act, the Member States and the other institutions of the Community may bring an action before the Court of Justice to have the infringement established.

The action shall be admissible only if the institution concerned has first been called upon to act. If, within two months of being so

pret whether the environmental actions of a member state are in accordance with the EEC Treaty.³⁵³ Yet, if the Court of Justice issues an opinion and a Member State refuses to act, the only remedy available to the complainant is to start the process all over again by bringing an Article 169 or 170 action.

Because of the lack of strength behind the enforcement procedures outlined by the EEC Treaty, the proposed liability sanctions and bankruptcy trust fund mentioned earlier seem to be more effective than attempting to establish a hard and fast "polluter pays" principle. The proposed bankruptcy trust fund and liability statutes shift the focus of the EEC from the private parties with the deepest pocket to the party most directly responsible for the contamination. In "voluntarily" complying with and enforcing environmental directives, it is politically easier for Member States to order corporate compliance if they are able to offer some type of incentive or assurance to the companies located in their state. If companies comply with the law, the potential likelihood of an action being brought against them would drastically decrease or even be eliminated. In short, because the ability to enforce against a Member State is in reality non-existent, a market-based

called upon, the institution concerned has not defined its position, the action may be brought within a further period of two months.

Any natural or legal person may, under the conditions laid down in the preceding paragraphs, complain to the Court of Justice that an institution of the Community has failed to address to that person any act other than a recommendation or an opinion.

Id.

³⁵³ Article 177 provides:

The Court of Justice shall have jurisdiction to give preliminary rulings concerning:

- a. the interpretation of this Treaty;
- b. the validity and interpretation of acts of the institutions of the Community;
- c. the interpretation of the statutes of bodies established by an act of the Council, where those statutes so provide.

Where such a question is raised before any court or tribunal of a Member State, that court or tribunal may, if it considers that a decision on the question is necessary to enable it to give judgment, request the Court of Justice to give a ruling thereon.

Where any such question is raised in a case pending before a court of tribunal of a Member State, against whose decisions there is no judicial remedy under national law, that court or tribunal shall bring the matter before the Court of Justice.

Id.

incentive approach should be tried.

The market-based incentive approach mentioned herein would probably be more effective because those companies that comply or make good faith efforts to comply with environmental laws are the companies that most countries would like to keep within their geographical borders. However, as the laws are currently written, even those companies that comply with the laws (i.e., by appropriately disposing of waste, followed by an accident on the part of the disposal company) are still subject to liability. Imposing liability in these circumstances actually encourages companies to go to countries that will not hold them accountable if they take the appropriate legal measures. By encouraging this type of forum-shopping, the purpose of writing directives—uniformity in enforcement—is defeated. Under the proposal of this Article, those companies that do not wish to comply with the laws may still forum-shop. However, the reasons why those companies that do comply with the law forum-shop would become moot. Hopefully, this would make the egregious violations more visible to the Member States, and they, in turn, would be more willing to take the appropriate action.

It must be emphasized that because of the limited powers of the EEC, the primary focus of the EEC cannot be on punishing those Member States who fail to comply with environmental directives and regulations. Rather, the focus must be on providing incentives to bring Member States and private corporations into compliance. This should be kept in mind as the primary function of the new European Environmental Agency (“EEA”) when it is established.³⁵⁴ There are several purposes behind the establishment of the EEA. However, the main purpose of the EEA currently appears to be to gather facts and information from Member States regarding the environment.³⁵⁵ Yet, more recently, the powers of the EEA were extended to include “the granting of powers of inspection with regard to the implementation of Community environmental legislation, in cooperation with the Commission and existing competent bodies in the Member States.”³⁵⁶ Though

³⁵⁴ Council Regulation 1210/90, 1990 O.J. (L 120).

³⁵⁵ 1990 O.J. (C 96) 113.

³⁵⁶ *See id.* at Art. 16B.

this function will not be available until two years after the adoption of the regulation,³⁵⁷ it nevertheless demonstrates that the EEC has recognized the need for the EEA to have oversight authority.

The EEC must permit the EEA to concentrate more on the oversight authority, rather than on the information gathering function. By inspecting the facilities of Member States, the EEA should be able to inform the non-complying party of the problem and the steps needed to remedy the problem. In most instances, the violator will be a private party. The EEA could give the private entity a specific amount of time to correct the violation without any penalty being imposed. Thereby, negotiations between the violator and the EEA could begin to develop some type of consent decree. The Member State and the Commission would be notified of actions taken by the EEA. If the problem is not corrected, or negotiations fall through, then the EEA can ask that the Member State take appropriate action. If the Member State does not take action, then the EEA can inform the Commission and request that the Commission, pursuant to Article 169, bring an action against the Member State. The key point is that the focus of the EEA would be on oversight, cooperation, and working with Member States. By initially working in a cooperative mode with private parties located in a Member State, those companies generally interested in making good faith efforts to comply with legal requirements, would now have an incentive to negotiate with the EEA. Namely, if they act within a certain period of time, the corporation would eliminate the possibility of fines or criminal penalties.

Through the EEA's expertise, which many companies lack, the private party is able to find out what it otherwise might not know: how to comply with the law. Moreover, Member States could have sufficient scientific and technical information to take action against those companies that refused to follow the EEA recommendations. The actions of those corporations would be viewed as egregious, demonstrating a blatant disregard for environmental laws. In short, actions brought against those companies would probably be more successful, because the actions of the violating company would

³⁵⁷ *Id.*

be intentional or at least knowing. Furthermore, the prosecution of these claims would be less time-consuming and less expensive because of the evidence gathered by the EEA. Such an oversight function would be particularly beneficial to countries such as the Federal Republic of Germany, where most of the enforcement powers have been delegated to a more local level.

4.4. Legislation

There are several features to note about the proposed Western European structure. One point of particular interest is that the legislation would be passed by the EEC and mandated to the Member States. If such legislation contradicted an individual country's law, the EEC law would obviously prevail if it were considered within the realm of liability, bankruptcy, and met certain requirements to protect the public. While the law would have a far-reaching substantive effect, the political sovereignty of all Member States would be virtually untouched.

Enforcement of this law would remain with the individual countries. This would allow countries to determine what civil or criminal penalties are most appropriate for violations of hazardous waste laws. The enforcement provisions remaining with the individual countries are of critical importance, as each country must determine what storage, treatment, and disposal method is best for it. For example, the Netherlands finds it a serious violation to store hazardous waste on land, while the United Kingdom prefers such a method.³⁵⁸ Attempting to set a uniform system of storage, treatment, and disposal of hazardous waste would cause a tremendous amount of political jockeying, and would more than likely prevent the development of such a law.

The EEC should develop a uniform list of what is recognized throughout the scientific community as hazardous waste. The list, however, much like the Resource, Conservation and Recovery Act of the United States,³⁵⁹ should only set minimum requirements, permitting each country to enact more stringent regulations if it so desires. Moreover, each country

³⁵⁸ See *supra* notes 127, 142-43, 173-214.

³⁵⁹ 42 U.S.C. §§ 6901-6992 (1988).

should be allowed to add to its own list of hazardous wastes. The reasoning behind allowing the country to develop its own hazardous waste list is two-fold. First, from a geographical perspective, some waste may pose a more dangerous risk in some locations as opposed to others. Weather conditions often have an effect on how quickly a pollutant spreads, or how quickly one can respond to a hazardous waste spill. Also, from a political perspective, many people in particular regions may have strong feelings towards a particular type of waste. Sweden's distaste for nuclear materials is a prime example.³⁶⁰ Here, once again, the flexibility of the proposal would allow countries to maintain their own individual identity.

5. CONCLUSION

In light of recent disasters such as the Sandoz spill and Chernobyl, the need for uniform Western European legislation governing the treatment of hazardous waste is more evident than ever before. This need is exacerbated by the ever-expanding European market. As corporations become intertwined and competitive within the international markets, the emphasis of the corporations will be primarily upon productivity, expansion, and profitability. Without a uniform method to emphasize the importance of environmental laws, Western European governments are actually encouraging corporations to forum-shop and select the country with the most lenient environmental laws. Those with the most lenient laws encourage corporations to relocate there; those with the most stringent laws encourage corporations to move out. Strong environmental laws in only some Western European jurisdictions can cost those countries that implement and enforce those laws jobs, business, and income.

Western Europe must take a close look at developing a uniform environmental law because the current system encourages reckless corporate behavior which can lead to disastrous outcomes. Unless a uniform environmental law is established, accidents such as the Sandoz spill and the hazardous wastes spills in Italy will continue to occur and jeopardize the very existence of the people of Western Europe.

³⁶⁰ See *Nuclear Waste Disposal in Sweden*, *supra* note 13.